

Indicators Relevant for Indigenous Peoples: A Resource Book

TEBTEBBA
Indigenous Peoples' International Centre for Policy Research and Education

Indicators Relevant for Indigenous Peoples: A Resource Book

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Indicators Relevant for Indigenous Peoples:
A Resource Book
Tebtebba Foundation

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Introduction

Governments and international agencies all collect data to give them a picture, in quantifiable terms, of the state of society and the environment. The information they gather depends on the indicators they have selected to measure and monitor progress on issues they have defined as important.

Relatively few institutions, however, collect statistical information about indigenous peoples. For the most part, the situation of indigenous peoples is not reflected in statistics, or remains hidden in national averages. Nevertheless, policies continue to be made and programs continue to be implemented that have an enormous impact on indigenous peoples. There is a need for data to be collected to measure this impact.

At international level, some of the key development frameworks, including the Millennium Development Goals, were drawn up without the participation of indigenous peoples. Not surprising, then, to find that indigenous peoples' concerns are missing from the statistical picture, which thus fails to monitor the poverty situation of indigenous peoples.

Developing indicators relevant to indigenous peoples means developing ways to express their situation and concerns in numerical terms. This may be through the creation of new indicators, requiring new forms of data collection, or simply disaggregation of data to ensure that indigenous peoples' situation is made clear. At the most basic level, simply disaggregating some of the data already collected on a national basis, can help with detection of discrimination, inequality and exclusion. It also allows direct comparisons to be made between indigenous peoples and other social groups. But whichever approach is taken, it is crucial that indigenous peoples participate in defining the issues to be addressed and the indicators used, and that indigenous peoples' own concepts of well-being are taken into account.

Indigenous peoples' organizations have begun to address the lack of statistical information. They are using indicators to inform their own policy and decision making, and to lobby governments for resource allocation and policy change. This work has been going on at local and national level, and in the Arctic, indigenous peoples' organizations have also been involved in the develop-

ment of regional statistical frameworks focusing on the living conditions of indigenous peoples. Although a large part of this book is devoted to global, regional and national work to develop indicators relevant to indigenous peoples, indicators are also useful for indigenous peoples' organizations working at community level. Indeed, unless indicators make sense at this level, they are unlikely to give a true picture of indigenous peoples' situation.

Indigenous peoples are also making efforts to influence the monitoring frameworks of global processes, starting with the Millennium Development Goals (MDGs) and the Convention on Biological Diversity (CBD).

Indigenous peoples have been participating in plans for implementing the CBD. The Parties to the Convention recognize that maintenance of cultural diversity is crucial for the maintenance of biological diversity and acknowledge that indigenous peoples and local communities have a key role in realising the objectives of the CBD.

The International Indigenous Forum on Biodiversity (IIFB) established a Working Group on Indicators to contribute to the efforts to develop indicators relevant to indigenous peoples and the CBD. Working closely with the CBD's Working Group on Article 8(j) and Related provisions, the IIFB Working Group on Indicators works to:

- identify a limited number of meaningful indicators relevant to indigenous peoples and the convention;
- gather resource materials on indicators relevant to indigenous peoples and network with resource persons;
- highlight indigenous peoples' contributions to complement global indicators processes.

It was the realization of indigenous peoples' invisibility in the MDGs that provided the impetus for the United Nations Permanent Forum on Indigenous Issues (UNPFII) to start work on developing indicators for indigenous peoples' well-being. The objectives of the UNPFII indicators work are:

- to provide an opportunity for indigenous peoples to define their own view of poverty and well-being based on their own situation, principles, concepts and practices of development;
- to refine these indicators and propose indigenous-sensitive indicators at global and regional level;
- to discuss the proposed indicators during the Sixth Session of the Permanent Forum and agree on a set of global and regional specific indicators sensitive to indigenous peoples;
- to ensure that these indicators are widely diffused and adopted at country, regional and global level.

Given the clear overlap between the work of the UNPFII and the IIFB Working Group on Indicators, they collaborated in the effort to develop indicators of indigenous peoples' well-being. The ultimate aim of this work is to develop a strategic framework of indicators relevant to indigenous peoples that can inform the whole range of global indicators processes.

This resource book is both a report on the process of this collaborative effort, and a part of that process. It aims to assist and encourage further work to develop social and environmental indicators relevant to indigenous peoples, with more participation from indigenous peoples and organizations.

How to use this book

This book is divided into in three parts. The first part reports on some of the work already done to develop global and regional indicators – a process which so far has aimed particularly to influence the CBD and the MDGs. Part II presents a collection of readings to assist readers setting out to develop indicators relevant to indigenous peoples. Part III is provided for reference: it shows the monitoring frameworks of three global indicators processes that affect indigenous peoples.

Part I contains documents from the process initiated by the IIFB and the UNPFII to develop indicators relevant to indigenous peoples' the CBD and the MDGs. It consists of a set of reports on a series of international and regional meetings:

- regional workshops which identified key issues for indigenous peoples and formulated some indicators;
- two thematic workshops – one focusing on customary sustainable use of biodiversity, and the other focusing on food security and food sovereignty;
- a report on the International Expert Seminar on Indicators Relevant for Indigenous Peoples, the Convention on Biological Diversity and the Millennium Development Goals, where the results of the regional and thematic workshops were shared, and which consolidated and refined indicators for inclusion in the monitoring framework of the CBD;
- a composite report describing the entire process and drawing from it a set of indicators relevant to the MDGs.

Both the composite report and the expert seminar report contain summaries of the regional and thematic workshops, so there is some overlap between the two. Readers wishing to focus on the MDGs might prefer to start with the composite report, while those with greater interest in biodiversity and traditional knowledge issues may prefer to start with the report of the expert seminar. The sets of key issues identified in the regional and thematic workshops are referred to in both reports. To avoid duplication, these have been put together in a section immediately following these two reports.

Some of the regional reports have been edited to highlight the presentations from different countries in the region, to give a better idea of the wide range of issues and concerns facing different indigenous peoples.

The readings in Part II include research studies and discussion papers, six of which were presented at the international expert seminar.

The first three papers in this collection explore general approaches to indicators. Stéphane Dandeneau's "Background paper on indicator frameworks" describes some of the frameworks used by institutions collecting data about indigenous peoples. "Right to health indicators: an incremental approach" is an extract from a larger report by the UN Special Rapporteur on the Right to

Health, Paul Hunt. The extract explains the human rights based approach to indicators, which is the preferred approach of the UNPFII and the IIFB. Both papers provide a useful introduction to indicators for readers who are new to the subject. John Bamba's "Seven fortunes versus seven calamities" contrasts indigenous concepts of poverty and well-being with those embedded in popular theories about poverty. It is particularly recommended for readers who are less familiar with non-western worldviews and values.

The discussion document "Towards a Mâori Statistics Framework" shows an effort to devise a national-level framework for collecting data relevant to indigenous peoples. "Living Conditions in the Arctic", by Thomas Andersen and Birger Poppel, describes the development of a regional framework for a survey of indigenous peoples in more than one country: the Inuit, the Saami and the indigenous peoples of Chukotka.

The paper from the Institute for Human Development in Delhi, "Development and Deprivation of Indigenous Peoples/Scheduled Tribes in India: What the Figures Tell", shows how in some countries existing government data, although imperfect, can provide significant conclusions. By analysing official data, the study was able to compare the situation of indigenous peoples with the rest of the population.

Leah Enkiwe Abayao's "Pilot study on Data Disaggregation and Indigenous Peoples in Nueva Vizcaya, Philippines" describes how an indigenous peoples' NGO, with help from volunteer statisticians, conducted a survey among indigenous households in a province whose majority population is not indigenous.

The paper from the Bataan Center for Innovative Science and Technology, "An Index to Assess the Impact of Development Interventions on the Community of Kanawan Aytas", describes an example of indicator development at community level, and with community participation.

The remaining papers address specific issues of concern to indigenous peoples. Some explain how indicators can be developed to measure particular aspects of well-being, such as food security and health. Others provide examples of efforts to analyze or preserve traditional knowledge, innovations and practices. These papers are likely to be of most use to readers working to develop indicators on these issues.

"Considering Indicators of Biodiversity for Food Security of Indigenous Peoples" by Harriet V Kuhnlein and Siri Damman of the Centre for Indigenous Peoples' Nutrition and Environment (CINE), looks at indicators for documenting the key role played by biodiversity in food security. "A First Nations Approach to Health Indicator Development" describes the development of a health reporting framework directed by First Nations in Canada. In "Language Vitality and Endangerment", the UNESCO Ad Hoc Expert Group on Endangered Languages warns of the dangers of language loss, offers some policy solutions and presents a framework for assessing the status of threatened languages. An annex shows the framework in operation, as applied to three Venezuelan indigenous languages.

Jannie Lasimbang's case study "Participatory Arrangements and the Future of Traditional Occupations in the Contemporary Policy Framework" presents an analysis of traditional occupations among the Kadazans of Borneo. Yolanda Terán of the organization Andes Chinchasuyo

describes the "Project to revitalize indigenous cultural values, Cotacachi County, Imbabura Province, Ecuador". Finally, an annotated bibliography prepared specially for this resource book lists further sources of information and guidance.

Part III contains the monitoring frameworks of three global indicators processes: the Strategic Plan and 2010 Target of the CBD; the framework of goals, targets and indicators of the MDGs; and the sustainable development monitoring framework of the United Nations Commission on Sustainable Development (UNCSD).

The effort to develop indicators relevant to indigenous peoples is a continuing process, and it is hoped that this book will encourage more people to contribute to this work. This is not simply a response to the seemingly voracious appetite for information of national and international statistics institutions. It is an effort to show the reality of indigenous peoples' situation by using facts and figures, in a way that exposes discrimination, inequality and denial of human rights. It is a way of putting indigenous peoples' issues and concerns on the agenda.

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ABBREVIATIONS

ACP	African, Caribbean and Pacific
ADSDPP	Ancestral Domain Sustainable Development and Protection Plan
AHDR	Arctic Human Development Report
AECI	Spanish Agency for International Cooperation
AFN	Assembly of First Nations
AHTEG	Ad Hoc Technical Expert Group on indicators (of CBD)
ASAL	Arid and Semi Arid Lands
ASI	Arctic Social Indicators project
ATM	automatic teller machine
BCs	backward castes
BCISTI	Bataan Center for Innovative Science & Technology, Inc
CADC	Certificate of Ancestral Domain Claim
CADPI	Center for Indigenous Peoples' Autonomy and Development (Nicaragua)
CADT	Certificate of Ancestral Domain Title
CALT	Certificate of Ancestral Land Title
CBD	Convention on Biological Diversity
CBMSF	Center for Biomolecular Science Foundation
CBOs	community-based organizations
CCA-UNDAF	Common Country Assessment-UN Development Assistance Framework
CDF	Constituency Development Fund
CEDAW	Convention for the Elimination of All Forms of Discrimination Against Women
CEPAL	Economic Commission for Latin America
CESCR	Committee on Economic, Social and Cultural Rights (of UN)
CIDOB	Confederation of Indigenous Peoples of Bolivia
CINE	Centre for Indigenous Peoples' Nutrition and Environment
COICA	Coordinating Body for the Indigenous Organizations of the Amazon Basin
COP	Conference of the Parties (of CBD)
CWBI	Community Well-Being Index
DANIDA	Danish International Development Agency
DAR	Department of Agrarian Reform (Philippines)
DENR	Department of Environment and Natural Resources (Philippines)
DESA	Department of Economic and Social Affairs (of UN)
DILG	Department of Interior and Local Government (Philippines)
DINEIB	National Directorate for Intercultural Bilingual Education (Ecuador)
DIPEIB	Directorate of Intercultural Bilingual Education (Ecuador)
DOH	Department of Health (Philippines)
DOTS	Directly Observed Treatment Short course (for tuberculosis)
DRC	Democratic Republic of Congo
DSD	Division for Sustainable Development (of UN)
ECLAC	Economic Comission for Latin America and the Caribbean
ECOSOC	Economic and Social Commission (of UN)
EIA	environmental impact assessment

ERS	Economic Recovery Strategy for Wealth and Employment Creation (Kenya)
ESI	Environmental Sustainability Index
FAIRA	Foundation for Aboriginal and Islander Research Action
FAO	Food and Agriculture Organization
FDI	foreign direct investment
FPIC	Free, prior, informed consent
FPP	Forest Peoples Programme
FPT	Federal, Provincial, Territorial
FSM	Federated States of Micronesia
GDI	Gender Development Index
GDP	gross domestic product
GEM	Gender Empowerment Measure
GNI	gross national income
GTZ	German Agency for Technical Cooperation
HCR	head count ratio
HDI	Human Development Index
HDRs	Human Development Reports
HIPCs	heavily indebted poor countries
HPI	Human Poverty Index
IAITPF	International Alliance of Indigenous and Tribal Peoples of the Tropical Forests
IASG	Inter-Agency Support Group on Indigenous Issues
IDH	Institute for Human Development
IFAD	International Fund for Agricultural Development
IIFB	International Indigenous Forum on Biodiversity
IITC	International Indian Treaty Council
IKSP	indigenous knowledge, systems and practices
ILO	International Labour Organization
IMR	infant mortality rate
INAC	Indian Northern Affairs Canada
IPs	Indigenous peoples
IPACC	Indigenous Peoples of Africa Coordinating Committee
IPNC	Indigenous Peoples' Network for Change
IPRA	Indigenous Peoples' Rights Act (Philippines)
IREMADES	Institute of Natural Resources and Sustainable Development (Nicaragua)
ISSC	International Social Science Council
IUCN	World Conservation Union
IWGIA	International Work Group for Indigenous Affairs
JKKK	Village Security and Development Committee (Malaysia)
KCO	Kadazandusun Cultural Organization
KLF	Kadazandusun Language Foundation
KMPGG	Koisaan Manampasi Pitabangan Gulu-Gulu (community organization, Malaysia)
KPT	Koisaan Pisompuuvan Tonibung (community organization, Malaysia)
LATF	Local Authority Transfer Fund
LINC	Rural Livelihood Incubator program
LDCs	least developed countries
LEI	Life Expectancy Index

LIF	Learning-Is-Fun
MDGs	Millennium Development Goals
MDRI	Multilateral Debt Relief Initiative
MHC	Morong Health Center
MOSEIB	Model for Intercultural Bilingual Education (Ecuador)
MPIDO	Mainyoito Pastoralist Integrated Development Organization
NAHO	National Aboriginal Health Organization
NBSAPs	National Biodiversity Strategies and Action Plans
NCIP	National Commission on Indigenous Peoples (Philippines)
NDIs	national development indicators
NGO	non-governmental organization
NHFS	National Health and Family Survey (India)
NSCB	National Statistics Coordination Board (Philippines)
NSDS	national sustainable development strategy
NSO	National Statistics Office (Philippines)
NSS	National Sample Survey (India)
NTFP	non-timber forest products
OCAP	ownership, control, access and possession
ODA	official development assistance
OECD-DAC	Organization for Economic Cooperation and Development-Development Assistance Committee
PACOS Trust	Partners of Community Organizations Trust (Malaysia)
PAWB	Protected Areas and Wildlife Bureau (Philippines)
PLWA	people living with AIDS
PMUM-UNAM	Multicultural Nation of Mexico Program of the National Autonomous University of Mexico
POPs	persistent organic pollutants
PPP	purchasing power parity
PRPC	Philippine Refugee Processing Center
PRSP	Poverty Reduction Strategy Paper
PTFCF	Philippine Tropical Forest Conservation Foundation
RAAN	Autonomous Regional Council of the North Atlantic
RAIPON	Russian Association of Indigenous Peoples of the North
SIDENPE	National Survey on Indigenous Peoples (Ecuador)
SARD	Sustainable Agriculture and Rural Development
SBFZ	Subic Bay Freeport Zone
SBSTTA	Subsidiary Body on Scientific, Technical and Technological Advice (of CBD)
SCs	Scheduled Castes (India)
SCDI	socio-cultural development index
SLICA	Survey of Living Conditions in the Arctic
SPS	sector programme support
SSA	sub-Saharan Africa
STs	Scheduled Tribes (India)
SWEDBIO	Swedish International Biodiversity Programme
TK	Traditional knowledge
TKIP	Traditional knowledge, innovations and practices

TKS	Traditional knowledge system
UNCSD	United Nations Commission on Sustainable Development
UNDP	United Nations Development Program
UNDP-RIPP	United Nations Development Program-Regional Indigenous Peoples' Program
UNDRIP	United Nations Declaration of the Rights of Indigenous Peoples
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational Scientific and Cultural Organization
UNGA	United Nations General Assembly
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations Children's Fund
UNIFEM	United Nations Development Fund for Women
UNPFII	United Nations Permanent Forum on Indigenous Issues
UP-CWTS	University of the Philippines Civic Welfare Training Service
URACCAN	University of the Autonomous Regions of the Caribbean Coast of Nicaragua
WCMC	World Conservation Monitoring Centre (UNEP)
WDPA	World Database on Protected Areas
WG8(j)	Ad Hoc Open-ended Working Group on Article 8(j) and Related Provisions
WHO	World Health Organization

Part

One

Reports

- Report of the International Experts Seminar on Indicators Relevant for Indigenous Peoples, the Convention on Biological Diversity and the Millennium Development Goals
- Indigenous Peoples' Indicators of Well-being, Poverty and Sustainability
  UNPFII report
- Key issues identified in regional and thematic seminars
- Reports of regional and thematic seminars
- Report of the Meeting on Indigenous Peoples and Incators of Well-Being
- Latin American and Caribbean Regional Expert Meeting on Indicators of Well-being and Indigenous Peoples
- Report of the Asia Regional Workshop on Indicators Relevant for Indigenous Peoples, the Convention on Biological Diversity and the Millennium Development Goals
- African Regional Workshop Report: Indicators of Well-Being of Indigenous Peoples in Africa and Indicators Relevant to the Convention on Biological Diversity
- Latin American and Caribbean Expert Seminar on Indicators Relevant to Indigenous Peoples, Local Communities and the Convention on Biological Diversity
- Pacific Region Workshop on indicators
- 2nd Global Consultation Cultural Indicators on Food Security
- Customary Sustainable Use Indicators Workshop

Chapter 1

International Experts Seminar on Indicators Relevant for Indigenous Peoples, the Convention on Biological Diversity and the Millennium Development Goals

Banaue Hotel, Banaue, Ifugao, Philippines, March 5-9, 2007

Introduction

A. Background

At the sixth meeting of the Conference of Parties (COP6), the Convention on Biological Diversity adopted a Strategic Plan and the 2010 target to significantly reduce the rate of biodiversity loss. COP7 in Decision VII/30 adopted a framework for Assessing Progress Towards the 2010 Target covering seven focal areas, goals, targets and the identification of provisional indicators, comprising indicators for immediate testing and possible indicators for development.

One focal area is to 'protect traditional knowledge, innovations and practices'. Goal 9 of the 2010 Target is to 'Maintain sociocultural diversity of indigenous and local communities', with two targets and the relevant indicators to be developed by the Ad Hoc Open-ended Working Group on Article 8(j) and Related Provisions (WG8J).

- Target 9. 1 to 'Protect traditional knowledge, innovations and practices' and
- Target 9.2 to 'Protect the rights of indigenous and local communities over their traditional knowledge, innovations and practices, including their rights to benefitsharing'

With regard to traditional knowledge, an indicator on the sta-

The seminar was organized by the IIFB Working Group on Indigenous Indicators and Tebtebba (Indigenous Peoples' International Centre for Policy Research and Education) in collaboration with the Secretariat of the Convention on Biological Diversity (CBD). It was sponsored by the Royal Ministry of Foreign Affairs, Norway; the Agencia Española de Cooperación Internacional (AECI), Government of Spain; and the Swedish International Biodiversity Programme (SwedBio), Sweden. The hosts were the Protected Areas and Wildlife Bureau, Department of Environment and Natural Resources (PAWB-DENR), Philippines; the Province of Ifugao; and the Municipality of Banaue.

tus and trends in linguistic diversity and speakers of indigenous languages was included as an indicator for immediate testing. In paragraph 7 of Decision VII/30, the Conference of Parties requested the WG8J to explore the need and possible options for indicators for the protection of innovations, knowledge and practices of indigenous and local communities, and to report the results to the Conference of the Parties at its eighth meeting.

Recalling Decision VII/30, subsequent meetings of the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) and the Working Group on Review of Implementation of the Convention also recommended to COP8 that the WG8J be invited to develop indicators on customary sustainable use (Article 10(c)), and on the effective participation of indigenous peoples and local communities in the processes of the Convention at all levels (Goal 4.3 of the Strategic Plan).

During the fourth meeting of the WG8J (held in January 2006 in Granada, Spain) indigenous peoples' organizations formed the Working Group on Indicators of the International Indigenous Forum on Biodiversity (IIFB). The purpose of the forum was to respond to the immediate need to identify and test indicators relevant for the implementation of the Strategic Plan for the Convention on Biological Diversity, and its framework for monitoring achievement of the 2010 Biodiversity Target. The IIFB Working Group on Indicators proposed the convening of an International Experts Seminar, to consider, in an holistic and integrated way, the development of a limited number of meaningful indicators in the identified thematic areas:

- Traditional knowledge, innovations and practices;
- Customary sustainable use (Article 10(c));
- Maintain goods and services from biodiversity to support human well-being (biodiversity and the achievement of the Millennium Development Goals);
- Effective participation of indigenous and local communities in the Convention processes at national, regional and international levels.

Decision VIII/5 G, at COP8, recognized the need for a structured technical process to guide further work to develop a limited number of meaningful and practical indicators for assessing the status of traditional knowledge, innovations and practices, to assist in assessing progress towards the 2010 Biodiversity Target. VIII/5 G also welcomed the initiative of the IIFB Working Group on Indicators to organize an International Experts Seminar on Indicators in support of this work.

While these developments unfolded in relation to the CBD, the United Nations Permanent Forum on Indigenous Issues (UNPFII) had identified a need to develop indicators relevant to indigenous peoples and the Millennium Development Goals (MDGs). By 2006, several reports had shown that efforts to reach some MDG targets had accelerated the loss of lands and resources crucially needed for indigenous peoples' livelihoods and displaced indigenous communities from their ancestral lands. The Permanent Forum therefore decided to the challenges and gaps in indicator development, across its mandated areas of health, human rights, economic and social development, environment, education and culture.

In accordance with the decisions of the CBD and the UNPFII, the IIFB Working Group on Indicators convened a number of preparatory regional and thematic workshops and an International

Expert Seminar on Indicators Relevant for Indigenous Peoples, the Convention on Biological Diversity and the Millennium Development Goals (MDGs). Financial support for this initiative was provided by the Spanish government's Agencia Española de Cooperación Internacional (AECI), the Royal Ministry of Foreign Affairs, Norway, and the Swedish Biodiversity Programme (SwedBio).

The series of regional and thematic workshops was held between September 2006 and March 2007.

The international seminar was held in Banaue, Ifugao province, Philippines, from 5 to 9 March 2007, organized by the IIFB and Tebtebba Foundation in collaboration with the Secretariat of the Convention and sponsored by the Protected Areas and Wildlife Bureau of the Department of Environment and Natural Resources (PAWB-DENR) of the Philippines, the AECI, the Royal Ministry of Foreign Affairs, Norway, and SwedBio. It was hosted by the government of the Philippines and the local government of the municipality of Banaue.

The objectives of the seminar were to:

- Identify a limited number of meaningful indicators relevant to indigenous peoples and the Convention on Biological Diversity.
- Gather resource materials on the seminar theme and network with resource persons.
- Highlight indigenous peoples' contributions to complement global indicators processes.

Other objectives were to:

- Receive reports from regional and thematic workshops.
- Explore indigenous peoples' perspectives on the Strategic Plan and 2010 Target of the Convention on Biological Diversity, the Millennium Development Goals and associated monitoring/reporting frameworks:
    a. identification of gaps and ways to address these;
    b. clarification of the purposes of the goals;
    c. identification of the indicators.
- Identify problems and challenges for indigenous peoples doing indicators work.
- Increase collaboration between indigenous peoples, experts, scientists, researchers, other bodies and institutions.
- Raise awareness of governments about the need to establish partnership with indigenous peoples in relation to the implementation of the goals of the Convention on Biological Diversity.
- identify follow-up work to further develop and test and apply indicators.
- Strengthen/enhance capacities of all participants on indicators work relevant for indigenous peoples.
- Produce reports for submission to the Working Group on Article 8j and Related Provisions and other relevant bodies.
- Prepare a statement/declaration about an Indigenous Peoples' framework on indicators.

Ritual

Apo Kitalad chanted the gopah, welcoming the participants:

Welcome to you brothers and sisters from far away places who are gathered here, who came to our community. Be in the best of health like us whom you will leave behind; we give you blessings, we give you blessings that you will bring when you return to your homes in your communities in Africa, Asia, Russia, America, Canada.

Offering rice wine, betel nuts and betel leaves, Apo Kitalad then chanted the ufu-ub chi chanum, praying that whatever they would drink and eat during their stay would be pleasant and good for them:

Even if we as brothers and sisters eat and drink anything, we will not be choked, we will not get sick, we will not become weak; we will become many, we will be great, we will have abundant harvests. Bless the food and drinks of our brothers and sisters who came from afar: they will not be choked, they will not get weak, they will not get sick; they will be strong, they will be become many, they will be great; they will all be safe when they return, nothing bad will happen to them, they will arrive in their homes safely. This goes for every one of us.

B. Attendance

The participants were drawn from within and outside indigenous communities from all geographic regions, and a range of governmental, non-governmental and intergovernmental organizations. All were selected on the basis of their engagement in development of indicators and their expertise on customary sustainable use, food security, traditional knowledge, indicators and statistics, and other issues relevant to the Convention and the MDGs.

The indigenous participants were from: Argentina, Australia, Brazil, Bangladesh, Bolivia, Botswana, Cameroon, Canada, Colombia, Democratic Republic of Congo, Ecuador, Ethiopia, Indonesia, Kenya, Malaysia, Mali, Nepal, New Zealand, Niger, Norway, Panama, the Philippines, Puerto Rico, Thailand, USA, the Russian Federation, Samoa, the Solomon Islands, South Africa, Tanzania, Thailand and Viet Nam.

Representatives of the following United Nations agencies attended the seminar: the International Fund for Agricultural Development (IFAD), the International Labour Organization (ILO) and the UN Permanent Forum on Indigenous Issues (UNPFII).

In addition, representatives of indigenous peoples' organizations, academic institutions and non-governmental organizations (NGOs) attended the seminar. The Association of Indigenous Village Leaders in Suriname was represented by an NGO participant. Representatives of the following academic institutions attended the seminar: the Institute of Bangladesh Studies of the University of Rajshahi (Bangladesh); the Center for Indigenous Peoples' Nutrition and Environment (CINE) of McGill University (Canada); the Bataan Center for Innovative Science and Technology, Benguet State University, the University of the Philippines-Baguio and the University of the Philippines Marine Science Institute (Philippines). The NGOs represented were Evangelischer Entwicklungdienst eV – Task Force for Indigenous Peoples (Germany/Philippines); the Institute for Human Development (India); the Mangyan Mission and the Montañosa Research and Development Center (Philippines); the Netherlands Center for Indigenous Peoples (Netherlands); and the Forest Peoples Programme (UK).

Representatives of the governments sponsoring the seminar (Norway, Philippines, Spain, Sweden) were present, as were government experts from Argentina, Ecuador, Malaysia and Thailand,

and representatives of the local governments hosting the seminar (provincial government of Ifugao and municipal governments of Banaue, Hingyon and Hungduan).

1. Opening of the seminar

1.1. Opening ritual

The opening ritual was performed by a practising elder of the Ifugao people, Apo Kitalad (see Box, left).

1.2. Welcome from the hosts

The governor of the province of Ifugao, Mr Glen Prudenciano, welcomed the participants and informed them about the history of the Cordillera region, of which Ifugao is a part. He spoke of the efforts of the peoples of the Cordillera to assert their rights to their ancestral domain and pursue their aspirations for autonomy. He also spoke of their knowledge of their ecosystem and the rice terraces, which UNESCO has declared a World Heritage Site.

The Mayor of Banaue, Mr Jerry Dalipog, welcomed the guests and participants and expressed his support for the aims of the seminar. He said that hosting this international seminar would make local people aware of international developments related to indigenous peoples' rights. He also informed the participants about the geography and climate of Banaue, and sites of interest.

The Assistant Director of DENR-PAWB, Dr Manuel Bravo, spoke on behalf of the Philippine government as co-host of the seminar. He pointed out that the Philippines has a megadiversity of species and is a biodiversity hotspot. Conserving biological diversity, he said, means sustaining traditional knowledge, innovations and practices. He called on the participants to work together in the task of preserving life. He welcomed them to the Philippines and wished them an enjoyable stay and a meaningful seminar.

1.3. Remarks from the sponsors

The Ambassador of Norway, Mr Ståle Torstein Risa, remarked that the organizers had found a most appropriate setting for the seminar among the rice terraces of Ifugao, and compared the loss of diversity witnessed by the Ifugao people with the experience of the Saami in Norway. Both cultures are strong and aware, he said, but they need assistance and support to stand against the elements of modernization that tend to be destructive. He explained that Norway was supporting the seminar because of its important contribution to the issue of traditional knowledge and indigenous peoples, which are among its priorities in the Convention. He concluded by recalling that the Third Committee of the United Nations General Assembly had deferred consideration of the Declaration of Indigenous Peoples' Rights to allow time for further consultation. The declaration, he said, is the result of a thorough negotiating process and is the best compromise that can be reached, so the concerns raised by some states should be addressed through informal means rather than by opening a new formal process.

The General Coordinator of AECI-Philippine Office, Mr Jesus Molina, said that the priorities of AECI include combating poverty and supporting indigenous peoples in coordinating their own social, political and economic development processes. He explained that in 2006 Spain had adopted a Strategy for Cooperation with Indigenous Peoples, which considers poverty from indigenous peoples' point of view: poverty includes issues of participation, absence of recognition, and lack of collective rights. Spain has adopted Convention 169 of the International Labour Organization, and has a programme for incorporating it into the practice of the Spanish government. Spain is also a co-sponsor of the Declaration of Indigenous Peoples' Rights.

The Program Director of SwedBio, Ms Maria Berlekom, spoke of the similarities between indicators and welcome speeches. Both provide an opportunity to communicate important messages that can influence political change, but at the same time they must be meaningful, relevant to the context, and brief. She said participants could expect to work hard at the seminar, but that it would also be an opportunity to make new friends and share experiences.

1.4. Message of support from the Secretariat of the Convention on Biological Diversity

The Program Officer for Article 8(j) and Related Provisions at the Secretariat of the Convention on Biological Diversity, Mr John Scott, delivered a message on behalf of the Executive Secretary of the Secretariat, Dr Ahmed Djoghlaf. After thanking the co-organizers and funders, Dr Djoghlaf's message recalled the need to recognize fully the contribution of traditional knowledge to the three pillars of the Convention: conservation of biological diversity, sustainable use of biological diversity and the fair and equitable sharing of the benefits arising from biological diversity. The survival of species goes hand in hand with the maintenance of traditional knowledge, and so the active involvement of indigenous peoples is essential. Dr Djoghlaf pointed out that indigenous peoples are disproportionately affected by environmental stress and climate change because of their traditionally close relationship with the environment. The message stressed the importance of protecting the traditional knowledge, innovations and practices of indigenous peoples, and of developing indicators to measure progress in doing this. It also noted the two-way beneficial link between the Convention and the MDGs, and the need to find better ways to communicate the importance of biological diversity for the MDGs.

1.5. Message of support from the UN Permanent Forum on Indigenous Issues

The Chairperson of the UNPFII, Ms Victoria Tauli-Corpuz, emphasized the importance of data collection and data disaggregation for making visible to the world community the reality that indigenous peoples face. Unless data is collected and disaggregated to reflect the reality of indigenous peoples, the statistics of governments and intergovernmental organisations will not be very meaninfgul. The biggest challenge, she said, would be to ensure that indicators relevant to indigenous peoples were used to evaluate implementation of the MDGs.

1.6. Welcome and thanks from the organizers

The Coordinator of the IIFB Working Group on Indicators, Ms Joji Cariño, said the work of the seminar would be strategic for indigenous peoples, for exercising the right to self-determination and for understanding their own situation. She thanked the local government units for hosting the conference, and the funders for sponsoring the meeting. She recalled support from many governments at COP8 for the development of indicators relevant to indigenous peoples at the Convention for Biological Diversity. She concluded by stating the challenge for the seminar: to propose indicators that are few but meaningful, that indigenous peoples can use to measure their progress relating to the Convention.

1.7. Organizational matters

1.7.1. Introduction of participants

Ms Yolanda Teran, a member of the IIFB Working Group on Indicators Coordinating Committee, asked the participants to introduce themselves individually.

1.7.2. Presentation of the programme

Staff from the Tebtebba Foundation presented the seminar program and explained arrangements for security, internet access, exhibition areas and related matters.

1.7.3. Briefing on community visit

Mr Robert Pangod of the MRDC briefed the participants on the plans, procedures and transport arrangements for the community visits planned for the second day of the seminar.

1.7.4. Cultural program

In the evening after the working session, people from the local Ifugao communities peformed a cultural program for the seminar participants.

2. Community Visit

The participants divided into two groups, each of which visited one rural community in Ifugao. The communities visited were Hingyon and Hungduan, and in both places there was an opportunity for the seminar participants to hear directly from community members about local social, economic and environmental issues. This interaction took place in small groups, to allow for maximum participation. In Hungduan, the seminar participants witnessed the *dang-a* or community cooperative work of transferring movable properties from one location to another, in this case traditional houses. In Hingyon, the community members highlighted the threat to their food security and traditional agriculture posed by an alien invasive species of giant earthworms, whose large burrows are degrading the rice terraces. The community visits gave participants clear and direct examples of the issues to be addressed during the seminar.

Opening prayer, Day 3

I invite the spirit of creation, the spirit of the creator and spirit of life because the spirit is the source of life: without it no one will live or exist. The spirits enable cultures to survive and guide the custodians of the heritage of the past. I call on the spirits and immortals to be present as the participants deal with their immortal identities, immortal territories and immortal knowledge of their ancestors that is connected to their rights. I call on the spirits of the ancestors of the Ifugaos, Igorots of Mountain province and the Cordilleras, ancestors of Asia, Arctic, Africa, Pacific, Russia, Latin America and the Caribbean and spirits of supporters at CBD to join participants and give knowledge, wisdom and ingenuity as demonstrated by the wonders seen around this place.

I ask the spirit of the sun and the wind, the forces of the waters and the capability of the earth, to open the hearts and minds of participants and allow them to hold in their hands the traditions, cultures and lives, and bind them together to promote the spirit of life, enable them to survive as one people, one family in one world as brothers and sisters. I ask the spirits of the ancestors to be their strength and the spirit of the creator to guide them so that the gathering will be successful and fruitful for the next generation.

3. Introduction to Issues

3.1. Introductory presentations

An opening prayer (see Box, left) was performed by Datu Victorino Saway (Philippines).

The facilitator of the plenary session, Ms Myrle Traverse, presented the objectives of the seminar.

3.1.1. The Convention on Biological Diversity

The Program Officer for Article 8(j) and Related Provisions at the Secretariat of the Convention on Biological Diversity, Mr John Scott, introduced the context of the seminar as it related to the Convention. He explained the objectives of the Convention, which are:

- the conservation of biological diversity;
- sustainable use of its components;
- fair and equitable sharing of the benefits arising out of the use of genetic resources.

In the Preamble to the Convention, governments acknowledged: "The close dependence of many indigenous and local communities on biological resources and the desirability of sharing equitably benefits of traditional knowledge, innovation and practices relevant to the conservation of biological diversity and the sustainable use of its components."

He explained the operation of the CBD Secretariat, with particular emphasis on its programme of work on Article 8(j) of the Convention, which relates to traditional knowledge and related provisions (see Box, next page).

Article 8(j) is reflected in the 2010 Target and its monitoring framework in Goal 9: to maintain the socio-cultural diversity of indigenous and local communities.

The Experts Seminar on Indicators Relevant for Indigenous Peoples, the CBD and the MDGs is expected to make an important contribution to the programme of work on Article 8(j) by developing indicators to measure progress towards that goal.

In 1998 the COP established the Ad Hoc Open-ended Working Group on Article 8(j) and Related Provisions, known as WG8(j). This group has the participation of indigenous peoples' and local community representatives, and in it indigenous peoples'

rights of participation are equal to those of governments. It provides a think-tank for indigenous peoples in the Convention.

Mr Scott listed the main elements of the work program on Article 8(j) and gave a brief report on its progress. The main elements of the work program are:

- a composite report on status and trends in traditional knowledge;
- a plan of action for the retention of traditional knowledge;
- input into the development of an international regime on access and benefit sharing of genetic resources and associated traditional knowledge;
- mechanisms to promote the effective participation of indigenous and local communities;
- *sui generis* systems for the protection of traditional knowledge;
- indicators for assessing progress towards the 2010 Biodiversity Target for the status of traditional knowledge.

He concluded the presentation with an outline of ways in which indigenous and local communities can participate in the work of the Convention. These ways include promotion of the application of the Akwe:Kon Guidelines at national level, and participation in indigenous organizations which focus on biodiversity issues as well as contributing to national indigenous and local community advisory committees. Indigenous organizations can communicate their views to the CBD Secretariat. Mechanisms for indigenous peoples' participation include the regional Advisory Groups for Article 8(j), as well as regional consultations. A Voluntary Fund for Indigenous and Local Communities has been estabished to enable indigenous representatives to participate in CBD meetings of relevance to them.

The discussion following the presentation focused on the need for additional data on particular regions, and on the development of an ethical code of conduct for corporations. Concern was expressed that the code might be too weak to offer any real protection, particularly if it was not legally binding. The response was that the code being developed has some strong elements, including free, prior, informed consent (FPIC), respect for indigenous peoples' rights and recognitions of indigenous peoples' territories. However, the 190 states who are Parties to the Convention will have to agree on its content, so it may become weaker, and it is likely to be voluntary.

The Convention on Biological Diversity and traditional knowledge

In Article 8, paragraph (j) of the Convention, governments have undertaken to:

- respect, preserve and maintain traditional knowledge relevant to the conservation and sustainable use of biological diversity
- promote its wider application with the approval and involvement of the holders of such knowledge
- encourage the equitable sharing of the benefits.

Other relevant provisions:

- Article 10(c): Protect and encourage customary use of biological resources in accordance with traditional cultural practices
- Article 18(4): develop methods of cooperation for the development and use of technologies, including indigenous traditional knowledge.

It would still have value, however, because voluntary codes become customary international law after a time.

3.1.2. The work of the International Indigenous Forum on Biodiversity

The Coordinator of the IIFB Working Group on Indicators, Ms Joji Cariño, described the global network of indigenous peoples working on indicators and reported on the activities of the IIFB, which is collaborating with a range of other indicators processes. This is long-term, strategic work.

The indicators processes include the development of indicators for indigenous peoples' well-being led by the UN Permanent Forum on Indigenous Issues (UNPFII), as well as efforts led by the Secretariat of the Convention on Biological Diversity, the Biodiversity Indicators Partnership, the Inter-Agency Support Group on Indigenous Issues, the International Indian Treaty Council (IITC) and the Food and Agriculture Organization (focusing on cultural indicators of food security), and the Arctic Social Indicators Process. The IIFB has also learned from other global processes for developing and using indicators, such as the human rights-based approach adopted by the UN Special Rapporteur on the Right to Health, the human poverty indicators developed for the MDGs, and the social and cultural dimensions of protection of biological diversity emphasized by the Convention.

At national level, the formulation of indicators is linked to Poverty Reduction Strategy Papers. Indigenous peoples were not involved in drawing these up, so the goals, targets and indicators do not capture the specific situation of indigenous peoples, or the criteria essential for their well-being. Issues of land, resources, territories, traditional knowledge, indigenous peoples' own aspirations and their definitions of poverty and well-being are missing. The UNPFII has its own process for influencing the MDGs and collecting information specific to indigenous peoples.

Ms Cariño listed the main accomplishments of the IIFB Working Group on Indicators since it was created in January 2006. The working group has:

- established a global network of indigenous peoples working on indicators;
- organised workshops in various regions and on thematic issues on indicators relevant for indigenous peoples and produced a synthesis report;
- engaged different global processes on Indicators to address indigenous peoples' priority issues;
- established linkages with international organisations, governments, academe, funders and NGOs opening up possibilities for collaborative work.

The presentation concluded with a summary of core themes and issues identified by the regional and thematic workshops organized by the IIFB and other bodies to consider indicators relevant to the Convention on Biological Diversity and the MDGs (see Box, next page).

In the subsequent discussion, it was explained that the term 'fate control', rather than the more usual 'self-determination', had emerged from the process of developing indicators relevant to indigenous peoples in the Arctic.

Several participants were keen to make the process of developing indicators as inclusive as possible. The question was raised, how could the views of indigenous peoples in local communities truly be taken into account in the global processes. It was acknowledged that the current process had limitations, but it was one of the more inclusive ones. National processes can be open to larger numbers of people. The IIFB hopes that its work will give more impetus to indigenous peoples to do their own work on indicators: the more local the work becomes, the more participation there can be and the more indigenous languages and perceptions can be used.

So far, the IIFB has had to follow the timetables set by the UN processes, in order for indigenous peoples to have any input. The next stage will be to influence national, regional and local processes, so that more indigenous peoples can participate. Indicators work depends on indigenous peoples taking the lead. The discussion concluded by noting the importance of a holistic and strategic approach to the development of indicators relevant to indigenous peoples.

Core themes and issues

- Security of rights to territories, lands and natural resources
- Integrity of indigenous cultural heritage
- Gender dimensions
- Respect for identity and non-discrimination
- Fate control
- Culturally-appropriate education
- Health
- Full, informed and effective participation
- Access to infrastructure and basic services
- Extent of external threats
- Material well-being
- Demographic patterns of indigenous peoples

3.2. Reports from regional and thematic workshops[1]

Mr. Adrian Bannie Lasimbang of the Partners of Community Organisations (PACOS) Trust, Malaysia, reported on the Asian Regional Workshop on Indicators organized by the IIFB and held in Calapan City, Mindoro, Philippines, on November 7-10, 2006. Participants in the workshop included indigenous peoples' representatives from ten Asian countries, as well as technical experts. The programme began with a visit to a local community of the Mangyan indigenous people, to learn about their customary sustainable use of resources.

This was followed by presentations on global work on indicator development and country situations, and expert papers reflecting experience of indicators work in the Philippines and India.[2] The participants divided into regional groups (South Asia, Southeast Asia, Mekong Region and the Philippines) to identify key issues facing indigenous peoples, and then to develop indicators to address those issues. These were later classified into two categories: those relevant to the Convention, and those relevant to the MDGs.

The Asian regional workshop recommended that pilot studies should be conducted to collect statistical data disaggregated for indigenous peoples. It also noted the need for guidelines to ensure the use of culturally sensitive, objective and neutral survey instruments,

and proposed the creation of an index of indigenous peoples' well-being.

Discussion following presentation of the Asia regional report focused on the advisability of inviting governments to participate in a process intended primarily for indigenous peoples. While some participants raised concerns about this, others said that inviting governments to join the discussions was essential because governments are responsible for implementing international agreements such as the MDGs and the CBD. In many countries the state is the only entity with the resources for data collection.

Dr Naomi Kipuri of the Arid Lands Institute, Kenya, reported on the African Regional Workshop on Indicators organized by the IIFB and the Arid Lands Institute, and held in Nairobi, Kenya on November 26-28, 2006. The workshop participants were drawn from five regions in Africa (West, South, East, Central and the Horn). They represented both pastoralist and hunter-gatherer communities. To develop indicators, they first agreed a set of key issues, then developed goals to address the issues, and finally devised indicators to measure progress towards the goals. The issues were clustered into six categories: social/cultural, educational, cultural, political/legal, economic and environmental.

The African regional workshop recommended use of the indicators by all relevant UN agencies, and for these agencies to recognize and include indigenous peoples' representatives in their monitoring work. The workshop also proposed the creation of an Africa-wide indigenous forum and indigenous parliamentary caucuses at national and regional levels. It called for a follow-up forum on African indigenous peoples' indicators to be held by November 2008.

In the discussion following presentation of the regional report, participants emphasized the importance of security of tenure for indigenous peoples, in Africa and elsewhere. It was also clarified that climate change is exerting a serious impact in Africa, particularly through desertification, while the construction of large dams has led to floods affecting the surrounding population. One participant noted that education was a difficult issue because formal education poses the danger of assimilation. Many indigenous peoples drop out of school because they do not want to change their lives. But without education, they will be led, controlled and ruled by others. Unless indigenous peoples can control the curriculum, education will always be a problem.

Ms Yolanda Teran of Andes Chincasuyo, Ecuador, reported on two indicators workshops in Bolivia (one in the highlands and one in the lowlands) and a regional workshop for Latin America and the Caribbean held in Quito, Ecuador, on December 11-13, 2006. The participants in the Bolivian workshops came from grassroots communities. The workshop in the highlands developed indicators for education, language, health, indigenous spirituality, medicine, land and territory, production, and natural indicators. The lowlands workshop developed elements for indicators on education, health, medicine and production.

For the regional workshop, part of the process was a three-week electronic forum with 200 people taking part. The participants in the workshop proper were 48 indigenous and non-indigenous experts from Latin America and the Caribbean, and four from North America. After discussion of traditional knowledge and the uses of indicators, three working groups were formed.

Each group considered one set of issues: (1) lands, territories and sacred sites, (2) education, communication, language and culture, and (3) health and traditional medicine. They developed

structural, process and outcome indicators. Structures were defined as conventions and treaties; processes were defined as policies, programs and laws; and results were defined as plans, projects and sustainable development that addresses the needs of indigenous peoples.

The workshop identified central themes for the well-being of indigenous peoples in Latin America and the Caribbean.

In addition to developing indicators, the regional workshop recommended the creation and adoption of a protocol to protect information coming from indigenous peoples. It also called for a follow-up workshop and further work on indicators for culture and communication.

The discussion following the regional report for Latin America and the Caribbean highlighted the importance of culture for production and survival. The importance of traditional authorities and legal systems was also noted, including its importance for data gathering.

Ms Gunn-Britt Retter of the Saami Council, Norway, reported on the work on indicators carried out under the auspices of the Arctic Council, which is a high-level forum of eight countries that have territory in the Arctic.[3] The presentation focused on the Survey of Living Conditions in the Arctic (SLiCA), the Arctic Human Development Report (AHDR) and the Arctic Social Indicators project. All three initiatives have participation of indigenous peoples, through the six indigenous peoples' organizations that are Permanent Participants of the Arctic Council. Although these initiatives focus on living conditions and well-being, rather than on biological diversity, the processes of the Arctic Council and the Convention support each other and can enhance the overall development of indicators relevant for indigenous peoples.

The process of developing indicators in the Arctic started with SLiCA, which has developed questionnaires for interviews among the indigenous peoples of the region. The steering committee of the ADHR felt it would be premature to define indicators, and agreed to focus on trends instead. It identified three major trends in the region: (1) fate control or the ability to guide one's own destiny (2) cultural integrity or belonging to a viable local culture and (3) contact with nature. The researchers involved in the report initiated the Arctic Social Indicators project to 'devise a limited set of indicators that reflect key aspects of human development in the Arctic'. It is working on six domains: the three trends identified by the ADHR and the three used by the United Nations Development Programme to construct the Human Development Index –education, demography and health, and material well-being.

Mr Vladimir Bocharnikov of the Russian Association of Indigenous Peoples of the North (RAIPON), reported on indicators work in the Russian Federation. Although there was no regional workshop on indicators in Russia, RAIPON has been working on data collection for the past four or five years. As part of this work, the organization is collaborating with the International Alliance of Indigenous and Tribal Peoples of the Tropical Forests (IAITPTF) in the Indigenous Peoples' Network for Change (IPNC). RAIPON's role has been to make information available to indigenous peoples about processes of the Convention on Biological Diversity. The IPNC website gives information about this work.

RAIPON conducted a major survey in the north of Russia, and after receiving responses from ten regions put the results on the website to start a discussion. RAIPON has good relations with the

Russian Academy of Sciences, which enables them to combine good scientific data with data from the indigenous peoples. The All-Russia census of 2002 yielded data about indigenous peoples, which RAIPON used to develop its work on indicators. This work has focused on two main areas: traditional knowledge and the role of indigenous peoples in the ecosystem. RAIPON uses maps to make the data easier to understand. Using the framework developed with the IPNC, it has started developing indicators on the role of indigenous peoples in conservation. There are good possibilities for pilot projects on indicators in the north of Russia.

Mr Les Malezer of the Foundation for Aboriginal and Islander Research Action (FAIRA), Australia, reported on key issues for indigenous peoples and the work done to develop indicators in the Pacific region. A regional workshop on indicators was due to be held in the week after the Experts Seminar. The Pacific is a region of great cultural and biological diversity. Many of its people live in small islands and depend largely on the marine environment, so it is not only land but also the waters that are key for the sustainability of livelihoods. The Pacific also has a great influence on the climate of much of the world. However, information about biodiversity and climate change does not reach communities in the region.

Many of the indigenous peoples of the Pacific have small populations, between 2,000 to 12,000 people, living in independent nation states that are recognized by the UN. Indigenous peoples have little involvement and right in international agreements because they do not negotiate strongly and the region in marginalised internationally: the rest of the world tends not to see it. Militarization is a key issue for the region.

The governments of Australia and New Zealand have devised indicators and collected statistics, but the results have not been disseminated to indigenous peoples. A group in New Zealand is developing a Maori Statistics Framework, based on the concept of development as a process of enabling people to improve their lives and live as they wish.[4]

Mr Maurizio Farhan Ferrari of the Forest Peoples Programme, Ms Caroline De Jong on behalf of the Association of Indigenous Village Leaders in Suriname and Mr Dewan Muhammad Humayun Kabir of the Institute of Bangladesh Studies reported on the thematic workshop on Customary Sustainable Use (Article 10 (c) of the Convention on Biological Diversity). The workshop was held in the UK on September 19-21, 2006, with participation of indigenous representatives and experts (from Guyana, Suriname, Thailand, Venezuela, Australia, the Philippines and Russia,) and NGO representatives (from Bangladesh, Cameroon, the Netherlands and the UK), a representative of the World Conservation Monitoring Centre of the United Nations Environment Programme (UNEP) and two representatives of donor agencies.

The basis for discussion of indicators was a set of case studies from research into the implementation of Article 10 (c) in indigenous communities in six countries (Bangladesh, Cameroon, Guyana, Suriname, Thailand and Venezuela) and an additional presentation from the Russian Federation. From this, a synthesis of the main issues was drawn together. After presentations on the monitoring framework of the Convention, indigenous peoples and the MDGs, and the 2010 Biodiversity Indicators Partnership, the participants discussed what indicators were and how they could be developed. They then divided into smaller working groups to develop indicators and relate them to the Convention's framework of goals, targets and indicators.

The conclusions of this research were that indigenous peoples in all the case study countries faced threats to their survival in terms of extractive industries and major developments. The main key issue seemed to be security of indigenous peoples' rights over land.

The workshop participants noted that the Article 10 (c) case studies highlighted many issues in addition to sustainable use, so the indicators they proposed addressed more than one goal of the Convention and indeed went beyond the framework of the Convention. In addition to Goal 4 of the 2010 Target (promote sustainable use and consumption), they also addressed goals relating to the conservation of biodiversity of ecosystems, habitats and biomes (Goal 1), threats to biodiversity (Goals 5, 6 and 7), capacity of ecosystems to deliver goods and services and support livelihoods (Goal 8), and participation (Goal 4 of the Strategic Plan). These indicators should contribute to the development of a wider framework of indicators relevant to indigenous peoples.

In the discussion following the report on the thematic workshop, issues raised included the need to safeguard traditional knowledge, and the risks of mapping and land demarcation. While it was agreed that free, prior, informed consent (FPIC) should apply to the sharing of traditional knowledge and information that belongs to communities, this may not happen in practice, especially when large corporations are concerned. Fexample, in the small island developing states of the Pacific the power of foreign business is so great that it undermines the capacity of communities to keep FPIC.

Ms Andrea Carmen of the IITC reported on the Second Global Consultation on the Right to Food and Food Security for Indigenous Peoples. The presentation started with a song of the Lakota nation: 'Creator, we want to live. Help us, our people want to live. The earth wants to live.' When indigenous peoples talk about indicators, recommendations and rights, they are talking about the lives of their people, the rights of Mother Earth, the rights of the natural world, the rights of future generations, and the health of their communities. For indigenous peoples it is food sovereignty, rather than simply food security, that is important. Traditional food has cultural and spiritual significance.

Indigenous peoples have used indicators before and they use them now. It is not a foreign subject being imposed on them. Indigenous peoples are the experts on their situation and that is the foundation of self-determination and free, prior, informed consent.

The Declaration of Atitlan of April 2002 remains the basic statement of the definition, criteria and issues of food security for indigenous peoples, and the impediments to it. At the Second Global Consultation on the Right to Food and Food Security for Indigenous Peoples, in Bilwi, Puerto Cabezas, Región Autónoma del Atlántico Norte, Nicaragua on September 7-9, 2006, a set of cultural indicators of food security were finalized. They addressed eight general issues as well as resiliency, adaptation to change and transmission of traditional knowledge.

The discussion following the thematic report on the right to food and food security highlighted the importance of using natural indicators: flight of birds, the time that the birds fly, how high a fish can jump can indicate whether there will be flooding or drought. The discussion also stressed the importance of food sovereignty, which starts from the right to land and resources, for political sovereignty.

3.3. Experts' papers[5]

Dr Lourdes Cruz of the Bataan Center for Innovative Science and Technology and the University of the Philippines Marine Science Institute, University of the Philippines, Diliman, discussed an effort to elaborate socio-cultural development indicators for the Aytas in Morong, Bataan, Philippines. The need for indicators arose when the Ayta community in Morong expressed concern that a development project might damage their cultural integrity. Because conventional development indices lack cultural indicators and because the standard economic indicators do not apply to a non-monetary economy, a local index had to be devised. Workshops and consultations with the community were used to identify issues. The resulting socio-cultural development index has four components: culture, education, earnings from employment and livelihood, and health. It assigns numerical ratings to the indicators, and to the four components, and these are calculated on the basis of a weighted average to give a score on the index.

Discussion following the presentation of this paper revolved around intellectual property rights and how to protect them.

Dr Harriet Kuhnlein of the Centre for Indigenous Peoples' Nutrition and Environment (CINE), Montreal, described the centre's research on food diversity among indigenous peoples. CINE is conducting 12 international case studies with rural indigenous communities in 12 areas around the world, to provide evidence to policy leaders that local food resources protect health. By documenting traditional foods, their nutrient content and how they were used, the case studies showed the vast diversity of local food systems, and the quality and cost of traditional foods compared with those of imported foods. Interviews with community members revealed the cultural importance of traditional food for total well-being.

Dr. Harishwar Dayal of the Institute for Human Development, India, showed how official statistics could shed light on the discrimination experienced by indigenous peoples. Dr Dayal and other researchers at the institute analysed data on Scheduled Tribes and Scheduled Castes from official surveys and censuses. They concluded that while the caste system discriminates against the poorest caste – the *Dalits* – the level of poverty among Scheduled Tribes is deeper, despite the constitutional rights that uniquely apply to them. They also found that while poverty among the general population had declined between 1993-1994 and 1999-2000, there had been little change in poverty levels among indigenous peoples.

Mr Bernabe Almirol of the Tebtebba Foundation, Philippines, discussed the experience of a pilot project on data disaggregation for indigenous peoples in Nueva Vizcaya, Philippines. The project gathered data on socio-economic conditions, cultural integrity and political participation, using village level administrative data and interviews with key informants. It also generated some important lessons for indigenous communities on data collection. First, village level administrative data, such as lists of households, was found to be a reliable source of information to complement the formal census, despite some variation in collection systems. Second, ethnic identity is a sensitive issue that requires careful design of survey questionnaires.

Ms Yolanda Teran described a project to revitalize cultural values in the town of Canton Cotacachi in Ecuador, working with 200 indigenous and non-indigenous schoolchildren. The project had the participation of national and provincial institutions, as well as teachers, parents, spiritual leaders and

elders in the town. The children were introduced to ancestral agricultural methods, traditional foods and traditional spirituality, with emphasis on the ecological dimensions. The project also included a revival and adaptation of the Inti Raymi or sun ceremony. This festival, which dates back more than 500 years, includes a ritualized battle, but for the children it was adapted so that at the end they would shake hands rather than fight. Inti Raymi is a traditional festival, which has been adapted over the past 40 years to include women as participants and not simply as observers. It has become a national intercultural festival celebrated by Ecuadoreans inside the country and abroad.

This paper provoked a lively discussion on cultural change, and the tension between the right to adapt one's culture and the need to preserve and transmit traditional knowledge.

Mr Jay Lambert from the Assembly of First Nations (AFN), Canada, described a First Nations approach to health indicator development. The AFN initiated the work on health indicators to measure progress in meeting the ten-year plan to "close the gap" in quality of life between First Nations and other Canadians. To help identify the key issues and challenges, the AFN commissioned literature reviews. Many of the findings in the literature had not been validated by communities, but there was also a lack of capacity among First Nations to collect, manage and analyse data. The principles that guided health indicator development were that the health reporting framework would focus on First Nations; it would be based on the concept of reciprocal accountability; it would be a practical tool used for community planning that would also allow for reporting to federal, provincial and territorial governments; and it would allow for comparison with Canadian data. The AFN health indicators addressed four domains: individual health, environmental health, community health, and social/cultural health.

The presentation of this paper was followed by questions about health issues, including levels of teenage pregnancy in indigenous communities and the relationship between good health and a traditional diet. It appears that indigenous people living in remote communities in Canada have better health than those in urban areas, and that this may be because those in remote communities consume a traditional diet.

4. *Discussion of indicators*

4.1. Presentation of summary of thematic and regional workshops

At the start of the fourth day of the Experts Seminar, a ritual was performed by Ms Liselote (Naniki) Reyes Ocasio (Puerto Rico). As part of the celebration of International Women's Day, men were asked to offer flowers and sweets blessed in the ritual to the women participants (see Box, next page).

The Coordinator of the IIFB Working Group on Indicators, Ms Joji Cariño, presented the report of the International Coordinating Committee of the working group. The committee succeeded in raising funds for the Experts Seminar and set up a Technical Working Group to collate and synthesize the output from the regional and thematic workshops on indicators. From the reports of these workshops, the Technical Working Group identified the twelve global core themes and issues of concern to indigenous peoples, and produced a list of sub-core issues and indicators iden-

Opening prayer, Day 4

The prayer began with expression of thanks to the people of Ifugao for accommodating the participants and to all the organizers and to Mother Earth for providing air, water, trees, the harvests. In order to maintain this balance we must have fire because without the sun there is no harvest and crops. We must have the balance of the Mother Earth and the father sun.

tified in the regional and thematic workshops. These provide the basis for a strategic set of indicators relevant to indigenous peoples, including but not limited to the concerns addressed by the Convention on Biological Diversity and the MDGs. From this list, the Technical Working Group drew up a shortlist of indicators relevant to the Convention, and organized according to the Convention's monitoring framework of goals, targets and indicators. This would be a main working document for the seminar.

The subsequent discussion focused on how to approach the work on the CBD indicators. The following issues were raised:

- **The purpose of the indicators:** Who will use them and what for? Are they for the CBD to use, or its members states, or is it for indigenous communities? Or is it a combination? It was clarified that anyone could use the indicators, although there was an immediate need to formulate indicators for the Convention on Biological Diversity. For the CBD, the focus is to develop indicators on traditional knowledge to protect plants and animals. Without indicators, it will be impossible to tell if policies and programmes to maintain traditional knowledge are working, and how to adjust them if they are not working. Several participants said that indicators were a double-edged sword: statistics and indicators are a tool; the question is, who is using it? The seminar is looking for ways to present the facts and reality of the situation in a convincing way. But if indigenous peoples are not empowered, statistics and indicators can work against them. Also, there is a need for documentation to explain to communities what the indicators work is for.
- **Ownership of the process:** At international level, with so many specialised agencies implementing different programmes, it was not clear which specific agency would use the indicators being developed, and whether they would be used in accordance with the will of indigenous peoples. How is it possible to ensure that indigenous peoples will not be used as instruments in this process? Indigenous peoples must be the drivers of the process and owners of the product.
- **Culturally appropriate indicators:** The key issue is to put the indigenous essence into this work, to make it clear that indigenous peoples are witnessing the loss of their tra-

ditional knowledge and their environment. Indicators are necessary, but indigenous issues cannot be reduced simply to statistics and numbers that do not reflect the reality. It is essential to select culturally appropriate indicators.

- **Practicalities of data collection and use:** There are many good ways to measure things, but indigenous peoples and communities need to develop their capacity to collect, analyse and disseminate information, so that they can influence policy. There was also a concern to ensure the integrity of the process, to ensure that data collected from local communities would not be distorted.
- **Participation in the CBD:** Part of the struggle for indigenous peoples has been to participate in international processes that affect them. They asked to participate in the CBD, and it was not easy to win acceptance from the Parties to the Convention, but now indigenous peoples' participation has been accepted. Indigenous representatives pointed out that the CBD framework lacked indicators relevant to indigenous peoples, and agreed to provide them. Formulating these indicators is part of indigenous peoples' participation in the CBD.
- **Lack of recognition:** In countries where indigenous peoples are not recognized, they are ignored by the government processes linked to the CBD.
- **The focus of the seminar:** The work will focus on the CBD and biological diversity, but there is also a need to develop indicators focussing on the MDGs, for the UN Permanent Forum. It was clarified that a synthesis report from the regional and thematic workshops would mee the current requirements of the Permanent Forum.

The members of the technical working group then presented the shortlist of draft indicators related to the goals and targets of the monitoring framework of the Convention. The indicators addressed:

- Goal 4 of the Strategic Plan (full and effective participation of indigenous and local communities in Convention processes);
- Goal 9 of the 2010 Biodiversity Target, on the protection of Traditional Knowledge, Innovations and Practices, and other goals of the 2010 Target relevant to indigenous peoples;
- Goals 1 and 3, relating to protection of the components of diversity;
- Goal 4, relating to sustainable use and consumption;
- Goals 5, 6 and 7, on addressing threats to biodiversity;
- Goal 8, which relates to the maintenance of goods and services from biodiversity to support human well-being;
- Goal 10, relating to the fair and equitable sharing of benefits arising out of the use of genetic resources;
- Goal 11, relating to provision of resources to implement the Convention.

4.2. Selection and refinement of indicators

Working in smaller groups, the participants used the principles recommended by the SBSTTA to select, amend and refine the indicators drafted by the Technical Working Group. The workshop groups were asked to address all the indicators. However, to ensure each relevant area of the 2010 Target would be addressed by at least one group in the time available, each group began work on a different focal area. The focal areas were: protect the components of biodiversity (Goals 1-3); promote sustainable use (Goal 4); address threats to biodiversity (Goals 5-7); maintain goods and services from biodiversity to support human well-being (Goal 8); and protect traditional knowledge, innovations and practices (Goal 9).

4.3. Prioritization of indicators

An opening prayer (see Box, next page) was performed by Mr Benedict Ole Ngalama Nangoro (Tanzania).

The workshop groups presented the refined set of indicators for each focal area. In the subsequent discussion there was some criticism of the process and framework followed in the workshops. Additional concerns were:

- the need to consider the impact of urban activities for traditional knowledge (for example, half of Brazil's indigenous population is urban);
- the need for a sound foundation of indigenous demographic information.

The indigenous participants then met in regional groups to rank the proposed indicators in order of priority, comment on the indicators selected and on the process of the seminar, and refine the indicators for full and effective participation of indigenous peoples in the processes of the Convention. Given the relatively large number of participants from the Philippines, they met in a separate working group. A working group of non-indigenous participants discussed the relevance of the refined indicators to the MDGs.

4.3.1. Pacific

Group members selected three priority indicators and proposed an indicator for participation of indigenous peoples in the processes of the Convention, as required by Goal 4 of the Strategic Plan.

They said they welcomed the opportunity to attend the Experts Seminar on Indicators Relevant to Indigenous Peoples, the CBD and the MDGs, although they had not yet held their own regional workshop on the subject. This workshop was due to take place in the week following the Experts Seminar, and they hoped for an opportunity to feed its results into the process of developing global indicators relevant to indigenous peoples. Their comments on the process of the seminar included a suggestion for a more adequate and balanced composition of the Technical Working Group.

4.3.2. Arctic, Russia and North America

Group members proposed indicators for Goal 4 of the CBD Strategic Plan and selected four priority categories for indicators relevant to the 2010 Biodiversity Target:

- Rights and access to territories and resources;

Opening prayer, Day 5

The seminar participants were asked to hold grass stems during the prayer, and to respond to each sentence in the prayer with 'Na-yi', meaning 'Creator, let it be'. Grass plays an important part in the life of pastoralists.

Maasai	***English[6]***
Enkai Inchoo iyiok enkishon	Oh Gracious Creator, Give us life
Na-yi	Oh Creator, let it be
Inchoo iyiook empuan	We pray for good health
Na-yi	Oh Creator, let it be
Inchoo iyiook enchipai	We pray that you give us joy
Na-yi	Oh Creator, let it be
Inchoo iyiook enkuenia	We pray that you give us laughter
Na-yi	Oh Creator, let it be
Tamayiana olosho lino	Oh creator, bless your own world
Na-yi	Oh Creator, let it be
Tamayiana intung'anak linono	May your people be well
Na-yi	Oh Creator, let it be
metonyorotta	May your people be loving and caring
Na-yi	Oh Creator, let it be
Metobiko inaabik ildonyo	May your people live as long as mountains live
Na-yi	Oh Creator, let it be
Inchoo iyiok Enchan	We pray for rain
Na-yi	Oh Creator, let it be
Tashau inkuta naanyor inkishu o ltung'anak	May the rains be good for your people and their livestock/crops
Na-yi	Oh Creator, let it be
Tashau inaamelook nenyor eramarate ang'	May the rains be suitable for our fields
Na-yi	Oh Creator, let it be
	We pray for all the conference participants
Tamayiana ele amal lino	Oh Creator, let it be
Na-yi	Give them wisdom and make them good leaders
Inchoo ilukuny aigwanak	Oh Creator, let it be
Na-yi	Guide them in their journey back home
Toriko eshukori inkang'itie	Oh Creator, let it be
Na-yi	Protect them up in the sky when they fly and when they travel on the roads
Toriko tiayi o tonkoitoi	Oh Creator, let it be
Na-yi	May they find their families well and be received with great joy and hospitality
Meinepu emuta naropil	Oh Creator, let it be
Na-yi	

- Impact of environmental degradation;
- Free, prior, informed consent and the right to determine conditions for benefit sharing;
- Protection, use and transmission of traditional knowledge.

They recommended a focus on national laws guaranteeing rights and access to lands and territories, and a focus on extractive industries. They also proposed steps to take forward the development of indicators relevant to indigenous peoples, noting in particular the need for further work on indicators for the MDGs.

They said they were impressed with the work participants had been able to achieve in this seminar although, as they had non had their own regional workshops, they had to work fast and hard to understand the CBD goals and targets. There was some concern about translation, in particular the lack of documentation in Russian. A participant raised concerns that the seminar had followed a top-down process.

4.3.3. Asia

Group members proposed indicators for Goal 4 of the CBD Strategic Plan. They also made detailed amendments to the indicators, and selected priorities for each target in the Convention's monitoring framework on the basis of their relevance and importance in the Asian context. They then discussed the next steps to take forward the work on indicators relevant to indigenous peoples, proposing that the Coordinating Committee of the IIFB Working Group on Indicators should further refine the indicators. The results of this work should be sent to the seminar participants by email. The group members intend to lobby Asian government to accept and adopt the indicators.

4.3.4. Latin America

Group members made some specific recommendations for the seminar report, identified three priorities from among the goals of the Convention, and proposed additional indicators on participation of indigenous communities in Convention processes. In their discussion of the next steps, they noted the need for regional workshops to address not only indicators, but also all other aspects of the Convention's agenda. They proposed that national workshops on indicators should be held, and case studies done in different Latin American countries.

On the process of the seminar, the group members noted said it had provided a space and an important opportunity to discuss and reflect on indicators relevant to indigenous peoples. They reported some problems with seminar documentation in Spanish, which was available later than the documentation in English. They also felt that not enough time was available to discuss the issues, and hoped a better methodology could be developed to allow for more thorough reflection.

4.3.5. Africa

Group members identified one or two priority indicators for each goal in the monitoring framework of the Convention on the basis of their relevance to indigenous peoples in Africa. They also discussed next steps in the development of indicators relevant to indigenous peoples, noting the importance of disseminating information widely to indigenous organizations, and through them to communities. They proposed to hold a follow-up discussion at regional level for this purpose.

The group felt that on the whole the organisation of this seminar was good, the objectives had been met and relevant indicators had been identified, although they would have to be refined.

4.3.6. Philippines

The Philippine group focused on the initiatives of the PAWB-DENR, the National Commission on Indigenous Peoples and the National Statistics Coordinating Board in institutionalizing the use of indicator sets in government bodies. They also devised a set of indicators to measure indigenous peoples' participation in processes of the Convention. They recommended that the Protected Area Management Board in the Philippines should embark on an active information dissemination campaign on the National Biodiversity Strategies and Action Plans (NBSAP).

4.3.7. Working group on the proposed indicators and the MDGs

Group members considered how the indicators proposed could relate to the MDG framework. They noted that because global processes such as the implementation of the CBD and the MDGs have different, but very specific, targets, it is not easy to transfer a set of indicators from one such process to another. Each global process seems to require specific indicators and specific research and data collection – making data collection a huge task. The group proposed that a set of core indicators for indigenous peoples should be developed and brought into other monitoring processes. They also recommended the disaggregation of data by gender and ethnicity under the MDG framework. The participants noted the importance of indicators on the protection of rights to land and resources for measuring poverty among indigenous peoples (MDG Goal 1) and the importance of indicators developed for food security for measuring freedom from hunger (MDG Goal 2).

The discussion that followed focused on proposals for the next steps in the indicators development process. The main recommendations were:

- to expand the Technical Working Group, to improve its base of skills and knowledge;
- to carry out a pilot study on methodology;
- to hold more workshops on indicators development;
- to aim for a more strategic process for the development of a statistical indicator set that will cut across all the various international processes;
- to encourage the International Labour Organization to develop indicators relating to traditional occupations.

5. Adoption of provisional indicators

It was agreed that the coordinating committee of the IIFB should review the indicators proposed by the workshops, taking into account the comments and priorities expressed by the regional groups, and circulate the revised indicators for comment before submitting them to the Secretariat of the Convention. Annex 1 and Annex 2 below contain the indicators adopted as a result of this process.

Revisions were also proposed to the monitoring framework of the Convention after 2010. In particular, participants suggested a replacement for Target 1.1 (relating to conservation of the world's

ecological regions) and revision of Target 1.2 to stress the preservation of areas of particular importance to cultural as well as biological diversity.

6. Closure of the seminar

Following a prayer by Datu Victorino Saway, the meeting was closed at 6pm on Friday 9 March 2007 (see Box, below).

Closing prayer

For coming out with substantial and fruitful results of this seminar and the other tasks ahead of us and for us to arrive home safely: affirm that all that we do, all that we think, all that we act upon, needs to be alive, needs to be strong, needs to grow, needs to bear fruit for the next generations. But we cannot do all these things without the spirits of the earth supporting us, without the spirits of the waters, without the spirits of the wind, without the spirits of the sun, without the spirits of the plants, the animals, the wildlife, without the spirits of our beliefs, our religions, without the spirits of our knowledge, without the spirits of our laws, governments, our leadership, without the spirits of our economy, without the spirits of our defense, our security, without the spirit of our home, our nations, our world, without the spirit of our creator in us. So in this closing prayer, allow me to give a song as the beginning of the proclamation of our existence: that indeed we as indigenous peoples lived yesterday, live today and live tomorrow because we are part of reality, part of nature, part of creation. And we continue to live for as long as the earth lives, for as long as nature lives, for as long as our creator lives, because we are part of the whole universe, we are part of the whole creation.

Annex 1

Outcome of the International Experts Seminar on Indicators Relevant for Indigenous Peoples, the Convention on Biological Diversity (CBD) and the Millennium Development Goals

Effective participation of indigenous and local communities in processes of the Convention (Strategic Plan)		*Assessment of feasibility by 2010*
Goal 4: There is a better understanding of the importance of biodiversity and of the Convention, and this has led to broader engagement across society in implementation		*D = Data available, d = Data not available; M = Methodology existing; m = methodology not existing; C = Coordinating agency existing; c = coordinating agency not existing*
Target 4.3 Indigenous and local communities are effectively involved in implementation and in the processes of the Convention, at national, regional and international levels	**Proposed indicators** **• Numbers of indigenous and local community representatives participating in official meetings of the Convention, disaggregated by region and country**	**D** (Convention database) **M** (simple arithmetic) **C** (Convention Secretariat) **Ready for immediate testing**
	• Number of partnerships with and initiatives of indigenous and local communities in implementation of programs of the Convention at national, regional and international levels	**D** (includes CEPA and NBSAPS) **m** (partnerships of different nature difficult to aggregate but qualitative data may be available from national reports and from reports from indigenous and local communities) **c**
	• Finances spent to support effective participation of indigenous and local communities in the implementation of the Convention at all levels	**d** **M** (budget for effective participation = volume of funds, meeting reports; number of indigenous and local communities participating) **C**

Annex 2

2010 Biodiversity Target

Protect traditional knowledge, innovations and practices		*Assessment of feasibility by 2010*
Goal 9 Maintain socio-cultural diversity of indigenous and local communities		*D = Data available, d = Data not available;* *M = Methodology existing;* *m = methodology not existing; C = Coordinating agency existing; c = coordinating agency not existing*
Target 9.1. Protect traditional knowledge, innovations and practices	**Indicator already agreed** • Status and trends of linguistic diversity and numbers of speakers of indigenous languages	
	Proposed additional indicators **• Status and trends in the practice of traditional occupations**	**d** **M** (disaggregated by age, gender, part-time or full-time, migration/urban adaptation, eco-tourism, guides, rangers, artisans, crafts persons, herbalists and healers, abandoned due to climate change, degradation, pollution, invasive species, harvesting of non-timber forest products, hunting, traditional animal husbandry and agriculture) **C** The International Labour Organization was requested to make data on traditional occupations available in the future. **Future development**
	• Number of governments legally recognizing customary law, institutions and practices	**D**? **M** **C** (Convention Secretariat with IIFB) **Ready for immediate testing**
	• Demographic trends	**d** (requires data disaggregation of census and statistics by ethnicity) **m** (recognition of distinct identity of indigenous peoples, mortality/fertility, migration, suicides, social benefits, disaggregated by age and gender) **c**

Protect traditional knowledge, innovations and practices		*Assessment of feasibility by 2010*
Target 9.2. Protect the rights of indigenous and local communities over their traditional knowledge, innovations and practices, including their rights to benefit-sharing	**Proposed indicator** **• Number of parties with national legislation, policies and measures to protect traditional knowledge, recognize land rights and customary sustainable use**	**d** (compilation of national laws and policies) **m** (demarcation, registration, grievance mechanisms, customary resource rights, land claims resolved, percentage of ancestral land with legal title, percentage of total forest area under community forest management, protected areas, and free, prior, informed consent) **c**
Protect the components of biodiversity		
Goal 1. Promote the conservation of the biological diversity of ecosystems, habitats and biomes		
Target 1.1: At least 10% of each of the world's ecological regions effectively conserved	**Indicators already agreed** • Coverage of protected areas • Trends in extent of selected biomes, ecosystems and habitats • Trends in abundance and distribution of selected species **Proposed additional indicator** **• Coverage of protected areas and sacred sites governed and managed by indigenous and local communities and/or in partnership with relevant protected area authorities (and NGOs)**	**d** **M** **C** (WDPA through UNEP-WCMC) **Future development**

Goal 3. Promote the conservation of genetic diversity		
Target 3.1. Genetic diversity of crops, livestock, and of harvested species of trees, fish and wildlife and other valuable species conserved, and associated indigenous and local knowledge maintained	**Indicators already agreed** • Trends in genetic diversity of domesticated animals, cultivated plants, and fish species of major socio-economic importance • Biodiversity used in food and medicine (indicator under development) • Trends in abundance and distribution of selected species **Proposed additional indicator** **• Number of policies, laws, programs and budgets to support traditional livelihoods promoting diversity of plants and animals**	Linked to status and trends in practice of traditional occupations (Target 9.1)
Promote sustainable use		
Goal 4. Promote sustainable use and consumption		
Target 4.1: Biodiversity-based products derived from sources that are sustainably managed, and production areas managed consistent with the conservation of biodiversity	**Indicators already agreed** • Area of forest, agricultural and aquaculture ecosystems under sustainable management • *Proportion of products derived from sustainable sources (indicator under development)* • Trends in abundance and distribution of selected species • Marine trophic index • Nitrogen deposition • Water quality in aquatic ecosystems **Proposed additional indicators** • Number of indigenous and local communities with land and resource use plans/strategies •Number of certificates and certification schemes issued with free, prior, informed consent (FPIC) of indigenous and local communities, for areas of customary sustainable use[7]	**d** (land use studies, community resource maps, Ancestral Domain Sustainable Development Plans, life plans, land claims, programs to revitalize diversity of plants and animals)

Target 4.2. Unsustainable consumption, of biological resources, or that impacts upon biodiversity, reduced	**Indicator already agreed** • Ecological footprint and related concepts **Proposed additional indicator** **• Number of participatory impact assessments implemented by extractive industries and major developments[8] with indigenous and local communities, applying Akwe:Kon guidelines or similar policies**	??
Target 4.3: No species of wild flora or fauna endangered by international trade	**Indicator already agreed** • Change in status of threatened species **Proposed additional indicator** **• Number of indigenous and local community members participating in policy-making on, and implementing and monitoring compliance with, national and international laws in the trade of endangered flora and fauna**	**Future development**

Address threats to biodiversity		
Goal 5. Pressures from habitat loss, land use change and degradation, and unsustainable water use, reduced		
Target 5.1. Rate of loss and degradation of natural habitats decreased	**Indicators already agreed** • Trends in extent of selected biomes, ecosystems and habitats • Trends in abundance and distribution of selected species • Marine trophic index **Proposed additional indicators** **As first proposed indicator for Target 4.1[9], proposed indicator for Target 4.2[10] and proposed indicator for Target 9.2[11]**	

Goal 6. Control threats from invasive alien species		
Target 6.1 Pathways for major potential alien invasive species controlled	**Indicator already agreed** • Trends in invasive alien species **Proposed additional indicator** **• Number of native species lost or extinct and new invasive species encroaching on biodiversity, ecosystems and traditional territories (as a result of climate change)**	 **d** **m** **c**
Goal 7. Address challenges to biodiversity from climate change, and pollution		
Target 7.1 Maintain and enhance resilience of the components of biodiversity to adapt to climate change	**Indicator already agreed** • Connectivity/fragmentation of ecosystems **Proposed additional indicator** **• Number of partnerships with, and initiatives of, indigenous and local communities to address impacts of climate change (coping strategies, adaptations)**	 **d** **m** **c**
Target 7.2 Reduce pollution and its impacts on biodiversity	**Indicator already agreed** • Nitrogen deposition • Water quality in aquatic ecosystems **Proposed additional indicators** **• Levels of persistent organic pollutants (POPs) and other contaminants in traditional diet (breast milk, marine mammals, others)** **• Number of clean-up programmes in indigenous territories** **• Water quality in traditional indigenous territories versus international standards (World Health Organization)**	 **d** **M** **C** **d** **M** **c** **d** **M** **c**

Maintain goods and services from biodiversity to support human well-being		
Goal 8. Maintain capacity of ecosystems to deliver goods and services and support livelihoods		
Target 8.1. Capacity of ecosystems to deliver goods and services maintained	**Indicators already agreed** • Biodiversity used in food and medicine (indicator under development) • Water quality in aquatic ecosystems • Marine tropic index • Incidence of Human-induced ecosystem failure **Proposed additional indicator** • **As first proposed indicator for Target 4.1**[12]	
Target 8.2. Biological resources that support sustainable livelihoods, local food security and health care, especially of poor people maintained	**Indicators already agreed** • Health and well-being of communities who depend directly on local ecosystem goods and services • Biodiversity used in food and medicine **Proposed additional indicators** **• Status and trends in land-use patterns in the traditional territories of indigenous and local communities**[13] **• Budgets to support indigenous local communities' plans and strategies for land and resource management, food security and health**	**Future development**

Ensure the fair and equitable sharing of benefits arising out of the use of genetic resources		
Goal 10. Ensure the fair and equitable sharing of benefits arising out of the use of genetic resources		
Target 10.1. All access to genetic resources is in line with the Convention on Biological Diversity and its relevant provisions	Proposed indicator • Number of parties with national legislation, policies and measures to promote FPIC and benefit sharing with indigenous and local communities.	**d** (qualitative: Memorandums of Agreement, financial benefits, other benefits, grievance mechanisms, management mechanisms)
Ensure provision of adequate resources		
Goal 11: Parties have improved financial, human, scientific, technical and technological capacity to implement the Convention		
Target 11.1. New and additional financial resources are transferred to developing country Parties, to allow for the effective implementation of their commitments under the Convention, in accordance with Article 20	**Indicator already agreed** • Official development assistance provided in support of the Convention **Proposed additional indicators** **• ODA reaching indigenous and local communities for implementation of the Convention at all levels**	**d** **m** **c** (See also indicators for Strategic Plan, Annex 1)
Target 11.2. Technology is transferred to developing country Parties, to allow for the effective implementation of their commitments under the Convention, in accordance with its Article 20, paragraph 4	**Proposed indicator** **• Number of programmes facilitating training, exchanges and transfer of technologies among indigenous and local communities**	**d** **m** **c** Number of parties with national legislation, policies and measures to promote FPIC and benefit sharing with indigenous and local communities.

Endnotes

[1] The key issues identified in the regional and thematic workshops are listed in page 63 of this resource book.

[2] Two of the papers were also presented at the Expert Seminar on Indicators Relevant to Indigenous Peoples, the CBD and the MDGs. They are summarized in Section 3.3 of this report.

[3] Canada, Denmark (Greenland, Faeroe Islands), Finland, Iceland, Norway, Russia, Sweden, USA.

[4] The Maori Statistics Framework is reprinted in this resource book in page 251.

[5] Papers are reprinted in Part 2 of this book starting in page 295.

[6] Some of the meaning and richness of the prayer in the indigenous language is inevitably lost in the English translation.

[7] Hunting/safari, eco-tourism, forest, agriculture, aquaculture, trapping, fishing.

[8] Agriculture, forests, dams, wind turbines.

[9] Number of indigenous and local communities with land and resource use plans/strategies.

[10] Number of participatory impact assessments implemented by extractive industries and major developments with indigenous and local communities, applying Akwe:Kon guidelines or similar policies.

[11] Number of parties with national legislation, policies and measures to protect traditional knowledge, recognize land rights and customary sustainable use.

[12] Number of indigenous and local communities with land and resource use plans/strategies.

[13] Land conversion, degradation, change in title/legal recognition, restitution, rehabilitation, areas of traditional territories, surface of areas legally recognized, areas currently occupied, community conserved areas and indigenous protected areas.

Chapter 2

Indigenous Peoples' Indicators of Well-being, Poverty and Sustainability

Summary report of regional and thematic workshops on indicators relevant for indigenous peoples, the Convention on Biological Diversity (CBD) and the Millennium Development Goals (MDGs)

Tebtebba Foundation

This report was produced by Tebtebba (Indigenous Peoples' International Centre for Policy Research and Education) with support from the UN Department of Economic and Social Affairs (DESA) and the Secretariat of the UN Permanent Forum on Indigenous Issues.

I. Introduction

1. The Permanent Forum on Indigenous Issues identified inadequate data collection and the failure to disaggregate data concerning indigenous peoples as a major methodological challenge at both its first and second sessions. An initial step taken to address this was the holding of an expert workshop on "Data Collection and Disaggregation for Indigenous Peoples" in January 2004. The acting head of the UN Statistics Division, who opened this workshop, noted that the issue of indigenous peoples and data collection is a ground-breaking work. He said "the collection of reliable data would allow judgements to be made about the effectiveness of development programmes that had a direct impact on the quality of life of the world's indigenous peoples. Indigenous issues were the important emerging theme in social statistics."[1]
2. The lack of detailed information and statistics on indigenous peoples precludes an accurate assessment of their living conditions. Data collection and disaggregation could help detect discrimination, inequality and exclusion of indigenous peoples, both

individually and as a group. It would also permit more accurate assessments and judgments about the effectiveness of development programs on the quality of life of indigenous peoples.

3. Indicators, which are aggregated summary statistics that reflect and measure aspects of the social condition or quality of life of the general population in a country or a sub-national group, have been developed by the UN and other institutions. These are needed for benchmarking to gauge or measure changes, for monitoring and evaluation of developments and achievements, and for global comparative purposes.
4. At its Third Session, the Permanent Forum recommended to the UN Development Group "that the indicators of the Millennium Development Goals be assessed and that additional indicators be identified to give fuller assessment of environmental sustainability". The Forum also recommended that "the Executive Secretary of the Secretariat of the Convention on Biodiversity should organize, in coordination with relevant agencies, a workshop on indicators to measure progress in the objectives of the multi-year program of work and other programs of work, with the full participation of indigenous peoples and their organizations, in order to incorporate the necessary human and social indicators".
5. The fourth session of the Permanent Forum called on the United Nations system to use and further refine existing indicators of Common Country Assessment-Development Assistance Frameworks (CCA-UNDAF), Millennium Development Goals (MDGs), Human Development Reports (HDRs), Poverty Reduction Strategy Papers (PRSPs) and other global, regional and national development framework plans to be more culturally sensitive and responsive to indigenous peoples' realities and aspirations.
6. The need for data disaggregation became even more obvious during the 2005 and 2006 Forum sessions which dealt with the theme "Millennium Development Goals (MDGs) and Indigenous Peoples". Several reports show that efforts to reach some MDG targets have accelerated the loss of lands and resources crucially needed for indigenous peoples' livelihoods and displaced indigenous communities from their ancestral lands. A technical report by the Inter-Agency Support Group on Indigenous Issues (IASG) on "MDGs and Indigenous Peoples" (2004) observed that statistics often fail to reflect the situation of indigenous peoples, or that it remains hidden in national averages. The International Labour Organization (ILO) conducted an "ethnic audit of selected Poverty Reduction Strategy Papers (PRSPs)"[2] and concluded that the absence of indicators that reflect indigenous peoples' own perceptions of poverty and wealth is a key challenge in overcoming ethnic poverty and social exclusion.
7. In order to implement the recommendation that the Permanent Forum facilitates the further development of indigenous peoples-sensitive indicators and to ensure the direct participation of indigenous peoples in development and use of indicators, the International Fund for Agricultural Development (IFAD) provided a grant to the Secretariat of the Permanent Forum with the Department of Economic and Social Affairs (DESA) to support indigenous peoples' experts and organizations to hold regional meetings. This series of meetings seeks to build on the existing work on global and regional indicators, and address the challenges and gaps, across the mandated areas of the Permanent Forum on health, human rights, economic and social development, environment, education, and culture. The objectives of these workshops were to:

- identify gaps in existing indicators at the global, regional and national levels that assess the situation of indigenous peoples and have an impact on policy making, governance, and program development, including a gender perspective;
- examine work being done to improve indicators so that they take into account indigenous peoples and their concerns, and assess them according to qualitative and quantitative criteria, including a gender perspective;
- examine linkages between quantitative and qualitative indicators, particularly indicators that look at processes affecting indigenous peoples;
- propose core global and regional indicators that address the specific concerns and situations of indigenous peoples, including indigenous women, and can also be used by international financial institutions, the UN system and global and regional intergovernmental organizations.

8. The activities of the workshops included identifying broad issues that are generally important for indigenous peoples, and listing a few key indicators that would be relevant for the core issues identified. Participants were also asked to identify appropriate data sources for the indicators.
9. The Millennium Development Goals (MDGs) and the Convention on Biological Diversity (CBD), with their proposed indicators and monitoring frameworks, are the two global processes of immediate relevance for proposing indicators addressing indigenous peoples' well-being and sustainability. MDG Goal 7, which pertains to environmental sustainability, is a cross-cutting theme in poverty eradication, and is also reflected in the CBD's 2010 target to significantly reduce the loss of biodiversity. To indigenous peoples, the integral links between environment and development, and sustainability and well-being, are clear.
10. While the IFAD funding for the project included only the holding of three regional workshops (Latin America and the Caribbean, Africa and Asia), this composite report will include the summaries of other related activities which were held to comply with the general recommendations on the need for data collection and disaggregation for indigenous peoples and the need to start the process of developing indigenous-sensitive indicators of well-being, poverty and sustainability.
11. The first Technical Workshop on Indigenous Peoples and Indicators of Well-Being was held in Ottawa on 22-23 March 2006. The workshop was attended by eleven experts from Canada, New Zealand, Australia, the USA, and the Russian Federation, and several observers from indigenous peoples' organizations, provincial governments and universities of Canada. In its conclusions and recommendations, the experts identified a preliminary list of core themes, subthemes and indicators of indigenous peoples' well-being, which are listed in the Table 1.1, next page.

Linkages with CBD indicators

12. Meanwhile, at the fourth meeting of the CBD Ad Hoc Open-ended Working Group on Article 8(j) and Related Provisions (WG8j) held in Granada, Spain in January 2006, indigenous

Table I.1 Preliminary list of core themes and sub-themes related to indigenous peoples' well-being

Core theme	Sub-themes
Identity, land and ways of living	Maintenance and development of traditional knowledge, traditional cultural expressions and practices
	Use and intergenerational transmission of indigenous languages Support of, and access to, bilingual, mother tongue, and culturally appropriate education
	Ownership, access, use of and permanent sovereignty over lands, territories, natural resources, waters
	Health of communities
	Health of ecosystems
Demographics	Patterns of migration
Indigenous rights to, and perspectives on, development	Indigenous governance and management systems
	Free, prior, informed consent, full participation and self-determination in all matters affecting indigenous peoples' well-being
	Degree of implementation/compliance with international standards and agreements relating to indigenous peoples' rights: nation-to-nation treaties between states and indigenous peoples, ILO 169, UN Draft Declaration on the Rights of Indigenous Peoples, and relevant UN human rights and other instruments; recommendations by relevant international monitoring bodies
	Government funding for indigenous peoples' programs and services

peoples' organizations under the International Indigenous Forum on Biodiversity (IIFB) formed a Working Group on Indicators. Its purpose was to respond to the immediate need to identify and test indicators relevant for the implementation of the CBD Strategic Plan and its framework for monitoring implementation of the Convention and the achievement of the 2010 Biodiversity Target to significantly reduce the rate of biodiversity loss. The IIFB Working Group on Indicators proposed the convening of an International Expert Seminar, to consider in a holistic and integrated way the development of a limited number of meaningful indicators relevant to indigenous peoples, the CBD and the MDGs.

13. Decision VIII/5 G of the CBD Conference of Parties (COP8) recognized the need for a structured technical process to guide further work in WG8j to develop a limited number of meaningful and practical indicators for assessing the status of traditional knowledge, innovations and practices, with a view to assessing progress towards the 2010 Biodiversity Target. Decision VIII/5 G also welcomed the initiative of the IIFB Working Group on Indicators to organize an International Expert Seminar on Indicators, including preparatory regional and thematic workshops, in support of this work.

14. The UN Permanent Forum on Indigenous Issues, at its fifth session, decided to welcome and fully support the IIFB initiative to organize an International Expert Seminar and invited UN agencies, governments and others to fully collaborate with this initiative. Moreover, the Secretariat of the UNPFII facilitated meetings of the UNPFII, Inter-Agency Support Group and the IIFB Working Group on Indicators to discuss collaboration and coordination of Indicators Work. To promote holistic approaches and avoid duplication of effort, it was agreed whenever possible to integrate and coordinate regional workshops on indicators of indigenous peoples' poverty and well-being, organized by the UNPFII Secretariat, with the regional workshops of the IIFB Working Group on Indicators.

15. In accordance with these decisions, the IIFB Working Group on Indicators convened a number of preparatory regional and thematic workshops and an International Expert Seminar on Indicators Relevant to Indigenous Peoples, the Convention on Biological Diversity and the Millennium Development Goals. Financial support for this initiative was provided by the Spanish government's Agencia Española de Cooperación Internacional (AECI), the Royal Ministry of Foreign Affairs, Norway, and the Swedish International Biodiversity Programme (SwedBio). The regional workshops in Asia and Africa were jointly organised by the IIFB Working Group on Indicators, together with Tebtebba Foundation and the Arid Lands Institute, respectively, as the organizing partners of the Secretariat of the UN Permanent Forum on Indigenous Issues for its regional workshops. The regional workshop for Latin America held in Bilwi, Nicaragua was held before the Second Global Consultation on Cultural Indicators for Food Security. These were organized by the Center for Indigenous Peoples' Autonomy and Development (CADPI) and by the International Indian Treaty Council (IITC), in collaboration with the Food and Agriculture Organisation (FAO).

16. In addition, information-sharing was also carried out with the Arctic Social Indicators (ASI) Project which held an indicators workshop on September 15-17, 2006, in Akureyri, Iceland, as a follow-up to the Arctic Human Development Report (AHDR). Coordination with the Indigenous Peoples Secretariat under the Arctic Council continues, in order to link indicators work in the Arctic with the global initiatives to develop indicators on indigenous peoples' well-being.

II. Regional and thematic workshops

17. The various regional and thematic indicators workshops[3] were conducted using different methodologies, but all identified priority issues relevant for indigenous peoples' well-being and sustainability. The workshops succeeded in articulating indigenous peoples' perspectives about the significance of defining aspects underlying indigenous peoples' poverty and well-being, which provide a strategic framework for the development of suitable indicators. The priority issues and core thematic areas identified by the regional and thematic workshops for the development of indicators relevant for indigenous peoples are summarised below.

18. The Asian Regional Workshop on Indicators was organized by the IIFB and Tebtebba Foun-

Table I.2 Series of regional and thematic workshops addressing indicators relevant to indigenous peoples

DATE and PLACE	ACTIVITY and ORGANISING PARTNERS
September 4-6, 2006 Bilwi Nicaragua	Meso-America Regional Workshop Secretariat of the UNPFII and Centre for Indigenous Peoples' Autonomy and Development (CADPI)
September 7-10, 2006 Bilwi, Nicaragua	2nd Global Consultation Cultural Indicators on Food Security International Indian Treaty Council (IITC)-FAO and Centre for Indigenous Peoples' Autonomy and Development (CADPI)
September 19-21, 2006 Oxfordshire, UK	Workshop on Customary Sustainable Use (CBD Article 10c) Forest Peoples Programme (FPP) and IIFB Working Group on Indicators
November 8-10, 2006 Mindoro, Philippines	Asia Regional Workshop on Indicators IIFB Working Group on Indicators and Tebtebba Foundation
November 26-28, 2006 Nairobi, Kenya	Africa Regional Workshop on Indicators Arid Lands Institute and IIFB Working Group on Indicators
December 8-10, 2006 Quito, Ecuador	Latin America and Caribbean Workshop IUCN Sur and IIFB Working Group on Indicators
March 5-9, 2007 Banaue, Philippines	International Expert Seminar on Indicators Relevant for Indigenous Peoples, the CBD and the MDGs IIFB Working Group on Indicators and Tebtebba Foundation in collaboration with the Secretariat of the CBD
March 12-15, 2007 Brisbane, Australia	Pacific Region Workshop Foundation for Aboriginal and Islander Research Action (FAIRA) and IIFB Working Group on Indicators

dation and held in Calapan City, Mindoro, Philippines, on November 7-10, 2006. Participants in the workshop included indigenous peoples' representatives from ten Asian countries, as well as technical experts. The programme began with a community visit, followed by presentations on global work to develop indicators, country situations, and experience of indicators work in the Philippines and India. The participants divided into sub-regional groups (South Asia, Southeast Asia, Mekong Region and the Philippines) to identify key issues facing indigenous peoples, and then to develop indicators to address those issues. These were later classified into two categories: those relevant to the CBD, and those relevant to the MDGs.

19. The Asian regional workshop recommended that pilot studies should be conducted to collect statistical data disaggregated for indigenous peoples. It also noted the need for guidelines to ensure the use of culturally sensitive, objective and neutral survey instruments, and proposed the creation of an index of indigenous peoples' well-being.

20. The expert meeting on "Indicators of Wellbeing and Indigenous Peoples of Latin America and

the Caribbean" took place September 4-6, 2006, in Bilwi, Puerto Cabezas, North Atlantic Autonomous Region, Nicaragua. Thirty experts from Brazil, Ecuador, Peru, Panama, Guatemala, Belize, Mexico, and Nicaragua, and various observers from indigenous organizations, municipal governments, autonomous regions, universities, and agencies of the United Nations system, took part in the meeting. The experts identified a preliminary list of central themes, subthemes, and structural, process, and results indicators. These were derived from the recognition and exercise of collective human rights and in keeping with the vision of well-being of indigenous peoples.

21. The African Regional Workshop on Indicators was held in Nairobi, Kenya, on November 26-28, 2006. The workshop participants were drawn from five regions in Africa (West, South, East, Central and the Horn). They represented both pastoralist and hunter-gatherer communities. To develop indicators, they first agreed a set of key issues, then developed goals to address the issues, and finally devised indicators to measure progress towards the goals. The issues were clustered into six categories: social/cultural, educational, cultural, political/legal, economic and environmental.

22. The African regional workshop recommended use of the indicators by all relevant UN agencies, and for these agencies to recognize and include indigenous peoples' representatives in their monitoring work. The workshop also proposed the creation of an Africa-wide indigenous forum and indigenous parliamentary caucuses at national and regional levels. It called for a follow-up forum on African indigenous peoples' indicators to be held by November 2008.

23. A second Latin America and Caribbean regional workshop on Indicators was held in Quito, Ecuador, on December 8-10, 2006. This included a three-week electronic forum with 200 people taking part. The workshop proper had 48 indigenous and non-indigenous experts from Latin America and the Caribbean, and four from North America. After discussion of traditional knowledge and the uses of indicators, three working groups were formed. Each group considered one set of issues: (1) lands, territories and sacred sites (and economic production) (2) education, communication, language and culture, and (3) health and traditional medicine. They developed structural, process and outcome indicators.

24. In addition to developing the indicators, the regional workshop recommended the creation and adoption of a protocol to protect information coming from indigenous peoples. It also called for a follow-up workshop and further work on indicators for culture and communication.

25. In the Arctic region, indicators work has been linked to the Survey of Living Conditions in the Arctic (SLiCA), the Arctic Human Development Report (AHDR) and the Arctic Social Indicators project. All three initiatives have participation of indigenous peoples, through the six indigenous peoples' organizations that are Permanent Participants of the Arctic Council. The AHDR identified three dimensions important to human development in the region: (1) fate control or the ability to guide one's own destiny (2) cultural integrity or belonging to a viable local culture, and (3) contact with nature. The researchers involved in the AHDR initiated the Arctic Social Indicators project to devise a limited set of indicators that reflect key aspects of human development in the Arctic. Indicators are being developed in six domains: the three identified by the ADHR and the three used by the United Nations Development Program to

construct the Human Development Index.

26. The thematic workshop on Customary Sustainable Use (Article 10 (c) of the CBD) was held in the UK on September 19-21. The basis for discussion of indicators was a set of case studies from research in indigenous communities in six countries (Bangladesh, Cameroon, Guyana, Suriname, Thailand and Venezuela). From these, a synthesis of the main issues was drawn together. The participants discussed what indicators were and how they could be developed. They then divided into smaller working groups to develop indicators relating to the CBD framework of goals, targets and indicators.

27. The Second Global Consultation on the Right to Food and Food Security for Indigenous Peoples was held on September 7-9, 2006. The focus of the consultation was to share experiences and build on previous work to develop a set of "Cultural Indicators for Food Security, Food Sovereignty and Sustainable Development" which can be used by UN agencies, development institutions, NGOs and indigenous communities. A set of cultural indicators of food security was finalized, addressing eight general issues as well as resiliency, adaptation to change and transmission of traditional knowledge.

III. Global summary of core thematic issues

28. In preparation for the International Seminar on Indicators Relevant for Indigenous Peoples, the Convention on Biological Diversity and the Millennium Development Goals, the IIFB Working Group on Indicators set up a Technical Working Group to collate and synthesize the output from the regional and thematic workshops on indicators. From the reports of these workshops,

Global core themes and issues

1. Security of rights to territories, lands and natural resources
2. Integrity of indigenous cultural heritage
3. Respect for identity and non-discrimination
4. Culturally-appropriate education
5. Fate control
6. Full, informed and effective participation
7. Health
8. Access to infrastructure and basic services
9. Extent of external threats
10. Material well-being
11. Gender
12. Demographic patterns of indigenous peoples

the Technical Working Group synthesized and identified 12 global core themes and issues of concern to indigenous peoples, and produced a list of sub-core issues and indicators identified in the regional and thematic workshops.

29. This list of global core themes and issues can serve as a basis for a strategic set of indicators relevant to indigenous peoples' well-being and sustainability, informing and including, but not limited to, the goals and targets addressed by the CBD and the MDGs.

30. On the basis of this list, the Technical Working Group organised the sub-core issues and themes and proposed indicators, arising from the regional and thematic workshops. These are presented in the tables below.

I – Security of rights to territories, lands and natural resources	
1. Recognition of indigenous peoples' rights to control their territories, lands and natural resources (structural indicators)	
2. Degree of security of indigenous peoples' rights to lands, territories and natural resources (structural indicators)	• Legal protection of rights to own, manage and use territories, lands and natural resources • Degree of progress towards legal protection where it does not yet exist
3. Actual control of territories, lands and natural resources (outcome indicators)	• Control/ownership of lands and territories by indigenous peoples • Application of free, prior, informed consent • Protection from alienation of land and displacement of people • Respect for indigenous peoples' rights to manage and use natural resources • Fairness of distribution of benefits generated from indigenous peoples' territories, lands and natural resources • Condition of territories, lands and natural resources controlled by indigenous peoples
4. Government efforts to uphold indigenous peoples' rights to control their territories, lands and natural resources (process indicators)	
5. Effective implementation of specific mechanisms for implementing indigenous peoples' rights to territories, lands and resources (outcome indicators)	• Progress of demarcation of indigenous peoples' territories • Progress of registration of indigenous peoples' lands and territories • Effectiveness of grievance mechanisms

II - Integrity of indigenous cultural heritage	
1. Laws and policies promoting recognition, protection and promotion of indigenous cultural heritage	• Existence and application of laws and policies which recognize, protect and promote indigenous cultural heritage (indigenous knowledge and culture, indigenous languages, traditional health practices, traditional production and subsistence, spirituality and religions, customary law, intellectual property rights)
2. Measures and mechanisms for respecting indigenous cultural heritage	• Quantity and quality of measures and mechanisms for the protection and promotion of indigenous cultural heritage, including documentation, transmission and appropriate curricula; schools, cultural centres and non-formal education; bilingual provisions; festivals and celebrations; indigenous knowledge projects
3. Promotion of indigenous languages	• Status and trends of linguistic diversity and numbers of speakers of indigenous languages
4. Maintenance of traditional health practices	*linked to health indicators*
5. Measures to protect traditional production and subsistence	• Inclusion of hunting and gathering practices in modern economic systems – economic pluralism • Status and/or threats to traditional seeds, plant foods and medicines, and food animals, as well as cultural practices associated with their protection and survival • Programs to restore degraded lands and endangered plants and animals • Research and studies on traditional subsistence over time • Vitality of traditional food production practices • Community education programmes on threats to subsistence practices and resources • Studies on access/abundance of traditional foods and diet-related diseases • Proportion of intact traditional subsistence lands, resource and habitats vs contaminated or degraded lands and products • Laws and policies protecting traditional subsistence • Quality and quantity of environmental, social and cultural impact assessments (EIAs/SIAs/CIAs) addressing impacts of modern development projects on food security • Status and trends of endangered flora and fauna used for traditional subsistence
6. Respect for indigenous spirituality and religions	
7. Exercise of customary laws and institutions	• Number of indigenous communities with documented and codified customary laws • Codified laws recognized by the local and national government, adopted and utilized for conflict resolution by the indigenous peoples • Existence and influence of customary institutions

II - Integrity of indigenous cultural heritage	
8. Transmission of indigenous cultural heritage	• Number of youth, women and elders participating in transfer of knowledge
9. Respect for right to cultural change, innovations and practices	

III - Respect for identity and non-discrimination *(linked to II)*	
1. Legal and political recognition of indigenous peoples	• Constitutional recognition of distinct identity of indigenous peoples • Rights to citizenship • Positive action and anti-discrimination measures - Respect for indigenous peoples' identity in national government institutions - Existence of targeted budgetary, legal and policy measures implemented by state governments to address discrimination
2. Promotion of inter-cultural policies, programmes and activities	
3. Policies and programmes for renewal and recovery of indigenous identity and culture	*– linkages to integrity of cultural heritage*
4. Mechanisms/processes for peace-building and conflict resolution	
5. Culturally sensitive mass media and public information services	
6. Freedom to worship and practise indigenous religions	
7. Recognition and use of indigenous languages	

IV - Fate control/ self determination (including)
V - Full, informed and effective participation
1. Free, prior and informed consent
2. Free movement
3. Control over land, seas and natural resources *– linked to I*
4. Political access and participation
5. Control over social structures
6. Level of own economic control
7. Legal protection
8. Control over place names *– linked to II and III*
9. Access to information
10. Respect for right to cultural change, innovations and practices

VI - Culturally appropriate education
1. Government policy and legislation on indigenous education
2. Indigenous peoples' cultural/knowledge/education systems
3. Indigenous language retention/use – *overlap with II*
4. Indigenization of mainstream educational systems
5. Coverage in media and public information services – *overlap with IV*
6. Indigenous educational authorities
7. Educational provisions and outcomes for indigenous students • Gender

VIII - Health
1. Government health policies, programmes and facilities
2. Indigenous peoples' participation in policy making in health issues and service-delivery
3. Physical health indicators
4. Mental health indicators
5. Status of traditional medicinal/health practices • Respect, legal recognition and maintenance of traditional knowledge on health and traditional healing practices and use of traditional medicinal plants • Promotion, protection, and transmission of traditional health and healing practices
6. Livestock/animal health
7. Ecosystem health
8. Community health *(Note: see framework of Assembly of First Nations)*
9. Incidence of violence and crime

VIII - Access to infrastructure and basic services	
1. Basic services provision (water, shelter, sanitation, education, health, electricity, etc.)	• Access to basic services for households
	• Access to education
	• Quality and occupancy rate of shelter
	• Proportion of safe drinking water relative to supply, wastewater and sanitation systems, and level of waterborne diseases in indigenous communities
2. Support for livestock economy	• Develop a comprehensive livestock policy
	• Extension programmes
	• Government support systems for pastoralists during natural disasters
	• Improved markets for indigenous peoples' products
	• Number of abattoirs constructed in indigenous areas
	• Number of animals and animal products exported
	• Percentage of the national budget allocated to the development of pastoral livestock industry
3. Appropriate funding – availability and accessibility	• Access to credit facilities
	• Government expenditures relative to indigenous peoples' needs
	• Programs and services, and relative to percentage of population
	• Existence, and extent of, economic burden of remedial actions for disadvantaged indigenous peoples

IX - Extent of external threats
1. Environmental degradation
2. Major developments and allocation of land to outsiders
3. Imposition of inappropriate conservation policies *(see I)*
4. Militarization and conflict
5. Nuclear waste and pollution

X - Material wellbeing ***Note: Indigenous peoples' own definition of development: can be included in fate control or addressed here***	
1. Development	• Income/consumption
	• Improved economic status of indigenous peoples
	• Health
	• Education
	• Percentage of indigenous economy generated through traditional subsistence activities
Participation in development policy	
Policies, plans and programmes to improve indigenous wellbeing	• Quality and quantity of policies, programs, and projects in indigenous territories that guarantee better levels of wellbeing
	• Quality of the plans of coverage and resources in each system (bilingual, Hispanic, traditional health, state system) executed in indigenous territories
	• Inter-institutional, communal, and territorial mechanisms defined for the (participatory) detection of critical problems and distribution of resources and technical assistance in indigenous territories
	• Service available, quality and level of coverage of programs and projects in indigenous communities
	• Levels of access of indigenous residents to economic opportunities
2. Poverty	• Lack of basic services ***(see VIII)***
	• Malnutrition ***(see VII)***
	• Income/consumption level (see development)
	• Income/consumption-deflated by price/purchasing power of money in IP-inhabited areas
	• Depth of poverty measured in terms of period/length and severity of food deficiency
	• Shelter: size, quality (material, disaster-resistant, weather resistant, maintenance frequency
	• Amenities: safe drinking water (access, distance, sufficiency, quality and whether properly treated)
	• Amenities: sanitation (hygiene, proximity, quality)
	• Amenities: electricity (connection, supply)

XI - Demographic patterns of indigenous peoples
Distribution of indigenous population in localities (eg percentage of indigenous people in indigenous territories and in-migration of outsiders – related to wellbeing as resources may be in hands of outsiders)
Percentage of indigenous peoples living in urban areas
Net migration rate from indigenous lands over time and rate of return
All data and statistics need disaggregation according to age and gender
Note: Material from I and IX (forced out-migration)   ***Need to deal with lack of data disaggregation and lack of participation in data collection***

IV. Global shortlist core and sub-core themes and issues

Gender is a cross-cutting theme in all the core themes/issues

V. Proposed indicators for the Convention on Biological Diversity

31. At COP6, the Convention on Biological Diversity adopted a Strategic Plan and the 2010 target to significantly reduce the rate of biodiversity loss. COP7 in Decision VII/30 adopted a framework for Assessing Progress Towards the 2010 Target covering seven focal areas, goals, targets and the identification of provisional indicators. comprising indicators for immediate testing and possible indicators for development. One focal area is to 'protect traditional knowledge, innovations and practices'. Goal 9 of the 2010 Target is to ***Maintain socio-cultural diversity of indigenous and local communities***, with two targets and the relevant indicators to be developed by the WG8j.
    - Target 9. 1 to "Protect traditional knowledge, innovations and practices" and
    - Target 9.2 to "Protect the rights of indigenous and local communities over their traditional knowledge, innovations and practices, including their rights to benefit-sharing".
32. With regard to traditional knowledge, an indicator on the status and trends in linguistic diversity and speakers of indigenous languages was included as an indicator for immediate testing. In paragraph 7 of Decision VII/30, the Conference of Parties requested WG8j to explore the need and possible options for indicators for the protection of innovations, knowledge and practices of indigenous and local communities, and to report the results to the Conference of the Parties at its eighth meeting.
33. Recalling Decision VII/30, subsequent meetings of the Subsidiary Body on Scientific, Technical and Technologica Advice (SBSTTA) and the Working Group on Review of Implementation of the Convention also recommended to COP8 that the WG8j be invited to develop indicators on customary sustainable use (Article 10c), and on the effective participation of indigenous peoples and local communities in the processes of the CBD at all levels (Goal 4.3 of the Strategic Plan).

34. There is a separate report on the International Expert Seminar on Indicators Relevant to Indigenous Peoples and the Convention on Biological Diversity and the report on MDGs is integrated into this composite report. A summary of CBD's targets includes the following: protect the components of biodiversity; promote sustainable use; address threats to biodiversity; maintain goods and services from biodiversity to support human well-being; protect traditional knowledge, innovations and practices; ensure the fair and equitable sharing of benefits arising out of the use of genetic resources; and ensure provision of adequate resources.

35. The seventh in the list of MDGs is to ensure environmental sustainability. This is closely related to the CBD 2010 Biodiversity Target, which seeks to reduce the rate of loss of biological diversity.

36. The Technical Working Group identified the twelve global core themes and issues of concern to indigenous peoples, and produced a list of sub-core issues and indicators identified in the regional and thematic workshops. These provide the basis for a strategic set of indicators relevant to indigenous peoples, including but not limited to the concerns addressed by the CBD and the MDGs. From this list, the Technical Working Group drew up a shortlist of indicators relevant to the CBD, and organized according to the CBD monitoring framework of goals, targets and indicators. This would be a main working document for the seminar.

37. At the seminar the members of the Technical Working Group presented the shortlist of draft indicators related to the goals and targets of the CBD monitoring framework. The indicators addressed:
    - Goal 4 of the Strategic Plan (full and effective participation of indigenous and local communities in CBD processes);
    - Goal 9 of the 2010 Biodiversity Target, on the protection of Traditional Knowledge, Innovations and Practices, and other goals of the 2010 Target relevant to indigenous peoples;
    - Goals 1 and 3, relating to protection of the components of diversity;
    - Goal 4, relating to use and consumption;
    - Goals 5, 6 and 7, on addressing threats to biodiversity;
    - Goal 8, which relates to maintenance of goods and services from biodiversity to support human well-being;
    - Goal 10, relating to fair and equitable sharing of benefits arising out of the use of genetic resources;
    - Goal 11, relating to provision of resources to implement the Convention.

38. The participants in the seminar refined the shortlist of indicators, and recommended further review by the IIFB Working Group secretariat. The outcome of this process was the set of indicators presented in Annex I and Annex II of the seminar report in page 27. The principles for choosing indicators were based on suggestions from the SBSTTA (UNEP/CBD/SBSTTA/9/10).

    On the individual indicators
    - Policy relevant and meaningful

- Biodiversity relevant
- Scientifically sound
- Broad acceptance
- Affordable monitoring
- Affordable modeling
- Sensitive

On the set of indicators

- Representative
- Small number
- Aggregation and flexibility

To these, the participants in the International Expert Seminar added:

- Culturally appropriate.

VI. Proposed indicators for the millenium development goals

39. The Permanent Forum Sessions of 2005 and 2006 expressed the concern that "unless the particular situation of indigenous peoples are adequately taken into account, some Millenium Development Goal Processes may lead to accelerated loss of lands and natural resources for indigenous peoples, and thus of their means of subsistence and their displacement as well as to accelerated assimilation and erosion of their culture."[4] It is in this light that the work on indicators, as it relates to indigenous peoples and the MDGs, came about. It was deemed important to assess whether the 48 existing indicators of the MDGs resonate with the realities of indigenous peoples. Thus, it was important that various regional workshops (Asia, Africa and Latin America) be held where indigenous peoples could review the existing indicators and pinpoint which of these are relevant, where the gaps are, and suggest some additional indicators which can be recommended to UN agencies and States.

40. The following indicators relevant to indigenous peoples and the Millennium Development Goals are based on the issues and indicators proposed in the regional and thematic workshops and the expert seminar.

Table VI.1 Proposed indicators relevant to indigenous peoples and the Millennium Development Goals

Goals and targets	Existing indicators	Proposed additional indicators
Goal 1. Eradicate extreme poverty and hunger		
Target 1: Halve, between 1990 and 2015, the proportion of people whose income is less than one dollar a day	1. Proportion of population below $1 (PPP) a day 2. Poverty gap ratio [incidence x depth of poverty] 3. Share of poorest quintile in consumption	• Disaggregated data for indigenous peoples for Indicators 1 and 2

Goals and targets	Existing indicators	Proposed additional indicators
		• *For Indicator 3: Share of indigenous population in consumption, compared with their proportion in the population? [IPs consume x% of the country's resources, and are y% of the country's population]* • Income deflated by price/purchasing power of money in IP-inhabited areas • Depth of poverty measured in terms of period/length and severity of food deficiency (also Target 2) • Number of parties with national legislation, policies and measures to protect traditional knowledge, recognize land rights and customary sustainable use • Proportion of indigenous population with full and effective control of ancestral lands, territories *(including seas)* and natural resources
Target 2: Halve, between 1990 and 2015, the proportion of people who suffer from hunger	4. Prevalence of underweight children under five years of age 5. Proportion of population below minimum level of dietary energy consumption	• Disaggregated data for indigenous peoples for Indicators 4 and 5 • Percentage of lands, territories and subsistence resources used traditionally for food production (farming, fishing, hunting, gathering, herding) currently used by indigenous peoples • *Vitality of traditional food production practices (how to measure?)* • Incidence of diet-related disease, related to access to and abundance of traditional foods
Goal 2. Achieve universal primary education		
Target 3: Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling	6. Net enrolment ratio in primary education 7a. Proportion of pupils starting grade 1 who reach grade 5 7b. Primary completion rate 8. Literacy rate of 15-24 year-olds	• Disaggregated data for indigenous peoples for Indicators 6, 7 and 8 • *Proportion of IP children enrolled in schools with indigenous education system*

Goal 2. Achieve universal primary education		
		• Availability of indigenous teaching materials • *Proportion of IP children enrolled in schools with bilingual education (in their indigenous language and the national/official language)*
Goal 3. Promote gender equality and empower women		
Target 4: Eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels of education no later than 2015	9a. Ratio of girls to boys in primary education 9b. Ratio of girls to boys in secondary education 9c. Ratio of girls to boys in tertiary education 10. Ratio of literate women to men, 15-24 years old 11. Share of women in wage employment in the non-agricultural sector 12. Proportion of seats held by women in national parliament	• Disaggregated data for indigenous peoples for Indicators 9-10, 12 • Note: Indicator 11 was considered inappropriate • Gender Development Index • Gender Empowerment Measure
Goal 4. Reduce child mortality		
Target 5. Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate	13. Under-five mortality rate 14. Infant mortality rate 15. Proportion of 1-year-old children immunised against measles	• Disaggregated data for indigenous peoples for Indicators 13-15
Goal 5. Improve maternal health		
Target 6. Reduce by three-quarters, between 1990 and 2015, the maternal mortality ratio	16. Maternal mortality ratio 17. Proportion of births attended by skilled health personnel	• Disaggregated data for indigenous peoples for Indicators 16 and 17
Goal 6. Combat HIV/AIDS, malaria and other diseases		
Target 7. Have halted by 2015 and begun to reverse the spread of HIV/AIDS	18. HIV prevalence among pregnant women aged 15-24 years 19. Condom use rate of the contraceptive prevalence rate[a] 19a. Condom use at last high-risk sex 19b. Percentage of population aged 15-24 years with comprehensive correct knowledge ofHIV/AIDS 19c. Contraceptive prevalence rate 20. Ratio of school attendance of orphans to school attendance of non-orphans aged 10-14 years	• Disaggregated data for indigenous peoples for Indicators 18-20
Target 8. Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases	21a. Malaria prevalence, notified cases per 100,000 population 21b. Malaria death rate per 100,000, ages 0-4 22a. Proportion of population in malaria-risk areas using effective malaria prevention measures [c] 22b. Proportion of population in malaria-risk areas using effective	• Disaggregated data for indigenous peoples for Indicators 21-24 Need to generate data for diseases or health issues which are significantly affecting indigenous peoples especially those in highly industrialized countries.

	malaria prevention measures [c] 22b. Proportion of population in malaria-risk areas using effective malaria treatment measures 23a. Tuberculosis incidence rates 23b. Tuberculosis prevalence rate per 100,000 population 23c. Death rate associated with tuberculosis per 100,000 population 24a. Proportion of tuberculosis cases detected under DOTS (internationally recommended TB control strategy) 24b. Proportion of tuberculosis cases successfully treated under DOTS (internationally recommended TB control strategy)	• *Diabetes prevalence* • *Alcoholism prevalence* • *Suicide rates*
Goal 7. Ensure environmental sustainability		
Target 9. Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources	25. Proportion of land area covered by forest 26. Ratio of area protected to maintain biological diversity to surface area 27. Energy use (kg oil equivalent) per $1 GDP (PPP) 28b. Consumption of ozone-depleting CFCs (ODP tons) 29. Proportion of population using solid fuels	• Number of parties with national legislation, policies and measures to protect traditional knowledge, recognize land rights and customary sustainable use • Coverage of protected areas and sacred sites governed and managed by indigenous and local communities and/or in partnership with relevant protected area authorities (and NGOs) • Number of native species lost or extinct and new invasive species encroaching on biodiversity, ecosystems and traditional territories • Status and threats to traditional seeds, plant foods, food animals, as well as cultural practices associated with their protection and survival (link to Target 2) • Proportion of intact traditional subsistence lands, resources and habitats vs contaminated or degraded lands and products (link to Target 2) • Status and trends of endangered flora and fauna used for traditional subsistence (link to Target 2)

Target 10. Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic santitation	30a. Proportion of population with sustainable access to an improved water source, urban 30b. Proportion of population with sustainable access to an improved water source, rural 31a. Proportion of population with access to improved sanitation, urban 31b. Proportion of population with access to improved sanitation, rural	• Disaggregated data for indigenous peoples for Indicators 30-32 • Water: access, distance, sufficiency, quality • Sanitation: hygiene, proximity, quality • *Prevalence of water-borne diseases?*
Target 11. By 2020, to have achieved a significant improvement in the lives of at least 100 million slum dwellers	32. Proportion of households with access to secure tenure	
Goal 8. Develop a global partnership for development		
Target 12. Develop further an open, rule-based predictable, non-discriminatory trading and financial system Includes a commitment to good governance, development and poverty reduction – both nationally and internationally	Some of the indicators listed below are monitored separately for the least developed countries (LDCs), Africa, landlocked developing countries and small island developing States.	Indicators here would be measuring indigenous peoples' participation in national and international trading and financial systems or the effects of export oriented agricultural activities or extractive industries (i.e., mineral, oil, gas extraction and logging) in terms of alleviating or exacerbating poverty amongst indigenous peoples.
Target 13. Address the special needs of the least developed countries Includes: tariff and quota free access for the least developed countries' exports; enhanced programme of debt relief for heavily indebted poor countries (HIPC) and cancellation of official bilateral debt; and more generous ODA for countries committed to poverty reduction	Official development assistance (ODA) 33a. ODA, net, as a percentage of OECD/DAC donors'GNI 33b. ODA to LDCs, net, as a percentage of OECD/DAC donors' gross national income 34. Proportion of total ODA to basic social services 35. Proportion of bilateral official development assistance of OECD/DAC donors that is untied 36. ODA received in landlocked developing countries as a proportion of their gross national income 37. ODA received in small island developing States as a proportion of their gross national incomes	Official development assistance (ODA) • *Proportion of ODA going to indigenous peoples, compared with their proportion in the population?* • Types of projects funded by ODA (i.e., dams, highways, policy reform, etc) and how indigenous peoples are affected by these. • Indicators 34-37 can be disaggregated for indigenous peoples

Target 14. Address the special needs of landlocked developing countries and small island developing States (through the Programme of Action for the Sustainable Development of Small Island Developing States and the outcome of the twenty-second special session of the General Assembly)	Market access 38. Proportion of total developed country imports (by value and excluding arms) from developing countries and least developed countries, admitted free of duty 39. Average tariffs imposed by developed countries on agricultural products and clothing from developing countries 40. Agricultural support estimate for OECD countries as a percentage of their gross domestic product 41. Proportion of ODA provided to help build trade capacity	Market access • Inclusion of hunting and gathering practices in modern economic systems (economic pluralism) • Indicators of access to export markets? • Indicators of access to economic opportunities?
Target 15. Deal comprehensively with the debt problems of developing countries through national and international measures in order to make debt sustainable in the long term	Debt sustainability 42. Total number of countries that have reached their HIPC decision points and number that have reached their HIPC completion points (cumulative) 43. Debt relief committed under HIPC Initiative 44. Debt service as a proportion of exports of goods and services	Debt sustainability • Need to look into how the debt issue has led to further exploitation of indigenous lands, territories and natural resources • #43 – If debt relief has been obtained due to HIPC Initiative to see whether indigenous peoples benefited from this • #44 – disaggregate this for indigenous peoples
Target 16. In cooperation with developing countries, develop and implement strategies for decent and productive work for youth	45. Unemployment rate of young people aged 15-24 years, each sex and total	• Disaggregate for indigenous peoples for Indicator 45 (Youth unemployment not mentioned specifically as an issue, but likely to affect outmigration rates)
Target 17. In cooperation with pharmaceutical companies, provide access to affordable essential drugs in developing countries	46. Proportion of population with access to affordable essential drugs on a sustainable basis	• Disaggregate for indigenous peoples for Indicator 46
Target 18. In cooperation with the private sector, make available the benefits of new technologies, especially information and communications	47a. Telephone lines per 100 population 47b. Cellular subscribers per 100 population 48a. Personal computers in use per 100 population 48b. Internet users per 100 population	• Disaggregate for indigenous peoples for Indicators 47 and 48 (New technologies not mentioned specifically as an issue)

VII. Conclusions

41. The regional and thematic workshops identified the issues perceived by indigenous experts as central to indigenous peoples' well-being and sustainability. These lists of issues were synthesized and summarized into a global list of core themes and sub-core issues under which provisional indicators can be further developed and refined.

42. This step – of identifying issues and distilling from them the core themes defined by indigenous peoples as elements of well-being and sustainable development – fills a gap in current indicators work. The step addresses the broader structure and framework for developing information systems, statistics and census instruments for data collection on the situation and status of indigenous peoples. A narrow focus on identifying indicators is difficult without clarifying the broader policy framework and targets at the outset.

43. Indigenous peoples strongly support a human rights-based approach to indicators development which distinguishes structural, process and outcome indicators. Outcome indicators alone will not reveal the underlying structural and procedural changes needed for improved outcomes towards eradicating poverty and securing the well-being of indigenous peoples.

44. The Millennium Development Goals with defined indicators and targeted outcomes to halve extreme poverty by 2015 can be made more applicable for indigenous peoples if data is disaggregated to capture the real poverty situation of indigenous peoples. Additional indicators can also be identified but differentiated according to structural, procedural and outcome indicators relevant for indigenous peoples to monitor if the MDGs are being fulfilled for indigenous peoples.

45. Indicators relevant for indigenous peoples and the Strategic Plan and 2010 Biodiversity Target of Convention on Biological Diversity have been put forward by the International Expert Seminar on Indicators held in the Philippines in March 2007. These will be considered by the CBD's Working Group on Article 8j and Related Provisions in October 2007, and its recommendations considered by COP9 in May 2008. These indicators, if adopted, will begin to generate important data and information on the status and trends of traditional knowledge, innovations and practices and other related themes under the CBD.

46. Some countries have the information base and the possibilities for data disaggregation according to ethnic identity. In these countries, data collection and disaggregation of data, as well as pilot indicators projects focused on indigenous peoples' status, have started. But these are not many, and not sufficient to get a global view of the situation of indigenous peoples. These initiatives could be more widely implemented, and experiences and lessons shared, in order to improve and propose new indicators. These will pave the way for the build-up of baseline information and creation of monitoring systems

47. The development of suitable indicators for indigenous peoples' poverty and well-being will require further technical meetings among indigenous peoples and technical experts in indicators development and data collection.

48. Process of Indicators Development – It has been recognized that there will be a long way to go

before indicators relevant and appropriate for indigenous peoples can be fully developed. However, the work done so far provides a good foundation for future work. The following steps can be considered in the further refinement of indicators.

- Clarifying the policy objectives and targets – *strategic versus focused;*
- Consideration of frameworks – *Human rights-based approach;*
- Development of suitable indicators – *need for technical process;*
- Gathering of data – *pilot countries;*
- Improving and developing new indicators;
- Development of monitoring systems.

VIII. Recommendations

49. It is clear that the development of indicators on sustainability, well-being and poverty of indigenous peoples is still in its initial stage. The Permanent Forum should pursue this work and encourage States and UN bodies, agencies and funds to work on this jointly with indigenous peoples so that the results will be used by relevant bodies. This is a work in progress so there should be continuing discussions between the Inter-Agency Support Group (IASG) on Indigenous Issues and indigenous peoples' organizations (particularly the ones who played key roles in organizing and facilitating the different workshops) on how to proceed.
50. The Forum should request another grant from IFAD to pursue a second phase of the project which can support specific projects in the regions to test whether the indicators for the MDGs can be used so that the achievement of the MDGs for indigenous peoples can be measured more appropriately.
51. Several recommendations emerged from the regional and thematic workshops. This report will not include all of these. However, it will highlight the important ones which need immediate action and those which can be generically applied for all regions.
52. Since information and data-gathering needs to be done in the work of developing indicators, the second Latin America and Caribbean Workshop recommended the creation and adoption of a protocol to protect information coming from indigenous peoples. It also called for a follow-up workshop and further work on indicators for culture and communication.
53. The Asian Regional Workshop recommended that pilot studies be done in a few countries to test some of the indicators which have been evolved to see whether data-sets are available to generate these. If there are no data-sets available then this exercise will help in identifying steps to take towards the generation of disaggregated data on indigenous peoples. The countries identified as potential pilot areas are the Philippines and India: the Philippines because it has an Indigenous Peoples' Rights Act (IPRA) and India because data collection there is more sophisticated and many research institutes can be tapped to help. This workshop also recom-

mended the need to develop culturally-sensitive, objective and neutral survey questions and instruments.

54. The Asian Workshop also recommended for the development of an indigenous peoples' well-being index. This will be an aggregate of indicators which can measure the collective well-being of indigenous peoples. Aside from being an instrument for measurement it will also be a tool for advocacy and consciousness-raising.

55. The African regional workshop recommended use of the indicators by all relevant UN agencies, and for these agencies to recognize and include indigenous peoples' representatives in their monitoring work. The workshop also proposed the creation of an Africa-wide indigenous forum and indigenous parliamentary caucuses at national and regional levels. It called for a follow-up forum on African indigenous peoples' indicators to be held by November 2008.

56. It was recommended that the experiences in the developed countries, which have richer and longer experiences in indicator development and data-disaggregation on indigenous peoples, be shared with governments and with indigenous peoples in developing countries. This will enable the latter to benefit from the lessons learned and good practice developed in the earlier work.

57. The indicators generated for the CBD, if adopted, will begin to generate important data and information on the status and trends of traditional knowledge, innovations and practices and other related themes under the CBD, especially as these relate to indigenous peoples. The Permanent Forum, consistent with its earlier resolutions, should participate in the future activities of the CBD which are relevant to this. These include, among others, the Expert-Workshop on Access and Benefit Sharing of Genetic Resources, the Working Groups on Article 8 J and on Access and Benefit Sharing, and the eighth Conference of Parties of the CBD.

Endnotes

[1] See UN Document E/C.19/2004/2, Report of the the Workshop on Data Collection and Disaggregation for Indigenous Peoples, 10 February 2004.

[2] Tomei, Manuela (2005) *Indigenous and tribal peoples: An ethnic audit of selected Poverty Reduction Strategy Papers*, Geneva: International Labour Office.

[3] The key issues identified in the regional and thematic workshops are listed in page 63.

[4] See UN Doc. E/2005/43, Permanent Forum on Indigenous Issues: Report of the 4th Session (16-27 May 2005) p. 9.

Chapter 3

Key Issues for Indigenous Peoples Identified by Regional and Thematic Workshops

Regional workshops

Asia Regional Workshop – key issues

- Natural resource management and control
- Identity-related issues
- Millennium Development Goals
- Biodiversity
- Right to use traditional
- knowledge
- Right to express ideas and speak indigenous languages
- Right to land ownership
- Right to access natural resources
- Right to participate in decision-making processes
- Right to have access to infrastructure and basic services
- Indigenous knowledge systems and practices
- Land tenure and natural resources
- Universal basic human rights

Latin America and Caribbean Regional Workshop- Central themes defining well-being of indigenous peoples

- Land, territories and natural resources
- Natural and cultural collective heritage
- Forms of social organization
- Identity (collective and gender)
- Self-determination
- Models of autonomy and self-government
- Intercultural relations
- Degree or level of wellbeing

Africa Regional Workshop – Thematic areas and key issues

Thematic area	Key issues
Socio-cultural	• Inadequate health infrastructure, personnel, medicines, and health-care for humans/livestock • Increasing rates of HIV/AIDS • High mortality rates and declining life expectancy • Lack of animal health • Lack of social amenities
Education	• Curricula not relevant to social, economic and cultural needs • Lack of awareness of value of education • Lack of policy support and recognition • Lack of morale among staff • Lack of functional adult literacy
Cultural	• Lack of recognition of distinct identity/livelihood systems • Exploitation of cultures and of indigenous peoples • Gender disparity, violence against women • Loss of cultural identity, language, religion, governance systems and economic practices
Political-Legal	• Exclusion, discrimination, marginalization and misuse of indigenous peoples' political processes • Collective punishment • Negative perceptions/stereotypes of indigenous peoples' livelihoods • Lack of factual information/capacity • Conflict/insecurity • Lack of access to justice

Thematic area	Key issues
Economic	• Lack of security of tenure to land and natural resources • Lack of infrastructure • Lack of marketing facilities/mechanisms • Lack of benefit-sharing • Unemployment • Lack of proper control of access to indigenous peoples' lands, forests and natural resources • Lack of credit facilities/low income
Environment	• Loss of biodiversity • Harmful conservation policies • Poorly designed dams for hydro-electricity generation • Dumping of nuclear waste • Introduction of harmful and alien plant species in indigenous peoples' areas • Lack of consultation and participation in policy design and implementation • Militarization programs in areas occupied by indigenous peoples with attendant problems such as rape, landmines, etc.

Pacific

At the Expert Seminar, participants from the Pacific highlighted two key issues in particular:

- militarization;
- nuclear testing and waste dumping.

The issues listed below were identified at the Pacific Regional Workshop, although not specifically related to the need for indicators. The list is reproduced below to give an idea of issues of importance to the indigenous peoples of the region.

Important issues that could be raised at the UNPFII

Health

- Achieving the MDG on primary health care – health costs too expensive
- Local food related to health outcomes
- Traditional foods/medicines/practices
- Cannot afford western-style doctors but not using traditional doctors (as in Indonesia)

Education

- Traditional knowledge

Human rights

- Militarization (e. g., Fiji)

- Legislation on foreshore and seabed rights (e.g., New Zealand)
- Decolonization (West Papua and French Territories)
- Support for Declaration of the Rights of Indigenous Peoples

Environment

- Indigenous title to land and threat of mapping and foreign titles
- Legislation on foreshore and seabed rights (e.g., New Zealand)
- Decolonization of West Papua and French Territories
- Climate change – move to political territories and retain their political sovereignty rights
- Land rights and natural resources
- Promotion and studying traditional foods, medicines, and practices recognizing that an increased production and sustainable use of these species could significantly improve food security, environment, biodiversity, cultural preservation, and income generation
- ILO 169
- Mining and extractive industries

Economic and social

- Indigenous peoples' participation in small island developing states and integration of their issues and concerns into bilateral and multi-lateral trade negotiations and instruments as they relate to trade in goods, services, fisheries, investments, movement of labour and tourism

Culture

Arctic (Arctic Social Indicators Project) – Six domains

- Fate control and or the ability to guide one's own destiny
- Cultural integrity or belonging to a viable local culture
- Contact with nature or interacting closely with the natural world
- Education
- Demography/health
- Material well-being

Issues from case studies on customary sustainable use

- Recognition of customary use: laws, implementing laws?
- Application of the laws? Titling or custom recognition?
- Protection: are customary use areas being protected from threats to sustainable use (logging, mining, settlement, protected areas)?
- Capacity of government institutions to implement obligations: retraining evidence?
- Respect for peoples. Citizenship? Revised schooling to respect languages and cultures?
- Do people participate in natural resource management planning?
- Can people say no to impositions they disapprove of (FPIC)?
- Are customary or representative institutions recognized: legal personality?
- Is extent and range of customary use recognized: mapping?
- Who determines whether customary use is 'sustainable use', and how? What is being sustained?
- Management plans: an imposition or a double-edged sword?
- Indicators of respect for traditional beliefs?
- Risk of 'enforced primitivism'?

Cultural indicators for food security, food sovereignty and sustainable development

- Access to, security for and integrity of lands, territories and natural resources for traditional food production, harvesting and/or gathering
- Abundance, scarcity and/or threats to traditional seeds, plant foods and medicines, and food animals, as well as cultural practices associated with their protection and survival
- Consumption and preparation of traditional plant and animal foods and medicines, including in ceremonial/cultural use as well as daily household use
- Continued practice and use of ceremonies, dances, prayers, songs and stories and other cultural traditions related to the use of traditional foods and subsistence practices
- Preservation and continued use of language and traditional names for foods and processes (planting, hunting, gathering, harvesting, fishing, food preparation, etc.)
- Integrity of and access to sacred sites for ceremonial purposes related to use of traditional foods
- Migration and movement away from traditional lands as a result of rural-to-urban migration, conflict, forced relocation, land appropriation, climate change, and economic necessity; return patterns and relationships to continued use of traditional foods

(Continued next page)

- Effective consultations for planning, implementation and evaluation applying the principles of free, prior informed consent and full participation by community members when development programs are implemented by states, outside agencies or other entities and the extent to which cultural concerns are considered and addressed
- Existence and viability of mechanisms and institutions created by and accessible to indigenous peoples for transmission of food-related traditional knowledge and practices to future generations
- Capacity within indigenous communities and peoples for adaptability, resilience, resistance and/or restoration of traditional food use and production in response to changing economic, political and/or environmental conditions
- Ability of indigenous peoples to utilize and implement recognized rights, legal norms and standards as well as self-government structures to promote and defend their food sovereignty on the local/tribal/community, national and international levels

Chapter 4

Reports of Regional and Thematic Seminars

The reports presented here have been edited and abridged from official reports of the regional workshops on indicators relevant to indigenous peoples, for the purposes of this book. Some of the original reports are found at http://www.tebtebba.org.

1

Report of the Meeting on Indigenous Peoples and Indicators of Well-Being

This is a report of the Technical Workshop on Indigenous Peoples and Indicators of Well-Being held in Ottawa, 22-23 March 2006. Annexes I (list of participants) and II (workshop program) of the original report have been omitted for reasons of space.

Summary

The Technical Workshop on Indigenous Peoples and Indicators of Well-Being was convened pursuant to recommendations of the Permanent Forum on Indigenous Issues at its Third and Fourth Sessions. It is the first in a series of four workshops on the subject.

The Workshop was attended by 11 experts from Canada, New Zealand, Australia, the USA, and the Russian Federation, and several observers from indigenous peoples' organizations, provincial governments and universities of Canada.

In its conclusions and recommendations, the experts identified a preliminary list of core themes, sub-themes and indicators of indigenous peoples' well-being.

Introduction

1. The UN system and a significant number of its Member States are currently gearing their programming at the national level for the achievement of the eight Millennium Development Goals (MDGs), 18 targets and 48 indicators. The formulation of the Goals and the targets and indicators, however, did not include

the participation of or consultation with indigenous peoples. They have, therefore, not captured many criteria that are essential for the well-being of indigenous peoples. In order to address these issues, the UN Permanent Forum on Indigenous Issues has identified a number of strategies and policy outcomes. At its Fourth Session in 2005, the Permanent Forum stated that "…Poverty indicators based on indigenous peoples' own perception of their situation and experiences should be developed jointly with indigenous peoples".[1] The Forum also recommended that the Food and Agriculture Organization (FAO) and the Sustainable Agricultural and Rural Development Initiative work further on the development of cultural indicators for identifying priorities, criteria and methodologies for the right to food and food security.

2. Data collection and disaggregation has been identified as a major methodological issue in the course of various sessions of the Permanent Forum. It was explored in some detail at a workshop of the Permanent Forum on Data Collection and Disaggregation for Indigenous Peoples in January 2004.[2] The workshop recommended that the UN system use and further refine existing indicators such as the common country assessment indicators, the MDG indicators, country progress reports, other global monitoring instruments and the human development indices to measure the situation of indigenous peoples.

3. At its Third Session, the Permanent Forum recommended to the UN Development Group "that the indicators of the Millennium Development Goals be assessed and that additional indicators be identified to give fuller assessment of environmental sustainability".

4. The UN system, through the Inter-Agency Support Group on Indigenous Issues, has undertaken a review of existing indicators that may directly or indirectly concern or relate to indigenous peoples. The results of the review will be presented at the Fifth Session of the Permanent Forum, in May 2006. In order to assist in this effort, the Secretariat of the Permanent Forum is organizing a series of meetings to bring together experts on indigenous indicators to build on the challenges, gaps, and existing work on global and regional indicators across the mandated areas of the Permanent Forum on health, human rights, economic and social development, environment, education, and culture. The Ottawa workshop focused on indigenous peoples in developed countries and the results of this process will be presented to the Fifth Session of the Permanent Forum. The workshop took place on 22 and 23 March 2006 within the framework of the Aboriginal Policy Research Conference. It was co-sponsored by the Canadian Government. Mr Wilton Littlechild, Member of the Permanent Forum on Indigenous Issues, was the Chairperson and Ms Valerie Gideon, Director of First Nations Health at the Assembly of First Nations, was the Rapporteur.

I. Workshop objectives

6. The objectives of the workshop were specified as follows:
   A. Identify gaps in existing indicators at the global, regional and national levels that assess the situation of indigenous peoples and impact policy making, governance, and program devel-

opment, including from a gender perspective.

B. Examine work being done to improve indicators so that they take into account indigenous peoples and their concerns and assess them according to qualitative and quantitative criteria, including a gender perspective.

C. Examine linkages between quantitative and qualitative indicators, particularly indicators that look at processes affecting indigenous peoples

D. Propose the formulation of core global and regional indicators that address the specific concerns and situations of indigenous peoples, including indigenous women and can also be used by international financial institutions, the UN system and other intergovernmental organizations, including regional ones.

II. Highlights of the discussion

7. Experts noted the ambitious nature of the proposed objectives and underlined the importance of ongoing support from the UN system to ensure that further review of existing initiatives and refinement of workshop outcomes could be undertaken. The audience, purpose and scale (local, regional, national or global) of the indicators to be recommended by experts were discussed.

8. It was further acknowledged that several challenges to the development of indicators of indigenous peoples' well-being are closely connected to challenges involved in data collection, analysis, interpretation and dissemination of indigenous peoples' data, information and research. Recommendations emerging from the workshop of January 2004 organized by the Permanent Forum on Data Collection and Disaggregation for Indigenous Peoples[3] were cited as a basis for addressing those related issues.

A. Core themes and issues

Process of Measurement

9. Several challenges relating to measuring indigenous peoples' well-being were noted at the outset of the discussion. These include: varying methodologies for identifying indigenous peoples, distinctions between qualitative and quantitative methodologies, the need to respect indigenous peoples' intellectual property rights and the free, prior and informed consent of indigenous peoples, the need to support culturally relevant standards of measurement, and cultural prohibitions that exist among indigenous peoples pertaining to sharing of their data.

10. While statistical agencies that support national data collection systems within developed countries house large amounts of data, real gaps exist when it comes to data needed specifically for indigenous peoples to meet their aspirations. Experts questioned how to bridge the gap between

state governments' and indigenous peoples' worldviews concerning indicators development, referred to by one expert as "jagged worldviews colliding". It was stated that the workshop is seeking a space between statistical reporting requirements of governments and representation of indigenous peoples' perceptions and understanding of well-being. What are the indicators that intersect between these two interests? Not everything relating to indicators development undertaken by state governments is relevant to indigenous peoples and not everything that indigenous peoples perceive can be measured. However, experts agreed that the workshop could not be limited to solely measuring intersections between non-indigenous and indigenous perspectives.

11. Statistical departments of states should consider evolving their role from a collector of information, to one of facilitator and supporter for indigenous peoples' collection of their own information. It was further stressed that indigenous peoples must generate their own data, since data driven centrally by state policy development consistently raise issues of trust among the indigenous population.
12. A general limitation of the dominant research paradigm to questions/answers versus a process of teaching and learning (listening) was thought to limit the value of research outcomes for indigenous peoples. Indigenous interpretation/translation of research prior to final documentation was viewed as a critical requirement for maintaining the integrity of indigenous peoples' perceptions and understandings in the research process.

Discussion on core themes

13. There was some discussion regarding how gender perspectives should be considered within the development of indigenous peoples' indicators of well-being. It was noted that the UN Permanent Forum has identified gender and children as cross-cutting issues. However, some workshop participants expressed preference for identifying gender as a separate core theme, proposing also a specific indicator of violence against indigenous women. There was a request to broaden the designation of children as a cross-cutting issue to include the entire lifespan of indigenous peoples, highlighting the value placed on community Elders in many indigenous communities.
14. Experts described the need for the proposed core theme of indigenous peoples' political participation to go beyond measuring token processes of consultation. The full integrity of the meaning of partnership was suggested as a more meaningful standard for measuring indigenous peoples' political involvement. It was suggested that this standard would also aim to capture measurement of reciprocal, shared and/or mutual accountability between states and indigenous peoples.
15. The role of data in this context would be to ensure that states are meeting their constitutional and legal responsibilities towards indigenous peoples. This approach to indicators resonates with international standards and the human rights principle of progressive realization of economic, social and cultural rights. Concern was expressed that states may focus on development of indicators, but lose their focus on interventions required for progress on targets tied to indicators. Indicators development should ultimately result in benefits to indigenous peoples by informing linkages between program outputs to outcomes.
16. The concept of social capital was also explored as a means of describing varying levels of politi-

cal participation in which indigenous peoples can be engaged, including relationships within indigenous communities, among indigenous communities and outside of indigenous communities. However, it was also noted that the term of social capital has been viewed as not being culturally appropriate and that social capacity was preferred terminology.

17. Experts agreed that indicators must place significant emphasis on indigenous peoples' inherent values, traditions, languages, and traditional orders/systems, including laws, governance, lands, economies etc. This must include recognition of the value of indigenous work (e.g., "making a living" versus "having a job"). Indicators development should reflect true indigenous perspectives such as portraying approaches grounded in wholism and unique values.
18. It was also suggested that indicators focus on the intermarriage/interplay between indigenous and non-indigenous systems (social, political and economic, colonization, industrialization) that result in a series of impacts, such as racism and discrimination, migration to urban centres, youth suicide and disconnection to land and culture.
19. Indicators that demonstrate inequities and inadequacies in state funding attributed to indigenous peoples' programming and services were proposed. Fiscal data can be illuminating by linking funding levels to mandated areas of state government responsibility, assessing their accountability and projecting demand and other impacts into the future. It was admitted that some states may be reluctant to share fiscal information. It was further specified that indigenous peoples must be involved in the interpretation of fiscal data to ensure there is no negative impact on indigenous peoples' well-being.
20. Experts discussed aligning indigenous-specific indicators of development with the framework of the Millennium Development Goals. They also made the following, more specific observations on the initial list of core themes provided:
    - Traditional knowledge and practices should be separated from indigenous governance.
    - Free, prior and informed consent and self-determination are primary considerations.
    - Identification and removal of legislative barriers in pursuit of indigenous peoples aspirations should be captured, as well as the reaffirmation of indigenous peoples' own laws and legal frameworks.
    - Identity is an important aspect of indigenous peoples' well-being that is particularly difficult to measure.
    - A broader view of ownership, access, use and permanent sovereignty over land, sea, and water rights, environmental management and land quality, should be in place.
    - Health for communities and health for ecosystems should be highlighted.
    - There should be a balance of comparative indicators to assess well-being among non-indigenous and indigenous peoples, and indigenous-specific indicators based on indigenous peoples' visions and understandings of well-being.
    - Issues of scale should be addressed when proposing indicators, including at the international, regional and national levels.

Future work

21. It was suggested that pilot projects and cases studies could highlight current data situations and explore different approaches to indigenous peoples' well-being indicators development. Varied data collection methodologies, both qualitative and quantitative, should be considered. Case studies may provide a unique means of measuring indigenous concepts that are difficult to measure through more conventional means, such as positive impacts of indigenous self-governance and self-management of lands and resources.

B. General overview of indigenous indicators development: Current initiatives and issues

22. Presentations by experts revealed that the development of indigenous indicators must involve extensive dialogue with indigenous peoples and communities. As well, indicators development must be part of a broader approach to describing an indigenous view of well-being. All experts reinforced the importance of measuring the positive contributions made by self-government and self-management of lands and resources. Experts further recognized that the general approach of states to the development of indicators and measurement is a deficit model to indigenous socio-economic needs and development and, consequently, does not inform a community development or governance model.
23. Within industrialized nations, the current capacity gap between state governments and indigenous community capacity in indicators development and overall statistics, may widen as technology and research methodologies become more sophisticated and as the skills required for access to data, become more specialized. Purchasing power for data is also expected to fuel inequities.
24. Notwithstanding, experts brought forward examples of collaborative action among states and indigenous organizations. The Centre for Aboriginal Economic Policy Research of Australia outlined a "recognition space" for indicators of indigenous well-being made up of two intersecting circles of indigenous culture and government reporting frameworks.
25. Some experts recognized the collaborative efforts undertaken by the Canadian provincial governments and indigenous peoples' organizations in developing a set of guiding principles to identify and formulate indicators as a preliminary and illustrative effort towards improving governments' transparency and accountability to indigenous peoples, i.e., towards building a "recognition space". Key among these guiding principles are: respecting distinctions among indigenous peoples to illustrate diversity; comparability with the general Canadian population; developing culturally appropriate indicators; promoting institutional capacity; being outcomes-focused; highlighting reciprocal accountability; and, other principles relating to practical considerations. An expert presented on how First Nations of Canada specified their input into this collaborative effort, rooted in a Wholistic Policy and Planning Model with a list of health determinants and associated indicators.

26. A similar initiative was described by the Maori Statistics Unit of New Zealand, whereby, the state government is engaging Maori in identifying their needs for statistics and elaborating a framework that meets such needs. The goal of the framework is Maori well-being. Development is the process to reach this goal and Statistics New Zealand foresees its role as a facilitator of indigenous peoples in developing their own statistical frameworks and data. Capacity building of Maori statistical capacity through pilot community projects was seen as a key element for success. It was understood that a range of external and internal factors come into play and continue to evolve in this attempt. Government departments have their own statistical, policy and legislative frameworks which stifle progress.

27. At the international level, ongoing work of the Food and Agriculture Organization (FAO) in developing global indicators for indigenous peoples' food security and sovereignty was described. Global food security policy has three pillars: economic, social and environmental. There is a notable absence of a cultural pillar. The profound relationship between indigenous nations' identity and traditional culture as these relate to food, lands and resources was also highlighted. The challenge of conveying this relationship in a cultural indicator that will support indigenous peoples was recognized. Extensive input has been sought by more than 165 indigenous organizations and individuals. A series of reasonable benchmarks within a global approach are proposed.[4]

28. Experts shared findings derived from indigenous-specific projects aimed at describing indigenous well-being. The Institute of Northern Indigenous Peoples of the Russian Federation Republic Sakha (Yakutia) indicated that their findings showed well-being was most closely tied to the relationship to lands and traditional practices. For this reason, measurement of the negative impact of industrialization and climate change was seen as a priority for indigenous indicators development. The concept of *Te Pae Tawhiti* expressing Maori aspirations of well-being was also presented and possible core themes were also suggested according to *Te Pae Tawhiti*. This concept is fundamental to the building of Maori capacity to participate in research and specialized services and according to *Te Pae Tawhiti*.

C. Synthesis of core themes

29. While there was general agreement that international and national standards of measurement could be looked to, and adapted in, the development of indicators of indigenous well-being, it was also agreed that indigenous-specific indicators must also be identified. For instance, an observation was made that the Millennium Development Goals do not reflect the relationship to the land. In recognizing that indigenous peoples exercise prominent influence in reviewing UN terminology to take into account their worldview (e.g., sustainable development versus economic development), experts agreed that there is a definite need to develop measures of those issues that indigenous peoples wish to table in public discourse to demonstrate their worldviews. Caution was also expressed that indicators tied to traditional concepts must be applied with utmost respect for the diversity of indigenous peoples.

30. There was a general appreciation of the need to present core themes as simply as possible with a view towards inviting UN organizations to involve indigenous peoples in the development of a more refined list of indicators and associated research initiatives.

III. Recommendations

31. Two main core themes were recommended for grouping indicators:

    A. Identity, Land and Ways of Living;

    B. Indigenous Rights to, and Perspectives on, Development.

    Within each core theme, a list of sub-themes and preliminary indicators was proposed, as outlined in the following table.

32. It was acknowledged by the experts that basic demographic data would be required as the basis for the list of indicators suggested. Demographics would include: population size, age, gender, and location of residence.

Core theme	Sub-theme(s)	Examples of indicators
Identity, Land and Ways of Living	Maintenance and development of traditional knowledge, traditional cultural expressions and practices	
	Use and intergenerational transmission of indigenous languages Support of, and access to, bilingual, mother tongue, and culturally appropriate education	– Percent of indigenous peoples who recognize their indigenous language as their mother tongue – Percent of fluent indigenous language speakers in indigenous communities – Percent of children learning indigenous languages – Number of programs to transmit/learn indigenous languages/culture – Use of indigenous languages in state documents – Use of indigenous languages in the media
	Ownership, access, use, permanent sovereignty of lands, territories, natural resources, waters	– Percent of indigenous peoples' owned lands – Percent of indigenous community members who participate and are employed in traditional and subsistence activities – Percent of indigenous peoples who participate in modern/non-traditional economic activities – Percent of indigenous community economy generated through traditional subsistence activities – Other indicators for food security and sovereignty (see list provided by the International Indian Treaty Council)

Core theme	Sub-theme(s)	Examples of indicators
	Health of communities	– Community safety • Number of preventive programs to reduce violence against indigenous women and families in indigenous communities and percentage of these led by indigenous peoples • State of violence against indigenous women and in indigenous families (reports filed) • Number of crimes and level of criminality in the areas where indigenous peoples live vs in areas where there are mixed populations • Rate of incarceration of indigenous peoples vs general population • Rate of youth suicide among indigenous peoples versus general population – Community vitality • Physical health ▪ Life expectancy (compared to general population as well as increases/decreases) ▪ Infant mortality rates ▪ Diabetes rates ▪ Alcoholism and substance abuse rates ▪ Non-intentional injuries (reports) • Number of programs for maintaining health • Access to health care ▪ Number of hospitals, smaller health centers/clinics, availability of doctors, health care providers, and medication – Support for safe and culturally appropriate infrastructure • Quality and occupancy rate of shelter • Proportion of safe drinking water relative to supply and wastewater and sanitation systems and level of water-borne diseases in indigenous communities

Core theme	Sub-theme(s)	Examples of indicators
	Health of ecosystems	– Biodiversity • Number of endangered flora and fauna linked to indigenous peoples' current and future subsistence needs, and dependence based upon ceremonial and cultural practices • Number of fish, animals and other life-forms that can be sustainable, hunted, fished and gathered on lands and territories • Documentation of climate change, contaminate levels, habitat destructions affecting viability of subsistence resources and protection of traditional habitat – Indigenous peoples' inclusion, participation and employment in ecosystem management – Number of preventive programs, regulations, ordinances and measures (tribal and non-tribal) protecting ecosystems in indigenous lands from mineral extraction and non-sustainable activities – Number of environmental protection violations and reports of conservation damage within and near indigenous lands and territories – Rates of and number of reports of toxic contamination and industrial damage to the aquatic ecosystem that affect indigenous peoples consumption of fish, shellfish, aquatic plants – Rates of suppression effects whereby an ecosystem and the fish, wildlife or plant life it supports are contaminated or destroyed beyond the ability of indigenous peoples to consume or practise their cultural, subsistence and ceremonial use – Existence of legal frameworks for indigenous veto over the use of indigenous lands
Demographics	Patterns of migration	– Percent of indigenous peoples living in urban areas – Net migration rate from indigenous lands over time and rate of return
Indigenous Rights to, and Perspectives on, Development	Indigenous governance and management systems	– Recognition of indigenous governance and laws by state governments – Support for indigenous capacity, leadership, policy and program development by state and indigenous governance, including number of programs and persons participating in and completing trainings

Core theme	Sub-theme(s)	Examples of indicators
	Free, prior, informed consent, full participation and self-determination in all matters affecting indigenous peoples' well-being	– Recognition of the existence and rights of indigenous peoples in state laws – Number and effectiveness of consultations implementing free, prior and informed consent with indigenous community members and representatives – Percent of indigenous peoples' participation in state civil service, state elections and parliaments – Degree of state governments' accountability to indigenous peoples on the extent to which they are meeting their legal obligations and responsibilities (case studies and/or court decisions)
	Degree of implementation/compliance with international standards and agreements relating to indigenous peoples' rights: nation-to-nation treaties between states and indigenous peoples, ILO 169, UN Draft Declaration on the Rights of Indigenous Peoples, and relevant UN human rights and other instruments; recommendations by relevant international monitoring bodies	– Number of complaints filed by indigenous peoples – Number of nation-to-nation agreements between state governments and indigenous peoples
	Government funding for indigenous peoples' programs and services	– Government expenditures relative to need for indigenous peoples' programs and services, and relative to percentage of population – Existence, and extent of, economic burden of remedial actions for disadvantaged indigenous peoples (case studies) – Existence of targeted budgetary, legal and policy measures implemented by state governments to address discrimination

33. The United Nations should identify and adopt appropriate indicators of indigenous identity, lands, ways of living, and indigenous rights to, and perspectives on, development and well-being. The development of indicators of indigenous peoples' well-being should impact performance measurement and monitoring by the UN system, as well as its member states, intergovernmental organizations and other development institutions.
34. The United Nations should consider the above list of core themes, sub-themes and examples of indicators as a basis for further consideration, development and analysis of indicators on and *for* indigenous peoples' well-being. More exact indicators need to be developed in a measurable form, with full participation by indigenous peoples from all regions.
35. The United Nations system and states should recognize that indigenous peoples will define their own understandings and visions of well-being from which indicators will be identified, and include the full participation of indigenous peoples in the development of these indicators.
36. Varied methods of data collection should be supported, some undertaken by states and others by indigenous peoples. Qualitative approaches, such as case studies and interviews with community members, should be explored to measure complex issues of significance to indigenous perspectives on development and well-being, including indigenous governance, the impacts of financial debt on indigenous communities, and "opportunity costs" (the cost of state government inaction projected into the future).
37. Within this process of measurement, recommendations from the January 2004 Permanent Forum Workshop on Data Collection and Disaggregation for Indigenous Peoples[5] should be addressed. These recommendations include a strong emphasis on the need to respect indigenous peoples' intellectual property rights, cultural perspectives and practices, self-determination as applied to data collection and assessment, information and research, and indigenous peoples' capacity development and building of sustainable institutions.

Annex

Framework and Summary of Key Issues for the Development of Cultural Indicators for Food Security, Food Sovereignty and Sustainable Development, in Preparation for the 2nd Global Consultation on the Right to Food and Food Security for Indigenous Peoples[6]

Based on the previous survey and other subsequent discussions, there are several categories for which development of measurable benchmarks or indicators may be possible. These include:

1) access to and integrity of traditional lands, waters and habitat used for food production, harvesting and/or gathering (including forests, fisheries, farmland, pasture and grazing lands, and waters);

2) abundance, scarcity and/or threats to traditional seeds, plant medicines, and food animals;

3) decrease or increase of consumption and preparation of traditional plant and animal foods and medicines, including in ceremonial/cultural use as well as daily household use; extent or percent of traditional foods still used as compared to introduced foods and seeds (including GMO's and other new varieties) and measurement of changes (increases or decreases) over time;

4) extent of continued practice or use of ceremonies, dances, prayers, songs and other oral traditions related to the use of traditional foods and subsistence practices;

5) preservation and continued use of language, songs, stories and ceremonies, traditional names for foods and processes (planting, hunting, gathering, harvesting, preparation, etc.), rates of increase or decrease, and factors affecting/impacting these practices.

6) integrity of and access to sacred sites for ceremonial purposes related to use of traditional food sources

7) rate of rural-to-urban migration and possible return-migration patterns; relationship to continued use of traditional foods

8) number and effectiveness of consultations for planning, implementation and evaluation, applying the principle of Free, Prior Informed Consent, with community members and representatives when development programs are implemented by states, outside agencies or other entities and the extent to which cultural concerns are considered and addressed.

Endnotes

[1] Paragraph 15, Report of the UN Permanent Forum on Indigenous Issues on its Fourth Session, E/C.19/2005/9.

[2] www.un.org/esa/socdev/unpfii/news/news_workshop_doc.htm.

[3] www.un.org/esa/socdev/unpfii/en/workshops.html.

[4] Framework and Summary of Key Issues for the Development of Cultural Indicators for Food Security and Sustainable Development, in Preparation for the 2nd Global Consultation on the Right to Food and Food Security for Indigenous Peoples. Background paper submitted to the Meeting by the International Indian Treaty Council.

[5] www.un.org/esa/socdev/unpfii/news/news_workshop_doc.htm.

[6] Submitted by International Indian Treaty Council.

2

Latin American and Caribbean Regional Expert Meeting on Indicators of Well-being and Indigenous Peoples

Summary

The expert meeting on Indicators of Well-being and Indigenous Peoples of Latin America and the Caribbean was convened by recommendation of the Permanent Forum on Indigenous Issues in the United Nations in its 3rd, 4th, and 5th sessions. It was the second in a series of four meetings on this topic.

Thirty experts from Brazil, Ecuador, Peru, Panama, Guatemala, Belize, Mexico, and Nicaragua, and various observers from indigenous organizations, municipal governments, autonomous regions, universities, and agencies of the United Nations system, participated in the meeting.

In the conclusions and recommendations, the experts identified a preliminary list of central themes, sub-themes, and structural, process, and results indicators that are derived from the recognition and exercise of collective human rights and are in keeping with the vision of well-being of Indigenous Peoples.

This meeting was convened on the recommendation of the UN Permanent Forum on Indigenous Issues. It was held at Bilwi, Puerto Cabezas, in the North Atlantic Autonomous Region of Nicaragua on September 4-6, 2006. The organizers were the Centre for Indigenous Peoples' Autonomy and Development (CADPI) and the Autonomous Regional Council of the North Atlantic (RAAN).

Introduction

1. The UN system and a significant number of its member states are currently gearing their programming, particularly at the na-

tional level, for the achievement of the eight Millennium Development Goals (MDGs), their 18 targets and 48 indicators. The formulation of these targets and indicators, however, did not include the participation of or consultation with Indigenous Peoples, thus resulting in a situation where the goals and their indicators have not captured the situational specificity of Indigenous Peoples. They have also not captured criteria that are essential for the well-being of Indigenous Peoples and the related protection of their lands, territories, resources, and traditional knowledge, as well as their own aspirations and perceptions of development.

2. In order to address these issues, the UN Permanent Forum on Indigenous Issues has identified a number of strategies and priorities. In its Fourth Session held in 2005, the Permanent Forum recommended that steps should be taken to "assure and support the full participation of Indigenous Peoples as equal partners in all stages of data collection, including planning, implementation, analysis and dissemination, access and return, with the appropriate resourcing and capacity-building for achieving this objective. Data collection must respond to the priorities and aims of the indigenous communities themselves."[1] The Permanent Forum further elaborated the necessity of disaggregating data, and stated, "Governments, the United Nations system and other intergovernmental organizations should within the context of the 2005 Millennium Development Goals review and beyond, develop disaggregated data and information on Indigenous Peoples, in partnership with Indigenous Peoples."[2]
3. The meeting in Bilwi was a follow-up to the recent meeting on Indigenous Peoples and Indicators of Well-being, which took place March 21-23, 2006 in Ottawa, and was the second in a series of regional meetings to be held on the topic of indicators. The Secretariat of the Permanent Forum received financial support from the International Fund for Agricultural Development to coordinate the regional meetings in Asia, Africa, and Latin America and the Caribbean, with the objective of bringing together experts to develop indicators of indigenous well-being. The results will be presented as a global synthesis in the Sixth Session of the Permanent Forum in May 2007, and will be promoted for incorporation in the work of the United Nations system, member states, financial institutions, and international development on the theme of Indigenous Peoples.
4. In this context, the UN Permanent Forum on Indigenous Issues recommended that the Food and Agriculture Organization and the Initiative on Sustainable Agriculture and Rural Development work on the development of cultural indicators to identify priorities, criteria, and methodologies for the rights to food and food security. As an integral part of future work in this area, we welcome global initiatives such as the Second Global Consultation on the Right to Food, Food Security, and Food Sovereignty for Indigenous Peoples, as well as upcoming meetings of the International Indigenous Forum on Biodiversity.
5. The meeting took place September 4-6, 2006 and was organized by the Centre for Indigenous Peoples' Autonomy and Development (CADPI), in Bilwi, Puerto Cabezas, North Atlantic Autonomous Region, Nicaragua. The Chairperson was Ms Otilia Lux de Coti, Vice President of the Permanent Forum on Indigenous Issues. The Rapporteur was Mr Centuriano Knight, Secretary of the Board of Directors of the Regional Council of the North Atlantic Autonomous Region.

I. Objectives of the meeting

6. The objectives of the meeting were the following:
   a) Identify gaps in existing indicators at the global, regional and national levels that assess the situation of Indigenous Peoples and impact policy making, governance, and program development, including a gender perspective.
   b) Examine the work being done to improve existing indicators so that they take into account Indigenous Peoples and their concerns based on qualitative and quantitative criteria, including a gender perspective.
   c) Examine linkages between quantitative and qualitative indicators, particularly indicators that look at processes affecting Indigenous Peoples.
   d) Propose the formulation of global and regional indicators that take into account the specific concerns and situations of Indigenous Peoples, and can be used by international financial institutions, the UN system, and other intergovernmental organizations, including regional ones.

II. Relevant aspects of the discussion

Central themes

7. The expert participants in the meeting identified the fact that Indigenous Peoples are invisible in existing information produced in the region as a challenge, but one which will change over time as indicators that measure well-being of their people develop, assuring the full and effective participation of those peoples in that process. They consider the initiative on this topic of the Permanent Forum important, and support the recommendations that were made in this respect.
8. They raised the issue that the approach of the indicators should have the full recognition and exercise of the Individual and Collective Rights of Indigenous Peoples as a point of departure, acknowledging those rights as being universal, indivisible, interdependent, inalienable, and inherent. They also considered the special relationship that Indigenous Peoples have with Mother Earth, generating a situation of interrelation, in which collective and individual rights support one another and are interdependent; therefore, to establish indicators should not lose sight of the essential fact that Indigenous Peoples are an integral part of Mother Earth. Accordingly, they consider the UN Declaration on the Rights of Indigenous Peoples as the conceptual framework and the human rights instrument that will be used as a reference.

The concept of well-being and Indigenous Peoples

9. Throughout the discussion the participants analyzed the concept of well-being from the point of view of Indigenous Peoples, and considered that it is closely linked to the full recognition and exercise of the collective rights of Indigenous Peoples. In this sense, they considered that it is related to spiritual health (existence in an environment of harmony, without tensions and noise), access to education, land and territory, and to the resources that exist there, as well as the equitable and just distribution of and compensation for the benefits generated from the use of their collective birthright.
10. Participants asserted that among Indigenous Peoples there will be well-being if there is access, cultural relevance, respect, opportunities, and cultural freedom to improve the quality of life of children, youth, women, men, and elders, as well as access to the use and enjoyment of information that they generate, for which skills and knowledge and must be developed.
11. For the well-being of indigenous women, participants put forward preventing all forms of physical and structural violence, making available sufficient land and production, with nourishment and education for the family, and the enjoyment of respect and dignity.

Criteria for the development of indicators from the perspective of Indigenous Peoples

12. The group assessed that indicators based on the world view of Indigenous Peoples should be created using collective rights as a starting point, and should serve to measure achievement in two fundamental areas: a) the degree of recognition of collective rights; and b) the degree of the exercise of collective rights.
13. They indicated that it is important to avoid the confusion between indicators and ethnic markers, distinguishing them from culturally adequate or culturally relevant indicators, which require the ability to identify certain traits that belong to the culture of a particular people. However, they recommended the usefulness of transcending a cultural approach to one in which indicators are based on the collective human rights of Indigenous Peoples. The experts also asserted that in addition to the individual and family dimensions, the communal dimension should be included in indicators that refer to Indigenous Peoples.
14. Under the principle of Prior, Free, and Informed Consent the indicators acquire a collective dimension. Therefore, the considered it necessary to include indicators that measure the degree of respect for one's dignity and identity, in each area. They also asserted that it is necessary to follow up on the theme of intergenerational "harmony", complementary relations between genders, and the decisions that are made at the familial and communal level, highlighting the conflict of values that can come from a lack of information.
15. In spite by the large number of Indigenous Peoples in Latin America and the Caribbean living in rural locations, there is an increasing number who are moving to suburban and urban areas, and therefore it is recommended to determine new ways of defining samples.

16. They recommended in the short term to take advantage of available statistics, showing in each case what it is not possible to see in the data, and the themes of interest for Indigenous Peoples to give them the proper follow-up. Similarly, they recommended adapting or complementing the available instruments and designing surveys that permit "qualifying" the data and introducing new dimensions in the data that is routinely collected.

Principles to take into account for the formation of indicators of well-being from the vision of Indigenous Peoples

17. The experts determined that the formation of indicators of well-being from the perspective of Indigenous Peoples consists of an integrated effort to collect, process, report, and use information and knowledge to influence policy decisions, programs of action, and research, which should take into account the development proposals of Indigenous Peoples. Therefore, the indicators should be instruments based on the vision of Indigenous Peoples that allow the specification of their diversity, such as distinctions by gender and age, as well as spaces of reproduction in their social life.
18. The group asserted that efforts should continue to be made in the formation of indicators since they are a necessary tool:
    a) to oversee, monitor, and evaluate processes of the recognition and exercise of individual and collective human rights of Indigenous Peoples;
    b) as an instrument of negotiation between Indigenous Peoples and agencies of the United Nations system, States, and others;
    c) to use collective information and instruments to report on, negotiate, transform, plan, protect, investigate, and oversee the fulfillment of commitments and process of States and agencies of the United Nations with relation to Indigenous Peoples;
    d) to assist in the decision-making such that they are appropriate, equitable, reliable, and timely, and in the definition of public policies (or in the private-public sector);
    e) to contribute to the follow-up and evaluation of the degree of loss and recovery of traditional knowledge and the management of knowledge of Indigenous Peoples;
    f) as an informational instrument for working to elaborate the future plans of the communities, as well as for the formulation of programs and plans of the State, on the basis of the reality of Indigenous Peoples and their own priorities;
    g) to orient research, identifying the gaps in knowledge, and facilitating the definition of a work plan based on a perspective that is closer to the reality of Indigenous Peoples.
19. The principles identified for the experts' formation of indicators are the following:
    a) Free, prior, and informed consent;
    b) Recognition of international human rights instruments;

c) Self-determination;

d) Collective construction;

e) Serve as collective information for Indigenous Peoples and their relation to the State and other actors;

f) The continuity of history of Indigenous Peoples for the preservation of harmony, governance, and peace.

Central themes for indicators of well-being and Indigenous Peoples

20. The experts identified that the indicators of well-being for Indigenous Peoples are derived from collective rights, prioritizing two aspects: the recognition of rights, and the degree of exercise of those rights.

21. Accordingly, the group recommended the organization of the indicators in three groups:

A. Structural indicators: referring to recognition of rights through the ratification and approval of juridical-legal instruments, the existence of basic institutional mechanisms, intention of the State to accept norms, as well as national laws.

B. Process indicators: referring to policy instruments, public programs, and specific interventions, and measuring the degree of progressive realization of rights, which are more sensitive to measuring change. Thus, process indicators deal with the policies and norms adopted to exercise rights.

C. Results indicators: referring to individual and collective achievements. They measure the total realization of objectives of the other indicators. They are slower to measure the degree of realization of human rights.

Collective rights	
Recognition	Exercise
1. Land, territory, natural resources	1. Models of autonomy and self-government
2. Natural heritage and collective culture (traditional knowledge)	2. Intercultural relations
3. Forms of social organization	3. Degree or level of well-being
4. Identity (individual, collective, and gender)	
5. Self-determination	

22. Throughout the discussion, the experts affirmed that in spite of the abundance of literature available on Indigenous Peoples, especially in the social science and environmental fields, there is no socio-demographic information on Indigenous Peoples. States do not have policies that understand the multicultural nature of collecting statistical information. The existing information, including census information, surveys, and sampling, shows conceptual limitations.

23. Some of the reasons that the group identified for these limitations were the following:

    a) the state does not consider some information to be relevant to differentiate in the register (Martínez Cobo, 1981);

    b) use of exclusive categories in registry (eg, only speakers of languages older than four years old are counted)

    c) use of pseudo-scientific categories: "race," "colour," etc;

    d) Indigenous Peoples located in areas that are difficult to access, or in urban areas;

    e) Indigenous Peoples excluded by the particular application of samples, partial sampling, or because of the discontinuity in projects;

    f) biases in the instruments, in spite of using valid categories (eg, identification by surveyors instead of self-identification);

    g) errors due to the registration of demographic information (eg, lack of training of the registrar or application of the registrar's own criteria);

    h) lack of identification of Indigenous Peoples in the sectoral registries (health, education, nutrition, employment, trade, agriculture, services, and others);

    i) lack of identification of Indigenous Peoples in governmental budgets and national accounts;

    j) information is considered irrelevant, is rejected, or is ignored by agencies or governmental institutions;

    k) bureaucratic systems resistant to innovation;

    l) pseudo-scientific prejudices about the importance of Indigenous Peoples;

    m) resistance to recording information that is "uncomfortable" for the governments.

24. In spite of the series of limitations, the group of experts considered that there are instances in which the topic of indicators for Indigenous Peoples has begun to be tackled. A few of these experiences were analyzed. In some national censuses, questions have been incorporated about identity, and in the specific case of the last census in Paraguay, there was a page that applied to Indigenous Peoples. The Fund for the Development of Indigenous Peoples, in coordination with the Economic Commission for Latin America (CEPAL), has initiated the collection of socio-demographic information with disaggregation by ethnicity and the mapping of Indigenous Peoples, in a pilot phase in six countries in the region.

25. In the case of Ecuador in 2002, the first National Survey on Indigenous Peoples (SIDENPE) was carried out to determine the diverse socio-cultural and economic realities of nationalities and peoples. Within the parameters determined by the peoples themselves, the survey is attempting to establish the levels of both individual and collective well-being. It was carried out in communities, local settlements, or related local groups, that constitute instances of territorial organization and administration of nationalities and peoples. The surveys were carried out in the respective languages of the various peoples. The themes around which the survey was organized were: identity and social organization; internal conditions for the exercise of collective rights; territorial and environmental security; systems of education and health; community-based social action. (For additional detail on the indicators, used see Annex IV).
26. In 2005, the UN Development Program (UNDP) in Guatemala dedicated a National Report on Human Development to ethnic-cultural diversity, citizenship in a pluralist state. The limitations that were encountered with respect to information were: the lack of consensus on the definitions and concepts (ethnicity, indigenous/non-indigenous, well-being (human development, other), as well as in the systems of information, since official systems are privileged, there is limited incorporation of ethnic variables since this practice has barely started in the past decade. The sources of information used were: population censuses, household surveys, administrative registries, private surveys (such as on racism), and specific research. The study analyzed aspects such as the degree of recognition of discrimination and racism, the advances in pluralist jurisprudence, and the percentage of budget allocated for intercultural bilingual education, percentage of indigenous people in positions selected by national popular election, and the creation of multicultural institutions in the state, among others.
27. The information with ethnic disaggregation is being used in Mexico to analyze the number of households, municipalities, speakers, and uses of language in relation to the type of head-of-household, and the Human Development Index, among others. This example indicates the aggregation of the communal dimension with the familial and individual. In the case of Mexico, it indicated the high rate of migration of Indigenous Peoples both within and outside of the country, which is creating new spaces of interaction for Indigenous Peoples, such as: multicultural urban complexes, agro-industrial zones, tourist complexes, international areas and border areas. This implies reconfiguration of territories of Indigenous Peoples within the country, the transformation of principal communal structures in places of origin, and the appearance of extended and multi-located communities, and an increase in the number of bi-national and trans-regional communities.
28. In the case of Belize, there is a necessity for a process carried out by a multidisciplinary indigenous team to form indicators of well-being that can contribute to influencing the national census process.
29. In the case of Nicaragua, three cases were analyzed. The 2005 Human Development Report ("Is Nicaragua Accepting Its Diversity?") was dedicated to the Autonomous Regions. The point of departure for the report was the assumption that Indigenous Peoples, Afro-Caribbean and ethnic communities want to construct their economic, cultural, administrative, and political autonomy – a central element of realizing sustainable human development for Nicaraguan society in its entirety. The report also recognized that the strengthening of human capacities of

women and men from indigenous, Afro-Caribbean, and ethnic communities, as well as good governance, are required to overcome the obstacles to human development and are decisive factors in making the National Development Plan and the Millennium Development Goals viable and sustainable. One of the limitations in constructing the Human Development Index was the absence of information disaggregated by ethnicity, and therefore complementary indicators were used instead, along with an index for conditions of life in the communities. The results of the study referred to the important role of social capital for Indigenous Peoples and ethnic communities, and the link between the exercise of autonomous rights and good governance to advance toward human development revealed the need to have a national system of multi-ethnic statistical information.

30. In the case of the Pan-American Health Organization (OPS/OMS) in Nicaragua, there have been advancements toward creating culturally relevant indicators and the inclusion of an ethnic variable in the statistical information of the National Health System, with the objective of generating evidence of inequalities derived from the cumulative effect of exclusion. The ethnic variable was included in the following indicators: a) causes of external consultation b) certificates of death and birth, and c) production of health services. Similarly, research was conducted on topics such as the baseline health of Indigenous Peoples, the worldview of Indigenous Peoples, alcoholism, analysis of health situations, disability of Miskitu divers, oral health, malaria, and tuberculosis. The information produced served to advocate for public policies. The 2004-2015 National Health Plan also had structural, process, and results indicators that were ethnically sensitive. (See Annex V)

31. The Institute of Natural Resources and Sustainable Development (IREMADES) of the University of the Autonomous Regions of the Caribbean Coast of Nicaragua (URACCAN) reported on the experience of local development in coastal communities, where Indigenous Peoples had as a central process the permanent negotiation around the control of access to their territories, ancestral knowledge, and traditional forms of organization. The vision of well-being in the communities is linked to the degree of exercise of autonomy, and control of access to goods and services, and is expressed through the degree of spirituality and governance, control of access to territory and natural resources, food security, intergenerational communication (traditional communication and education), traditional systems of health and use of traditional knowledge.

32. The group of experts analyzed the process of the discussion of indicators of the Working Group created on the basis of decision VII/30, annex II, through which Article 8 (j) of the Convention on Biological Diversity requested to "explore the necessity of the possible options for the protection of the innovations, knowledge, and practices of indigenous communities and localities." The possible indicators analyzed by the Working Group include: indicators based on land, people, policies, and culture. Policies are defined as potential tools to assure the appropriate protection of traditional knowledge and practices. (See Annex III)

33. Similarly, they examined the international process coordinated by the International Indian Treaty Council (IITC) and the Food and Agricultural Organization of the United Nations (FAO) for the development of culturally relevant indicators for food security and food sovereignty. (See results of the Second Global Consultation, September 2006.)

Elements for the formulation of indicators of well-being from the perspective of Indigenous Peoples

34. The group of experts stated that indicators of well-being should incorporate aspects referring to identity, access to natural resources, and distribution of benefits. They should measure the degree of exercise of the rights of Indigenous Peoples, as well as the socio-cultural, linguistic, and economic reality of Indigenous Peoples.

Aspects that should be considered for the formation of indicators of well-being from the perspective of Indigenous Peoples	
• Land and territory	• Natural resources
• Economy and production	• Innovations
• Culture and tradition	• Property rights
• Investment by the state and multilateral organizations in Indigenous Peoples	• Transformation of production
• Visibility and transparency	• Effects of projects and mega-projects (impacts)
• Ethnicity	• Migration – the role of migration and family remittances in the life styles of Indigenous Peoples, defining how to measure those processes
• Identity	• Sex, age, family, groups of individuals, own languages
• Education	• Quality, approach, access, promotion of, and use of languages
• Health	• Application of traditional medicine, participation of doctors, midwives, other healing specialists
• Application of rights	• Inequality
• Prior, free, and informed consent	• Racism and its expressions
• Monitoring of cooperation and use of information	• The current state and situation of Indigenous Peoples
• Levels of participation in the construction and exercise of decision-making processes	• How to measure aspects related to economic models of indigenous economies, both internal and in other countries
• Elements linked to traditional knowledge and medicine, including the use of and access to them, and how the process of prior, free, and informed consent is envisioned	• How to use a gender approach from the perspective of collective rights

35. The process of constructing indicators is an opportunity not only to generate information, but also to promote new forms of participation between Indigenous Peoples and states, as well as to create transparent mechanisms that facilitate access, distribution, and diffusion of information.

36. The group of experts considered that efforts should be made so that the indicators of well-being are used by the following entities:

    a) agencies of the United Nations, public and governmental programs;

    b) financial institutions (World Bank, Inter-American Development Bank, others);

    c) Indigenous Peoples and organizations;

    d) universities, centres, and research institutes, and academic sectors;

    e) communal authorities;

    f) national systems of statistics and information;

    g) policy makers;

    h) foundations and non-governmental organizations.

37. During the discussions, a theme that surfaced repeatedly was the form of measuring individual and collective identity. With regard to this question, the assessment of the group of experts was the following:

    a) The use of language is not sufficient as a definition of identity.

    b) After the use of language, self-identification can be used.

    c) Identity is one of the qualitative elements, and can be measured in general terms and all the characteristics mentioned.

    d) A trait of identity is one's own culture, tradition, and geographic location.

    e) It was recommended to combine various forms such as language, self-identification, belonging to indigenous homes, and other legal and traditional forms.

    f) Racial phenotype should not be a decisive factor in determining identity.

    g) It was recommended to combine internal and external elements (when a person feels both the individual and communal as part of identity), since conceptions and understandings are formed as a single person.

    h) Identity is derived from one's world view, native spiritual practices, knowledge of sacred sites, and use of traditional dress.

1. Recognition of collective rights

Theme: land, territory and natural resources Type of indicator:		
Structural	Process	Results
Existence of a normative framework and juridical and institutional regulations of knowledge and defense of land, territory and natural resources of Indigenous Peoples	Quantity and quality of legal initiatives passed for the knowledge and defense of the rights of Indigenous Peoples to land, territory, and natural resources	• Number of indigenous territories and lands that are demarcated, titled, registered, and protected • Quantity and quality of traditional lands, territories, and natural resources managed or co-managed by indigenous communities • Number of state institutions, programs, and projects that promote the rights of Indigenous Peoples with respect to land, territory, and natural resources.
Traditional practices for the management, conservation, and use of land, territories, and natural resources of Indigenous Peoples that are recognized by the country	Quantity and quality of traditional practices implemented for the management, conservation, and use of land, territories, and natural resources	• Quantity and quality of changes in standards for the use of land and territories • Number of sites established in indigenous territory for traditional or religious ceremonies, and cultural or sacred activities • Factors that limit or put the right to access the land at risk • Mechanisms and criteria for the collective sustainable use of land, territories, and natural resources by Indigenous Peoples • Traditional practices and knowledge implemented for the use of land, territories, and natural resources • Practice of traditional agriculture and diversification implemented by Indigenous Peoples • Reconfiguration of a country's indigenous territories in the country • Factors that provoke conflict, invasions, or occupation of indigenous territories
Juridical mechanisms that promote and/or permit the administration of natural resources by Indigenous Peoples	Type and quality of juridical instruments that guarantee the administration of natural resources to Indigenous Peoples	• Type, quantity, and quality of natural resources administered by Indigenous Peoples • Policies and instruments developed by Indigenous Peoples for the administration of their territories (individual, collective, and mixed) • Number of indigenous communities controlled and benefiting from their natural resources and landscapes • Functioning model of sustainable indigenous human development

Theme: land, territory and natural resources Type of indicator:		
Structural	Process	Results
Frame of reference for the recognition of fair and equal distribution of benefits generated in indigenous territories and from natural resources	Number of public policies promulgated and implemented for the equal distribution of benefits generated in indigenous territories	• Mechanisms of participation defined by Indigenous Peoples for the design, formulation, and execution of development in their territories. • Financial resources generated in indigenous territories through the use and management of natural resources • Number of indigenous territories with and without access to funds generated through the use and management of natural resources • Number and quality of Annual or Multi-annual Investment Plans, laid out by Indigenous Peoples for the distribution of natural resources in their territories • Number of existing management and conservation programs or projects in indigenous communities
Existence of a demographic and statistical frame of reference on Indigenous Peoples.	Number of institutional policies implemented in which the existence and disaggregation of the population of Indigenous Peoples is recognized.	• Demographics and statistics on urbanization and the movement of indigenous communities and localities outside their established and available traditional territories • Quantity and quality of operating institutions and bodies that conduct census surveys on Indigenous Peoples disaggregated by sex, social group (ethnicity) • Available programs of the formation of indigenous human resources to generate culturally relevant statistics and indicators of sustainable human development • Census of indigenous population disaggregated by gender, age, and ethnic group in urban centers and developed metropolitan areas

Theme: natural and cultural collective heritage Type of indicator:		
Structural	Process	Results
Frame of reference for the effective exercise of natural and collective heritage of Indigenous Peoples recognized by the state	Number of legal instruments, policies, programs, and investment projects	Traditional knowledge • Number of youth, women, and elders participating in mechanisms of transfer of knowledge • Quantity and quality of traditional institutions and administrations existing and operating in indigenous territories • Number of youth, women, and elders participating in ceremonies, religious activities, and traditional festivals • Educational mechanisms implemented for the recovery and distribution of cultural and collective heritage of Indigenous Peoples Indicators based on culture: • Degree and level of access of Indigenous Peoples to rights and traditional resources • Number of institutions promoting cultural rights of Indigenous Peoples • Number of investigations and studies developed about the existence of bearers of traditional knowledge in indigenous territories • Number of investigations and studies developed about the persistence of customary right and the

Theme: forms of social organization Type of indicator:		
Structural	Process	Results
National, regional, municipal, and community legislation/regulations that recognize, protect, advance, and strengthen the forms of social organization of Indigenous Peoples	Quantity and quality of policies of the country that recognize and encourage the forms of social organization of Indigenous Peoples	• Functioning model of sustainable indigenous human development • Autonomous institutionality that is consolidated and fully functioning • Levels and mechanisms of participation (women, men, youth, etc) in family and communal decision-making • Mechanisms and criteria for the election of traditional authorities of Indigenous Peoples • Forms and spheres of competencies of authorities of Indigenous Peoples • Indigenous Peoples' own systems of administration of justice • Internal regulations established by Indigenous Peoples to regulate decision-making and their forms of social organization • Type and quantity of forms of political representation of Indigenous Peoples in different spheres of national and international decision-making • Systems of social organization of Indigenous Peoples (Indigenous Peoples' own institutions)

Theme: identity (collective and gender) Type of indicator:		
Structural	Process	Results
Public policies, programs, and projects in recovery and development of the collective identity and gender identity for indigenous territories.	Number of formal and informal government, non-governmental, and educational institutions financing, investigating, systematizing, developing, and transmitting values of collective and gender identity of Indigenous Peoples	• Levels of investment in the country and in indigenous territories oriented toward development, research, recovery, and promotion of the identity of Indigenous Peoples • Quantity and quality of established national policies that recognize the identity of Indigenous Peoples • Quantity and quality of research on identity of Indigenous Peoples that is conducted and distributed • Degree, level, facility or difficulty in access by Indigenous Peoples to research that is developed • Levels and participation of Indigenous Peoples in the establishment of policies, investment plans, and research in their territories

Theme: self-determination Type of indicator:		
Structural	Process	Results
Existence of legislation that recognizes and guarantees the self-determination of Indigenous Peoples	Existence of institutions and public policies that implement legislation of autonomous rights	• Number of policies, treaties, and accords signed by the national state that recognize and facilitate the self-determination of Indigenous Peoples
	Articulation and presence of development models and proposals of Indigenous Peoples in national development plans	• Strengthening of identity and self-determination and the improvement of level of sustainable human development of Indigenous Peoples • Autonomous institutionality that is consolidated and fully functioning • Inclusive, intercultural, and multi-ethnic society and state

2. Exercise of Collective Rights

Theme: models of autonomy and self-government Type of indicator:		
Structural	Process	Results
Legislation that recognizes and guarantees the historical, economic, social, cultural, civil, and political rights of Indigenous Peoples	Existence of institutions and public policies that implement the legislation of autonomous rights	• Number of institutions and public policies that recognize and implement the historic rights of Indigenous Peoples • Models of autonomy and self-government of Indigenous Peoples defined and being applied • Types and forms of territorial and political governance • Types and mechanisms of community and intercommunity relationships for the exercise of autonomy and self-government • Factors that incite the transformation of the principal community structures in their places of origin • Factors that incite the expansion of the number of bi-national and trans-regional communities • Level of defined social stratification in the communities and indigenous villages
	Articulation and presence of development models and proposals of Indigenous Peoples in national development plans	• Levels of inclusion or exclusion of the development models and proposals in the national development plans • Percentage of budget transfer from the state to realize the structures of self-government of Indigenous Peoples • Monitoring system for the budget of the states that go to self-government or autonomy (distribution of benefits) and toward their territories or communities

Theme: intercultural relations Type of indicator:		
Structural	Process	Results
Existence and recognition of intercultural policies and models in the legal framework of the country	Number of public policies, ordinances, programs, projects established for the fulfillment of existing legislation	• Intercultural models defined and applied by Indigenous Peoples and recognized in national legislation • Type and levels of relationships between Indigenous People and the State for the application of intercultural models • Number of accords or conventions signed between authorities and the cooperation for the exercise and application of intercultural models • Mechanisms of inter-institutional monitoring and follow-up of national and international investment for the execution of intercultural models in indigenous territories

Theme: intercultural relations Type of indicator:		
Structural	Process	Results
		• Number of studies that are elaborated and serve to strengthen autonomy • Levels of participation of Indigenous Peoples in national and international politics • Number of programs that Indigenous Peoples take part in with intercultural approaches

Theme: degree or level of well-being Type of indicator:		
Structural	Process	Results
Number of policies, programs, and projects oriented toward assisting the level of well-being if Indigenous Peoples	Type of policies, programs, projects, forms of cooperation, and technical-financial execution that entail and guarantee better levels of well-being in indigenous territories	• Quality and quantity of policies, programs, and projects in indigenous territories that guarantee better levels of well-being • Quality of the plans of coverage and resources in each system (bilingual, Hispanic, traditional health, state system) executed in indigenous territories • Inter-institutional, communal, and territorial mechanisms defined for the (participatory) detection of critical problems and distribution of resources and technical assistance in the indigenous territories • Service available, quality and level of coverage of programs and projects in indigenous communities • Levels of access of indigenous residents to economic opportunities • Risks associated with the economic activities conducted by residents of indigenous communities

III. Recommendations

38. With regard to the forms of measurement of the identity, the group of experts recommended:

1. Utilizing and employing complementary forms of identification of Indigenous Peoples, combining aspects like language, self-definition, belonging to indigenous homes, recognition of the communities, cultural ancestral connection.
2. The elimination of exclusive or discriminatory categories.
3. Using a set of elements of identity.

39. The participants encouraged that states continue incorporating the visibility of Indigenous Peoples in national censuses and other systems of statistical registries. Promote the use of other types of indicators as well as and instead of culturally adequate indicators that have already been used in some countries. Selecting indicators that distinguish specific groups, disaggregated by sex, age, highlighting increases and decreases that occur over time, as well as the rate of change, disparities and inequalities in regard to the groups. Similarly, the experts encouraged convening meetings to focus on these concepts.
40. Based on the experiences of the Human Development Reports of countries and UNDP about the theme of diversity and the construction of multicultural states, the participants recommended that the efforts to expand the concept of human development be continued, incorporating concepts of well-being and cultural relevancy, and promoting their application in the countries.
41. The participants recommended that international agencies develop specific sections about Indigenous Peoples in their publications. Similarly, they recommended that the available information be put at the disposal of Indigenous Peoples, for example, the Documentation Centre of the Indigenous Inter-American Institute.
42. The group encouraged that states incorporate satellite accounts of Indigenous Peoples, to account for the level of investment in projects, as a mechanism to complement information.
43. The participants recommended strengthening alliances between Indigenous Peoples and public universities, especially with the Network of Macro-Universities.

Recommendations for follow-up to the meeting

44. The experts asked the Multicultural Nation of Mexico Program of the National Autonomous University of Mexico (PMUM-UNAM) to support the formulation of indicators and discuss the proposal at the next meeting at the latest in March 2007, to have the indicators defined before the next session of the UN Permanent Forum on Indigenous Issues.

NB. Annexes 1 and 2, listing the participants and programme, have been omitted for reasons of space.

Annex III
Proposals for indicators linked to the Biodiversity Convention

Indicators on traditional knowledge

In Decision VII/30, Annex II, the Conference of Parties asked the Working Group 8 (j) to "explore the needs and possible options for indicators for the protection of innovations, knowledge, and practices of indigenous communities and localities".

The possible indicators analyzed by the Working Group include:

(a) indicators based on land

(i) recognition/existence/continuation of the possession of traditional lands of indigenous communities

(ii) traditional lands and waters managed or co-managed by indigenous communities

(iii) changes of standards in the use of the land

(b) indicators based on the people: demographics and statistics on the urbanization and the movement(s) of indigenous communities and localities outside of their traditional territories

(c) programs and indicators based on policies

(d) indicators based on culture

(i) access to the rights to traditional resources

(ii) cultural freedom and cultural indicators

(iii) other possible indicators of traditional knowledge that could be included are manifestations of traditional knowledge as well as the existence of cultural institutions and the existence of bearers of knowledge, and the persistence of customary rights and cultural practices

- Lands
  1. Number of sacred sites
  2. Number of lands that are legally recognized
  3. Lands used for traditional and religious ceremonies and cultural activities
- Traditional knowledge
  1. Participation of youth, women, and elders in the transferal of knowledge
  2. Existence of traditional institutions and administration
  3. Participation of youth, women, and elders in ceremonies, religious activities, and traditional festivals

Annex IV
Indicators used by SIDEMPE – Ecuador (National Survey on Indigenous Peoples)

Identity and social organization

- Self-recognition
- Internal diversity
- Language, use of own languages
- Housing: changes

- Family: typology, predominance

Migration

Internal conditions for the exercise of collective rights

- Forms of authority and domains of competency
- Levels of participation
- Administration of justice

Territorial and environmental security

- Access to land and other resources
- Factors that limit or violate this right
- Level of conflict and actors in conflict
- Biodiversity, quality and degree of damage

Education and health systems

- Coverage and resources of each system (bilingual, Hispanic: traditional health, Staet system)
- Detection of critical problems
- Perceptions with respect to each of the systems
- Level of use of ancestral practices

Social action in the community domain

- Available services, quality and level of coverage
- Principal problems according to their perception
- Social action: type of programs, forms of cooperation and execution

Annex V.
Indicators used by OPS-OMS (Pan-American Health Organization) Nicaragua

Ethnically sensitive indicators of the National Health Plan 2004-2015

- Extent of attention in health by ethnic group
- Number of decentralized plans formulated
- Proportion of autonomous human resources formed
- National system of life statistics disaggregated by ethnicities
- Design and implementation of system of registry of cultural illnesses
- Number of territorial health models incorporated into regional health model
- Extent of municipal health services with community agents

- Percentage of municipalities with analysis of the health situation that consider the variable of ethnicity and cultural illnesses or events
- Percentage of municipal health services with participatory inter-sectoral health plans that are implemented, monitored and evaluated

Endnotes

[1] Report of the 4th session of the Permanent Forum on Indigenous Issues of the UN. E/C.19/2005/9.
[2] Paragraph 20, Ibid.

3

Report of the Asia Regional Workshop on Indicators Relevant for Indigenous Peoples, the Convention on Biological Diversity and the Millennium Development Goals

I. Introduction

Background

The Asia Workshop on Indicators Relevant for Indigenous Peoples, the Convention on Biological Diversity and the Millennium Development Goals was one of a series of regional workshops organized to develop indicators relevant to indigenous peoples for incorporation into the frameworks of the Convention on Biological Diversity (CBD) and the Millennium Development Goals (MDGs).

The workshop was held on November 7-10, 2006 at the Filipiniana Hotel, Calapan City, Oriental Mindoro, Philippines. The island of Mindoro is home of the Mangyan indigenous peoples.

The 52 participants included indigenous experts from 10 Asian countries: Bangladesh, Bhutan, Cambodia, India, Laos, Malaysia, Myanmar, Thailand, Viet Nam, and the Philippines; from regional and international networks of indigenous peoples; as well as government and technical experts, and the members of the secretariat.

The workshop was held in Calapan City, Oriental Mindoro, Philippines, on November 7-10, 2006. It was organized by the Working Group on Indicators of the International Indigenous Forum on Biodiversity (IIFB) and Tebtebba (Indigenous Peoples' International Centre for Policy Research and Education) with support from the UN Department of Economic and Social Affairs (DESA)/Secretariat of the UN Permanent Forum on Indigenous Issues (UNPFII), the Royal Ministry of Foreign Affairs – Norway, Agencia Española Cooperacion Internacional (AECI), and the Swedish International Biodiversity Programme (SwedBio).

Objectives

The objectives of the workshop were:

a) to learn about the global work on indicators relevant for indigenous peoples;

b) to share perspectives from Asia on indigenous peoples, poverty and well-being, and biodiversity;

c) to contribute to the development of indicators relevant for indigenous peoples, the Convention on Biological Diversity and the Millennium Development Goals.

II. Community visit

The first workshop activity was a visit to the Mangyan indigenous community in the village of Paitan. The community has its own school, where children are taught in their own language and learn about Mangyan culture and traditional knowledge, as well as the usual subjects taught in schools in the Philippines. The school was established by elders, who wanted the local children to have an education but who felt that the mainstream education system would prepare students only for life outside the Mangyan community. The school is called "Tugdaan", a Mangyan word meaning "seedbed".

Graduates of the school who went on to further studies in the mainstream education system have done very well. Some of them have returned to the community to teach in the Tugdaan School.

III. Opening of the workshop

Father Edwin Gariguez of the Mangyan Mission welcomed the workshop participants on behalf of the Mangyan indigenous peoples.

Mr Ponyong Kadlos, coordinator of Kapulungan ng Lupain Ninuno (KPLN), a federation of Mangyan organizations, performed the Tu-ob ritual. The Tu-ob is a ritual of the Hanunuo Mangyans and serves to banish evil spirits and invite the good spirits of the earth to bring blessings and favours. It is performed at the start of any important activity.

The Provincial Governor of Mindoro Oriental, Mr Arnal Panaligan, welcomed the workshop participants to Mindoro. He talked about the island's biodiversity and its fragile environment, which is threatened by a proposed mining operation: the government has granted a British-Canadian company a permit to mine nickel in a watershed area.

The participants then introduced themselves. Joji Carino, of the IIFB Working Group on Indicators, introduced the workshop organizers and presented the objectives and program of the workshop.

IV. Introductory presentation

Ms Carino presented an overview of global processes which are discussing indicators relevant to indigenous peoples. These processes are designing indicators on poverty, well-being and sustainable development. They include:

- The UN Commission on Sustainable Development (UNCSD);
- The Millennium Development Goals;
- The Convention on Biological Diversity;
- The UN Permanent Forum on Indigenous Issues.

UNCSD

The UN Conference on Environment and Development (UNCED) of 1992 led to governments adopting the Agenda 21 plans to achieve sustainable development. Chapter 26 of Agenda 21 focuses on the role of indigenous peoples in sustainable development.

The UNCSD is working on indicators for sustainable development, in particular for the implementation of Agenda 21. Its indicators have been tested, reviewed and revised, and the latest set of revised indicators was presented in 2007.[1]

The Millennium Development Goals

The Millennium Summit was held by governments in 2000 to identify key challenges for the 21st century and these were highlighted in the Millennium Declaration. The MDGs were developed from the Declaration. They set a series of quantified targets for eradicating extreme poverty by 2015.[2] Each country is supposed to develop a poverty reduction plan, setting out how it will address or eradicate poverty.

The framework for monitoring the progress of states towards achieving the MDGs is based on a set of targets and indicators, using data compiled by specialised organizations responsible for the different areas covered by the MDGs. At national level the framework is adapted to national circumstances and policy priorities.

Indigenous peoples did not participate in drawing up the goals, targets and indicators, so these did not capture the situation of indigenous peoples.

The Convention on Biological Diversity

The CBD is an environmental agreement approved at UNCED in 1992, with the aim of

conserving biological diversity. It has a Strategic Plan, drawn up in 2002, with a target of achieving significant reduction in biodiversity loss by 2010. Part of the monitoring framework for the Strategic Plan is to assess full and effective participation of indigenous peoples and local communities. The 2010 Target has a monitoring framework composed of goals, targets and indicators for various aspects of biodiversity. One of these (Target 9.1) is to maintain social and cultural diversity of indigenous and local communities.

One aim of this workshop is to contribute to a process of developing indicators for the CBD framework that are relevant to indigenous peoples.

UNPFII

In 2004 the UNPFII recommended to the UN Development Group that the MDG indicators should be assessed and additional indicators identified to address environmental sustainability. The following year, the Permanet Forum called for poverty indicators based on indigenous peoples' own perception of their situation and experiences to be developed jointly with indigenous peoples. It has also argued for the need for statistics agencies to collect disaggregated data reflecting the situation of indigenous peoples.

The UNPFII aims to develop a core set of global and regional indicators that address the specific concerns and situations of indigenous peoples, looking at health, human rights, environment, education and culture. This Asian regional workshop is one of a series being held to develop these indicators. The UNPFII is collaborating with the IIFB Working Group on Indicators, to avoid duplication of effort.

V. Country presentations

Malaysia

Mr Sean Paul Rubis of the NGO Building Indigenous Institutions and Heritage (BiiH) spoke about how the preservation of heritage contributes to the conservation of biodiversity.

BiiH is a small organization established in Kuching, to counter the threat of assimilation of indigenous peoples. It works with the Jagoi, Gumbai and Tringgus groups of Borneo. The organisation has three thematic areas of work:

- cultural documentation;
- capacity building (participatory planning);
- communications for communities.

BiiH is concerned about the rapid disappearance of traditional culture, so it documents knowledge and language. Language, culture and traditional knowledge are linked. Indigenous knowledge is integrated into culture and ritual, and dependent on the original language. All of these are under pressure from mainstream religion, resettlement, and mass media.

Indigenous peoples are never mentioned when Malaysia reports on its obligations under the CBD. The government does not consider indigenous peoples as allies or partners in efforts to maintain biodiversity. Avenues for indigenous peoples' participation in environmental justice are limited. When an Environmental Impact Assessment (EIA) is required for a particular activity, little effort is made to inform the public, who have only two weeks in which to object.

Public concern over environmental issues is growing. But indigenous peoples do not figure in the discussion. The position of some environmentalists is that to protect the environment, the people have to be removed.

The issues proposed for indicators are:

- identification and conservation of sacred sites;
- identification of origin and language;
- identification of primary non-timber forest products (NTFPs) that indigenous peoples depend on.

Thailand

Mr Udom Charoenniyomprai presented a case study of indigenous knowledge and sustainable customary use of biological resources among Hmong and Karen communities. The case study was conducted in collaboration with the Forest Peoples' Programme (FPP) in the UK, and was one of a series of studies examining customary use of biological resources.

Indigenous and tribal peoples in Thailand are generally referred to as 'hill tribes' or 'Thai mountain people' and have a total population of approximately 1 million. They are divided into 13 peoples. The group with the largest population is the Karen (more than 400,000 people), followed by the Hmong (a little over 150,000).

Issues facing indigenous peoples in Thailand include:

- land rights;
- nationality/citizenship;
- ethnic discrimination;
- economic problems emerging from market forces entering communities;
- conflict over natural resources;
- lack of access to social welfare.

The study on customary use was piloted in 40 Hmong and Karen villages in the highland areas of Chomthong District, Chiang Mai Province, where upland and lowland people are in conflict over ethnic discrimination and exploitation of natural resources.

The study worked with the communities to map traditional land use and natural resource managaement, using a combination of traditional knowledge and modern technology (GPS-GIS). It produced land use maps showing how the indigenous communities classify land and its use, and these enabled the community to negotiate with the government. Before the study, the government had refused to accept the informal mapping done by the local people.

The study showed that villagers have clearly established their customary use and regulations in relation to various ecosystems. They believe that everything has spiritual owners and protectors, and that human beings are users, rather than owners who must use natural resources wisely and manage them in a sustainable way. Areas inhabited my indigenous peoples are rich in plant and animal biodiversity. This partly due to their rotational farming system and the low impact of their activities on the environment. However, external polices and development projects have undermined the traditional structures and practices of indigenous communities. The conclusion was that respect and protection of cultural practices are needed.

Philippines

Mr Abe Almirol presented the process and findings of a project on data disaggregation for the indigenous population of Nueva Vizcaya Province. Although people from many indigenous groups live in the province, the majority population of Tagalogs and Ilocanos is not considered indigenous. The project was carried out among indigenous households in seven municipalities. It looked at economic situation, political participation, maintenance of culture and awareness of national legislation on indigenous peoples' rights (the Indigenous Peoples' Rights Act).[3]

Bhutan

Mr Harka B Gurung, Joint Director of the National Environmental Commission of Bhutan, gave a presentation on the Bhutanese philosophy of Gross National Happiness. This concept has been officially adopted by Bhutan's government, in preference to Gross National Product. The philosophy is ingrained Bhutan's national religion, which is Buddhism.

Gross National Happiness has four pillars:

- cultural promotion (cultural values);
- environmental preservation;
- good governance;
- economic self-reliance.

The provisional indicators for Gross National Happiness are:

- standard of living;
- health of the population;
- education;
- ecosystem vitality and diversity;
- cultural vitality;
- time use and balance;
- good governance;
- community vitality;
- emotional well-being.

The means of attaining happiness is enlightenment, which is understood as a goal of psychological evolution for any person, regardless of formal faith. Enlightenment is made probable by consciously creating a harmonious psychological, social and economic environment. Materialism is seen as leading to greed and unhappiness. Good governance and participation are key elements of Gross National Happiness.

The presentation concluded with a caution that the Bhutanese model is preliminary and experimental; it is not prescriptive or replicable. There is no simple happiness formula for all.

India

Mr Kirham Nongkynrih spoke about development and indigenous peoples in India. Article 342 of the Constitution of India has a schedule of tribes, requiring protection of their rights to education, employment, political participation, etc. Other articles of the Constitution make administrative divisions, and separate provisions with additional protection for the North Eastern region, and special provisions for certain states.

The path of development pursued by the state is a key issue. Tribal institutions, values, beliefs and practices are not respected, and the approach to development is top-down. The Planning Commission decides plans and programs for the whole country, including tribal policy and programs. There is a move to integrate tribal people with the dominant population, and there is state-sponsored displacement of tribes from their territories.

Outside the North-east, these problems are more severe because of the lack of constitutional protection. So although indigenous peoples are protected by the Constitution, the centralised, top-down development model over-rides the constitutional protection.

An important indicator of effective development would be the state's voluntary acceptance of free, prior and informed consent (FPIC) of indigenous peoples for policies and programs affecting them. Other indicators would be the state incorporating the UN Declaration of the Rights of Indig-

enous Peoples into the Constitution, and an assessment of special constitutional provisions for indigenous peoples and their application in practice.

Special emphasis must be placed on the participation of the poor, women and young people in development decision making.

Mr Harishwar Dayal presented a paper written with his colleagues at the Institute of Human Development, that used official data to show the situation of development and deprivation of indigenous peoples in India. The study revealed that whereas India is seen as an emerging world power, the Scheduled Tribes (in effect, indigenous peoples) live in conditions more akin to those in sub-Saharan African countries.[4]

Bangladesh

The three participants from Bangladesh – Mr Devasish Roy, Ms Backey Tripura and Mr Pavel Partha – spoke about indigenous perspectives on indicators.

There are more than 40 indigenous peoples in Bangladesh, with varied cultures, different ways of hunting, different medical practices, different agricultural practices, and so on. Four major biodiversity regions coincide with the presence of indigenous peoples: the Sundarbans, where indigenous peoples are not recognised by the government; the West; the North East; and the South East – the Chittangong Hill Tracts – the only area where self-rule is recognised, and only after a 20-year insurgency.

Indigenous peoples are largely excluded from policy making and state forest management. The forest department believes that the way to preserve the forest is to shoot people who go into it; the limited exception is in the Chittagong Hill Tracts after the peace accord.

Indigenous biodiveristy protection is more efficient than government efforts. It is not static, but innovative. Communities are working to plant and regenerate forest.

The main issues are:

- denial of land rights, especially in the plains regions where there is no self-government; nothing is done to stop eviction or restore alienated land;
- revival of self-government, especially in the plains: people have no say in policy, or in how funds are allocated;
- inclusion of indigenous peoples in policy making and implementation;
- the provisions of the Chittagong Hill Tracts peace accord on indigenous peoples' rights are not implemented.

The major indigenous indicators are:

- language, music, costumes (including weaving and natural dyes);
- festivals, ritual and ceremony;
- scents, smells, taste, colour;

- hunting practices, traditions (taboos);
- gathering – food, medicine, fuel, house-building materials;
- storage of seeds – from swidden, medicinal plants.

Examples of indigenous indicators of biodiversity are the frequency of termite hills, which denote an ecologically balanced forest, and colour variation in forest areas. If the forest has only one colour, it is a sign of monocropping. Hunting taboos have helped to preserve biodiversity. Indigenous peoples in Bangladesh have knowledge of natural remedies, such as a particular type of bark to prevent tooth infection. In the plains communities, festivals are held only after hunting. But government policy is to ban hunting in forest areas.

The main challenges for indigenous peoples are: reducing discrimination, especially in access to justice; implementing the peace accord; revising national policy; and strengthening alliances and networking with non-indigenous organisations and civil society groups.

Viet Nam

Mr Hai Phan Minh spoke about the Vietnamese government's efforts to implement the MDGs.

Goal 1 (eradicate extreme poverty and hunger): Viet Nam has already met the target by reducing the proportion of people living below the poverty line to approximately 35 per cent in 2000 and is committed to reducing poverty by a further 40 per cent by 2010. The challenge now is to reduce disparities and reach deep pokcets of poverty in each region of the country.

For Goal 2 (universal primary education): Viet Nam already had a 95 per cent net enrolment rate in primary education in 1999, and is confident of achieving full primary enrolment by 2015. The challenge is to improve quality of education and reduce disparities in access and coverage.

Goal 3 (gender equality and empowerment of women): Girls account for 70 per cent of school drop-outs, often because they are expected to work in the home. Geographic disparities persist.

Goal 4 (reduce child mortality): Viet Nam has reduced its under-five mortality rate from about 58 per thousand live births in 1990 to about 48 per 1,000, but reaching the target of a two-thirds reduction by 2015 will require great efforts.

Goal 5 (improving maternal health): Viet Nam has halved its maternal mortality rate – from 200 per 100,000 live births in 1990 to 100. It aims to reduce this to 70 per 100,000 by 2010, with particular attention to disadvantaged areas.

Goal 6 (combat HIV/AIDS, malaria and other diseases): Viet Nam is aware that it faces a potential crisis with HIV. It has set a target to halve the rate of increase in the spread of HIV/AIDS by 2010.

Goal 7 (ensure environmental sustainablity): Viet Nam has increased the share of its population with access to safe water supply from 48 per cent in 1990 to 56 per cent in 2000. Its target now is to increase this to 85 per cent in rural areas by 2010.

Goal 8 (develop a global partnership for development): Here Viet Nam faces a significant challenge, given its plans for rapid integration into the regional and global economies. Ensuring social equity and sustainability in the country's development will require great efforts.

Mr Truong Tran Quang spoke about the work of his organisation, the Centre for Sustainable Development in Mountainous Areas. It implements the MDGs through sustainable agriculture and sound environment, community development and economic development planning. It supports people in mountain areas to use indigenous knowledge to improve their lands, and to take care of their health using herbal medicine.

The centre's work includes gender capacity building, as well as promotion of ethnic identity and culture. It also provides training in management skills for district, commune and village leaders.

Laos

Ms Buoaphanh Ratthida of the Literacy Resource Center for Girls and Women gave a presentation about the resource centre's non-formal education program, as it relates to the MDGs. The main objective of the centre is to improve the literacy, quality of life, social role and situation of girls and women in Laos. It provides literacy courses and development activities for indigenous peoples, and training in life skills, especially for women and girls.

There are big differences in literacy and education between urban and rural people, between male and female, and between different provinces. The quality of teaching is poor, and there are not enough resources for education. At present, fewer girls than boys go to school. The ratios are 84 girls to 100 boys in primary school, and 74 to 100 boys in lower secondary school. In tertiary education the ration is 58:100.

Women in Laos continue to be disadvantaged. The share of women in wage employment in the non-agricultural sector is low. Women tend to marry early and have early childbearing. Some ethnic women are involved in opium production. Girls who leave school early are likely to marry early and have children young, which poses risks to their health. Also, when there are many children nutritional standards tend to be low.

Mr Khamla Soubandith spoke about the work of the Rural Research and Development Training Centre, an independent Lao non-profit association established in 2005.

The centre's vision is to improve the capacity and sustainability of rural community development of Lao and ethnic minority people in the Lao People's Democratic Republic. It has three main strategies:

- capacity building about community development of Lao and international organizations, government, provincial and district counterparts, mass organizations and citizens, providing quality training and associated activities;
- research;
- resource and training centre.

The centre runs a pilot project in traditional medicine in Northern Laos, focusing on the Hmong and Khamou peoples. The project aims to preserve and promote traditional knowledge.

Cambodia

Mr Kim Sreang Bouy presented a paper on the situation of indigenous peoples in Cambodia. The indigenous peoples live in the North, close to the border with Thailand. They account for about 1 per cent of the population.

According to informal information, there are 24 indigenous tribes, based mainly in the North-east. They have their own languages, cultures, beliefs and traditions. The government is workin with intergovernmental organisations to develop laws and policies for indigenous peoples.

Under the Forestry Law, indigenous peoples can use their forest based on their tradition and culture. The Constitution prohibits discrimination and acknowledges that indigenous peoples the right to their own culture and language. The Land Law allows communal title, but it is not yet implemented.

NGOs working with indigenous peoples have seen positive changes. Indigenous peoples have gained more understanding of human rights, especially their own rights. There is greater capacity in terms of community development and legal concepts. And there is more understanding of the concepts of use, management and protection of forest and sustainable use of land.

However, there are negative changes too. Land is being lost to outsiders. The people are losing their culture. Agricultural productivity is low. And education is limited or poor quality.

Myanmar

Ms Somchit Kheereerangrong presented the situation of the Karen indigenous people of Burma. The country has a population of 15 million, of which approximately 1.4 million are Karen. Thousands of Karen are refugees on the Burma-Thailand border, and thousands more are internally displaced.

Burma is a dictatorship, and there has been civil war for 50 years between different ethnic groups and the government. NGOs cannot work freely in Burma, so most of them are based in Thailand. It is difficult for them to enter Karen State, but they have done some research and case studies.

Because of the civil war in Karen State, the army invade villages and destroy them. Sometimes they ask villagers to do portering, or pay taxes to feed them, so the villagers try to move out of government-controlled areas. Most of the displaced people are swidden cultivators. They have very good knowledge of how to use the forest but now they cannot practise their knowledge because their land is a war zone and covered with landmines.

Traditionally, land is divided with some areas used for farming and others left. But because of the war, the Karen cannot practise this. And if they cannot apply their knowledge, they are losing it. Parents cannot transmit their knowledge to their children.

VI. Identifying issues and developing indicators

Indicator frameworks

Before dividing into workshops to discuss key issues for indicators, the workshop participants heard a presentation outlining the different types of indicators and indicators sets. These included the Basic Capability Index – simplified indices[5] developed by Social Watch; the Happy Planet Index (HPI), which measures ecological efficiency of delivering human well-being – it reflects the average years of happy life produced by a nation/society per unit of planetary resources consumed;[6] Terra Lingua, which has five indicators in the global index of bio-cultural diversity. Cultural diversity includes languages, religions, ethnic groups, and biological diversity includes flora and fauna. Areas high in cultural diversity are also high in biological diversity.

A human rights-based approach to indicators elaborated by the Special Rapporteur on the Right to Health Paul Hunt, [7] provides for structural, process and outcome indicators. These are related to the responsibility of states to respect, protect and fulfill human rights. Structural indicators relate to respect for human rights law, process indicators relate to activities to protect human rights, and outcome indicators measure the impact: fulfilment of human rights. The UN Declaration on the Rights of Indigenous Peoples and the Second International Decade of the World's Indigenous Peoples' Program of Action will be valuable frameworks to enrich this approach as it applies to indigenous peoples.

Ms Victoria Tauli-Corpuz, Chair of the UNPFII, gave a presentation on the need to redesign the MDG indicators to make the sensitive to indigenous peoples' issues. In many countries, she said, the government rides roughshod over the rights of indigenous peoples in the effort to fulfil the MDGs. For example, Viet Nam: has halved poverty but did it by deforesting indigenous peoples' lands for coffee plantations. This increased the GDP, but indigenous peoples became poorer. MDGs are being achieved at the expense of indigenous peoples. Unless indigenous peoples show the true picture, governments will continue with this approach.

Many studies show a high drop-out rate for indigenous children in school, but no explanation why. In the Philippines one reason for it is lack of bilingual education. Poverty could be a reason too. How relevant is the education given for children? Does it teach their own traditions and history? Is it non-discriminatory? Gender equality is related to education.

Little information exists about indigenous peoples and HIV/AIDS, although some data is available in Africa. Malaria and TB are a problem for indigenous peoples all over the world.

Many Asian governments have undermined environmental sustainability by cutting the forests. The areas with the highest GDP are the ones where the forest has been slashed. What does that mean for indigenous peoples?

Water is very important for indigenous peoples, but not if it means more big dams. There is a need to consider indigenous peoples living in the cities in slums. There is a need to look at security of tenure in terms of land as well as housing.

Workshop group discussions

Three sub-regional groups were formed to discuss key issues that should be reflected in indicators. The first group was composed of South East Asia (Malaysia, Thailand, Burma). The second group was composed of South Asian countries (Bangladesh, Bhutan and India). The third group was composed of the Mekong Region (Vietnam, Laos and Cambodia). The group from the Philippines, being the largest, formed two groups: a group of people's organizations and community representatives, and a group composed of government agencies, NGOs and academics.

The South-east Asian workshop group focused on three key issues: natural resources management and control; identity-related issues; and access to basic services. The group concluded that "the denial of these rights is the main cause of conflict between indigenous peoples and governments."

The South Asian workshop group identified structural issues related to the MDGs and the CBD. Among the key structural issues are: laws and policies related to indigenous peoples' development; FPIC; policy for the eradication of poverty and hardship among indigenous peoples; specific policies related to indigenous peoples and education; health policies; protective and promotional policies related to gender; and protection of lands, territories, resources and traditional knowledge.

The Mekong Region group identified rights to use traditional knowledge; right to speak their own indigenous languages; rights to ownership of lands and access to resources; rights to participate in decision-making; and rights to access basic services and infrastructure support from their governments.

The Philippine workshop group drawn from government agencies, NGOs and academe presented a detailed outline of indicators to measure the implementation of the Indigenous Peoples' Rights Act (IPRA). The second workshop group composed of people from indigenous peoples' organizations and communities, raised issues about indigenous knowledge systems and practices; land and tenure rights; and respect for universally accepted human rights.

Participants stayed in the same groups to formulate indicators. The results of their discussions are listed at the end of this report.

VII. Recommendations for further work

Given the lack of disaggregated data on indigenous peoples, participants recommended that more pilot studies should be done jointly with government bodies. This will make it easier to advocate for change future surveys.

Survey instruments can be highly politicized. There may be a need to stablish basic guidelines established so that data gathering can be more culturally sensitive, objective and neutral. In many countries the question on religion is very sensitive, with only the dominant religions accepted. In India, for example, those who do not report their religion will be recorded as Hindus.

The importance of piloting must be stressed, so that instruments are tested before they are finalized. There may be a need to identify priority steps because data collection on all issues would be difficult.

There was general agreement that the MDG indicator of poverty, based on an income threshhold of $1 a day, was inappropriate for indigenous peoples.

Indigenous peoples in the developed world have a longer experience in indicator development and data disaggregation efforts, as governments in these countries have more provided the resources to do this. Indigenous peoples in developing countries could learn from their experiences.

A scoping exercise on existing studies could determine their usefulness. Indigenous peoples' organizations possess a lot of unorganized and organized data and should work with technical experts to evaluate how the data can be used to develop indicators.

The challenge is to come up with an index of indigenous peoples' well-being using indicators identified by indigenous peoples and technical experts. This index, aside from measuring the well-being of indigenous peoples, can be a tool for advocacy and awareness raising. The Philippines could be a pilot area for such a project because it has a law on indigenous peoples' rights. A pilot study in another country without such a law could provide the basis for a comparative analysis. India could also be a pilot project area, as there are many research institutes that can be tapped. Existing anthropological and other research studies could be used to help produce new data. Indigenous peoples should also endeavour to understand the statistical systems of governments and UN agencies to be able to advocate more effectively for changes.

Group 1: Malaysia, Thailand, Myanmar, International Alliance of Indigenous Peoples in Tropical Forests

Issues	Indicators
A. Natural resource management and control • Land tenure and rights • Forest reserves – traditional lands being converted to reserves/protected areas • Traditional knowledge – erosion • Loss of biodiversity due to logging, plantations, dams, mining, and others *Access to and control of natural resources should be in the hands of indigenous peoples. The denial of this right leads to conflict between them and governments. The main aim is to reduce the conflict by fully recognizing this basic right.	1. Is there a government law or policy that recognizes indigenous peoples' rights over lands and resources? • Is there an implementing agency, budget and guidelines? 2. Is the principle of FPIC recognized and implemented by government in developing natural resource management plans and in developing projects on indigenous lands? • How many meaningful consultations have been conducted with indigenous peoples in relation to land and resource management? How many indigenous peoples have attended? How have the results of such consultations been recognized? 3. How many indigenous peoples are in actual control of their traditional lands and resources? • How advanced is the demarcation of traditional lands? • How many joint management committees (IPs and government) on use and management of resources are established and are functioning with the full participation of indigenous communities? 4. Is the role of indigenous peoples in resource use and conservation fully recognized and promoted? • How much documentation of such roles exists? How are these used? By whom and for what? • Is there an official government position stating such recognition – either in policy or at the level of principle? • Do educational institutions, including curricula, recognize and promote such, both among indigenous peoples and non-indigenous peoples? • Does the mainstream media promote such an understanding among the broader population? 5. Are protected areas/forest reserves established with the consent of indigenous peoples? • Length of time such areas remain reserves and not converted to plantations or industrial estates • Are indigenous peoples relocated to other areas to give way to such reserves?

Issues	Indicators
B. Identity-related issues **C. Access to social services** • Discrimination • Loss of knowledge of traditional medicinal practices • Loss of ability to produce material expressions of culture – attire, music among others • Assimilation/ lack of pride in being indigenous among youth • Use of indigenous peoples as commodities in the tourism industry • Outmigration into urban centers • Entry of illegal immigrants into indigenous territories • Access to information • Religious assimilation * Indigenous Peoples should be recognized as distinct peoples entitled to the same rights enjoyed by all peoples. Their distinct contributions to the nation-states should be given full recognition.	1. Are indigenous peoples considered full citizens in the country? • Do they enjoy the same basic services in terms of health, educational, information and media facilities? • Are they allowed to participate in the political activities of the country, i.e., elections? • Are they allowed to travel freely within and outside state borders? 2. Is there a provision in the educational system to incorporate indigenous languages and cultures? • Number of indigenous learning centres catering to indigenous communities • School books reflect the true contributions of indigenous peoples to nation building 3. Is the practice/observance of traditional practices related to agriculture, life cycles, among others, allowed? • Is there recognition of traditional medical practices? Is the use of medicinal herbs allowed? Are traditional medicine persons allowed to treat patients in the traditional way? • Revival of traditional culture – increased interest among the youth to learn traditional music and dance, weaving using traditional materials, etc., for use in the community rather than for commercial (tourism) purposes 4. Is there mass media in the indigenous languages? Is there interest among mainstream media on serious indigenous-related stories, i.e., not purely tourism-related? • number of indigenous peoples aware of their rights and government programs increased • increase in the number of indigenous peoples aware of the international obligations of their governments, i.e., CBD 5. Forced outmigration by indigenous peoples to urban areas lessened with the provision of more social services in indigenous communities. Illegal immigration by outsiders to indigenous communities reduced with the provision of equal opportunities outside. 6. Freedom to worship according to traditional beliefs and systems respected – what indicators can be developed?

Group 2: Bangladesh, Bhutan and India

Indicators for MDGs and Biodiversity

Structural indicator	Process indicator	Results
Laws and policies related to IPs' development	State support and separate budgeting for IPs	Defining development by and for IPs Ownership, management and benefits
Policy acknowledgment and recognition of FPIC	Free prior and informed consent (FPIC)	
Policy for the eradication of poverty and hardship among IPs	• Programmes, nature of intervention, expenditure • Provision of facilities and amenities in IP-inhabited areas	**Development** • Income /consumption: inequality and inflation adjusted • Education: literacy and weighted average of levels of education • Health: life expectancy and other health indicators like-vaccination, availability of health facility for IPs **Poverty** • Income/consumption: deflated by price/purchasing power of money in IP-inhabited areas • Depth of poverty measured in terms of period/length and severity of food deficiency • Shelter: size, quality (material, disaster-resistant, weather resistant, maintenance frequency) • Amenities: safe drinking water (access, distance, sufficiency, quality and whether properly treated) • Amenities: sanitation (hygiene, proximity, quality) • Amenities: electricity (connection, supply)
• Specific policies addressing IPs education • Communication of education	• Inclusion of IPs' languages as a medium of instruction, IP-specific content and curriculum • Role of IPs in formulation of education policy (including form and content)	**Education** • Literacy rate • Enrolment, retention, completion of formal education • IP culture and knowledge systems • Proportion of IPs enrolled in and/or having completed Vocational/Technical Education • Availability of, and access to, educational institutions

Structural indicator	Process indicator	Results
	• Role of IPs in management of educational institutions • Programmes, nature of intervention, expenditure	
• Specific policies addressing IPs health • Communitization of health	• Role of IPs in formulation of Health Policy (inc form and content) • Role of IPs in management of Healthcare • Programmes, nature of intervention, expenditure	**Health** • Access to state healthcare facilities & services • Life expectancy • Child and infant mortality • Pre and post-natal maternal health • Major disease rate
• Protective and promotional policies on gender	• Role of IP women in formulation and implementation of Policy (including form and content) • Equal rights of women in ownership of land and resources • Reservation for women in all important positions • Programs, nature of intervention, expenditure	**Gender** • Literacy and formal education • Representation at all levels of decision-making and implementing process (local to national, local and legislative bodies, bureaucracy, judiciary • Equal inheritance by IP women
• Prevention, protection and restoration on lands, territories and resources of IPs	• Status of customary rights of IPs over Lands, territories and resources	• Alienation, displacement, privatization, commercialization • Traditional knowledge and practices • Ownership • Status of cultural heritage of IPRs • Use: house construction material, dyes, hunting tools, festivals, rituals and local liquor

Structural indicator	Process indicator	Results
• Recognition and legitimization of TK of IPs in all types of forests	• Co-ownership Communitization joint management of state managed forests • Industrialization policy and mega power project policy of state • Registration of rights of IPs over their lands, territories Communitizationres ources • Protection against bio-piracy • Community register of intellectual property rights (IPRs) • Simplification of land Communitization IPR-related grievance mechanisms	

Group 3: Vietnam, Laos and Cambodia. Asia Indigenous Peoples Pact

Issues	Indicators		
	Structural indicators	Process indicators	Outcome indicators
1. Right to use traditional knowledge	• Set up law to protect traditional health practices • Establish bilingual education system	• Document TK • Support IPs to learn TK • Teach TK to next generation	• Establish indigenous knowledge centers/schools (vocational training centers in community) • Organize traditional festivals in community
2. Right to express ideas and speak indigenous languages	• Establish information/education materials that use both indigenous and national languages	• Teach indigenous children two languages – local and national language	

Issues	Indicators		
	Structural indicators	Process indicators	Outcome indicators
	• Establish non-formal education systems in IP areas and support IPs to study	• Governmentt to coordinate general education with indigenous knowledge • Encourage IPs to use their own language, culture, traditions and beliefs	
3. Right to land ownership (IP and communities)	• Land law that recognizes community or communal ownership	• Promote implementation of the law • Promote communal land managed by IPs • Disseminate laws on land, forest, and environmental protection law to IPs and stakeholders	
4. Right to have access to natural resources	• Forestry law deveopment • Land law development	• Disseminate forestry laws to IP • Give some protected areas to IPs • Teach IPs how to use natural resources in sustainable way	• IP can use natural resources in the protected area
5. Right to participate in decision-making process	• Participate in policy reform and formulation • Set up participation standards	• Participation in development of policy reform, justice system and identification of development programs/projects	
6. Right to have access to infrastructure and basic services	• Basic services standards based on IP demand	• Ensure IP access to basic services • Ensure IP access to high education level	

Group 4: Philippines, Indigenous Peoples' Communities/Organisations

ISSUES: Indigenous Knowledge System and Practices		
Indicators		
Structural	**Process**	**Results**
Existence of national policy on the recognition, protection and promotion of IKSP (indigenous knowledge systems and practices)	Quality and quantity of legal initiatives and policies enacted at the national and local level with regard to IKSP	• Number of IP communities with documented and codified customary laws • Codified laws recognized by the local and national government, adopted and utilized for conflict resolution by the IPs • Number of local and national policies addressing bio-piracy and intellectual property rights of IPs • IKSP integrated in the curriculum of the pre-school, basic and higher education system in all appropriate subjects nationwide.
Programs and investment plans formulated and implemented	Number of programs and investment projects adopted at the national and local level	• Number of youth, women and elders participating in transfer of knowledge • Quantity and quality of indigenous organizations and public institutions actively implementing projects and activities related to the recognition, promotion and protection of IKSP

ISSUES: Land Tenure and Natural Resources		
Indicators		
Structural	**Process**	**Results**
Existence of a normative framework and institutional regulations in the protection of ancestral domains, ancestral lands and natural resources.	Quantity and quality of legal initiatives passed for the recognition and protection of IP rights to ancestral domains, ancestral lands and natural resources	• Number of Certificate of Ancestral Domain Titles (CADTs) approved • Number of programs and projects completed with FPIC guidelines adopted by the IP communities • Sustainable management and use of natural resources • Clear policy and mechanism in benefit-sharing for projects implemented and in the utilization of natural resources within ancestral domains.
ISSUES: Universal Basic Rights		
Internationally declared/approved standards on the provision and access to basic rights to health, education, livelihood and governance	Number of programs directed to IP communities for the provision of basic services	• Infant mortality rate at par with internationally accepted standards • Literacy rate at par with internationally accepted standards • Number of livelihood projects that are sustainable • Number of households participating in and benefiting from livelihood projects

ISSUES: Universal Basic Rights		
		• System of self-governance for IPs and ICCs • Participation in state/national governance

Group 5: Philippines - Government/NGO/Academe

This is a summary of the results of "work-in-progress" on an inventory of Philippine IP indicators initially gathered from a selected number of IP key informants from the five provinces of the Cordillera Administrative Region, including Baguio City (CAR), in the northern Philippines.

Summary of general indicators

Policy I – Recognition and protection of ICC/IP rights to their Ancestral Domains (AD)/Ancestral Lands (AL)

Indicator of recognition of IP Right to ADs/ALs

- Delineated Ancestral Domains and Ancestral Lands
  - o Number of Delineated AD by municipality, province & regions
  - o Number of Delineated AL by municipality, province & regions
  - o Ancestral Land applications under CA 141
- Domains with Certificates of Title (CADT) and Lands with Certificate of Title (CALT)
  - o Number of CADTs and CALTs by municipality, province and region
  - o Number of Domains with CADT
  - o Numbers of Ancestral Lands with CALT
  - o Number of Ancestral Lands with other Tenurial Instruments
- Registered CADTs and CALTs
  - o Number of Registered CADTs by municipality, province and region
  - o Number of Registered CALTs by municipality, province and region
  - o Number of Ancestral Lands registered under other Tenurial Instruments
- Affirmative actions of national government line agencies (NLAs) relative to ADs/ALs
  - o Number and nature of national line agencies programs, projects and activities implemented to promote the recognition and protection of the Filipino ICCs/IPs rights to their ADs/ALs since 1997 to date
  - o Total amount of NLA budget allocations per year for the programs, projects and

activities that promote the recognition and protection of the Filipino ICCs/IPs rights to their ADs/ALs since 1997

- o Total amount of NLA budgets actually spent per year for programs, projects and activities that promote the recognition and protection of the Filipino ICCs/IPs rights to their ADs/Als

Indicators of protection of IP rights to their ADs/ALs

- Number of Certifications Preconditions issued covering concessions, licenses, leases, permits, or production sharing agreements affecting the rights of ICCs/IPs to the natural resources within their AD/AL claims by municipality, province and region in relation to their rights;
- Number of MOAs/Contracts or Agreements entered into by government or private entities with AD/AL owners for the development, exploitation, extraction or use of the natural resources in their AD/AL;
- Number of government or private entities giving equitable shares of the fruits, economic and other benefits to the concerned AD owners, from the exploitation, extraction, use and development of the AD natural resources by municipality, province and region;
- Full compensation to the AD/AL owners for damages to property including social or environmental costs directly or indirectly arising from, or as a consequence of government projects or government sanctioned private entity's exploitation, extraction, utilization or development of natural resources within the AD/AL;
- Percent of the Total Amounts collected by government from the exploitation, extraction, or use and development of AD/AL resources allocated to programs for the ICC/IP owners of the AD/AL;
- Number of programs, projects or activities prejudicial to the ICC/IP right of ownership or control over the natural resources within their ADs/ALs ordered discontinued or cancelled by government;
- Number of cases of displacement of ICCs/IPs from theAD prevented and displacement by man-made calamities, government or government sanctioned private entities programs and projects, armed conflict and other causes covered by MOA;
- Number of AD-IPOs or Councils of Elders (COEs) registered and empowered to enforce FPIC or protect the rights of ICCs/IPs to their ADs/ALs;
- Number of documented migrants within Ads/ALs with permits issued by IPO-Council of Elders by municipality, province and region;
- Number of Certifications Precondition, FPIC Certificates and MOAs concluded with ICCs/IPs specially to protect their rights to safe and clean air and sustained supply of domestic and irrigation water, and sustained environmental integrity;
- Number of MOA, FPIC Certificates and Certifications Precondition specifically to protect the ICC/IP right to sources of livelihood in their ADs/ALs;

- Number of violations to the ICCs/IPs rights relative to Ads/ALs under IPRA meted with appropriate sanctions/penalties;
- Number of IPOs/Council of Elders empowered to enforce FPIC, evaluate project proposals & MOAs, and execute MOAs, customary laws, and prosecute violations thereof in favor of ICCs/IPs;
- Number of cases of violations of ICCs/IPs rights to their ADs/ALs resolved in favor of IPs/ICCs;
- Number of violations of customary laws/practices relating to Ads/ALs meted out with appropriate sanctions/penalties;
- Number of cases filed by IPs for redemption decided in favor of IPs;
- Number of parcels and area of IP land returned to ICCs;
- Number of documented AD pollution cases resolved in favor of IPs against the number of unresolved AD pollution cases.

Policy II – Recognition and protection of ICCs' right to self-governance, self-determination, and support for the Autonomous Region

Indicators of recognition and protection of ICC/IP rights

- Number of government programs, projects and activities implemented to empower ICCs/IPs for self-governance and self-determination by municipality, province and region;
- Number of documented customary laws legitimized (recognized) by ICC group;
- Number of institutionalized customary justice systems by ICC group;
- Number of policy/decision-making bodies of government (LGU, regional and national) where ICCs/IPs representatives are mandatory members;
- Number of local scholarships granted specifically to IPs by the national government, its institutions, instrumentalities and agencies;
- Number of foreign scholarships granted specifically to IPs;
- Number and type of trainings implemented for ICCs/IPs to prepare them for self-governance and self-determination;
- Number of indigenous peoples organizations/council of elders/leaders (IPOs/COEs) registered;
- AD-IPO COE/L Empowerment;
- Number of Ancestral Domain-IPO (AD-IPO) and Councils of Elders/Leaders (COE/L) organized;
- Number of AD-IPO and COE/L registered or accredited;
- Number of AD-IPO and COE/L empowered for corporate management, eg, ancestral domain management, negotiation with LGUs, national line agencies, NGOs and private

business, programs and projects development & implementation, representation or negotiations with funding agencies, etc.;

- Number of AD-IPO and COE/L empowered for conflict resolution and harmonious relations with other ADs and non-IP communities;
- Number of affirmative actions implemented (policies/programs) supportive of the establishment of CAR (regional) autonomy from 1997, the passage of IPRA;
- Number of AD-IPOs & COE/L able to exercise self-determination and self-government
- Number of AD-IPOs/COE/L with "doable" Ancestral Domain Sustainable Development & Protection Programs/Plans (ADSDPP) resulting from NLA assistance;
- Number of MOAs, FPIC certificates, Certifications Precondition negotiated by AD-IPO COE/L covering government or private sector programs, projects and activities within AD/ALs;
- Number of IPRA violations upon which the AD-IPO COE/L were able to apply sanctions;
- Number of "doable" programs, projects and activities (ADSDPP components) formulated by the AD-IPO COE/L ready for funding negotiations;
- Number of funded programs, projects and activities that the AD-IPO COE/L implemented effectively;
- Number of AD members' conflicts effectively resolved through the AD-IPO COE/L processes.

Policy III – State guarantee of special justice and human and equal opportunities for IPs

Indicators for state guarantees for IPs' human rights

- Recognition of the existence of Filipino ICC/IP populations in the CAR (region) through the:
    - o Existence/availability of government policy and planning data, development indicators, and standards specific to ICCs/IPs;
    - o Existence/availability of democratic data specifically on ICCs/IPs in the region (CAR) by barangay, municipality and province;
    - o Existence/availability of socio-economic baseline data specifically on ICCs/IPs by barangay, municipality, province and region;
    - o Existence/availability of government development policies, plans, programs, projects, and activities specifically for ICCs/IPs in the CAR with their budgetary allocations;
    - o Existence/availability of detailed reports on the results achieved by government ICC/IP specific development policies, programs and activities implemented including the actual budgetary expenditures for these;

  - o Existence/availability of comparative data on socio-economic status of ICCs/IPs with non-IPs by decision-making levels in the region (CAR);
  - o Existence/availability of development indicators and standards tailored to the specific levels of development of ICCs/IPs in the region (CAR);
- Number and nature of the programs that the government is implementing for the promotion of social justice and human rights of the ICCs/IPs in the region (CAR);
- Number and nature of IP women empowerment programs formulated & implemented;
- Number and nature of government institutions catering to IP women's concerns
- Number of IP declared operational peace zones recognized;
- Number of peace agreements (Bodong) recognized and supported by government;
- Affirmative action enforced protecting rights of IP/ICCs during armed conflict;
- Number and nature of IPs children and youth development programs implemented;
- Level of integration of IP culture in the curriculum of the public education system (elementary, secondary and collegiate);
- Number of human rights cases involving IPs decided in favor of IPs.

Policy IV – Recognition and promotion of the ICC/IP right to preserve and develop their cultures and traditions

Indicators of recognition of ICC/IP right to cultural integrity

- Number and nature of government affirmative actions implemented to identify and document the cultural heritage, customs and traditions of the ICCs/IPs in the region (CAR) and the amounts of budgetary allocations spent since 1997 for this purposes in the municipality, province and region (CAR);
- Protocol guidelines in the presentation of IP cultures (customs, traditions and practices) established and adopted as policy;
- Existence and adoption in local, regional and national plans of IP/ICC planning policies, indicators and standards for recognizing, promoting, and protecting IP cultural heritage;
- Number of government research programs, projects and activities implemented to promote agro-technical development in IP areas;
- Number of activities conducted to showcase recognition and promotion of cultural diversity
- Number of Indigenous Knowledge, Systems and Practices (IKSP) identified and documented according to ICC/IP group (including indigenous justice systems, e.g., tongtong, bodong, etc.);
- Number of cultural symposia or fora organized to promote IP cultural integrity;
- Number of IKSPs integrated in the curriculum of the educational system (e.g. educational materials);
- Number of cultural museums or schools of living traditions established in domain areas;

- Number and nature of policies enacted and implemented to safeguard or protect IP cultural integrity.

Indicators of protection of IP cultural integrity

- Number of cultural sites and artifacts protected against vandalism and showcasing;
- Violations of protocol guidelines in the presentation of IP cultures sanctioned;
- Sacred religious sites and practices identified and mapped;
- Number of religious/cultural sites maintained/preserved;
- Number of IP intellectual properties registered and protected;
- Number of biological and genetic researches in IP areas covered by FPIC certificates, Certifications Precondition, and permits issued by the ICCs/IPs.

Endotes

[1] This latest indicator set is reproduced in this resource book in page 457.

[2] The revised MDG framwork is reproduced in this resource book in page 453.

[3] For a longer summary of this project, see the report of the Expert Seminar on Indicators Relevant to Indigenous Peoples, the Convention on Biological Diversity and the Millennium Development Goals (page 3 in this resource book). For a paper describing the project, see "Pilot study on Data Disaggregation and Indigenous Peoples in Nueva Vizcaya, Philippines", page 315 also in this book.

[4] For a longer summary of this research, see the report of the Expert Seminar on Indicators Relevant to Indigenous Peoples, the Convention on Biological Diversity and the Millennium Development Goals (page 3 in this resource book). For a paper describing the project, see "Development and Deprivation of Indigenous Peoples / Scheduled Tribes in India: What the Figures Tell", page 295 also in this book.

[5] Examples of the indicators include births attended by skilled health personnel (can include traditional midwives); under 5 mortality rates; children reaching fifth grade, etc. These can be measured at national, sub-national and national levels.

[6] This considers amount of consumption used and the impact on the ecosystem (ecological footprint).

[7] An extract from one of his papers on this subject is reprinted in this book on page 231.

4

African Regional Workshop Report: Indicators of Well-Being of Indigenous Peoples in Africa and Indicators Relevant to the Convention on Biological Diversity

The African Regional Workshop on Indicators of Well-being of Indigenous Peoples in Africa and Indicators Relevant to the Convention on Biological Diversity was held in Fairview Hotel, Nairobi, Kenya, on November 26-28, 2006. The workshop was organized by the Arid Lands Institute.

1. Workshop overview

1.1. Background

In 2000, the UN system and governments adopted a set of targets to reduce poverty and human suffering by 2015. These goals, targets and indicators were developed into a framework for development popularly called Millennium Development Goals (MDGs). Many governments are now mainstreaming these goals into their respective development programs. However, the formulation of these targets and indicators did not include the participation of or consultation with indigenous peoples, thus resulting in a situation where the goals and their indicators have not captured the situational specificity of indigenous peoples.

It is against this background that the UN Permanent Forum on Indigenous Issues (UNPFII) identified the need to contextualize the MDGs to reflect the actual situation of indigenous peoples. In that regard there is need to disaggregate development data and to identify gaps that need to be filled in order to ensure that development indicators reflect the special situation of indigenous peoples in different parts of the world.

The UNPFII funded regional workshops in different part of the world (Asia, Americas and Africa) that were designed to address such identified needs. Arid Lands Institute was to organize the consultative regional workshop on "Indicators of Well-being of Indigenous Peoples in the African Region" and plans were made accordingly. Meanwhile, following discussions with the international indigenous peoples' NGO Tebtebba, it was agreed that since indigenous peoples were largely dependent on natural resources for their livelihoods, indicators of well-being of indigenous peoples cannot be fully appreciated without taking into consideration processes developed through the Convention on Biological Diversity (through the Indigenous International Forum on Biodiversity). It was therefore decided that the Africa regional conference on the well-being of indigenous peoples would draw from the Convention on Biological Diversity.

The workshop reflects the collaborative effort between Arid Lands Institute and Tebtebba. The workshop was convened in order to develop indicators that capture the concerns, aspirations and perceptions of the well-being of Africa's indigenous peoples. The participants were invited by both organizations. The workshop was held in Nairobi at Fairview Hotel between 26 and 28 November 2006.

1.2. Objectives of the workshop

The following were stated as the objectives of the workshop:

- Identify gaps in existing indicators at the global, regional and national levels that assess the situation of indigenous peoples and impact policymaking, governance, and program development, including from a gender perspective.
- Examine work being done to improve indicators so that they take into account indigenous peoples and their concerns and assess them according to qualitative and quantitative criteria, including a gender perspective.
- Examine linkages between quantitative and qualitative indicators, particularly indicators that look at processes affecting indigenous peoples
- Propose the formulation of core global and regional indicators that address the specific concerns and situations of indigenous peoples, including indigenous women and can also be used by international financial institutions, the UN system and other intergovernmental organizations, including regional ones.

1.3. Workshop participants

The workshop brought together a total of nineteen (19) participants from five sub-regions in Africa (East Africa, the Horn, West Africa, Central Africa and Southern Africa) representing largely hunter-gatherers and pastoralist indigenous communities such as the Barbaig, Parakuyio, Maasai, Ogiek, Tuareg, Batwa, Khoi-San and Oromo.

1.4. Workshop methodology

The workshop used a set of complementary methodological approaches that included: thematic papers, group discussions and plenary sessions. Towards the end of the workshop, participants discussed and agreed on key issues, recommendations and follow-up frameworks.

1.5. Opening remarks

The workshop opened with a Parakuyio blessing (prayer) led by Adam Kuleit ole Mwarabu, a participant from Tanzania. He called upon God to bless the congregation, to give the participants humility and intelligence and may their words be filled with truth. During the blessing, the participants in unison said a refrain: "May God hear our prayers."

The Coordinator of the Arid Lands Institute, one of the East Africa representatives from Kenya, and also a co-host of the conference, Naomi Kipuri, welcomed the participants to Kenya and Nairobi and requested the representative of the government of Kenya, Mr. Elkana Onguti, to give the opening remarks.

Mr Onguti was representing the Ministry of Planning and National Development, which is the implementing arm of government on the Millennium Development Goals (MDGs). He welcomed the participants to Kenya, and to enjoy the beautiful country. He stated that the workshop was taking place at a time when the government of Kenya was trying to improve the well-being of its poor citizens, a majority of whom come from areas inhabited by indigenous peoples. Half the population of Kenya is poor, owing to poor development policies and to inequitable distribution of national wealth. To uplift the well-being of Kenyans, the government of Kenya believes that resources must be sought, thus greater emphasis is placed on growth in Gross Domestic Product (GDP). To realize development, the government has addressed three basic factors:

- conducive policy environment at national level and across every sector of the society;
- build-up of resources, well targeted and administered;
- active participation and focused engagement across institutional divides.

The government of Kenya is mainstreaming MDGs into its budgetary process and every ministry is supposed to factor MDGs into its planning and policy environment. The government is pursuing MDGs within the framework of a government policy dubbed Economic Recovery Strategy for Wealth and Employment Creation (ERS), which aims to empower people and ensure economic development.

ERS rests on four pillars:

- rapid growth and micro economic stability;
- rehabilitation and expansion of infrastructure ;
- human capital development through education, health and gender balance; and
- strengthened government institutions to improve governance.

The government of Kenya has been emphasizing improved investment environment and capacity building in key areas, in addition to devoting substantial resources to the local/district levels. Examples include the Local Authority Transfer Fund (LATF) and the Constituency Development Fund (CDF). The aim of the two funds is to transfer development resources to the grassroots communities in order to improve participation in poverty reduction at the margins of Kenyan society. Mr Onguti acknolwedged that the government has done little to increase inclusion of indigenous peoples in government policy designs, planning and implementation. The government challenged participants to put forward strong recommendations which can be utilized by the Ministry of Planning and National Development to improve the livelihoods of indigenous peoples.

On environmental sustainability, the government faces challenge of increasing forest cover area from the current 2 per cent. Quality of data is another major concern for the government/ministry. For example, the Welfare Monitoring Surveys currently in use were carried out in 1997 and are no longer up to date. Mr Onguti concluded by stating that participation of people is crucial in addressing development and realizing human rights because MDGs are both developmental and human rights-based.

2. Background papers on global indicators

2.1. Presentation on global indicators

A background paper on global indicators processes described four processes:

- The UN Commission on Sustainable Development – Sustainable Development Indicators (UNCSD-SDI);
- The Millennium Development Goals;
- The Convention on Biological Diversity;
- The UN Permanent Forum on Indigenous Issues (UNPFII).

The UN Commission on Sustainable Development (UNCSD) was instrumental in the process of promoting sustainable development indicators on the basis of Agenda 21. Currently, there is a set of 58 indicators organized along the four pillars of sustainable development: social, environmental, economic and institutional.

The Millennium Development Goals (MDGs), are a series of quantified targets for ending extreme poverty by 2015. The MDGs aim to cut poverty in its many dimensions: low income, hunger, lack of education, gender inequality, disease, environmental degradation, insecurity of shelter, and lack of access to safe water and sanitation. The UN Millennium Project was commissioned in 2002 by UN Secretary-General Kofi Annan as an independent advisory project to recommend an action plan to achieve the MDGs in each low-income country that is ready to make the effort. The MDG framework contains eight goals, 18 targets and 48 indicators. MDGs are linked

to Poverty Reduction Strategy Papers (PRSPs), which form the basis of partnership agreements between international donors and governments from developing countries.

However, the formulation of the goals, targets and indicators did not include the participation of or consultation with indigenous peoples, the framework has not captured the specific situation of indigenous peoples, or many of the criteria essential for their well-being. Protection of their lands, territories, and resources, traditional knowledge, as well as indigenous peoples; own aspirations and perceptions of development, have all been omitted.

The Convention on Biological Diversity has specific areas relevant to indigenous peoples:

Goal 9 of the 2010 Target: Maintain socio-cultural diversity of indigenous and local communities

Target 9. 1 "Protect traditional knowledge, innovations and practices…"

Target 9.2 "Protect the rights of indigenous and local communities over their traditional knowledge, innovations and practices, including their rights to benefit-sharing."

CBD related indicators include:

Protection of traditional knowledge, innovations and practices

- Maintenance of customary sustainable use (Article 10c);
- Maintain goods and services from biodiversity to support human well-being (Biodiversity and the achievement of the Millennium Development Goals);
- Effective participation of indigenous and local communities in CBD Processes.

The UN Permanent Forum on Indigenous Issues (UNPFII) recommended to UN Development Group in 2004 "that the indicators of the Millennium Development Goals be assessed and that additional indicators be identified to give fuller assessment of environmental sustainability". The UNPFII secretariat has organized a series of meetings on indicators to address the challenges and gaps in the existing work on global and regional indicators across the mandated areas of the Permanent Forum on health, human rights, economic and social development, environment, education, and culture.

The objectives of these meetings were to:

- identify gaps in existing indicators at the global, regional and national levels.
- examine work being done to improve indicators so that they take into account indigenous peoples and their concerns and assess them according to qualitative and quantitative criteria, including a gender perspective.

Issues to be considered in these meetings include indicators for:

- ownership of lands, territories, and resources;
- preservation and development of cultural practices, sacred sites and biological diversity;
- traditional knowledge and indigenous governance/management systems;
- inclusion in political participation and decision-making;
- bilingual and mother tongue education.

2.2. Responses to the background paper

Participants raised issues about the negative impact on realization of MDGs of:

- changes in the global environment (from days of optimism to days of despair occasioned by the War on Terror);
- the negative perception of governments towards indigenous peoples, which affects implementation of MDGs in areas occupied by indigenous peoples;
- overlapping of international instruments, such as UN agencies and World Bank policies, which creates confusion.

2.3. Participants' questions

Participants asked questions that included:

- Which UN agency deals with issues of land and under what UN agency would you place hunter-gatherers?
- What do we see as constituent elements of indigenous peoples' well-being and at what level can we measure this?
- Is it possible to push indicators developed from the grassroots to the national level without creating distortions?

2.4. Challenges

There was a challenge in defining poverty and well-being and the need to address production of demographic data on indigenous peoples. Under whose lens do we view wealth and poverty? What about the different cultural problems of pastoralists and hunter-gatherers – is it possible to develop similar indicators applicable to all indigenous communities and county-specific indicators, considering the diversity of indigenous peoples?

2.5. Concerns raised

There were concerns about African governments which do not recognize indigenous peoples. This requires advocacy to change attitudes and perceptions of governments, and the creation of monitoring networks from grassroots level to regional to national. Participants emphasized the need for the United Nations to assist in carrying out socio-demographic surveys on indigenous peoples. Education systems also do not address the needs of pastoralists. Government control of population through family planning has made indigenous peoples minorities, so they are underrepresented in government institutions. How are indigenous peoples represented in UN monitoring agencies? If our governments are poor and fighting wars can they realize MDG targets?

The problems afflicting pastoral women were highlighted. These include illiteracy, loss of land/heritage upon being widowed, and abuse of women's rights through violence and harmful cultural practices such female circumcision.

3. Regional presentations and summary of key issues

3.1. East African region

The region was represented by participants from Kenya, Uganda and Tanzania. All the presenters emphasized the problems faced by indigenous peoples (injustices, marginalization and poverty), as a result of historical factors and current government policies.

3.1.1. *The Maasai of Kenya*

The presentation was based on research conducted on MDGs and the Maasai of Kenya through collaboration with the Mainyoito Pastoralists Integrated Development Organization (MPIDO).

The Maasai are a case study for the situation of indigenous peoples in Kenya. They face the cross-cutting problems of underdevelopment and disenfranchisement. Development plans are based on inappropriate paradigms, and are imposed from the top down, without regard for cultural specificities. Pastoral areas are neglected in national development planning.

There was an attempt to break with this pattern in 2001, when the PRSP for Kenya was drawn up. A thematic group on pastoralism was set up and a pastoralist poverty reduction strategy was drafted. But there was little attempt to implement it. Discrimination has continued and poverty has escalated among indigenous peoples.

The findings of the research were:

- The MDGs are relevant to Maasai pastoralists in addressing development challenges facing the community.
- However, the goals have been conceptualized in general and global terms and assume a common standard of well-being across livelihood systems. They project a specific ideology of development (settled mentality). But the lives of indigenous peoples are structured differently. Examples are MDG 1 and MDG 7 which make various assumptions about hunger and poverty and how to solve them.
    - The MDGs use the US$1 a day threshold as a measure of well-being;
    - They adopt the agrarian response to food insecurity, although increased agricultural production is a threat to pastoral livelihoods – irrigation schemes, cultivation of water catchment areas, etc.
- Traditional knowledge, production systems and institutions are ignored in the design of interventions for food security.

- Pastoralism is seen as a problem from the point of view of MDGs. Tthere is a glaring failure to appreciate the role of pastoralism in the management of arid and semi-arid lands

The research made the following recommendations:

- There is a need to facilitate informed engagement with communities through creation of awareness, development of capacity of indigenous peoples, and facilitation of networks among stakeholders within districts inhabited by indigenous peoples.
- There is a need to provide space for the integration of indigenous knowledge and institutions into development planning and action on MDGs; and to empower local community institutions to participate.
- There is a need to recognize and respect diversity in the design of development interventions.
- There is a need to adapt development interventions to the cultural reality of Maasai: provide mobile schools and clinics for mobile pastoralists.
- There is a need for secure access to land and natural resources for pastoralists.

3.1.2. *The Ogiek community in Kenya*

The Ogiek were predominantly a hunting-gathering community. They were pejoratively nicknamed by the neighboring Maasai as *Iltorrobo* or *Ndorobo* (meaning people who do not keep livestock, therefore poor). They depended on the forest for honey, hunting and medicinal resources. Their problems were initiated by the colonial authorities when efforts were made to assimilate them into the Samburu. The presenter raised the following issues:

- The Ogiek are losing their language.
- They are losing their hold on their traditional lands (parts of the Mau Forest). Forests are classified as Trust Lands and are held in trust by local governments, but they keep allocating forest land to agricultural communities. The Ogiek have sustained the forest that the tourism industry depends on. Now they are being displaced by logging and agricultural development.
- The Ogiek do not know about the MDGs. The presenter posed the question "How free is free education when there are no schools and teachers for the Ogiek people?" The number of students graduating from primary school to high school is negligible.
- They are not recognized as indigenous peoples, or as tribes with distinct rights Traditional knowledge systems are not recognized, and have been destroyed.
- They are disconnected from the forest, which used to provide their livelihood.

They have the following recommendations:

- There is a need to establish affirmative action and a proper legal framework before the Ogiek can realize the MDGs.
- The Ogiek should be mobilized to form registered groups to benefit from Forest Act 2005,

which allows communities to register as forest communities and to enter into agreement with government.

3.1.3. *Karamojong community in Uganda*

Karamoja is in north-east Uganda, bordering Turkana, South Sudan and the Pokot area of Kenya. It is the region with the lowest human development indicators in Uganda. It is a large region with several marginalized communities.

In some areas, the first primary school is only one year old, and their first dispensary has been in existence for only a year also. The Tepei mountain people have lost their language through being assimilated by the Karamojong.

Pastoralists are marginalized, although livestock contributes 9-10 per cent of Uganda's GDP. These areas have poor infrastructure. Government policies are full of misconceptions about the Karamojong. In addition, there is little progress in implementing policies favorable to indigenous peoples in Uganda. There is great mistrust of pastoralists and they are perceived as peoples who know little. There is no respect for indingenous knowledge, or indigenous approaches to security.

Ugandan officials do not have the know-how required to implement the MDGs. The presenter recommended that civil society should increase awareness of MDGs at local level.

3.1.4. *Parakuiyo pastoralists of Tanzania*

Tanzania's Vision 2525 is to become a middle-income country. State policy sees pastoralism as a problem, claiming it has low productivity, destroys the environment and creates conflict among farming communtiies. The policy is therefore to contain pastoralism. This negative view of pastoralism is being challenged with new information showing that pastoral practices on free-rang land are more economically viable and more profitable that the western model, given the same levels of investment. However, anti-pastoralist bias reamins strong. The government promotes ranching rather than pastoralism.

Parakuiyo pastoralists are one of the Maasai sub-groups found in Tanzania, in the regions of Tanga, Manyara, Iringa, Dodoma, Morogoro, Mbeya, Coast and Kilimanjaro. Parakuiyo pastoralists are scattered and they are a minority in each region. They practise pastoralism in small patches of land between farms.

The major problems faced by Parakuiyo include:

- scarcity of land;
- conflicts over natural resources;
- under-representation in decision making;
- collective punishment – for example if one Maasai steals a cow, the whole community is raided and their animals taken;
- illiteracy due to lack of schools;
- stereotyping, eg they are referred to as "ripe mangoes" (ready for plucking) – because they do not know their rights, they have to buy justice, even when they are not in the wrong;

- corruption among government officials;
- bad national development policies;
- lack of a strong advocacy mechanism and lack of unity among pastoral peoples.

However, the community is striving to overcome some of these problems by:

- strengthening Parakuiyo traditional institutions;
- formation of Parakuiyo Pastoralists Indigenous Community Development Organization (PAICODEO);
- community investment in education – construction of Parakuyo secondary school in 2005 and Moreto Secondary School in 1995;
- lobbying the government in collaboration with other pastoralists and hunter-gatherer communities, and other indigenous peoples' organizations;
- representation of Parakuiyo pastoralists issues at the sessions of the Working Group on Indigenous Populations, then at the UNPFII and other forums at national and regional levels;
- sensitization of gender and age group issues in the community development initiative.

They have the following recommendations:

- creation of a pastoralists' council, e.g., a Maasai Council, in the region;
- development of education curricula that address the needs of the Parakuiyo community;
- communal ownership of land for nomadic groups in the region to be ensured;
- needs assessment to be conducted on the status of the indigenous communities in the region;
- lobbying for improved policy design, planning and implementation;
- collaboration between indigenous peoples themselves and with UN agencies, such as UNPFII, and governments;
- financial support to be provided for capacity building of indigenous peoples organizations;
- the East African Community and the African Union to be lobbied on indigenous peoples' issues in the region;
- creation of pro-pastoralist and hunter-gatherer parliamentarian groups in the region.

3.2. West African region

3.2.1. *Tuareg of Niger*

Niger is in deep poverty. In 2003 it was ranked 176th out of 177 countries in the Human Development Index, with a GNP per head of 159 euros or $200. Uranium, which accounts for 48 per cent of the country's export earnings, is the determining factor in the national budget.

The Tuaregs are pastoralists – camel and goat-herders – who occupy the desert of northern Niger, which covers two-thirds of the country. The North is a mountainous region with sparse vegetation.

South-Central Niger is a semi-arid zone of grass and scrubland, and part of the Sahel. The wide valleys of the old Saharan rivers that once flowed into the Niger River are dry for most of the year, but in the rainy season they fill with ponds and become green for some weeks. For the Peul and Tuareg peoples, this is a time for families and clans to meet for social events and economic transactions.

Southern Niger is the only fertile part of the country with rains usually sufficient for arable farming without irrigation. It incudes the valley of the River Niger as far as the border with Burkina Faso, and a strip about 100 kilometres wide along the border with Nigeria.

The farmers in the South have the right to their land holdings, unlike the northern pastoralists. The north faces sporadic droughts, which lead to loss of life for both livestock and humans. The South is rich: its people are educated and in the government. They draw up plans and policies that favour their own people, who are cultivators, and the pastoralists suffer as a result.

Aid from donors does not reach the vulnerable pastoralists in the North because of corruption and lack of access – the road network is poor. The government is dominated by southerners who develop policies that favor the southern farmers (pro-agricultural policies).

Education is officially compulsory and free between the ages of seven and 12, but reaches only 40 per cent of school age children because of a shortage of teachers, a widely scattered population some of whom are nomads, and the persistence of prejudices against education among many parents. The literacy rate is only 19 per cent – one of the lowest in Africa and in the world. The figures hide significant disparities between urban and rural people, but also between boys and girls. Girls are often take out of school early to be married.

The problems affecting the Tuareg are:

- illiteracy due to lack of education;
- lack of adequate human and animal health in Tuareg-inhabited regions;
- lack of drinking clean water;
- lack of information;
- inequitable sharing of natural resources;
- lack of participation in decision-making processes;
- lack of access to justice and equality before the law.

The recommendations are:

- Donors should ensure aid reaches the target population and put in place stiff penalties for those who embezzle donor aid.
- Measures should be put in place to ensure vaccination of livestock.
- Create awareness so that indigenous peoples can benefit from available opportunities.

- Ensure conservation of biodiversity, on which pastoralists depend for survival.

3.3. The Horn of Africa

3.3.1. *Pastoralists in Sudan, Ethiopia, Eritrea and Somalia*

Despite slight differences in government policies in the four countries, the conditions of pastoralists are similar. Government policies are the same as those of the colonial states: they want to eradicate pastoralism. Although Ethiopia was not colonized, and an indigenous government gave way to a modern state, it is like other African governments when it comes to pastoralism. The strategy is settlement, and pastoralism must change.

In the past 10 years, pastoralist NGOs have challenged government policies and in response to pressure from donors some governments have started to talk about pastoral development policies. But on the ground the policy has not changed.

In **Eritrea**, pastoralists occupy the lowland areas. The Eritrean government is negligent, if not hostile, to traditional communities. Pastoralism is not in their vocabulary. There are no NGOs or pro-pastoralist initiatives from inside Eritrea. But some operating outside th country work in defence of Eritrean pastoralists.

The whole of **Sudan** was originally occupied by pastoralists. Sudanese leaders are not hostile to pastoralism but they do not see it as a viable way of life. They want pastoralism to change. The country has activists championing pastoralists' rights and there are pastoralist unions suppporting their own party. Some of the leaders are pro-government MPs claiming to respresent pastoralist communities. It is the only country in the Horn, perhaps in Africa, to have a Department of Pastoralism in a university (University of Khartoum), where academics have conducted research on pastoralism.

Somalia is 100 per cent pastoralist by origin. After colonization came urbanization and settlement. Most of the population are still pastoralists. The government's attitude towards pastoralists, before the collapse of the state in Somalia, was similar to that of the colonial government.

Ethiopia is characterized by a low human development index and increasing environmental degradation with some lakes drying up. In pastoralist areas primary schools are poorly staffed. The presence of pastoral activism NGOs has created a pro-pastoralism attitude within the Ethiopian government. Even though policy has not changed, the government has created some departments to cater for pastoralists' concerns.

The government considers peasant agriculture to be at the centre of development. As a result, there is a looming farming tragedy because the lives of peasants are becoming precarious because of drought and dwindling farm sizes. However, pastoralists are not ready to change unless the government gives them good land, houses, schools, and clinics to treat malaria (as in Eritrea, the pastoralists occupy the lowlands). Pastoralist areas are abundant in resources (rivers, minerals, wildlife, livestock, etc.). Ethiopia used to have the highest livestock to population ratio in Africa, and this was

due to the pastoralists. The wealth of pastoralists is higher than peasant wealth, but the government does not consider this as part of the national economy.

On Ethiopian pastoralists, MDGs and CBDs it was stated that:

- There is no discussion of the Convention on Biological Diversity in Ethiopia.
- The MDGs are heard of more because of PRSPs, but few officials know much about them.
- In terms pf poverty, Ethiopia is in the lower strata of the Human Development Index.
- School enrolment has increased but school staffing is poor.
- The position of women is the worst in the world. Government talks about the position of women but does nothing.
- The country is experiencing environmental degradation even though it is a signatory to Agenda 21. Three great lakes have dried up. Pastoral communities depend on environment and have the best environmental conservation knowledge.

In Ethiopia, pastoralist areas cover 61 per cent of the total land area, and have just over 16 per cent of the total population. Pastoralists live in arid and semi-arid areas. They live in harmony with nature, but their mode of production is not recognized. The government does not recognize rights to land, especially to communal land use, and does not recognize their right to move around.

Women in pastoralist areas have no power in decision making at local or higher levels. There is a great deal of violence against women, including female genital mutilation. Women have no right to own property: they have a right to use it, but not to control it.

The problems of pastoralists in Ethiopia are:

- lack of recognition of their social and economic institutions;
- education policies unfriendly to pastoralists – based on environmental conditions in the highlands;
- constant conflicts between pastoralists and government;
- no access to health services for either people or animals;
- poor representation in government (the ruling class are from the highlands and the government encourages a settled way of life);
- social, economic and political marginalization of women;
- lack for appropriate strategies for women empowerment, although but some positive results have been realized through lobbying.

3.4. Central Africa region

3.4.1. *The Batwa people of Rwanda*

The Batwa are found in eight Central African countries: Rwanda, Burundi, the Democratic

Republic of Congo, the Republic of Congo, the Central African Republic, Chad, Gabon, and Cameroon. Their situation is deplorable with regard to the MDGs. Their governments do not recognize their existence as indigenous peoples, with the exception of the Burundian government. The Batwa are represented in the Burundian legislative assembly and senate.

Indigenous peoples play no part in running their countries, so they do not generate conflicts – but they die in them. In Rwanda Batwa were victims of genocide, caught between Tutsis and Hutus. Many of them are in prison without legal representation and fair trial.

Research evidence shows that poverty, exclusion and marginalization are perpetrated against the Batwa in the socio-economic and political spheres. Profits from tourism never benefit the Batwa.

The Batwas' existence is threatened by government policies. Eighty-nine per cent of Batwas are landless. Those who own land have less than an acre and those with many children suffer as a result. They also suffer from unemployment because they are illiterate.

From 1973, because of environmental protection measures, the government expelled the Batwa from the forest, where they had lived as hunter-gatherers. They were left without any means of making a living. Those Batwa who were evicted from their lands know little about farming and many have become beggars. Less than 0.01 per cent of Batwa have a job.

Among other Rwandans, about 85 per cent have attended school. But among th bata, the figure is 12 per cent. Batwa children are illiterate, so they too have little prospect of employment. However, assistance from the European Union has enabled some children to reach high school.

With regard to the MDGs, the Rwandan government has prioritized agriculture, schooling, and cattle raising but the Batwa depend on pottery. The government did not consider the situation of the Batwa. The government considers the Batwa to be secessionists/rebels.

The presenter's recommendations included:

- UN bodies to assist in taking the censuses of Africa's indigenous peoples;
- African governments to recognize indigenous peoples in their territories and to ratify international conventions/treaties relevant to indigenous peoples and to include them in decision-making processes;
- the MDGs can contrbute to the promotion of human rights and human rights conditions should take into account the rights of indigenous peoples.

3.4.2. *The Pygmies of Democratic Republic of Congo (DRC)*

Rwandan Batwa are similar to the Pygmies of DRC. Pygmies either live in or depend on forests. In most of the countries where Pygmies live, they have been denied advantages and denigrated by other communities. This is promoted through stereotypes. The major challenges facing the Pygmies are:

- extreme poverty;
- illiteracy and ignorance of their basic rights;
- failure to recognize and protect their lands and territories, resulting in ad hoc access to land;

- destruction of forest ecosystems, which are their main source of subsistence;
- loss of cultural identity: the Pygmies are abandoning their knowledge as a result of lack of access to or destruction of forest biodiversity;
- exclusion and lack of participation in national programs.

The presenter's recommendations were that governments and UN agencies should ensure:

- protection and recognition of traditional territories, or at least access to the land so they can continue survival activities;
- access to benefits from the exploitation of natural resources on their ancestral land;
- access to education (create education policy for Pygmies);
- full participation in forest and forest resource management by indigenous peoples;
- a full census of Pygmies in Central Africa, to make possible design of efficient development programs;
- integration of Pygmies in PRSPs – because they are the poorest and most vulnerable sector of the population.

The presenter finished by saying that indicators of development and well-being should be created on the basis of these recommendations because those used by the UN (e.g., US$1 a day poverty threshhold) are inappropriate.

3.5. Southern Africa region

Cecil Lefleur, representing the Indigenous Peoples of Africa Coordinating Committee (IPACC) secretariat, presented a "Briefing Note on Socio-economic Indicators Relating to Indigenous Peoples in Africa". The note emphasized the need to develop indicators for measuring progress but criticized the measurement of progress based on cash income (used in MDGs) for various reasons:

- Measuring money does not tell you how well peoples are eating and meeting basic needs. People may need more money in the city than in a rural area, even if prices are higher in the rural area. Indigenous peoples may not earn much cash in a month, but if they have a big herd of cattle or can hunt and fish, then they can feed the family and have a good life, without much access to cash. In contrast, people living in a shack in the city, doing a small job may earning a little cash, but the family is hungry and sick, they have no security or savings, and may be vulnerable to violence, malaria and other problem less common in the rural areas. Money does not buy happiness or a sense of purpose and well-being. Poverty can also be moral: despair, anger, hatred and other things that make life painful.
- The MDGs are not only about money; they also look at women's dignity, access to schooling and environmental sustainability.

In Africa, most groups identifying with indigenous peoples (i.e., hunters-gatherers and pastoralists) come from distinctive types of economies, different from the predominant economy and many practise transhumance. Key issues include access to natural resources (a core issue particularly for hunter-gatherers), recognition and stereotyping which puts pressure on young people to abandon their identity and culture.

Hunting and herding should not be seen as primitive pursuits, but as skilled occupations.

There is some recent research on pastoralists, but almost none on hunter-gatherers. This should be a priority in recommendations to the UN.

Even in South Africa, where indigenous peoples are recognized by the government, they are still excluded from the census system – their identities and languages are not counted. The goal should be that the national statistics agency in each African country collects data that can be measured to show how indigenous peoples are doing.

Indicators of well-being should also include cultural indicators:

- inter-generational transfer of knowledge;
- health of the community;
- language and the ability to transmit it to one's children;
- the ability to give and have recognized indigenous names;
- faith systems and indigenous healing;
- the ability to continue traditional cultural expressions such as indigenous dances and songs;
- degree of respect shown by the state to Indigenous cultures;
- involvement of indigenous peoples in heritage site planning and management;
- recognition and respect for indigenous treatment of the dead and burial practices.

Workshops held by IPACC shed light on the key areas of focus regarding indigenous cultural indicators which included among others:

- family access to fresh milk;
- access to clean water for drinking and washing;
- freedom from forced labor;
- how much money indigenous peoples have;
- school drop-out rates among indigenous peoples children (due to prejudice and poverty);
- identity documents (most indigenous people do not have them;
- indication of indigenous peoples in censuses;
- alienation of land;
- whether families can move their herds through the same zones they had access to ten years before;
- teaching indigenous children to value their cultures and languages, and economies;

- food diversity and how this is being reduced by sedentarization and urbanization;
- recognition of collective intellectual property rights;
- protection from harassment;
- freedom of speech.

4. Summary of thematic areas and key issues

The last two days were dominated by group work, which ensured more participation and involvement. Three groups were formed to discuss key issues upon which indicators can be debated – one group of hunter-gatherers and two groups of pastoralists. After presenting their key issues, the groups were asked to reconvene and cluster the issues into themes, as summarized in the table below.

Table 1: Thematic and key issues resulting from the three groups

Thematic issue	Key issues
Socio-cultural	• Inadequate health infrastructure, personnel, medicines, and health-care for human/livestock. • Increasing rates of HIV/AIDS. • High mortality rates and declining life expectancy • Lack of animal health • Lack of social amenities
Education	• Curricula not relevant to social, economic and cultural needs • Lack of awareness on value of education • Lack of policy support and recognition • Lack of morale by staff • Lack of functional adult literacy
Cultural	• Lack of recognition of distinct identity/livelihood systems • Exploitation of cultures, IPs • Gender disparity, violence against women • Loss of cultural identity, language, religion, governance systems and economic practices
Political-Legal	• Exclusion, discrimination, marginalization and misuse of IP's political processes • Collective punishment • Negative perceptions/stereotypes of IP's livelihoods • Lack of factual information/capacity • Conflict/insecurity • Lack of access to justice
Economic	• Lack of security of tenure to land and natural resources • Lack of infrastructure • Lack of marketing facilities/mechanisms • Lack of benefit-sharing • Unemployment • Lack of proper control of access to their lands, forests and natural resources • Lack of credit faculties/low income

Thematic issue	Key issues
Environment	• Loss of bio-diversity • Harmful conservation policies • Poorly designed dams for hydro-electricity generation • Dumping of Nuclear wastes • Introduction of harmful and alien plant species in IP areas • Lack of consultation and participation in policy design and implementation • Militarization programs in areas occupied by indigenous peoples with attendant problems such as rape, landmines etc.

4.1. Framework for developing indicators

A concept note was presented on various indicators: types included the Basic Capability Index comprising three indicators, the Happy Planet indicators, the global index of bio-cultural diversity and the human rights approach to indicators. The presenter said the human rights based approach was the preferred one for development of indicators for the well-being of indigenous peoples because:

- It requires that special attention be given to disadvantaged individuals and communities, among which are indigenous peoples.
- It requires the active and informed participation of individuals and communities in policy decisions that affect them.
- It requires effective, transparent and accessible monitoring and accountability mechanisms.

The effect of the human rights based approach is to empower disadvantaged individuals and communities.

4.2. Developing indicators

The table below is a summary of the outcome of group work from the second day on indicator development from each group which was discussed and endorsed by the plenary session.

Table 2: Indicators developed by GROUP 1 and presented to participants for discussion and endorsement

Goal	Indicators
Political/legal: the goal is to ensure inclusion of indigenous peoples in political processes	• Percentage of indigenous peoples participating in decision making processes • The number of constitutional and legal instruments that ensure equal participation of indigenous peoples

Goal	Indicators
To guarantee peace, security, law and order in indigenous peoples' areas To ensure the right to self-determination of indigenous peoples	• Strengthened indigenous structures and mechanisms in peace building • Declining percentage of life and property lost • Reduction of ethnic and resource-based conflicts • Establishment of functional early warning systems • Existence of law that ensures the self-determination of indigenous peoples in the area of leading their way of life
Education: the goal is to ensure equal access to quality/relevant primary, secondary and tertiary education for indigenous peoples	• Increased percentage of enrolment of school age indigenous children, and girls in particular • Increased percentage of completion rate at different levels of schooling and girls in particular • Increase in percentage of national budget that goes to education in indigenous peoples' areas • Existence of/extent to which curriculum is relevant to indigenous peoples' reality and its application • Increased teacher-pupil ratio • Number of teachers available per education facility • Availability of boarding schools and textbooks • Use of mother tongue as the first language of instruction

Table 3: Indicators developed by GROUP 2 and presented to the plenary for debate and endorsement

Goals and targets	Indicators
SOCIAL **health** • Ensure quality health care services delivery and infrastructure • Personnel sensitive towards Indigenous Peoples. • 25% reduction in prevalence of HIV/AIDS amongst Indigenous Peoples by 2015	• An increase in health care facilities in IPs areas • An increase in capacity building programs for health care personnel in IP areas • Increase in awareness campaigns and number of VCT centres amongst IP territories • number of rehabilitation centers established for PLWAs and orphans in IP territories • Increased use of condoms and other preventive measures by IP
CULTURAL • Development of legal safeguards against exploitation of cultures and IPs	• Existence of policies and regulations for implementation • Constitutional recognition of distinct identity of indigenous peoples • existence of legal patenting of cultural artifacts of indigenous peoples • Improved awareness of indigenous peoples on intellectual property rights • Incorporation of IPs' culture in educational curriculum

• Ensure 50% gender parity and eradication of violence against women and improved awareness on gender.	• Ratification of CEDAW by states and Govts • Put affirmative action at all levels of representation • Empowered women • Incorporate gender studies in educational national curricula by 2010
• Ensure the safeguarding of cultural identity, language, religion, indigenous governance systems, and economic practices of indigenous peoples • Support by governments for international instruments for IPs	• Respect for indigenous peoples' identity in national government institutions • Ratification of ILO Convention 169, etc • Documentation and dissemination of indigenous cultural practices • Establishment special cultural education centres for IP • Engagement of the media to promote cultural practices of IPs
• Reduce child mortality and ensure increase in life expectancy	• Proactive participation of indigenous people in implementation of health programs • Increased use of indigenous technical knowledge (TKS) • Reduce child mortality by 50 per cent for children under five years in 2015 • Incorporate indigenous TKS in the health system • Raise life expectancy from 36 years to 50 years • 75% reduction in malaria, TB rates of infection through supply of drugs
Distinct identity and livelihood systems • Recognition and safeguarding of distinct identity/livelihoods systems in the national constitution. • Ensure improved livelihood systems by 2010	• Legal recognition of traditional governance systems and economic processes • Integration of traditional system in the political arena • Strengthening traditional disputes/conflicts mechanisms • Improved economic status of indigenous peoples • Access to credit facilities • Improved recognition of indigenous peoples' economic practices • Improved markets for indigenous peoples' products by 2010
Animal health care • Ensure comprehensive animal health • Care schemes, and livestock insurance policy	• Provide more land to allow mobility and open up migratory stock routes • Provide pasture and water • Develop a comprehensive livestock policy
Social amenities	• Establishment of social amenities • Respect social and cultural values practised by indigenous peoples by 2010

Table 4: Indicators developed by GROUP 3 and presented to the plenary for discussion and endorsement

Issue	Specific objectives	Indicators
ENVIRONMENT Biodiversity preservation	• Recognition of relevant communities as rights holders • Laws and policies that allow forest communities to manage forests and forest resources • Building the capacity of these communities to be part of the effective management processes • Full and effective participation in the management of structures	• Official policy development on land and property ownership • A growing number of IPs involved in policy-making processes • Number of training programs and trainees • Number of bodies where IPs can participate • Number of meetings between IPs and government/conservation bodies • Number of agreements concluded
ECONOMY Poverty reduction	• Right to free, equal and quality education, implementation of compulsory education • Stop deforestation and respect IPs rights to ancestral lands • Respect cultural practices of IP's including the right to food diversity • Ensure access to and control over indigenous land and forests • Inclusion of pastoral livestock production system into the national economy • Develop livestock marketing mechanism	• Number of students who enroll, retain and complete from Class 1 to secondary level • Reduced drop out rates • Improvement and availability of school facilities • Abolition of laws prohibiting hunting and gathering • Inclusion of hunting and gathering practices in the modern economic systems • Number of measures formulated and legalized against alienation and exploitation of indigenous land/resources • Recognition and legalization of communal land use and ownership • Existence of government policy • Extension programs • Government support systems for pastoralist during occurrences of natural disasters • Percentage of the national budget allocated to the development of pastoral livestock industry

Issue	Specific objectives	Indicators
		• Number of abattoirs constructed in indigenous areas • Number of animals and animal products exported

The session on development of indicators was followed by another session in which participants were further divided into three groups. Group 1 was to come with an action plan, Group 2 to come up with recommendations and Group 3 to come up with possible sources of data on indicators. The results are presented below

4.3. Sources of data on indicators

Table 5: Sources of data on indicators

Key issue	Sources of data	Other relevant actors
Social	• Responsible ministries, departments, grassroots offices/communities • Traditional experts • Depts of CBS/Info	• Research institutions • CSOs • UN bodies • Universities • Colleges • Community leaders • Political leaders
Education	• Responsible ministries/depts • Grassroot offices • Children (schools) • Traditional experts • Gender experts	• UNESCO • CSOs • Universities • Colleges • Communities
Culture	• Responsible ministries/depts • Grassroots offices • Traditional experts	• Research institutions • CSOs • UN bodies • Universities • Colleges • Community • Traditional experts
Political	• Responsible ministries, MFA • Attorney General's office • Judiciary/police • Grassroots law offices • Community policing	• UN bodies- UNCHR, OHCHR • Universities • Colleges • Research institutions • HR – institutions • Traditional community leaders (experts)

Key issue	Sources of data	Other relevant actors
Economy	• Responsible ministries As in 1-2 above	• Research institutions • HR watchdog institutions • Colleges • Universities
Environment	• Responsible ministries/depts/grass root offices • Community groups • Traditional healers/experts • Schools	• Research institutions • Colleges • Universities • World Food Program • Relevant UN bodies - CBD

4.4. Way forward and plan of action

The participants then drew up a plan of action to take the indicators work further. This included information dissemination, presentation of the workshop report to the UNPFII, baseline surveys and a follow-up workshop.

4.5. Recommendations

- The UN Permanent Forum on Indigenous Issues to ensure the inclusion of the indicators developed by the workshop in all relevant UN agencies.
- The UN Special Rapporteur on Human Rights and Fundamental Freedoms of Indigenous Peoples should ensure that respective UN bodies recognize and include indigenous peoples' organs and their representatives in monitoring the implementation of these indicators.
- Formation of an African-wide Indigenous Forum that comprises CBOs, NGOs, traditional structures and governments and relevant UN bodies.
- The formation of an indigenous Parliamentary Caucus at national and regional levels.
- The UN Permanent Forum to facilitate and support active participation of Indigenous Peoples in the forthcoming and subsequent World Social Forums.
- Follow-up forum on updating and revising indicators for African Indigenous Peoples to be held in November 2008.

5

Latin American and Caribbean Expert Seminar on Indicators Relevant to Indigenous Peoples, Local Communities and the Convention on Biological Diversity

Summary

The Latin American and Caribbean Expert Seminar on Indicators Relevant to Indigenous Peoples, Local Communities and the Convention on Biological Diversity was carried out in fulfilment of one of the mandates adopted by the eighth meeting of the Conference of Parties (COP) of the Convention. This mandate established that the Working Group on Indicators of the International Indigenous Forum on Biodiversity (IIFB) should receive support for the organization of this event to facilitate measuring the effectiveness of public policies and actions taken for the protection of traditional knowledge and the cultural vitality of indigenous peoples.

The seminar was attended by 48 experts from Argentina, Bolivia, Brazil, Chile, Ecuador, Dominican Republic, Barbados, Puerto Rico, El Salvador, Guatemala, Panama, Colombia, Nicaragua, Costa Rica, Bolivia, the United States, Mexico and Canada, as well as by representatives from IUCN and CBD.

The indigenous and non-indigenous experts developed a set of general principles to serve as a general frame of reference for the indicators. They identified indicators of traditional knowledge, organized under the topics of lands, territories, production, spirituality and sacred sites, education, communication, language and culture, and health and indigenous medicine. Work was done on three

The seminar was held in Quito on 11-13 December 2006. It was organized by the World Conservation Union (IUCN) and the International Indigenous Forum on Biodiversity (IIFB) with support from the Spanish International Agency for Cooperation (AECI) and the Secretariat of the Convention on Biological Diversity (CBD).

levels of indicators: structural indicators, process indicators and outcome indicators.

Lastly, the participants prepared a set of key recommendations to disseminate, discuss and enhance this document.

Introduction

1. In January 2006, in Granada, Spain, representatives of the International Indigenous Forum on Biodiversity (IIFB) formed the Working Group on Indicators. On that occasion, the group prepared a first draft of a plan of activities, which was improved at the Curitaba, Brazil meeting in the framework of the 8th Session of the Conference of the Parties (COP8) in March 2006. Among the mandates adopted by the COP8, Decision VIII /5 –G, paragraph 5, established that support should be provided to the initiative of the Working Group on Indicators of the International Indigenous Forum on Biodiversity (IIFB) to organize an International Expert Seminar on Indicators Relevant to Indigenous Peoples and Local Communities, in order to facilitate measuring the effectiveness of public policies and actions taken to protect traditional knowledge and the cultural vitality of indigenous peoples.
2. The Spanish Agency for International Cooperation (AECI) offered to support the Secretariat of the Convention on Biological Diversity in carrying out a consultation on indicators at an international and regional level. It was agreed with the Secretariat of the Convention on Biological Diversity and the IIFB that the Regional Office for South America of the World Conservation Union (IUCN-SUR) would provide technical and logistical support for the initiative of the IIFB Working Group on Indicators, and this was officially approved by the COP8.
3. After the regional coordinator for the Working Group on Indicators for Latin America and the Caribbean was designated, preparations for the event were initiated, including, among other major elements, the identification, selection and invitation of participants and the definition of theoretical and methodological input for the seminar. This included preparing a guiding document on traditional indigenous knowledge, developed in collaboration with the Latin American Faculty of Social Sciences, FLACSO-Ecuador as well as carrying out an Electronic Forum from 20 November to 1 December 2006, at which issues related to traditional indigenous knowledge and the development of indicators were discussed.
4. The regional consultation for Latin America and the Caribbean was carried out through a Seminar with indigenous and non-indigenous experts in Quito, Ecuador from 11-13 December 2006. The results of this event will constitute the main contribution in preparation for the International Expert Seminar on Indicators that will take place from 5-9th March 2007, in Banaue, Philippines. The minutes of the event (Annex 3 – Spanish version), working agenda (Annex 4) and list of participants (Annex 5) are attached.

I. Seminar objective

5. The objective of the seminar was:

   through participatory consultation, to discuss and design indicators that facilitate **measuring the effectiveness of the application of public policies and actions for the protection of Traditional Knowledge, as well as the cultural vitality of Indigenous Peoples**, as the main contribution in preparation for the International Expert Seminar on Indicators that will take place in March 2007 in the Philippines.

II. Relevant aspects of the discussion

Traditional knowledge

6. During the event, the participants were asked to define traditional knowledge and a number of related concepts were articulated. One of the ideas presented that generated the most discussion at the seminar was to define traditional knowledge (TK) as those forms of knowledge that are related to the environment or nature, and not only biological resources or indigenous medicine, important as they are for the life of indigenous peoples. It is associated with forestry management, song, dance, therapeutic treatments, agriculture, ecosystem management, sacred sites, handicrafts, classification and storage of seeds, and the indigenous peoples' own systems of customary law. Traditional knowledge is an integral part of the life of all indigenous peoples.
7. The conservation practices of indigenous peoples should contribute to ecosystem management with their ancestral knowledge. This knowledge is not generally recognized, valued or taken into account. It is critical, from this perspective, for indigenous peoples to participate in the discussion and definition of policies for the conservation of renewable and non-renewable natural resources (such as oil).
8. A global regulatory framework is needed for the protection of traditional knowledge. However, current international systems for the protection of traditional knowledge are mainly characterized by the provision of private or corporative protection for commercial purposes, through patents, brands and database records, which are protected as trade secrets and controlled by the states. Parallel to these systems is the indigenous peoples' customary law, which considers indigenous knowledge to be collective intellectual property intrinsic to the cultural identity of the indigenous peoples. Thus, a system of *sui generis* protection of traditional knowledge urgently needs to be created, based on customary law and the uses and customs of indigenous peoples. The requirement and challenge ahead is for the indigenous peoples' organizations to address these issues because there is no state control over biopiracy; in addition, there is a need for information sharing and awareness raising among indigenous peoples, and it is critical that they participate in decision making.

9. The indigenous peoples have not resolved their conflicts with the states over lands and territories. The multinational economic agreements do not recognize the indigenous peoples' collective rights to the resources and traditional knowledge existing in their territories, to the point that megaprojects have been imposed on them despite the indigenous peoples' opposition. Given this situation, traditional knowledge is at risk of deterioration, if it is associated with the physical assets on which the indigenous communities depend.

Some aspects related to the development of indicators

10. It was noted that the development of indicators is not only a matter of identifying indicators to measure and account for traditional knowledge, but also of establishing a quality baseline that is rooted in the indigenous peoples and their ancestors, and in the complex social reality the indigenous peoples are going through. The situation of poverty, extreme poverty and social exclusion that different indigenous groups are living through in the cities, as well emigration, which affects their cultural identity, are elements of the reality that must be considered.
11. There is a lack of statistical and demographic information to develop indicators. The current systems are not prepared to measure traditional indigenous knowledge. The indigenous peoples must gather their own information to help develop the indicators, taking into account their actual experiences.
12. Who should gather this information? Who has this knowledge? The seminar participants suggested that elderly men and women, indigenous wisemen, the indigenous peoples and fundamentally indigenous women, are the bearers of this knowledge, and not necessarily intellectuals or specialists. In any case, it was acknowledged that the contribution of academics may be important as long as their direction and intent are controlled by the indigenous peoples and they respond to the requirements of the revitalization of traditional knowledge.
13. The fields and topics, data and indicators that are established must respect and develop the indigenous peoples' vision but must also offer a cultural relationship with actors other than the indigenous peoples, such as international cooperation, development programs, the state and other processes related to the indigenous peoples.

What are indicators of traditional knowledge, who and what are they for?

14. The participants posed the following key questions and opinions.
15. Before measuring traditional knowledge, the indigenous peoples must conserve, maintain and promote it. Or should both things be done at the same time? One of the responses to this question was that knowledge is not lost but transformed. However, the participants pointed out that there are some concrete examples of disappearance of knowledge and not just transformation. The process of global changes in the indigenous communities of Latin America is alarm-

ing. The spiritual changes and loss of the mythical-religious dimension are having a strong impact on some indigenous peoples.

16. In working on indicators of traditional knowledge related to sacred sites and spirituality, the risk exists that other non-indigenous actors with other intentions not related to cultural revitalization may have access to the indigenous peoples' resources and information.
17. Who will apply the indicators? It is different if the indicators are developed and applied by the indigenous peoples than if they are applied by the states. The indigenous peoples themselves must work on and measure the indicators; otherwise, they would face the risk of being told what they are or are not losing and what is or is not of value. It is vital to know what the indicators are being developed for; if the development is done by the indigenous peoples, this will make it possible to identify gaps or aspects that need reinforcing.
18. The questions of what the indicators are and who will use them are important. In Canada, these matters are referred to in terms of ownership, control, access and possession of indicators. These concepts are used in research by the people who protect traditional knowledge through a protocol called OCAP (ownership, control, access and possession). This protocol and the principles that sustain it allow for protection and control of the use of information and ensure the indigenous peoples' access to and control over their information.
19. It is important to respond to these concerns through participatory processes and consultation. In order for the indicators to be useful, they must be developed by the indigenous peoples and identify how useful they can be to the peoples themselves, and to what extent work is needed to strengthen specific aspects related to education, health, nutrition, culture, etc. The grassroots levels of the indigenous peoples must participate fully and effectively in the whole process.
20. The indicators are an instrument for measuring, evaluating and protecting territorial resources. From this perspective, it was proposed that the indicators would enable the indigenous peoples to position themselves in the sphere of negotiations and reduce their situation of invisibility. The development of indicators implies exercising pressure in the same way that the indigenous peoples did in the United Nations in order for their thought and practices to be addressed within the Millennium Development Goals. If indicators are not developed, international organizations will not be able to pressure the states to comply with the resolutions of the United Nations. It is of the utmost importance that the states comply with structural, process and outcome indicators, as well as with any other kind of indicator. The international agencies can also cooperate directly with the indigenous peoples in the creation and application of indicators to determine the status of traditional knowledge.
21. Some participants commented that the same concern voiced at this event has been expressed in other meetings for reflection on this issue. The development of indicators is a technical effort, but it is also deeply political. Thus, it is useful for NGOs, as well as for defining public policies, but its primary purpose is for the indigenous peoples to determine the status of their traditional knowledge, which is part of their struggle to claim their rights as holders of traditional knowledge.

III. METHODOLOGICAL FRAMEWORK FOR THE DEVELOPMENT OF INDICATORS

What are indicators?

22. They are signs, guides, practices (S.O.S., green light and footprint). In indigenous languages the word "indicator" does not exist; the Kichwa term RIKUCHINA or RIKUCHIK means to indicate, show, point out. In Aymara, the word CHAKANA can be culturally translated as 'indicator'. These indigenous terms may be used in the context of this event. Indicators related to traditional knowledge are very hard to measure. One of the recommendations of the Electronic Forum on Traditional Knowledge, carried out to provide input for this seminar, is that approaches must be found for measuring, quantifying and qualifying such knowledge.

23. Indicators are data that allow us to determine how things are in relation to some specific aspect of reality we wish to know about (the traditional knowledge of indigenous peoples, in this case). These data, which must reflect the status of indigenous traditional knowledge, are known as cultural indicators.

Basic considerations for developing cultural indicators

24. The methodological framework has to do with the framework of indigenous peoples' rights and their recognition (Universal Declaration on the Rights of Indigenous Peoples) approved in the permanent Human Rights Council in June 2006 and pending debate in the General Assembly).

25. The collective nature of indigenous traditional knowledge, whose legal base on an international level is ILO Convention No. 169, implies (a) the right of indigenous peoples to conserve their own customs and institutions; (b) their right to participate in the use, administration and conservation of the natural resources existing in their territory; (c) their right to decide to participate.

26. However, the protection of traditional knowledge must not be reduced to the practice of prior consultation established by ILO Convention No. 169, but must consider the need for free, prior, informed consent. In order to apply this requirement, indicators would be needed that measure: (a) the availability of information; (b) required and pertinent time for discussion; (c) the participation of the actors involved; (d) recognition of the indigenous peoples' own representative entities; (e) the possibility of exercising the right to moratorium or veto. Plans to protect traditional knowledge should consider Article 8j of the Convention of Biological Diversity, CBD, which states: "Subject to its national legislation: respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity and promote their wider application with the approval and involvement of the holders of such knowledge, innovations and practices and encourage the equitable sharing of the benefits arising from the utilization of such knowledge, innovations and practices."

27. Although progress has been made in Latin America in the recognition of specific rights of indigenous peoples, mechanisms are lacking to make it possible to effectively evaluate the relationship between the recognition of rights and the impacts that policies and programs are generating.

28. The following ideas stand out for the development of indicators of traditional indigenous knowledge:

    a) The concept of "indicator" needs to be culturally translated when it is transferred to the indigenous world.

    b) As holders of traditional knowledge, indigenous peoples must pay a leading role in the definition of indicators.

    c) Traditional knowledge forms part of a holistic cosmovision. Knowledge cannot be treated separately from the rest of reality. Indicators must express this integral nature as far as possible. Knowledge seen through the "cross-cutting variable of cosmovision", production, social organization and lands, territories, natural resources, language, health and sickness, education, autonomy, identity, etc.

    d) Indicators of traditional knowledge must have an intercultural perspective. Once they find support in an atmosphere of respect and acceptance of differences, they should serve as a bridge to generate respectful dialogue with other actors (states, NGOs, international cooperation).

29. Indicators should be seen from the perspective of collective rights. The issue of collective rights involves two key dimensions: the degree of recognition of collective rights associated with international, regional and national regulatory frameworks; and the exercise of those rights, in order to examine whether the policies are being applied or not.

30. Thus, it was proposed that group work be organized taking into account the following levels of indicators based on the experience with the Development of Indicators for the Well-being of the Indigenous Peoples of Latin America and the Caribbean that took place in Nicaragua in 2006.

    a) **Structural** indicators have to do with the general recognition of individual and collective rights, with the approval of legal instruments and the political intention and will of the states to accept regulations and the existence of national laws, such as the legal regulatory framework and institutional system for recognition and defence of the lands, territories and natural resources of indigenous peoples.

    b) **Process** indicators have to do with programs and policies related to the application of rights of protection and preservation of traditional indigenous knowledge. It is interesting to assess the positive and negative aspects, as well as the progress and setbacks, of policies or programs related to the application of indigenous peoples' rights; for example, the quantity and quality of legal initiatives promulgated for the recognition and defence of the rights of indigenous peoples.

    c) **Outcome** indicators have to do with collective achievements, the sum compliance of other indicators, and the exercise of other rights at a local or community level; for example, the

number of indigenous territories and lands demarcated, titled, registered and protected; the quantity and quality of traditional lands and territories and natural resources managed or co-managed by indigenous communities; the number of state institutions, programs and projects that promote the rights of indigenous peoples to their lands, territories and natural resources.

31. Initially, four groups were formed with their respective co-facilitators:

a) Traditional knowledge, lands and territories (José Naín from Chile)

b) Traditional knowledge, education, communication, language and culture (Víctor Hugo Cárdenas from Bolivia)

c) Traditional knowledge, health and indigenous medicine (Tránsito Chela from Ecuador)

d) Spirituality and sacred sites (José Quimbo from Ecuador)

However, the group on spirituality and sacred sites later joined that of traditional knowledge, lands and territories.

I. General principles

32. The participants proposed the following general principles that provide a global framework for the development of indicators on traditional indigenous knowledge:

a) The requirement that all statistics produced in countries with indigenous peoples must contain variables that make it possible to differentiate data related to indigenous peoples, taking into account that each people possesses its own culture, identity and customs. The distinction between indigenous and non-indigenous peoples is not sufficient to account for the cultural diversity of nations and each people's well-being.

b) It is necessary for the indicators to identify national, regional, state, local and community distinctions in such a way that the outcomes make it possible to evaluate the pertinence, development and impact of existing policies, including the gender perspective and the suitability of policies for the permanent migrant population (indigenous people outside their communities, such as indigenous people in cities) or the temporal migrant population (itinerant indigenous day labourers).

c) The need to assign funding and technical support for the production of statistics and culturally relevant indicators with the participation of the indigenous peoples.

d) All surveys (questionnaires, censuses, etc.) aimed at indigenous peoples must involve them directly in the formulation of instruments (questionnaires) and their application, as well as in the analysis and dissemination of the results.

e) The need to implement laws and programs that guarantee respect for prior, free and informed consent when information is provided or an individual participates in a research

project. These laws and programs must also guarantee the confidentiality of the collective data and other aspects that shall only be accessible to indigenous peoples.

f) Guarantee that all data, statistics and indicators of traditional knowledge that are produced nationally and internationally are the property of the indigenous peoples, are accessible to the indigenous peoples themselves, and that these peoples are provided with the necessary technical specifications for their processing and interpretation.

g) All administrative statistics and periodic questionnaires managed and produced by national governments and international organizations shall contain a breakdown that is relevant to indigenous peoples and shall also reflect their vision of well-being and development. The same is required for national and international indicators and indices that are published annually.

h) Guarantee the full and effective participation of indigenous peoples in the design of statistical data collection instruments; and collect, systematize, analyse and disseminate the data with the direct and ongoing participation of indigenous people in the levels of planning, decision-making and implementation. These individuals shall remain in permanent contact with their peoples and shall be held accountable for their work.

Indicators of territories (lands, waters, seas and islands)

Production/spirituality and sacred sites

Structural indicators	Process indicators	Outcome indicators
• International and regional agreements and treaties recognize the ownership, control, use and territorial management of the resources and traditional knowledge of indigenous peoples and peoples in voluntary isolation	• Recognition and preservation of toponymy in indigenous languages as a cultural manifestation of territoriality • Programs for the recovery and sustainable management of wildlife resources • Policies, programs, laws, ordinances and agreements that recognize ownership and facilitate the development of indigenous peoples	• Number of indigenous communities that have their own territorial zoning plans • Mechanisms for retribution and permanent compensation to indigenous peoples for environmental services • Sustainable development plans, programs and projects based on the cultural identity of indigenous peoples

Structural indicators	Process indicators	Outcome indicators
	• National legislation referring to environmental impact studies and studies of the impact on culture and traditional knowledge of projects that have a direct and indirect influence on indigenous territories and peoples • National legislation that grants indigenous peoples the capacity to make decisions about the appropriateness of projects in indigenous territories	• Studies, in coordination with indigenous peoples, of impacts on culture and traditional knowledge • The communities have and apply regulations for research on and use of traditional knowledge • Percentages of indigenous territories used for conservation of traditional crops • Level of empowerment through the flow of information to indigenous communities
• Recognition of the legal systems of indigenous peoples by the national legal frameworks and other governmental entities	• Programs for recovery and strengthening of the indigenous peoples' own legal systems • Mechanisms in the national legal framework for the valorization of the indigenous peoples' authorities and organizations according to their uses and customs	• Recovery and implementation of the indigenous peoples' own legal systems
• Existence of a political-cultural project as a process to achieve indigenous autonomy and self determination	• Self-demarcation projects	• Percentage of territories that are self demarcated • Incorporation of indigenous criteria for self-identification and quantification of the indigenous peoples • Recovery and implementation of the indigenous peoples' own institutional systems

Structural indicators	Process indicators	Outcome indicators
• Categories of recognition and legalization of indigenous territories, which are characterized, among other things, by being inalienable, imprescriptible and unattachable	• Size (area) of legalized indigenous territories • Mechanisms for the legalization of full rights to indigenous territories	• Mechanisms to facilitate the coexistence of and exchange between transborder peoples
• Direct management and administration of protected areas and sacred sites by indigenous peoples	• Classification of forms of land tenure according to the criteria of access, control and administration by indigenous peoples	• Protocols and agreements among indigenous peoples and states for the recovery, access, control and administration of protected areas and sacred sites
• Definite property rights of the indigenous peoples over natural resources, including, *inter alia*, biota, genetic resources, soil and subsoil in the indigenous territories and sacred sites		

Indicators of education, communication, language, culture

Education

Structural indicators	Process indicators	Outcome indicators
• Current legislation on education	• Implementation of educational laws and regulations related to indigenous peoples	• Degree of coverage: children, adolescents and adults • Degree of satisfaction of indigenous peoples
• Educational systems	• Development of indigenous educational systems at national, regional or local levels	• Degree and type of self management, whether through public, private, community or other contribution

Structural indicators	Process indicators	Outcome indicators
• Multicultural and intercultural educational models	• Development of models, types and mechanisms of participation of indigenous peoples	• Actors participating in the experience, type of participation and degree of involvement • Degree of use of languages in different levels of instruction and through various means • Degree of satisfaction of the indigenous peoples
• Educational quality	• Definition and development of the different curricula in the educational systems	• Existence of culturally and linguistically relevant educational resources and didactic materials • Degree of program implementation and innovation • Formation and training of human resources • Degree of competence for social participation and participation in a global society

*In many cases, a general point of interest is mentioned rather than a precise indicator; in other cases, it is necessary to report the existence of specific legislation, systems or types of systems, etc.

Language[1]

Structural indicators	Process indicators	Outcome indicators
• Current legislation on recognition and spheres of official use of indigenous languages	• Development of systems for the official use of indigenous languages or support for speakers of those languages (health programs, educational programs, administration of justice programs, etc that use them)	• Use of indigenous languages in all of the country's institutions • Degree of satisfaction of the indigenous peoples with these programs

Structural indicators	Process indicators	Outcome indicators
• Cultural and educational system(s) and means of communication in indigenous languages	• Participation of indigenous peoples in definition processes and promotion programs	• Degree and type of selfmanagement, whether public, community or other contribution • Existence of an academy of indigenous languages • Public, private and community revitalization programs
• Regulation and institutionalization of language functions	• Spheres of use and promotion of indigenous languages (economic or educational activity; communication in social, family and public settings and others) • Oral and/or written use • Existing systems of exclusion/discrimination based on the use of indigenous languages	• Degree and type of use by children, adolescents, adults and elderly people • Social actors responsible for their dissemination • Degree of social prestige given to their use • Facility of access to traditional knowledge • Use of indigenous languages in systems of signposting, documentation and official communications

Examples of indicators

Education

Topic	Examples of indicators
Education	• Percentage of indigenous children and adolescents who participate in each educational system by educational level and grade, according to gender and age • Percentage of indigenous children who speak indigenous languages and enter the formal education system (by educational system, age and gender) • Percentage of indigenous children who speak indigenous languages and finish their formal education (by educational system, age and gender) • Cause of dropouts from formal education • Completion rates for indigenous children and adolescents in each educational system, by educational level and grade, according to gender and age • Literacy rate in the monolingual adult population

Topic	Examples of indicators
	• Percentage of indigenous children whose age corresponds to the normal age range for the school level and grade in which they are enrolled • Existence of indigenous exclusion/discrimination in non-indigenous schools because of ethnic identity, gender or poverty • Acceptance/rejection rate of school applications (middle and higher education) according to the cause of rejection

Language

Topic	Example of indicators
Languages: Language use and transmission	• Number of speakers of each indigenous language by age, gender and geographic location • Rate of intergenerational recovery or loss of the mother tongue • Percentage of indigenous children who study in their mother tongue • Percentage of spheres where the mother tongue is officially used (teaching, administration of justice, health services, administrative processes, etc) • Percentage of communications media (radio, television, books, newspapers, advertisements, official communications) that use indigenous languages • Number of government and community programs that promote the use of the mother tongue • Number of persons by age and gender who participate in them • Budget allotted to the programs • Persistence of indigenous languages used only for rituals

Comments by the group reporter[2]

The "indicators" (issues or phenomena) addressed are centred more on what the indigenous peoples **would like** to measure, analyse, monitor and **take into account to create** policies and programs for indigenous peoples than on "**measuring the efficiency of application**" (as stated in the wording of the objective).

Very few indicators can be used to measure the effectiveness of current policies; at least this was the case in Mexico, since their policy objectives barely addressed the issues we have discussed. Rather, I believe that the discussion at the seminar facilitates the incorporation of these indicators in future goals (for example, establishing the goal that communities with a certain percentage of indigenous inhabitants should have their own territorial zoning plans), and in the medium and long term, the goal of measuring the effectiveness of the application of a proposed program.

We consider that the most salient outcome of this seminar was the identification of issues and variables that the indigenous peoples consider relevant for the formulation of policies, and of the actors that must take part in their formulation and monitoring.

Given the limited time for discussion, we were not able to focus much on the matter of how it would be most appropriate (or if it would be desirable) for indigenous peoples to be present in the general policies and if the indicators that are currently being used to monitor these policies are

sufficient to measure progress made by the indigenous population (would it suffice to break down the variables in terms of ethnicity?; in addition to this, should the complementary analysis of other kinds of information, such as community data, be considered?).

Therefore, we did not accomplish the proposed objectives, but made great progress in another important direction since the indicators discussed will make it possible to:

- evaluate the degree of commitment, indifference or blindness of public policies to the needs, demands and interests of indigenous peoples;
- take the indigenous peoples into consideration and incorporate them in the formulation of public policies and later in "measuring the effectiveness".

Indicators of Health and Indigenous Medicine

Structural indicators	Process indicators	Outcome indicators
Conceptualization		
• Conceptualization and recognition of traditional knowledge (TK) in the different levels and entities for application in health through regulations, protocols and • ordinances	• Process agreed between the main actors (traditional doctors) for the conceptualization of TK and the promotion of the concept, agreed on by different entities; consistency in the concepts contained in regulations and protocols	• Conceptualization criteria for the application of traditional medicine • Scopes of responsibility • Internal and external regulations that consider consistency in the concept of TK and its recognition
Status of TK in local and national health practices		
• Research on, or determination of, the status of TK concerning loss, valorization and recovery by indigenous experts	• Systems or mechanisms of identification of the status of TK in local and national health systems to measure loss, valorization and recovery	• Decisions on policies, actions and related regulations are based on knowledge of the status of TK • Information on the degree of loss and recovery of TK in traditional medicine practices
Participation in national and international policies and administration		
• Laws, policies, regulations and protocols are developed with the participation of the indigenous peoples, holders of traditional knowledge	• Number of existing policies, laws, regulations and protocols that reflect the participation of indigenous peoples and traditional knowledge	• Number of laws and policy and administrative tools that favour the application of TK in traditional medicine systems

Structural indicators	Process indicators	Outcome indicators
Participation in national and international policies and administration		
• Special policies, programs and plans for indigenous health at the national level as well as implemented by PAHO and WHO • Policies for protection of TK in health. Example: The National Office of Indigenous Health has facilitated to a certain degree the free exercise of traditional knowledge, supported by ILO Convention No. 169 in Ecuador and by the creation of a Vice-ministry for traditional medicine in Bolivia • The participation of indigenous peoples has been recognized internationally in Article 8j	• Research on achievements and existing gaps • Promotion of indigenous expert seminars • Resolutions and agreements signed to protect and preserve traditional medicine practices • The projects must be developed by the communities themselves • Protocols for protection of research on TK, and for intellectual property rights in indigenous communities. Example: OCAP Principles	• Number or percentage of indigenous experts involved in administrative entities for indigenous health • Increased visibility of traditional medicine • Legal recognition of traditional medicine; recognition and/or legalization of traditional doctors. Example: Creation of an official institutional system with the identification of indigenous professionals of ancestral indigenous health practices • Percentage of indigenous professionals participating in the monitoring and evaluation of curative practices at local, national and international levels
Education and dissemination		
• Education and dissemination of existing policies on traditional medicine at national and local levels • Education that takes ancestral wisdom into account	• Documents and dissemination programs in indigenous languages, using different communications media	• Increased knowledge and application of policies • Awareness raising on the issue for non indigenous persons and entities • Respect for traditional knowledge, practices and ways and how they are handled (e.g., professional secrets and avoidance of folklorism)

II. Recommendations

33. In the immediate future, protocols should be established for the collection and use of information, data control and decision-making about how information related to the status of indigenous peoples shall be used. These protocols should be based on the OCAP protocol that was presented at this event by our Canadian colleagues and be consistent with the establishment of a code of ethics for researchers of traditional knowledge, in accordance with decisions of the COP8.

34. Proposed indicators should be revised and improved to relate them to the issue of traditional knowledge and isolated peoples, who are the most vulnerable of all indigenous peoples and are permanently threatened by oil and lumber companies, and who also constitute reservoirs of knowledge that deserve to be respected. It is important to conceive of a group of indicators aimed at identifying measures so that the states can implement systems for the protection of the traditional knowledge of indigenous peoples.

35. Regarding the issue of the non-contacted or voluntarily isolated peoples, it should be kept in mind that a special regime is needed for these peoples in order to delimit their territories (especially in the work area of the project for Regional Integration of Infrastructure in South America – IIRSA). This need was analysed at a conference held in Bolivia, organized by the Coordinating Body for the Indigenous Organizations of the Amazon Basin (COICA) and the Confederation of Indigenous Peoples of Bolivia (CIDOB).

36. It is proposed that the results achieved at this seminar be shared with the indigenous communities in which an information gap exists that is not dependent on the state, but rather can be filled by the indigenous peoples' organizations and the indigenous participants who attended this event.

37. The participants consider that beyond collecting the results of the event in a report that the IUCN Regional Office for South America will send to the Secretariat of the CBD, the event should be a process of reflection that facilitates progress in the recognition and respect for traditional knowledge. In this sense, it is proposed that these reflections be refined through discussions with the participation of indigenous organizations and representatives belonging to IIFB.

38. The following mechanism for consultation, review and enhancement of this report was proposed and accepted.

    Naniki Reyes is responsible for preparing a proposal related to the topic of protocols for research on traditional knowledge. This proposal will be sent starting on 8 January 2007 to the emails of the participants in the event for their review and suggestions.

    a) On 8 January 2007, the Regional Office for South America of the World Conservation Union (IUCN-SUR) will submit the draft of the Seminar Report to the focal point of the Working Group on Indicators for South America and the Caribbean, Yolanda Terán, who will transmit it to the working group reporters and to the IIFB Summation Subcommittee

(Johnson Cerda, María Eugenia Choque and Patricia Fernández – group reporters – and Viviana Figueroa and Hortensia Hidalgo – Summation Subcommittee) for their revision and suggestions. Florina López will join this group.

b) This whole process should take a maximum of three days counting from 8 January 2007, so that Yolanda Terán can send the document to the IUCN Regional Office for South America on 11 January.

39. As there was not enough time to improve the document on indicators of traditional knowledge, a second meeting is needed to carry out this work, preferably with several participants from the Quito workshop in order to ensure continuity with the initial work.

Endnotes

[1] The work on indicators on culture and communication was not completed for lack of time.

[2] These comments were provided by the working group reporter, Patricia Fernández, after the seminar, as part of the process of finalizing this document.

6

Pacific Region Workshop on Indicators Relevant to Indigenous Peoples

The Pacific Region Workshop on Indicators Relevant to Indigenous Peoples was held in Brisbane, Queensland, Australia, on 13-15 March 2007. It was hosted by the Foundation for Aboriginal and Islander Research Action (FAIRA).

Day #1 March 13, 2007

Introductions

Les Malezar of the hosting organization, FAIRA, opened the workshop and asked each participant to introduce themselves and their organization.

Presentation: Overcoming Indigenous Disadvantage Report

Lawrence McDonald, Assistant Commissioner of the Productivity Commission,gave a presentation on the Australian government's *Overcoming Indigenous Disadvantage Report*.

Highlights from this presentation:

- Summary booklets were distributed to each workshop participant.
- Indigenous peoples participating in the *Overcoming Indigenous Disadvantage Reports* have in some cases waived their privacy rights as they see the value in data collection.
- This is to be a report card for the Australian government.
- The statistics are to compare indigenous to non-indigenous.

- The final report of the Aborginal Commission recommended data collection in order to determine the situation of the Indigenous.
- The next step is for the government to look at bad outcomes and determine how to improve those areas.
- Example from the report:
    - Life expectancy – 15 less years for indigenous than for non-indigenous in Australia.
- Terms of reference: the report has to be useful to government and relevant to indigenous peoples.
- Conclusion: the presenter recognized that cultural indicators are lacking in the report, and thus was pleased to be invited to workshop.

Questions and answers:

- Is there an aboriginal advisory board?
    - There is a nominated Indigenous Council, but the process is not open and transparent.
    - In general, there is not much indigenous involvement in the government.
- Any aboriginals in your Department?
    - Unfortunately, our Department does not attract many indigenous peoples.
- What are some of the indicators for safe and healthy families?
    - There are indicators such as how many children are somehow connected to the social services, traditional land access, cultural and social benefits, etc.
- What are the benchmarks and targets?
    - The benchmark is that they should have similar outcomes and the same choices as indigenous – equality.
- How do you get equality say between a Melbourne suburban family vs those who live in the Outback?
    - They should have the same choices.
    - In some situations they do not have other choices.

Presentation: Indigenous Traditional Knowledge

Mick Dodson, UNPFII Pacific member, presented a paper on indigenous traditional knowledge. This paper has been submitted to the UN but has not been released.

Highlights of the presentation:

- The paper assumes that indigenous peoples are concerned about inadequate protection of indigenous traditional knowledge and how it can be rendered.
- Gives various definitions of traditional knowledge: need for caution.
- Discusses the inadequate protection of traditional knowledge internationally. Examples:
    - Australia: human rights protection law or specifically under indigenous traditional knowledge.
    - Canada: health practices recognizing indigenous health practices.
    - Philippines: Traditional and Alternative Medicine Act.
- Most of the debate is taking place under intellectual property rights law but this is not sufficient for the protection of traditional knowledge.
- The recommendation will be a completely new and customary approach, sui generis systems.
- Indigenous traditional knowledge is not simply a form of intellectual property.
- Question: Given that the intellectual property rights regime is inadequate, should a sui generis exist that is unimpeded by intellectual property rights law but instead by indigenous peoples' customary laws?
- Key issues that should be identified:
    - Identify the question;
    - Terminology;
    - Nature of a sui generis system, eg will it reflect customary law?
    - Intended beneficiaries of such a system.
- Terminology: Article 31 of the UN Declaration of the Rights of Indigenous Peoples (UNDRIP) should be the starting point.
- Central to the study is free, prior and informed consent.
- Start with a literature review, follow it up with workshops.
- There is need for caution about codifying customary law.
- Dedicate time to this in UNPFII as standing issue.
- Appoint some of its members to hold specialized meetings with experts, intersessional meetings, with inter-agency support group.
- UNPFII might consider a Special Rapporteur on this issue, or someone outside – limited tenure, budget, we question exploratory missions, pilot projects, reports back.

Presentation: Island Food Community of Pohnpei

Lois Englberger gave a presentation about an indigenous food project in Pohnpei in the Federated States of Micronesia (FSM).

Highlights from this presentation:

- Long-term project – Harriet Kuhnlein conducted a global study on health.
- 1998 Vitamin A deficiency – more infections, night-blindness and death, bad health – they had been promoting green leaves.
- Betacarotene in banana is a precursor to Vitamin A.
- It had high cultural value and was given to chiefs.
- Replaced breast milk.
- High in riboflavin.
- Presented nutritional value of different bananas and breadfruit.
- It takes one and a half bananas to get the daily recommended dose for an adult.
- Bananas do not lose their Vitamin A when cooked.
- A poster on indigenous foods in the Pacific was shown. A computer printout was shared with workshop participants.
- Community members were at first worried, but now love the project!

Day #2 March 14, 2007

Briefing: Banaue Indicators Meeting

Malia Nobrega, Fiu Elisara, and other participants shared information on the Expert Seminar on Indicators Relevant to Indigenous Peoples, the Convention on Biological Diversity (CBD) and the Millennium Development Goals (MDGs), held in Banaue, Ifugao, Philippines from March 5-9, 2007. The Banaue seminar participants had a big binder of information along with a CD of information and books that they shared with Pacific workshop participants.

At the conclusion of the Banaue seminar, each region was asked to prioritize the top three indicators and the Pacific prioritized the following areas:

- Traditional knowledge
- Lands, territories and natural resources

As a working group the Pacific looked through all the indicators that were shared and tried to find the ones relevant to our prioritized areas. These are the indicators that were chosen as priorities for the Pacific:

Priority 1: 9.2.1.

Number of laws, policies and measures to protect traditional knowledge, innovations and practices and to promote FPIC and benefit sharing.

Priority 2: 8.1.2.

Percentage of traditional territories, lands, waters, and natural resources used for sustaining livelihoods; percentage that have retained their biodiversity and productive capacity.

Priority 3:

- Merge these two:

  1.2.6. Number of programs and projects in indigenous communities for cleaning up and restoration of impacted habitats and/or restoration of plant, animal or environment

  5.1.4. Number of programs and amount of budget used to support development and well-being of IP communities while at the same time sustaining the ecosystems

- Attempt to merge the two indicators above:

  Number of programs/projects and amount of budget used to support development and well-being of IP communities and for cleaning up and restoration of impacted habitats and/or restoration of plant, animal or environment, due to activities such as military and nuclear activities, while at the same time sustaining the ecosystems.

- Indicator regarding IPs' participation in the Convention on Biological Diversity (CBD):

  Number of partnerships and mutually agreed procedures with indigenous peoples for the implementation and monitoring of CBD plans, programs, and projects at all levels.

While in Banaue the Pacific Caucus also discussed that militarization and the nuclear impacts are still a big issue of concern for the Pacific.

Banaue workshop participants from the Pacific expressed some of their frustration with the process, the concern regarding the cost-benefit analysis for this kind of work – it is a very technical process – and at times there was confusion about the main issue of the meeting and whether it was indicators for the CBD or the MDGs. Other comments included the diversity of presentations and the good discussions that were held, especially in the small mixed region working groups. An observation was made that many of the regions expressed similar concerns that are a priority to them. The work is now in the hands of the coordinating committee and the technical group.

Presentation: Indigenous Peoples and Indicators of Well-being: An Australian Perspective

Mick Dodson, UNPFII Pacific member, presented a paper by Dr John Taylor.

Highlights from this presentation:

- This is a follow-up paper to the one submitted to the Meeting on Indigenous Peoples and Indicators of Well-being in Ottawa on March 22-23, 2006.
- John Taylor is from the Centre for Aboriginal Economic Policy Research, Australian National University.
- Highlights STATS NZ website.
- Data disaggregation among small populations.
- Development of the MDGs and the Human Development Index intended to provide a more wholistic view.
- Gross Domestic Product (GDP): estimates everything produced in a year in the country.
- What came out of the Artic Development Report was to look at the relevance of the National Development Indicators (NDI):
    - o life expentancy;
    - o education;
    - o decent standard of living construed as GDP per country.
- Present system does not measure things that indigenous peoples consider are important to well-being.
- Strong relationship between the MDGs and *Overcoming Indigenous Disadvantage*.
- MDGs fail to capture many criteria important for indigenous peoples, by playing up gaps between non-indigenous and indigenous peoples, which plays down indigenous peoples' own values.
- Participants in Ottawa workshop included International Indian Treaty Council, Grand Council of the Cree, STATS NZ, RAIPON, Assembly of First Nations, academia, etc.

Participants discussed the dangers of the development of indicators that are not relevant to indigenous peoples.

Sharing: Work in the community

Each participant shared a little about the work they do in their communities. The participants included people working in community-based organizations, local and regional NGOs and a university.

The issues they are concerned with include:

- Cape York, Queensland, Australia
    - o Welfare reform
    - o Housing
    - o Education
- Solomon Islands

    - Rapid loss of indigenous traditional knowledge
    - Logging and mining
        - Filipino and Malaysian companies want the native woods
        - 10,000 Solomon dollars per sacred spot
        - Need for village level education about the issue
        - immediate money is important to people
    - Economic development
- Pacific Concerns Resource Center
    - Protest against nuclear testing in the Pacific
    - Marshall Islands – dumping of nuclear waste
    - Trade issues, regional Australia and New Zealand, also through trade partnership agreement between African, Caribbean and Pacific (ACP) countries and the European Commission (14 Pacific countries in ACP)
    - Fishing areas, fishing agreements – largest resource in the Pacific is fishing
    - Movement of peoples
    - Energy, tourism
    - Biggest challenge is capacity building of NGOs
- Vanuatu
    - Rural development
    - Young people dropping out of primary school, high school, and flocking into urban areas, resulting in a lot of youth problems
    - Land issues
    - Investors coming to Vanuatu
- Aotearoa
    - People leaving the community
    - Communication with people who live outside their community
    - Livelihoods
- Hawai'i
    - Transmission of traditional knowledge and culture from elders to youth
    - Traditional knowledge and biodiversity
    - Attempts to patent taro
    - Theft of culture: Disney stole sacred chants and rewrote some of the text for Lilo & Stitch

    - Genetically modified crops in Hawaii
- Samoa
    - Hydroelectric power
    - Land reform
    - Evaluation of customary land use, market evaluation of customary land
    - Sustainable development
    - Climate change
    - Mangrove conservation
- FSM – Island Food Community of Pohnpei
    - Traditional knowledge and preservation of foods – losing local foods
        - 27% local food
        - 73% imported food
    - Health issues facing the people of FSM include diabetes, dental, overweight
- Torres Strait Islands
    - Indigenous education
    - Indigenous people in prison, imprisonment rate higher for women than for men
    - Traditional knowledge

Day #3 - March 15, 2007

UNPFII Representation

A brief explanation on the history of the UNPFII, its membership and its mandate was shared with the Pacific participants. The seven regions identified by the UNPFII are Artic, Russia, Africa, Asia, Pacific, North America, Latin America & Caribbean. There are a total of 16 representatives (eight chosen by States and eight by indigenous peoples). Each region has a representative and the eighth seat is rotated between Africa, Asia, and Latin America. The appointment is for three years and the appointee can serve only two terms.

There was a need for a Pacific Region process for selection of UNPFII Pacific Member. It was mentioned that since the Pacific lacked a regional process for the selection of a UNPFII Pacific representative, any organization or government could nominate an individual to the UNPFII. This is not advantageous to the Pacific region because many individuals are nominated and the final decision is left in the hands of ECOSOC, rather than it being a true regional selection.

The workshop participants drew up a list of criteria for selection of the UNPFII Pacific member. They also discussed the expectations and commitment of the Pacific representative and the peoples of the Pacific.

Important issues that could be raised at the UNPFII

Health

- Achieving the MDG on primary health care – health costs too expensive
- Local food is related to health outcomes
- Traditional foods/medicines/practices
- Indonesia: unable to afford western style doctors but also not using traditional doctors

Education

- More discussions needed with the Pacific peoples on how benefits will derive from the creation of a UN campus in Australia on Traditional Knowledge

Human rights

- Fiji military to be withdrawn from UN peacekeeping activities
- New Zealand legislation on Foreshore and Seabed rights to be withdrawn
- Decolonization of West Papua and French Territories
- Support the UNDRIP

Environment

- Pacific Workshop on Indigenous Title to Land and Threat of Mapping and Foreign Titles
- New Zealand legislation on Foreshore and Seabed rights to be withdrawn
- Decolonization of West Papua and French Territories
- Climate change – move to political territories and retain their political sovereignty rights
- Expert Papers on Land Rights and Natural Resources perhaps a conference to be convened possibly held in Australia
- Promotion and study of traditional foods, medicines, and practices recognizing that an increased production and sustainable use of these species could significantly improve food security, environment, biodiversity, cultural preservation, and income generation
- ILO 169 as a recommendation from that last meeting
- Mining and extractive industries
- Australia – List of Mining Companies and where they mine on IPs exploring/lands

Economic and social

- Urges UN agencies to assist indigenous peoples' participation in small island developing

states and ensure their issues and concerns are integrated into bilateral and multi-lateral trade negotiations and instruments as they relate to trade negotiations and instruments as they relate to trade in goods, services, fisheries, investments movement of labour and tourism

Culture

- Discussion around what recommendations are already in, how they are being addressed, etc.

Three Priority Indicators Selected by the Pacific Region at Brisbane based on those selected by the Pacific Region in Banaue

Priority One 9.2.1.

Number of laws, policies and measures which protect traditional knowledge, innovations and practices, and to promote Free, Prior, Informed Consent and Benefit-Sharing

Priority Two 8.1.2.

Percentage or traditional territories, lands, waters and natural resources that have retained their biodiversity and productive capacity and percentage that can sustain livelihoods

Priority Three

a) 1.2.6.

Number of programs and projects in indigenous communities for cleaning up and restoration of impacted ecosystems and/or restoration of plant, animal or environment

b) 5.1.4.

Number of programs and amount of budget used to support development and well-being of indigenous peoples' communities while at the same time sustaining ecosystems

7

The 2nd Global Consultation on the Right to Food and Food Security for Indigenous Peoples

"Cultural Indicators for Food Security, Food Sovereignty and Sustainable Development"

Conclusions and Recommendations

I. Introduction

From September 7 to 9, 2006, Indigenous experts including Indigenous rights activists, community leaders and traditional food producers from six regions (North America, Latin America, Africa, Asia, Pacific and Arctic) met together with representatives of the UN Food and Agricultural Organization (FAO), the United Nations Permanent Forum on Indigenous Issues, United Nations Educational, Scientific and Cultural Organization (UNESCO), United Nations Development Fund for Women (UNIFEM) and the United Nations Development Program (UNPD).

This **Second Global Consultation on the Right to Food and Food Security for Indigenous Peoples** was hosted by the Consejo Regional Autónomo (Autonomous Regional Council) in Bilwi, Puerto Cabezas, Región Autónoma del Atlántico Norte, Nicaragua, and was coordinated by the International Indian Treaty Council in partnership with the UN Food and Agriculture Organization/SARD Initiative and el Centro para la Autonomía y Desarrollo de los Pueblos Indígenas, Nicaragua (CADPI).

The focus of the Consultation was to share experiences and build on previous work to develop a set of "Cultural Indicators for Food Security, Food Sovereignty and Sustainable Development" which can be used by UN agencies and bodies, development institutions, NGOs and Indigenous communities.

Following are the results of the Consultation, as agreed to by consensus of the participants.

II. Framework

A. Underlying principles for cultural indicators for food sovereignty:

1. Based on the definition of food sovereignty as a prerequisite for food security for Indigenous Peoples as defined in the Declaration of Atitlan:
   "Food Sovereignty is the right of Peoples to define their own policies and strategies for the sustainable production, distribution, and consumption of food, with respect for their own cultures and their own systems of managing natural resources and rural areas, and is considered to be a precondition for Food Security"
2. Based on the Rights of Self Determination, Free, Prior and Informed Consent and full and effective participation of Indigenous Peoples at all stages.
3. Based on and inextricably linked to Indigenous Peoples' right to lands, territories and natural resources.
4. Based on implementing real partnership efforts between Indigenous Peoples, key UN agencies (in particular, FAO, UNDP, UNPFII, WHO), States, NGOs, agencies, etc as underscored in the First and Second UN Declarations for the International Decades.
5. Based on recognition of the common concerns and perspectives among all Indigenous Peoples as well as respect for the unique, distinct situations and needs of each Indigenous Peoples and each region.
6. Based on the recognition that the Right to Food, Food Security and Subsistence are fundamental inherent human rights of Indigenous Peoples and all Peoples, as is the right of Indigenous Peoples to set their own priorities for their development.

B. Criteria for cultural indicators

1. They have a food sovereignty focus, in particular relating to the relationship between food sovereignty and traditional culture.
2. They are practical, useful and measurable.
3. They should be broad enough to be applied in a range of regions and situations (where they could be made more specific and detailed if need be).
4. They can be used to measure trends and changes (increases and decreases over time).
5. They use the model proposed that includes under each theme structural, process and results indicators.
6. They reflect Indigenous Peoples' input and direct involvement in development, planning, data collection, analysis and follow-up activities.

7. They take into account the role and contributions of Indigenous men and women, youth and elders.
8. They include the collection of anecdotal data, oral histories, interviews and other information provided by traditional practitioners, producers, elders and other community members, as well as from other sources (studies, testing, statistics, etc.).

C. The definition of development to be used in the context of cultural indicators

"*Development with identity is the project of life of the Indigenous Peoples based on their own logic and worldview. It is the natural growth of Indigenous Peoples, of their flora and of their fauna based on principles of self-determination in relation to land, territories, and natural resources. It is also respect for their individual and collective rights. It is the welfare and security of our peoples.* "

III. Cultural indicators

Following are two tables with the final lists of cultural indicators and categories developed at the consultation. The first table is the full list of indicators under the 11 categories agreed to by the consultation participants. The second table is a shorter, consolidated version based on the first table, but consolidated under five categories. This consolidated list was developed by the drafting committed designated by the participants at the consultation in conjunction with representatives of UN FAO. It is intended to provide a more compact and useable list, in particular for UN agencies such as FAO.

In the view of the consultation participants and the drafting team, it is important to include both tables in the final results and conclusions of the consultation, so that they can be applied and utilized as appropriate and according to the specific needs of Indigenous communities from various regions as well as a range of UN agencies, international and national development institutions and NGOs. We offer them along with the other results of the consultation in the sincere hope that our efforts will further international understanding of the concerns and perspectives of Indigenous Peoples in this vital area, and will provide practical assistance and tools for those working to promote and ensure food security, food sovereignty and sustainable development for Indigenous Peoples and all peoples. It is our intention that these indicators and the principles they are based upon will be able to guide and assess these efforts, using a framework that is rights-based, fully participatory and respectful of the cultural rights and self- determination of the Indigenous Peoples who are involved and affected.

For all our relations.

Table 1. Indicators Table Developed at the 2nd Global Consultation on the Right to Food and Food Security for Indigenous Peoples: Cultural Indicators for Food Security, Food Sovereignty and Sustainable Development ***(full list under 11 categories)***

1. Access to, security for and integrity of lands, territories and natural resources for traditional food production, harvesting and/or gathering		
Structural indicators	**Process indicators**	**Results indicators**
1. Number of policies, programs, legislative and administrative measures (national, state, local/tribal and/or international) in place for the management, protection and conservation of lands, territories and subsistence resources used traditionally by Indigenous Peoples	1. Number of policies, programs, legislative and administrative measures (national, state, local/tribal and/or international) being effectively implemented for the management, protection and conservation of lands, territories and subsistence resources used traditionally by Indigenous Peoples	1. Percentage of lands, territories and subsistence resources used traditionally by Indigenous Peoples for subsistence and food production to which IPs still have full access
2. Number of national constitutional provisions, laws, policies and programs which support Indigenous Peoples' access to and legal recognition of lands, territories, and natural resources which they have traditionally owned, occupied or otherwise used for subsistence and food production and practices	2. Number of programs in place or under development to demarcate Indigenous Peoples' traditional lands, territories and/or subsistence use areas	2. Percentage of Indigenous Peoples' lands and territories that are legally demarcated, recognized, owned and/or controlled by them today as compared to benchmarks established in past (i.e., lands recognized in Treaties and agreements, original/traditional use areas)
3. Number of policies, programs, legislative and administrative measures in place (National, state, local/tribal and/or international) which restrict or limit Indigenous Peoples' use of and access to lands, territories and subsistence resources used traditionally	3. Number of court cases or legal challenges to measures, policies or programs which restrict or limit Indigenous Peoples' use of and access to lands, territories and subsistence resources used traditionally	3. Percentage of lands, territories and natural resources used traditionally for food production (farming, fishing, hunting, gathering, herding) currently being used by Indigenous Peoples compared to benchmarks established in the past (5, 10, or 20 years etc.)
4. Number of laws, instruments, Treaties and ordinances in place which respect and uphold Indigenous Peoples' right to use, protect, control own and/or develop traditional subsistence food resources	4.Degree of enforcement of and compliance with Laws, Constitutions, Treaties, Agreements, Constructive Arrangements, ordinances and other Policies upholding and defending Indigenous Peoples' right to use, protect, control own	4. Percentage of traditional use lands, territories, and subsistence use areas which have retained their productive capacity for farming/fishing/hunting/gathering/herding); percentage which are now damaged, diminished, contaminated, etc.

1. Access to, security for and integrity of lands, territories and natural resources for traditional food production, harvesting and/or gathering		
Structural indicators	**Process indicators**	**Results indicators**
(plants, animals, seeds, genetic resources, etc.) and prevent the misappropriation of Indigenous Peoples' collective bio-cultural heritage	and/or develop traditional subsistence food resources (plants, animals, seeds, genetic resources etc.) and prevent the misappropriation of Indigenous Peoples' collective bio-cultural heritage	
5. Number of mechanisms in place with agreement of Indigenous Peoples for resolving conflicts regarding lands, territories and resources used traditionally for subsistence and food production by Indigenous Peoples	5. Frequency of conflict over territory and natural resources, number of court cases and disputes filed	5. Percentage of conflicts settled in favor of Indigenous Peoples
2. Abundance, scarcity and/or threats to traditional seeds, plant foods and medicines, and food animals, as well as cultural practices associated with their protection and survival		
Structural indicators	**Process indicators**	**Results indicators**
1. Number of traditional institutions or other mechanisms or programs in place for transmission of traditional knowledge about cultural practices related to food production, use, protection and/or abundance	1.Number of investigations and studies re: abundance and health of traditional subsistence foods being carried out by Indigenous Peoples'	1. Percentage of traditional knowledge and cultural practices associated with the use, production, protection and abundance of traditional food sources and resources still being used on a regular basis as compared to benchmarks from the past
2. Number of programs and projects in place in communities for clean-up of contaminated habitats; Percentage which are initiated/run/lead/evaluated by Indigenous community members	2. Number of active programs in Indigenous communities to restore plant or animal food species and/or their habitats and measure the impacts on abundance since their implementation	2. Percentage of traditional subsistence food resources (plant and animal) which are intact, viable, productive, healthy and free from contamination (toxics, GMO's etc.) compared to percentage of subsistence plants and animals that show signs of disease, toxic contamination, diminishing population and other effects
3. Number of government, corporate, agency, NGO or other outside entity programs in place for clean-up and restoration of contaminated or impacted habitats	3. Number of studies initiated by Indigenous communities and/or outside agencies to compare traditional food use levels with diet related disease levels, suicide rates and other physical, mental or social illness or factors	3. Changes in monthly/yearly harvests of food plants and animals used traditionally and reasons for any decrease, changes and/or restrictions

2. Abundance, scarcity and/or threats to traditional seeds, plant foods and medicines, and food animals, as well as cultural practices associated with their protection and survival		
Structural indicators	**Process indicators**	**Results indicators**
	4. Numbers of studies or assessments by Indigenous communities and others in conjunction with Indigenous Peoples to assess impacts of imposed development (dams, deforestation, urbanization, industrial agricultural, mining, drilling, etc.) on the traditional lands, territories and subsistence resources of Indigenous Peoples	4. Number of traditional food plants and animals which have been declared endangered, have decreased in numbers, and/or have disappeared (suggested comparisons to 50 years and 10 years ago, as per reports of subsistence users as well as existing governmental, agency, organization studies); number considered to be currently under threat
		5. Levels of introduced environmental contaminants (ie mercury, POPs, pesticides and other agro-chemicals, genetic contaminants, etc.) present in traditional subsistence foods including breast milk
3. Consumption and preparation of traditional plant and animal foods and medicines, including in ceremonial/cultural use as well as daily household use		
Structural indicators	**Process indicators**	**Results indicators**
	1. Number of programs in operation providing education to community members about health, nutritional benefits as well as cultural significance of traditional foods	1. Percentage of households in a community that use traditional/ subsistence foods on a regular basis, compared to an agreed upon number of years in the past (5, 10 or 25 depending on community history); percentage of household diet based on traditional foods (weekly, monthly and over a year) as compared to "introduced" foods (ie processed foods, imported foods, GMOs, etc.)
	2. Number of such programs initiated by groups/agencies from outside the community vs number which are community-initiated and community-led	2. Percentage of community members and/or families who still participate in traditional subsistence activities (compared to 50 years ago, 10 years ago or another appropriate number of years to determine rates of increase or decrease).
		3. Percentage of foods and food related items used traditionally in ceremonies which are still in use today as compared to an agreed upon number of years in the past (5, 10 or 25 depending on community history)

4. Continued practice and use of ceremonies, dances, prayers, songs and stories and other cultural traditions related to the use of traditional foods and subsistence practices		
Structural indicators	**Process indicators**	**Results indicators**
1. Number of traditional institutions/societies/leaders that initiate/take responsibility for traditional ceremonies and for religious activities related to or using traditional food (planting, harvesting, caretaking, gathering, hunting, fishing, preparation and serving)	1. Percentage of women, youth, men and elders who participate in the transfer of knowledge through traditional ceremonies and religious activities related to or using traditional food (planting, harvesting, caretaking, gathering, hunting, fishing, preparation and serving)	1. Number/percentage of community members who participate in traditional ceremonies and cultural practices; percentage of those who are youth
2. Number of contemporary institutions that provide for/support the continuation of these traditional ceremonies and cultural activities		2. Number of traditional and cultural practices associated with the use, protection and abundance of traditional food sources and resources still being used on a regular basis (ie songs, ceremonies, stories, dances, clan relationships and other practices)
3. Number of traditional institutions in place to ensure transmission of traditional knowledge about cultural/ceremonial practices specifically related to food production, use, protection and/ or abundance, and the use of traditional foods in these practices		3. Number or percentage of community members who actively participate in these cultural practices
5. Preservation and continued use of language and traditional names for foods and processes (planting, hunting, gathering, harvesting, fishing, food preparation, etc)		
Structural indicators	**Process indicators**	**Results indicators**
1. Number of traditional institutions/societies/leaders that take responsibility for the continuation of the traditional language, songs stories, etc related to traditional food use (planting, harvesting, caretaking, gathering, hunting, fishing, preparation and serving)	1. Percentage of youth who actively participate in programs to learn the traditional language including names for traditional foods and food related practices	1. Percentage of living community members who know the words, songs, dances, stories associated with traditional food gathering/production/caretaking preparation and use

5. Preservation and continued use of language and traditional names for foods and processes (planting, hunting, gathering, harvesting, fishing, food preparation, etc)		
Structural indicators	**Process indicators**	**Results indicators**
2. Number of contemporary institutions that provide for/support the continuation of the traditional language, songs stories, etc. related to traditional food use		2. Percentage of community members who are fluent speakers in the Indigenous language and percentage of households in which an Indigenous language is the primary spoken language, and increase or decrease compared to number of years in the past (i.e., 10 years or 25 years)
6. Integrity of and access to sacred sites for ceremonial purposes related to use of traditional foods		
Structural indicators	**Process indicators**	**Results indicators**
1. Percentage of sites traditionally used for ceremonial, religious and related traditional subsistence activities currently under recognized Indigenous ownership, control, jurisdiction and /or protection	1. Percentage of programs in place to return use/control/ownership/jurisdiction of these sites to Indigenous Peoples	1. Percentage of total sites traditionally used for ceremonial, religious and related traditional subsistence activities within traditional lands and territories which are currently used on a regular basis compared to benchmarks established in the past (traditional use, Treaties, number of years ago, etc.)
2. Percentage of these under other legal forms of protection (i.e., federal/state) and/or as protected areas		2. Percentage of total sites traditionally used for ceremonial, religious and traditional subsistence activities within currently-recognized Indigenous territories which are now used on a regular basis
3. Percentage of sites under state/federal protection and/or protected areas designation to which Indigenous Peoples have full access		3. Percentage of these sites currently under threat of desecration/destruction/contamination etc
4. Number of mechanisms in place with full participation and agreement of Indigenous Peoples for resolving conflicts regarding access to/control and use of/protection of sacred sites		4. Percent of conflicts settled in favor of Indigenous Peoples

7. Migration and movement away from traditional lands as a result of rural-to-urban migration, conflict, forced relocation, land appropriation, climate change, and economic necessity; return patterns and relationships to continued use of traditional foods		
Structural indicators	**Process indicators**	**Results indicators**
1. Number of laws/agreements in place providing for and enabling the free movement and return of traditionally mobile Peoples and for mobile subsistence practices (herding, fishing, hunting, gathering)	1. Number of laws enforced and implemented providing for the free movement and return of traditionally mobile Peoples and for mobile subsistence practices (herding, fishing, hunting, gathering)	1. Percentage of persons/youth that leave the community on a seasonal, semi-permanently (for at least 2 years) or permanently (5 years of more) for employment/economic or other reasons, including those which impact traditional subsistence access or resources
2. Number of laws/agreements enabling cross border movement of Indigenous Peoples including access to traditional subsistence use areas.	2. Degree of enforcement of laws/agreements that exist to allow cross border mobility for subsistence, ceremonial and other related purposes.	2. Percentage of those who have returned to communities who use traditional food systems and ceremonial practices upon their return.
		3. Percentage of households, and percentage of youth, that retain or maintain traditional food use when away from their home communities.
8. Effective consultations for planning, implementation and evaluation applying the principles of free, prior informed consent and full participation by community members when development programs are implemented by states, outside agencies or other entities and the extent to which cultural concerns are considered and addressed		
Structural indicators	**Process indicators**	**Results indicators**
1. Number of laws, legal systems and mechanisms in place, recognized and being implemented (traditional/ tribal/ state/national/international) for the recognition, protection and restoration of Indigenous Peoples' collective knowledge systems related to traditional foods and medicines (i.e., Intellectual Property Rights/Cultural Heritage Rights) including the protection of genetic resources	1. Number of court cases and complaints related to violations of peoples' collective knowledge systems/Intellectual Property Rights filed by Indigenous Peoples (symbols, genetic resources, seeds and plants, including medicinal plants, etc.)	1. Percent of court cases and complaints related to Intellectual Property Rights/Cultural Heritage Rights settled in favour of the Indigenous Peoples

8. Effective consultations for planning, implementation and evaluation applying the principles of free, prior informed consent and full participation by community members when development programs are implemented by states, outside agencies or other entities and the extent to which cultural concerns are considered and addressed		
Structural indicators	**Process indicators**	**Results indicators**
2. Number of Indigenous Peoples-initiated programs in place to validate, organize, protect and/or register their traditional knowledge systems and resist/oppose/prevent misappropriation of their collective bio-cultural heritage	2. Number of consultations for program planning, implementation and evaluation with community members and representatives by states, outside agencies or other entities; percentage of community members including elders/ traditional subsistence practitioners/traditional food producers/knowledge holders/ users participating in these consultations	2. Extent to which the definition, understanding and priorities for "development" by the Indigenous Peoples affected is considered and reflected in relevant project planning, implementation and assessment, including preservation of traditional food systems and habitats, based on assessment of participating community members
	3. Level of involvement of the affected local communities/community members in all studies and evaluations relating to traditional food production and use/subsistence resources and practices carried out in and near their lands and traditional use areas	3. Extent to which development projects/proposals from outside the Indigenous communities respect and uphold the rights of Free Prior Informed Consent and Self-determination as defined and assessed by impacted community members including traditional subsistence producers/users
	4. Level of participation in and control of programs and projects by the community members, including traditional subsistence and food producers, cultural leaders, and elders in the territories where they are being undertaken	
9. Existence and viability of mechanisms and institutions created by and accessible to Indigenous Peoples for transmission of food related traditional knowledge and practices to future generations		
Structural indicators	**Process indicators**	**Results indicators**
1. Number of public policies and mechanisms that hold government and other interests accountable and responsible to Indigenous Peoples' interests in this area	1. Number of programs and institutional mechanisms existing, led and controlled by indigenous communities (using new and/or traditional knowledge transmission methods) to record and transmit traditional knowledge about food and subsistence practices	1. Number of youth, women, elders and other community members involved in and benefiting from these programmes

9. Existence and viability of mechanisms and institutions created by and accessible to Indigenous Peoples for transmission of food related traditional knowledge and practices to future generations		
Structural indicators	**Process indicators**	**Results indicators**
2. Number of government laws, programs and policies in place and being implemented that support and recognize Indigenous Peoples' rights to maintain and transmit their traditional knowledge, and make decisions in that regard	2. Level of community access to and availability of new technologies for knowledge documentation and transmission	2. Number of Indigenous Peoples and/or institutions, including Indigenous youth, who use new communication technologies and knowledge transmission methods to transmit and refer to Indigenous knowledge about traditional foods, threats to Indigenous Peoples' traditional foods and related cultural practices, and/or to organize support for and protection of traditional Indigenous food systems
3. Extent to which Indigenous Peoples have control over local educational systems and schools, and utilize these systems to transmit knowledge related to traditional food production and use and related cultural practices		3. Number or percentage of Indigenous youth in a community/tribe/nation who perceive their traditional foods and subsistence practices as relevant in today's world (dynamic, vibrant, essential for success, cultural identity, health, survival)
10. Capacity within Indigenous communities and peoples for adaptability, resilience, resistance and/or restoration of traditional food use and production in response to changing economic, political and/ or environmental conditions		
Structural indicators	**Process indicators**	**Results indicators**
1. Number of community run programs for the re-establishment of lost or threatened food sources, practices and/or knowledge, (including addressing adaptation to changing environmental, political, cultural and/or economic conditions)	1. Existence of and extent of participation in community-based discussions and decision-making regarding the need and/or desirability for adapting of traditional methods and food sources to changing conditions, including level of participation by elders, youth, cultural leaders, women and traditional practitioners	1. Percent of Indigenous community members that continue to use and produce traditional foods in their territories while adapting to changing conditions (migration, environmental changes, etc.)

10. Capacity within Indigenous communities and peoples for adaptability, resilience, resistance and/or restoration of traditional food use and production in response to changing economic, political and/ or environmental conditions		
Structural indicators	**Process indicators**	**Results indicators**
	2. Number of new culturally and environmentally sustainable technologies or methods in use or under development for food production or related activities (i.e., sustainable energy production, water purification, irrigation, natural pest control, etc.) with the agreement and involvement of local practitioners	2. Number of Indigenous food traditions and resources that have resisted, adapted, and/or have been reincorporated in new situations and places (new locations and residences, intercultural marriages, in response to impacts of climate changes etc.) in ways that are consistent with Indigenous cultural integrity and well-being as defined by the practitioners
	3. Number of studies or assessments carried out by or involving community members to assess impacts of new technologies and methods for food production/use on traditional cultural integrity, health, traditional food restoration capacities and other factors (either undermining or enhancing)	3. Number of different Indigenous-generated income-earning activities associated with traditional foods, agro-ecological and native food systems, knowledge and practices
11. Ability of Indigenous Peoples to utilize and implement recognized rights, legal norms and standards as well as self-government structures to promote and defend their food sovereignty on the local/tribal/community, national and international levels		
Structural indicators	**Process indicators**	**Results indicators**
1. Existence/number of public policies, institutions, Treaties, agreements and laws which respect and support indigenous self-determination, autonomy and food sovereignty at all levels	1. Number of public policies, institutions, Treaties, agreements and laws being effectively and actively implemented which respect and support Indigenous self-determination, autonomy and food sovereignty at all levels (local/tribal, national and international levels)	1. Number of Indigenous Peoples (individuals and communities) that know, implement, benefit from and have appropriated the right to food and food sovereignty in keeping with their diverse realities and self-determination
2. Number of related government institutions with programmes and budgets (including national budgets) that are dedicated specifically/exclusively to Indigenous Peoples	2. Number of programmes in Indigenous communities to inform and assist community members, leaders and practitioners to know their rights and available mechanisms/processes to assert these rights ; numbers of participants (general and also specific to women, youth and elders)	2. Number of Indigenous community members, including community leaders, who understand the relationship between rights to self determination/self government/ sovereignty/autonomy, food sovereignty/food security and community health and well-being

11. Ability of Indigenous Peoples to utilize and implement recognized rights, legal norms and standards as well as self-government structures to promote and defend their food sovereignty on the local/tribal/community, national and international levels		
Structural indicators	**Process indicators**	**Results indicators**
3. Number and effectiveness of mechanisms for prevention of and redress for denial of rights to food, food sovereignty and subsistence rights at all levels (tribal/local/state/national/ international)	3. Number of legal cases/complaints filed by Indigenous Peoples to prevent and/or halt activities that threaten or undermine their food sovereignty; final outcomes of these cases /complaints (percentage decided for or against Indigenous Peoples' interests)	3. Number of Indigenous communities who practise food sovereignty through self-government structures and assertions of their rights using a variety of mechanisms
4. Number of existing ordinances and laws passed by Indigenous Peoples' own governing bodies and leadership institutions related to protection of food sovereignty, food producing lands, territories and resources; number of national/state/provincial laws that support and/or undermine these tribal ordinances and laws		

Table 2 : Consolidated Indicators Table from the 2nd Global Consultation on the Right to Food and Food Security for Indigenous Peoples: Cultural Indicators for Food Security, Food Sovereignty and Sustainable Development

1. Access to, security for and integrity of lands, territories, natural resources, sacred sites and ceremonial areas used for traditional food production, harvesting and/or gathering and related cultural and ceremonial purposes		
Structural indicators	**Process indicators**	**Results indicators**
1. Number of constitutional provisions, policies, programs, legislative and administrative measures ((national, state, local/tribal and/or international) in place for demarcation, legal recognition, management, protection and conservation of lands, territories, subsistence resources, ceremonial areas and sacred sites used traditionally by Indigenous Peoples	1. Number of constitutional provisions, policies, programs, legislative and administrative measures (national, state, local/tribal and/or international) being effectively implemented for the demarcation, legal recognition management, protection and conservation of lands, territories, subsistence resources, sacred sites and ceremonial areas used traditionally by Indigenous Peoples	1. Percentage of lands, territories subsistence resources, sacred sites and ceremonial areas used traditionally by Indigenous Peoples for subsistence and food production to which IPs still have full access and/or control, and are legally demarcated or otherwise recognized today as compared to benchmarks established in the past (ie lands recognized in treaties and agreements, original/traditional use areas)

1. Access to, security for and integrity of lands, territories, natural resources, sacred sites and ceremonial areas used for traditional food production, harvesting and/or gathering and related cultural and ceremonial purposes		
Structural indicators	**Process indicators**	**Results indicators**
2. Number of policies, programs, legislative, administrative measures and legal mechanisms in place (national, state, local/tribal and/or international) which restrict, limit, respect or uphold Indigenous Peoples' use of and access to lands, territories, subsistence resources, sacred sites and ceremonial areas used traditionally	2. Number of court cases or legal challenges to measures, policies or programs which restrict or limit Indigenous Peoples' use of and access to lands, territories, subsistence resources, sacred sites and ceremonial areas used traditionally and percentage of conflicts settled in favor of Indigenous Peoples	2. Percentage of lands, territories and subsistence resources used traditionally for food production (farming, fishing, hunting, gathering, herding) and related ceremonial uses currently being used by Indigenous Peoples compared to benchmarks established in the past (5, 10, or 20 years, etc.); percentage which have retained their full productive capacity vs. percentage which are now damaged, diminished, contaminated, etc.
2. Abundance, scarcity and/or threats to traditional seeds, plant foods and medicines, and food animals, as well as cultural practices associated with their protection and survival		
Structural indicators	**Process indicators**	**Results indicators**
1. Number of programs and projects in place in communities for clean-up and restoration of impacted habitats and/or restoration of plant or animal food species by government, corporate, agency, NGO or other outside entity programmes; number of such programmes which are initiated, run and/or evaluated by Indigenous community members	1. Number of investigations and studies on abundance and health of traditional subsistence foods based on changes in monthly/yearly harvests of food plants and animals used traditionally and reasons for any changes; number of programs/policies initiated as a result and percentage of those carried out by Indigenous Peoples and communities	1. Percent of traditional cultural practices associated with the use, production, protection and abundance of traditional food sources and resources still being used on a regular basis as compared to benchmarks from the past
2. Number of community-initiated and community-led programs or other initiatives in operation to provide education about the current threats to subsistence practices and resources (environmental contamination, habitat destruction, loss of traditional knowledge and Indigenous language, misappropriation and misuse of biological resources, genetic modification, etc.)	2. Number of studies initiated by Indigenous communities and/or outside agencies to compare access to traditional foods, abundance and/or scarcity with levels of diet-related diseases (diabetes, malnutrition, infant mortality, maternal health, obesity, suicide rates and other physical, mental or social illness or factors)	2. Percentage of traditional subsistence food resources (plant and animal) and habitats which are intact, viable, productive, healthy and free from contamination (toxics, GMOs, etc.) compared to percentage of subsistence plants and animals that show signs of disease, toxic contamination, diminishing population based on changes in monthly/yearly harvests and other effects

2. Abundance, scarcity and/or threats to traditional seeds, plant foods and medicines, and food animals, as well as cultural practices associated with their protection and survival		
Structural indicators	**Process indicators**	**Results indicators**
3. Number of laws, ordinances and provisions in place to protect traditionally used subsistence plants and animals and their habitats from overuse, environmental destruction, misappropriation, contamination, etc.; percentage that have been developed and are being implemented by and/or in conjunction with Indigenous Peoples	3. Numbers of studies or assessments by Indigenous communities and others in conjunction with Indigenous Peoples to assess impacts of imposed development (dams, deforestation, urbanization, industrial agriculture, mining, drilling, etc.) and introduced environmental contaminants (i.e., mercury, POPs, pesticides and other agro-chemicals, genetic contaminants, etc.) on traditional subsistence foods including in mothers' breast milk	3. Number of traditional food plants and animals which have been declared endangered, have decreased in numbers, and/or have disappeared (suggested comparisons to 50 years and 10 years ago, as per reports of subsistence users as well as existing governmental, agency and outside organization studies); number considered to be under current threat
3. Use and transmission of methods, knowledge language, ceremonies, dances, prayers, oral histories, stories and songs related to traditional foods and subsistence practices, and the continued use of traditional foods in daily diet as well as in relevant cultural/ceremonial practices		
Structural indicators	**Process indicators**	**Results indicators**
1. Number of traditional institutions or other mechanisms or programs in place for transmitting traditional knowledge, languages and cultural practices related to food production, use, protection, preparation and/or abundance	1. Number of youth, women, elders and other community members involved in and benefiting from these programs to record and transmit traditional knowledge about food and subsistence practices.	1. Percentage of community households which use traditional/ subsistence foods as a regular part of their diet, compared to an agreed upon number of years in the past (5, 10 or 25 depending on community history); percentage of total household diets based on traditional foods (weekly, monthly and over a year) as compared to "introduced" foods (ie processed foods, imported foods, GMOs, etc.)
2. Number of programs and institutional mechanisms existing, led and controlled by indigenous communities (using new and/or traditional knowledge transmission methods) to record and transmit traditional knowledge about traditional food production and subsistence activities and related cultural knowledge and practices	2. Number of community-initiated and community-led programs or other initiatives in operation to provide education about the nutritional value, heath benefits and cultural significance of traditional foods, and culturally relevant and environmentally sustainable food production methods; number of such programs in operation initiated by groups/agencies from outside the community	2. Percentage of community members who know traditional methods for food gathering/production/preparation including the traditional language, songs, dances, stories and ceremonies associated with these traditional practices; percentage of community members which participate in and use these practices and percentage of those who are youth

3. Use and transmission of methods, knowledge language, ceremonies, dances, prayers, oral histories, stories and songs related to traditional foods and subsistence practices, and the continued use of traditional foods in daily diet as well as in relevant cultural/ceremonial practices		
Structural indicators	**Process indicators**	**Results indicators**
3. Number of government laws, programs and policies in place and being implemented that support and recognize Indigenous Peoples' rights to maintain, protect and transmit their traditional knowledge, control their educational systems and make other decisions in that regard	3. Number or percentage of indigenous youth in a community/tribe/nation who perceive or express that their traditional foods and subsistence practices as relevant in today's world (dynamic, vibrant, essential for success, cultural identity, health, survival)	3. Percentage of foods and food related items used traditionally in ceremonies which are still in use today as compared to an agreed upon number of years in the past (5, 10 or 25, depending on community history)
4. Capacity of Indigenous Peoples for adaptability, resilience, and/or restoration of traditional food use and production in response to changing conditions including migration, displacement, urbanization and environmental changes		
Structural indicators	**Process indicators**	**Results indicators**
1. Number of community-run programs for re-establishment of lost or threatened food sources, practices and/or knowledge (including adaptation to changing environmental, political, cultural and/or economic conditions)	1. Existence of and extent of participation in community-based discussions and decision making regarding the need and/or desirability for adapting traditional methods and food sources to changing conditions, including level of participation by elders, youth, cultural leaders, women and traditional practitioners	1. Percentage of Indigenous community members that continue to use and produce traditional foods in their territories while adapting to changing conditions (migration, environmental changes, etc.)
2. Number of laws/agreements in place providing for and enabling the free movement and return of traditionally mobile Peoples and for mobile subsistence practices (herding, fishing, hunting, gathering) including across international borders	2. Number of new culturally and environmentally sustainable technologies or methods in use or under development for food production or related activities (i.e., sustainable energy production, water purification, irrigation, natural pest control, etc.) with the agreement and involvement of local practitioners and number of studies or assessments carried out by or involving community members to assess impacts of these new technologies and methods	2. Percentage of persons/youth that leave the community on a seasonal, semi-permanent (for at least 2 years) or permanent (5 years of more) basis for employment/economic/subsistence or other reasons; of those who return to the communities, what percentage go back to using traditional food systems and related ceremonial/cultural practices

4. Capacity of Indigenous Peoples for adaptability, resilience, and/or restoration of traditional food use and production in response to changing conditions including migration, displacement, urbanization and environmental changes		
Structural indicators	**Process indicators**	**Results indicators**
	3. Number of Indigenous Peoples and/or institutions, including indigenous youth, who use new communication technologies and knowledge transmission methods to transmit and refer to indigenous knowledge about traditional foods, threats to Indigenous Peoples' traditional foods and related cultural practices, and/or to organize support for and protection of traditional indigenous food systems	3. Number of Indigenous food traditions and resources that have resisted, adapted, and/or have been re-incorporated into new situations and places (new locations and residences, intercultural marriages, responding to impacts of climate changes, adapted as income-earning activities, etc.) in ways that are consistent with indigenous dignity and well-being as defined by the practitioners
5. Ability of Indigenous Peoples to exercise and implement their rights including self-determination and free prior informed consent, as well as their self-government structures, to promote and defend their Food Sovereignty and related aspects of their development.		
Structural indicators	**Process indicators**	**Results indicators**
1. Number of laws, legal systems and mechanisms in place and being implemented (traditional/ tribal/ state/national/ and international) for the recognition, protection, control, ownership, restoration and/or redress of violations of Indigenous Peoples' collective knowledge systems and bio-cultural heritage, and other aspects of their right to food and food sovereignty	1. Number of court cases and complaints filed to prevent and/or redress violations of Indigenous Peoples' rights to their collective knowledge systems and bio-cultural heritage (symbols, genetic resources, seeds and plants, including medicinal plants, etc.), to halt proposed non-sustainable development projects or to otherwise defend their food sovereignty	1. Number of Indigenous communities who are implementing food sovereignty though self-government structures and assertion of their rights using a variety of mechanisms
2. Number of public policies, institutions, treaties, agreements and laws in existence which respect and support Indigenous Peoples' rights to self-determination, free prior informed consent, autonomy, food sovereignty and right to subsistence at all levels; number/percentage being effectively implemented and number being violated	2. Number of consultations for program planning, implementation and evaluation with community members and representatives by states, outside agencies or other entities; percentage of community members including elders/ traditional subsistence practitioners/traditional food producers/knowledge holders/ users participating and/or taking a leadership role in these consultations and resulting activities and programs	2. Number of development projects/proposals from outside Indigenous communities that respect and uphold the rights of Free Prior Informed Consent, Self-determination and Development as defined and assessed by impacted community members including traditional subsistence producers/users

5. Ability of Indigenous Peoples to exercise and implement their rights including self-determination and free prior informed consent, as well as their self-government structures, to promote and defend their Food Sovereignty and related aspects of their development.		
Structural indicators	**Process indicators**	**Results indicators**
3. Number of ordinances and laws passed by Indigenous Peoples' own governing bodies and leadership institutions related to protection of food sovereignty, food producing lands, territories and resources; number of national/state/provincial laws and programmes (including those providing financial assistance to communities) that support and/or undermine the implementation of these tribal/Indigenous community ordinances and laws	3. Number of programmes in Indigenous communities to inform and assist community members, leaders and practitioners to know their rights and available mechanisms/processes to assert these rights; numbers of participants in these programmes (general and also specific to women, youth and elders)	3. Number of Indigenous community members, including community leaders, who understand the relationship between their rights to self determination and self government, their food sovereignty/food security and their community health and well being

8

Customary Sustainable Use Indicators Workshop

19-21 September 2006

I. Introduction

The workshop on Customary Sustainable Use Indicators was held at Braziers Park, Ipsden, Oxfordshire, UK, from 19 to 21 September, 2006. It was organized by the Forest Peoples Programme (FPP) and the Tebtebba Foundation. It represented one of the thematic workshops to be held in preparation towards the *International Expert Seminar on Indicators Relevant for Indigenous and Local Communities and the Convention on Biological Diversity*, scheduled to be organized by the IIFB Working Group on Indicators in March 2007.

The workshop was attended by indigenous representatives/experts from Australia, Guyana, Philippines, Russia, Suriname, Thailand and Venezuela, NGO representatives from Bangladesh, Cameroon, Netherlands and UK, a representative of the UNEP World Conservation Monitoring Centre, and two representatives of a donor agency. Apologies for last minute cancellations were received from the Secretariat of the CBD and two representatives of the Baka people, Cameroun. Twebty-nine participants attended.

Participants were selected based on knowledge and experience in the field of customary use research and in the development of indicators. Most of them participated in a research project in collaboration with FPP on the implementation of CBD Article 10(c) in Bangladesh, Cameroun, Guyana, Suriname, Thailand and Venezuela during the past three years. Expertise on the development of indicators was much more limited as it represents a new field to many indigenous organizations.

II. Methodology

The development of customary use indicators was mostly based on the experiences of indigenous researchers (apart from Bangladesh, where it was local NGO researchers) who had been carrying out documentation of customary use (in accordance with Article 10(c) of the CBD) in six countries: Bangladesh, Cameroun, Guyana, Suriname, Thailand and Venezuela. The first day of the workshop was dedicated to in-depth presentations of these six case studies, one presentation from an indigenous representative from Kamchatka (Russia), and a synthesis of the main emerging issues and possible towards developing indicators from the case studies. The six case studies were by:

- Wapichan people in South Central Rupununi, Guyana;
- Kaliña and Lokono peoples of Lower-Marowijne area, North East Suriname;
- Ye'kwana and Sanema in the Upper Caura River, Venezuela;
- Hmong and Karen peoples in Chomthong District, Northern Thailand;
- Baka people in the Western Dja Reserve, Cameroon; and
- resource users of the Sundarbans Forest, Bangladesh.

A case study on indigenous peoples and traditional knowledge, conservation and sustainable use in Kamchatka, Russia, was also presented. At the end of the first day, a summary of the main issues discussed and for which indicators could be developed was presented by Dr Marcus Colchester, based on the Synthesis Report of the six case studies mentioned above and the discussion held during the day.

The first part of the second day was used to introduce background presentations on the CBD Strategic Plan, 2010 Target and Headline Indicators by Maurizio Farhan Ferrari, FPP; Indigenous Peoples and the Millennium Development Goals by Joji Carino, Tebtebba Foundation – IIFB; the 2010 Biodiversity Indicators Partnership by Claire Brown, UNEP-WCMC; and FPP and 10c partners' work on sustainable use indicators from July 2005 to March 2006.

The second part of the second day was used to introduce what indicators are and how to go about trying to develop them. The participants then divided into five working groups (Guyana, Suriname, Thailand, Venezuela, and intercultural group) with the task of trying to identify the main issues emerging from their case studies and propose relevant indicators. The intercultural group focused on traditional knowledge.

During the third day, the groups reported on their proposed indicators and then the participants formed six groups (according to personal interest) addressing how to place the proposed indicators (from the previous session) into the CBD framework of goals, targets and indicators. The following goals were addressed:

- Goal 1 (Promote the conservation of the biodiversity of ecosystems, habitats, and biomes);
- Goals 3 and 8 (Promote the conservation of genetic diversity and Maintain capacity of ecosystems to deliver goods and services and support livelihoods);

- Goal 4 (Promote sustainable use and consumption);
- Goal 5 (Pressures from habitat loss, land use change and degradation, and unsustainable water use, reduced);
- Goal 9 (Maintain socio-cultural diversity of indigenous and local communities); and
- Goal 4.3 of the Strategic Plan (Indigenous and local communities are effectively involved in implementation and in the processes of the Convention at national, regional and international levels).

The six groups then reported on their work and a discussion ensued on how to continue to process. Given that there was no time to refine the list and further reflect where in the CBD Framework they should be proposed, it was suggested that a small technical working group be set up to refine them and then disseminate them to the participants for their final comments. FPP was tasked with producing the report of the meeting.

It should be noted that although the main objective of the workshop was to develop indicators related to sustainable use (which was thought to relate to Goal 4 of the CBD provisional framework of goals and targets (Promote sustainable use and consumption), the case studies highlighted many other issues which were assessed as relevant to the CBD framework. The participants therefore tried to develop indicators relevant to other goals of the CBD framework. It was also highlighted that indicators evolving from indigenous processes go beyond the CBD framework and should contribute towards the development of a wider indigenous process and framework on indicators relevant to indigenous peoples.

A small technical working group met on 30 and 31 January 2007 to refine the list of proposed indicators. It followed the recommendation given by the Coordinating Committee of the IIFB Working Group on Indicators (at its meeting on 8-10 January 2007) to refine the indicators by clustering them under main themes and sub-themes emerging from the workshop and categorizing them into structural, process and outcome indicators. The outcome of this exercise is presented below. This, however, should still be considered a draft, as it has yet to be fully endorsed by the workshop participants.

III. Issues and lessons learned

This was the first time for most of the participants to do in-depth work on indicators. Most of them found the process very technical and struggled to digest all the information about CBD and MDGs indicators. There were some difficulties in differentiating indicators from goals and targets, so some of the proposed indicators are actually goals or targets and need to be re-phrased into indicators. The participants, however, appreciated that the development of indicators is an important issue affecting their future and that it may become an important tool to promote and protect their rights and to carry out monitoring and assessment.

This first experience could provide suggestions for future indicators workshops. From the feedback received at the workshop, trying to summarize all the issues related to indigenous peoples and indicators in a couple of hours proved quite complex and at times confusing. Some diagrams may be useful to simplify the CBD and MDG background information. In order to develop indicators more efficiently, better orientation is needed to clearly define:

- goals, targets and indicators;
- the different types or categories of indicators;
- which processes they inform; and
- at which level they apply.

Customary sustainable use indicators: Outcome table (draft 31.01.07)

Main themes and sub-themes

1. Maintenance of customary sustainable use
    - 1.1. General
    - 1.2. Land, territories and natural resources
    - 1.3. Traditional authorities and customary laws
    - 1.4. FPIC and external threats
2. Protection of traditional knowledge, innovations and practices (TKIP)
    - 2.1. Socio-cultural diversity of indigenous and local communities
    - 2.2. Traditional knowledge
    - 2.3. Indigenous, bilingual and multicultural education
3. Maintain goods and services from biodiversity to support human well-being
    - 3.1. Community self-reliance
4. Effective participation of indigenous and local communities in all processes affecting them
    - 4.1. Participation in general (national level)
    - 4.2. Participation in CBD processes
5. Protected areas

1. Customary sustainable use		
Structural indicators	**Process indicators**	**Outcome indicators**
1.1. General		
Has the state ratified relevant international treaties or law recognizing the rights of IPs? [*note: see example ' Right to Health': all relevant treaties separately mentioned in indicator*].	Number and percentage of (national and local) laws and measures adopted that are in accordance with signed international treaties Number and quality of reports the state has submitted to the treaty-based bodies monitoring the signed treaties	Proportion of indigenous peoples that enjoy legal recognition of their rights, including the right to freely practise their traditional ways of life
	Percentage of government budget allocated to the implementation of the rights of indigenous peoples Extent to which these funds are accessible for indigenous communities	Number of peoples who benefit from government budgets allocated to the implementation of the rights of indigenous peoples
Does the state's Constitution include recognition of the rights of indigenous peoples?	Is the recognition of the rights of indigenous Peoples reflected in (national and local) laws and policies? Level of awareness, knowledge and understanding of (the existence) of these laws among indigenous communities Quality, quantity and accessibility of these laws and policies for Indigenous communities Does the state sanction violations of indigenous peoples' rights?	Number of indigenous peoples who know about their rights Number of indigenous peoples who make use of these laws Number of programs, projects or activities contradicting indigenous peoples' rights discontinued or cancelled by government *[Asia group indicator]* Number of violations of indigenous peoples' rights met with appropriate sanctions/penalties
1.2 Land, territories and natural resources		
Has the government adopted laws that recognize the (collective) rights of indigenous peoples to own, use and manage land and natural resources? [*use Akwe:kon Guidelines for formulation]*	Number of policies, programs and/or administrative measures that recognize the (collective) rights of IPs to own, use and manage land and natural resources	Number/percentage of Indigenous peoples who officially own, use and manage their self-demarcated areas (e.g., collective title)

1.2 Land, territories and natural resources		
	Existence of an implementing agency to implement programs and/or administrative measures. *[Asia group indicator]* Accessibility of laws that recognize the (collective) rights of IPs to own, use and manage land and natural resources? In case ownership, use and management rights are not officially recognized, do indigenous peoples have access to their land and resources? Does the government officially recognize (the use of) community resource maps? Have indigenous territories been mapped and demarcated with full consent of the indigenous peoples concerned?	Size and percentage of a country's land area that is officially owned, used, and managed by indigenous peoples Area of forest, agriculture and aquaculture ecosystems under sustainable management and under full and effective control of indigenous peoples. *[note: could some of this language be used in CBD indicator related to goal 4, target 4.1?]* Number of indigenous peoples who have access to their land and resources (in case ownership, use and management rights are not officially recognized) Number of community compiled and validated maps of customary use of biological resources officially recognized
Does the state effectively protect the indigenous communities against displacement and invasion of outsiders?		Number of successfully prevented cases of displacement of indigenous peoples from the indigenous territories Number of illegal immigrants entering indigenous communities
Does the state provide for land- or resource-related grievance mechanisms? *[Asia group indicator]*	Total amount of national budget allocated to enhance the capacity of indigenous peoples in the management of their lands and resources (based upon their own knowledge)	Number of indigenous peoples benefiting from capacity building programs publicly funded

1.2 Land, territories and natural resources		
	Level of awareness, knowledge and understanding of (the existence) of land- or resource-related grievance mechanisms among Indigenous communities	Number of indigenous peoples who know about land- or resource-related grievance mechanisms? Number of indigenous peoples who make use of land- or resource related grievance mechanisms
	Quality and accessibility of land- or resource-related grievance mechanisms	Number and percentage of indigenous communities that have unresolved customary use issues or disputes relating to ownership, use and management of lands and natural resources
	Does the state sanction violations of indigenous peoples' rights to land and natural resources? *[note: maybe it is enough to include this in the general section?]*	Number of violations of indigenous peoples' rights to land and natural resources met with appropriate sanctions/penalties *[Asia group Indicator]*
1.3. Traditional authorities/indigenous institutions, and customary laws		
Does the government officially recognize that customary law and traditional institutions play an important role in the sustainable use and management of natural resources?	Number of public statements/declarations or official documents that reflect this recognition	
Has the government officially recognized customary law of all indigenous peoples?	Number of policies, programs and/or administrative measures that recognize customary law	Number/percentage of indigenous peoples that benefit or make use of these policies, programs and measures
	Accessibility of laws that recognize customary law	Number of national policies and management plans that include or reflect customary rules and regulations Number/percentage of indigenous peoples whose customary law is recognized (if not all customary law is recognized)

1.3. Traditional authorities/indigenous institutions, and customary laws		
Has the government legally recognized indigenous peoples' traditional and/or representative institutions?	Accessibility of laws that recognize traditional/indigenous authorities/institutions Number of policies, programs and/or administrative measures that recognize indigenous peoples' traditional and/or representative institutions	Number/percentage of indigenous peoples that benefit or make use of these policies, programs and measures
Does the state officially recognize indigenous peoples' traditional and/or representative institutions' jurisdiction over resources?	Number of policies, programs and/or administrative measures that recognize indigenous peoples' jurisdiction over resources	Number of indigenous peoples' traditional and/or representative institutions that have official jurisdiction over resources used according to customary use and traditional knowledge
1.4. FPIC (and external threats)		
Is FPIC enshrined in law? *[Asian group Indicator]*	Number of policies, programs and/or administrative measures to implement FPIC	Number/percentage of indigenous peoples that benefit or make use of these policies, programs and measures Number of programs and projects completed using FPIC guidelines
Has the government officially recognized the principle of FPIC in developing natural resource management plans and projects on indigenous lands, including extractive industry concessions (logging, mining, etc.), major development projects (dams, etc.) or land allocation to outsiders?	Number of official government plans that take FPIC into account Number/percentage of extractive industry concessions (logging, mining, etc.), major development projects (dams, etc.) or land allocation to outsiders issued by the government without our free, prior and informed consent?	The number/percentage of indigenous peoples affected by extractive industry concessions, and/or land allocation to outsiders issued by the government without our free prior and informed consent
Has the government revoked all plans and projects on indigenous lands that were developed without FPIC of the indigenous peoples concerned?		Number of revoked existing logging and mining concessions, major developments, and land allocation to outsiders that were issued without the indigenous peoples' FPIC

1.4. FPIC (and external threats)		
Has the government restored and returned all lands that were issued to extractive industry concessions, and land allocation (major developments) to outsiders without FPIC to indigenous peoples and are indigenous peoples fairly compensated?		Number of mining and logging areas restored and returned to indigenous peoples and indigenous communities are fairly compensated for any damage or degradation to their territories and resources as a result of extractive industries activities or land allocation to outsiders without their FPIC
Is the government willing to support the capacity building processes for indigenous peoples to enforce FPIC?	Number and quality of initiatives to support the capacity building processes for indigenous peoples to enforce FPIC Accessibility of capacity building process	Number of indigenous peoples' organizations that have successfully applied FPIC Number of indigenous peoples' organizations capable of enforcing FPIC
2. Protection of traditional knowledge, innovations and practices (TKIP)		
2.1. Socio-cultural diversity of indigenous and local communities		
Structural indicators	**Process indicators**	**Outcome indicators**
Do national laws officially recognize that indigenous peoples are an essential part of the socio-cultural diversity of the nation?	Number of indigenous and minority languages recognized as official languages *[Asia group indicator]* Number and nature of policies to protect and encourage indigenous peoples' cultural heritage Total amount of national budget allocated to protect and encourage indigenous peoples' cultural heritage Do policies and practices of major world religions that are practised in the country respect the religious beliefs and traditional practices of indigenous peoples and traditional communities?	Status of cultural heritage (language, culture, traditions and beliefs etc) of indigenous peoples *[Asia group indicator]* Number of indigenous peoples benefiting from policies and national budget allocation concerning cultural heritage protection Number of indigenous peoples whose sacred sites and spiritual practices are respected and protected

2.2. Traditional knowledge		
Has the state ratified international treaties respecting indigenous knowledge, customs, traditions and practices? Does the state's constitution include respect for TKIP?		
Do national laws and policies recognize, protect and promote TKIP (including recognition of traditional medical practices) *[note; leave traditional medicine out? Or move]*	Extent to which indigenous peoples are in control of research and documentation of traditional knowledge in their areas	Number and percentage in which FPIC is applied to researches relating to TKIP in indigenous peoples' areas Percentage of research or studies (documentation) on TKIP that has been carried out by indigenous peoples themselves
	Quality and quantity of legal initiatives and policies enacted at the national and local level with regard to TKIP Quantity and quality of indigenous organizations and public institutions actively implementing projects and activities related to the recognition, promotion and protection of TKIP Total amount of national budget allocated to protect and promote TKIP	Number of indigenous peoples benefiting from policies and national budget allocation concerning protection and promotion of TKIP
	Observance of traditional practices related to agriculture, lifecycle, etc. allowed	Number of indigenous communities that are allowed to observe traditional practices.
	Number and quality of local and national policies addressing bio-piracy and intellectual property rights of indigenous peoples *[Asia group indicator]* Existence and accessibility of grievance mechanisms on intellectual property rights	Number of indigenous groups that have patents/copyrights.

2.2. Traditional knowledge		
Extent to which traditional knowledge, innovation and practices are being protected and used by indigenous peoples	Extent to which indigenous knowledge is transmitted to next generation Extent to which indigenous peoples have access to traditional knowledge, innovation and practices (e.g., when living in the city)	Number of youth, women and elders participating in transfer of knowledge Number of indigenous groups who have made a (complete) inventory of TKIP *[Asia group indicator]* Quality of inventories of TKIP Number of indigenous communities with documented and codified customary laws *[Asia group indicator]* Number of indigenous communities that keep a register of their traditional knowledge and practices [*Asia group indicator]* Number of indigenous youth interested in learning traditional music, dance, crafts, etc.
2.3. Indigenous, bilingual and multicultural education		
Does the state provide the opportunity to establish indigenous, bilingual and multicultural education?	Number of policies, programs and initiatives that provide information and establish a dialogue between government and communities on bilingual and multicultural education Are indigenous knowledge, customs, traditions and practices respected and promoted as an integral part of the national curriculum to create learning and appreciation of indigenous cultures? To what extent do indigenous peoples participate in the formulation of educational policy and curriculum? *[Asia group indicator]*	Number of meetings which: are organized jointly by the representatives of the indigenous communities and relevant government and UN body (e.g., UNESCO); and are held at the community level; and provide the communities and relevant government institutions with information on indigenous peoples' right to bilingual and multicultural education as provided by international conventions Number of indigenous persons that have a role in managing educational institutions *[Asia group indicator]* Indigenous peoples' languages are medium of instruction in the education system *[Asia group indicator]*

2.3. Indigenous, bilingual and multicultural education		
		Number of TKIPs integrated in the curriculum of the educational system (e.g., educational materials) *[Asia group indicator]* Number of indigenous children who have access to indigenous schooling Number of indigenous knowledge centres/schools in a community

3. Maintain goods and services from biodiversity to support human well-being		
3.1. Community self-reliance		
Structural indicators	**Process indicators**	**Outcome indicators**
Has the government recognized that indigenous peoples rely on local biodiversity to secure their livelihoods?		Percentage of IPs carrying out traditional activities that contribute to sustainable livelihoods Number of communities that consider themselves self-reliant Number of people that can be fed by local produce Number and size of common property resources 'reserved' for indigenous communities
Has the government adopted laws and policies that recognize the inviolable rights of indigenous people to live and to make a living in their traditional territories?	Has the government developed or supported plans and activities that recognize the inviolable rights of indigenous people to live and to make a living in their traditional territories? Quality and quantity of plans and activities that recognize the inviolable rights of indigenous people to live and to make a living in their traditional territories	Number/percentage of people benefiting from these plans and activities Number of activities that lead to self-reliance, well-being and food security Number of indigenous productive activities derived from their territory and/or resources (e.g., ethno-cultural tourism, entrepreneurial activities, artistic activities) Number of species domesticated/undomesticated) that are used for food, medicine and fibre (No. micro-biota in the soil?) (No. of people dependent on traditional medicine)
Is the state taking action to prevent livelihood supporting biodiversity resources from being degraded?	The extent to which the use of modern technology, chemicals and equipment are controlled and monitored, to ensure minimum impact on biological resources	Number of communities that have access to safe drinking water Period/length and severity of food deficiency Reduction in numbers of indigenous people leaving their communities

4. Effective participation of indigenous and local communities in all processes affecting them		
4.1. Participation in general (national level)		
Structural indicators	**Process indicators**	**Outcome indicators**
Have all laws and measures affecting indigenous peoples been developed in accordance with international human rights standards and with the full participation and of the indigenous peoples concerned?	Are participation standards established? *[Asia group indicator]* Do indigenous peoples participation in all plans and activities following these laws and measures? Do indigenous groups participate in monitoring work programs to ensure accountability? Do indigenous peoples participate in the reform of relevant policies, justice system and identification of development programs and projects? *[Asia group indicator]*	Number of policy/decision-making bodies of government (local, regional and national) where indigenous peoples' representatives are mandatory members *[Asia group indicator]*
Are indigenous peoples recognized as full citizens of the country? *[Asia group indicator]*	Are indigenous peoples are allowed to participate in elections and other political activities? *[Asia group indicator]*	
4.2. Participation in CBD processes		
Full and effective participation of IPs in CBD processes and implementation at all levels	Level of human, financial, scientific, technical and technological capacity to implement the Convention Increased level of indigenous organizations' participation in CBD process Increase in number of indigenous people aware of the international obligations of their governments to CBD *[Asia group indicator]* Number of indigenous organizations participating in National Biodiversity Strategies and Action Plan (NBSAP) and other relevant policies and programs	Number of meetings with IPs' participation in relation to CBD processes Number and quality of partnerships involving IPs in CBD processes at national, regional and global level Number and types of audits undertaken between states and IPs in relation to CBD processes and implementation Number of communication, education and public awareness activities undertaken by IPs on CBD processes and implementation Number of mutually agreed procedures for meaningful and effective participation of IPs in CBD [processes and] implementation

4.2. Participation in CBD processes		
		Number of indigenous peoples' organizations organized to participate in CBD process [Asia group indicator]
Recognition of IPs as right-holders within the Convention and throughout its implementation		Number of structures or mechanisms requiring IPs' FPIC Number of cases/complaints made by IPs Level of recognition of traditional political authority Number of cases where indigenous lands and resource rights are legally recognized and protected Number of mutually agreed procedures for meaningful and effective participation of IPs in CBD [processes and] implementation
Enhanced status of IPs in the Convention		Number of mutually agreed procedures for meaningful and effective participation of IPs in CBD [processes and] implementation IPs as Permanent Observers? Participation in Global Biodiversity Partnership and other CBD partnerships (Biodiversity Indicators Partnership???) Enhanced participation in expert groups convened by CBD Involvement of UNPF on Indigenous Issues

5. Protected areas		
Structural indicators	**Process indicators**	**Outcome indicators**
Is the government taking action to implement the CBD program of work on protected areas (PAs)?	Number of policies and programs promoting indigenous protected areas and respect for IPs' rights in establishment of PAs (draft) Do protected areas that overlap indigenous territories respect indigenous rights and are they co-managed by indigenous authorities? Community resource maps officially included in conservation policy Number of policies and programs taking a pro-active approach to protect and encourage customary sustainable use of biological resources in accordance with traditional practices	Number and extent of legally recognized indigenous protected areas (totally controlled by IPs) No protected areas established on indigenous peoples' territories without their free, prior and informed consent No forced resettlement of indigenous peoples from protected areas Number and quality of co-management agreements respecting indigenous rights Inter-institutional agreements in co-management or control over resources recognizing traditional authorities and incorporates traditional norms Percentage of indigenous claims to areas with protected area status that are (not yet) recognized
Protected area laws do not restrict access and control by indigenous peoples	Protected area management does not compromise indigenous peoples' livelihoods and culture	Indigenous peoples in protected areas are not malnourished, impoverished or denied access to services
Protected areas in indigenous territories that have not been established with the free, prior and informed consent of indigenous peoples must be revoked		Number of protected areas in indigenous territories revoked as they were not established with the free, prior and informed consent of indigenous peoples and did not recognize and protect the rights of indigenous peoples to own, use, control and manage the lands, territories and resources they have traditionally owned, or otherwise occupied and used, in accordance with international human rights standards



Part

Two

Readings

- Background paper on indicator frameworks: Their different types, levels, and applicability
- Right to health indicators: an incremental approach
- "Seven fortunes versus seven calamities": Cultural poverty from an indigenous peoples' perspective
- Towards a Mâori Statistics Framework: A discussion document
- Living Conditions in the Arctic
- Development and Deprivation of Indigenous Peoples / Scheduled Tribes in India: What the Figures Tell
- Pilot study on Data Disaggregation and Indigenous Peoples in Nueva Vizcaya, Philippines
- An Index to Assess the Impact of Development Interventions on the Community of Kanawan Aytas
- Considering Indicators of Biodiversity for Food Security of Indigenous Peoples
- A First Nations Approach to Health Indicator Development
- Language vitality and endangerment
- Project to revitalize indigenous cultural values, Cotacachi County, Imbabura Province, Ecuador
- Participatory Arrangements and the Future of Traditional Occupations in Relation to Contemporary Policy Framework: A Case Study of the Kadazans, Sabah, Malaysia
- Annotated Bibliography

Chapter 1

Part 2

Background paper on indicator frameworks: Their different types, levels, and applicability

Stéphane Dandeneau

September 3-5, 2006

This is an abridged version of a paper prepared by Stéphane Dandeneau for the Tebtebba Foundation and presented to the meeting of the Coordinating Committee of the IIFB Working Group on Indicators.

Introduction

The purpose of this background paper is to present the various concepts important to the development of an indicator framework. It is meant to present examples of these concepts and briefly describe how they can be used as tools for developing an appropriate framework for a variety of topics.

Much of the information in this paper is taken directly from previously published or presented works. The most relevant information from these documents has been extracted, and for each one the information is presented as follows:

- A summary of the document's important aspects;
- How the information can be useful;
- Where, or at what stage of the framework development, it can be useful.

The documents are listed as references at the end of the paper, with their URL links.

Types of indicator frameworks

The Division for Sustainable Development of the UN Department of Economic and Social Affairs has outlined the different types of indicator frameworks, in the context of sustainable development.[1]

> The diversity of core values, indicator processes and sustainable development theories resulted in the development and application of different conceptual frameworks. Conceptual frameworks for indicators help focus and clarify what to measure, what to expect from measurement and what kind of indicators to use. The main differences among frameworks are the way in which the conceptualise the key dimensions of sustainable development, the inter-linkages among these dimensions, the way they group the issues to be measured, and the concepts by which they justify the selection and aggregation of indicators.
>
> **Issue- or theme-based frameworks** are the most widely used type of frameworks, especially in official national indicator sets. A main reason for their prominence is the suitability to link indicators to policy processes and targets. Frameworks based on variation of the pressure–state-response model continue to be used in indicator systems concentrating on the environmental dimension of sustainable development. Such a framework was also used in the first CSD-ISD [Commission for Sustainable Development-Indicators of Sustainable Development] of 1996, but was abandoned for the current set due to difficulties in identifying indicators within this framework in the presence of complex inter-linkages among issues and uncertainties over causal linkages. More recently, a few countries have started to develop their indicators based on a capital framework, organizing indicators along different capital dimensions, typically real, financial, environmental, natural, social and institutional capital. These frameworks directly link indicators to sustainability concepts arguing that the maintenance of broadly defined capital categories is imperative to allow future generations to meet their own needs.
>
> Increasingly, countries and organizations are applying so-called **headline indicators**, short core sets of indicators closely linked to policy priorities. These short sets provide signals to high-level policy-makers and to the general public, thereby raising the profile of priority policy issues and in particular providing early warning about imminent trends. In many cases, they are complemented by larger sets of indicators targeting more specialized audiences. Their popularity is rooted in the perception that robust core sets of measures are easier to understand, and that they help track progress towards selected policy goals. Moreover, working with a long list of indicators can be counterproductive, as real priorities tend to be lost in large, comprehensive indicator sets. However, there is a potential danger that headline indicators simply reflect current political priorities or the influence of special interest groups rather than focus on significant issues influencing future sustainability. Therefore, holistic and inclusive processes are needed to achieve headline indicators reflecting societal priorities for achieving sustainable development.
>
> On the international level, there is a continuing interest in the development of **aggregate indices**. They also continue to attract a large amount of media attention. At the same time,

most of these indices have not been accepted for actual decision-making due to a lack of consensus on measurement, weighting and indicator selection. On the national level, aggregate indices continue to play only a minor role.

Increasingly, **indicators are explicitly linked to targets and goals**. On the international level, the Millennium Development Goal (MDG) indicators are the most prominent example. The MDG indicators are used for monitoring progress towards the targets derived from the Millennium Summit in 2000; they constitute a critical subset of medium-term targets towards sustainable development. The MDGs and their indicators have been instrumental in shaping policies of most international organizations within the UN system, many developing countries and to some extent also the business sector. Moreover, the MDG initiatives have increased attention to improving national statistical capacities for development monitoring.

There is also a growing interest in linking indicators to measuring the performance of programmes, organizations and institutions. In particular, sustainable development indicators have an integral role in national sustainable development strategies (NSDS). As a NSDS should be viewed as a cross-sectoral cyclical process, the application of sustainable development indicators is important in several phases, from the identification of strategic priorities, through the planning and implementation of specific policy interventions, monitoring progress and learning from successes and failures. Consequently, a number of countries have integrated the development of indictor systems into their NSDS. Nevertheless, most countries have not yet fully harnessed the mutually supportive and strengthening relationship between sustainable development indicators and NSDS, in which indicators can increase rigor and credibility of the NSDS and the NSDS can provide an institutional framework for indicators to gain policy relevance.

Levels of indicator frameworks: To what context is the framework applied?

Summary: Possibly the first question to ask when developing an indicator framework is: at what level and to which context will the framework be applied? That is, **is the framework applied to an international, national, regional or context-specific level? For whom is the framework relevant: governments, organizations, small communities or individuals?** How can the framework be compared or combined with other frameworks at the same level? Will the framework be used to contribute to a higher-level framework or will it be responsible for identifying lower-level indicators? For example, in the context of the MDGs, the target and goals framework was used to elaborate an international set of goals and targets that are to be unpacked and operationalized at national, regional and community levels. Therefore, the frameworks used to elaborate the indicators at the national regional and context-specific levels would probably benefit from coordination with the target and goals framework. That is not to say that the national and lower level frameworks need to use the target and goals framework, but rather that there is a need to consider how these lower level indicator frameworks can contribute and link to the upper level frameworks.

How is it useful? These questions are most relevant when trying to combine and consolidate different indicator initiatives. Many initiatives elaborate indicators that are designed for varying levels of analysis. Therefore identifying the level of analysis or the level for which the indicator is designed can help consolidate efforts.

Where is it useful? These questions and considerations are useful at all stages of the indicator framework development process. Whether looking at adopting a new framework or adapting an existing one, it is important to consider how one framework will interact with other levels of the indicator work. Will adopting a headline framework make for easy integration with a higher-level targets and goals framework?

Limitations: The level of the framework will dictate the direction that the indicator elaboration process will take. It is important to avoid hindrances or constraints on indicator development, if indicators truly relevant to the community are to be identified. For example, forcing a community to develop indicators in an aggregated index framework would restrain the development of certain indicators that may not be incorporated or elaborated through the framework. Developing indicators while choosing the appropriate framework to represent them is probably the most balanced approach to combining both processes.

Examples of frameworks applied at varying levels

Below are examples of indicator initiatives that use different frameworks at different levels, or at different stages of indicator development.

"Living Conditions in the Arctic"[2]

Summary: In their paper "Living Conditions in the Arctic",* Andersen and Poppel describe the overall framework or process they used to develop indicators of well-being in the Arctic context. Although their indicators are context-specific, their global framework, where respondents' and researchers' activities are coordinated, can be applied elsewhere.

How is it useful? This global framework identifies the people involved in the development of indicators, as well as the role they play in the development process. By coordinating these roles, everyone can benefit from each other's strengths and progress toward developing the indicators. This approach also identifies the different levels of operationalization needed in the development of indicators. For example, living conditions dimensions are embedded in broad social goals, so that each level of analysis contributes a different set of concepts to the overall measurement of well-being.

Where is it useful? This type of framework could be useful at the very first stages of indicator

* Reprinted in this book in page 273. See in particular Section 5.2. *Context*, which looks at broad social goals, dimensions of living conditions, individual and collective resources, and living conditions indicators.

development. It shows how researchers and respondents can work together. This framework was used to elaborate indicators on the theme of well-being. It could just as well be used to elaborate a set of themes or goals and targets that could each be elaborated further within their own frameworks.

Pathfinder Project: Building Block 2[3]

Summary: The Pathfinder Project was established to integrate outcome information into an output focused system of government. The Building Block 2 document outlines the framework and process of building an outcome indicator measurement system. The document outlines the seven phases of the building process:

- planning
- learning from others
- designing the system to inform decision-making
- building the outcome indicator measurement system
- validating the measurement system
- reporting.

It also highlights the factors that make for successful outcome indicators management and defines the qualities of good outcome indicators. Some phases of the process might not be relevant, but they give ideas for how to proceed in actually establishing outcome indicators.

How is it useful? This document is appropriate for agencies implementing outcome indicator measurement systems. It could be used as a step-by-step guide to developing outcome indicators.

Where is it useful? In relation to Andersen and Poppel's framework, the information in the Pathfinder document would be most relevant for people developing the measuring system of indicators such as researchers, consultants and people elaborating data collection methodologies.

Statistics New Zealand Indicators Guidelines[4]

Summary: This document is a good source of information for the elaboration of indicators. It identifies criteria for effective indicator selection, and recommends important aspects to consider when developing, interpreting and presenting indicators. It defines different types of indicators, (as opposed to different types of framework, which are identified in DESA 2006 – see above).

The document discusses the following criteria for indicator selection:

- valid and meaningful;
- sensitive and specific to the underlying phenomenon;
- grounded in research;
- intelligible and easily interpreted;

- relate where appropriate to other indicators;
- allow international comparison;
- ability to be disaggregated;
- consistency over time;
- timeliness;
- linked with policy or emerging issues;
- compel, interest and excite.

It examines the following aspects of working with indicators:

- Developing indicators
  - o Consultation;
  - o International/national balance;
  - o Real world trade-offs;
  - o Interpretation;
- Interpretation of change in an indicator
  - o Making comparisons;
  - o Mean and median measures;
  - o Discrepancies between individual and household data;
  - o Confidentiality;
  - o Sampling and nonsampling error;
  - o Subjective topics;
- Presentation
  - o Availability;
  - o Illustrative notes or clarifying notes;
  - o Supporting information;
  - o Have a target level or objective against which to compare it;
  - o Timeline data.

How is it useful? This document is particularly helpful with elaborating and operationalising indicators. It touches on technical and theoretical aspects of indicators development, so it can help in development of efficient and 'usable' indicators.

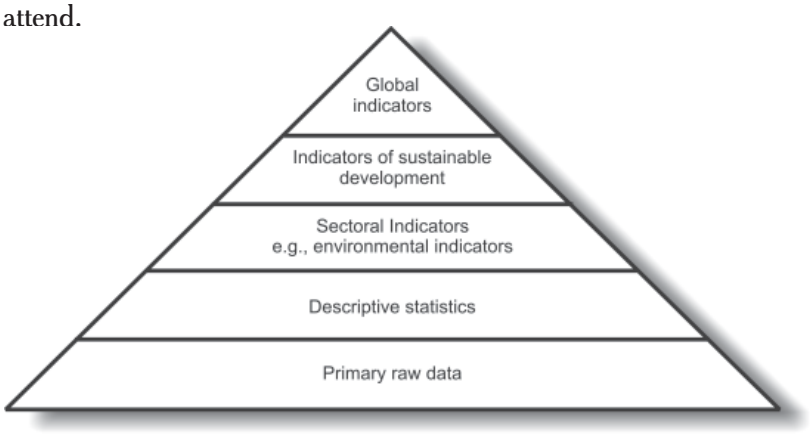
Where is it useful? This information would probably be most useful at the later stages of indicator development, once concepts, themes or goals have been identified by respondents.

Indicator

An indicator is a summary measure related to a key issue or phenomenon that can be used to show positive or negative change. The evaluative nature of an indicator distinguishes it from the descriptive nature of statistics.

Indicators are measurable aspects of a project/environment/society that can be used to monitor its progress and direction.

A key function of an indicator is to reduce the volume of information to which decision makers must attend.



Types of indicators

Source: Statistics New Zealand Indicators Guidelines

Types of indicators and indicator sets

Aggregate (or summary) indicator

An aggregate or summary indicator concentrates information into a single figure. Examples include Gross Domestic Product (GDP) and the Consumers Price Index.

Composite (or integrated) indicators

Composite or integrated indicators draw from, or reflect, interaction between different areas such as the environmental, economic and social dimensions. An example would be the Human Development Index. An aggregate indicator can also be a composite indicator. To use this type of indicator successfully, awareness and acceptance of the assumptions that have gone into its construction are required.

Decoupling indicator

Decoupling is a (desired) outcome, such as having reduced energy consumption along with increased economic growth. The decoupling process can be very complex, so indicators aiming to show whether it is happening need to be developed with care.

Headline indicator

Some indicators may be selected as headline indicators – usually because they describe key issues. They are often supported by a subset of indicators. Usually they form a quick guide or overview and can be used to engage public awareness and focus attention. For instance, the UK sustainable development project has 15 headline indicators which are used to make up a quality-of-life barometer. Headline indicators may include composite indicators or other types of indicators, depending on the reporting focus.

International, national, regional and local indicators

Indicators are used at all levels, including international, national and regional and may be referred to as national and regional indicators. Indicators can be produced for lower levels such as community scheme monitoring where local indicators may be referred to. For example, data gathered at the subnational level to produce regional indicators, could feed into national or international indicator reporting.

Proxy indicator

Proxy indicators are indicators that measure one aspect of a system which is thought to be reflective of a wider system. For example, lichen species are used as a proxy for air quality, and insect species in waterways may be used as a proxy for water quality.

Sustainability and other topic based indicators

Indicators may belong to a set that build a picture of a whole system or framework, such as sustainability indicators. Sustainable development integrates development and developmental reporting across the economic, environment, cultural and social domains. Sustainability indicators refer to the monitoring of sustainable development.

Assembly of First Nations (AFN) Framework of Community Health[5]

Summary: The Assembly of First Nations, in Canada, has proposed a wholistic model of community health and well-being. AFN has also proposed a First Nations Health Reporting Framework aimed at identifying key indicators on which federal/provincial/territorial and First Nations governments would report to measure their performance with respect to First Nations health.

How is it useful? The wholistic model is an example of how a community or group of communities conceptualize their policy and planning process. Within the model are concepts directly relevant for the people whom the policies affect. The model is a good example of a community-specific, or peoples-specific, model of planning concepts.

The health reporting framework is a good example of a theme-specific framework (in this case for health and well-being) of a particular people. It clearly identifies the areas for which indicators can be developed and elaborated.

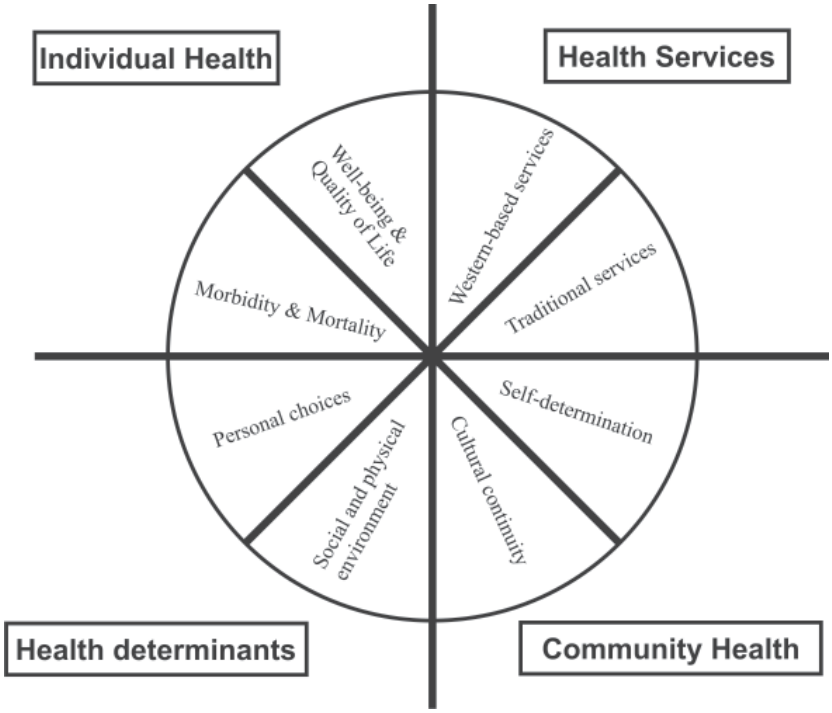
Where is it useful? The example of the wholistic model would probably be useful at conceptual stages of indicator dvevelopment, whereas the health reporting framework would be used to develop context- or theme-specific indicators.



First Nations wholistic policy and planning model
Source: AFN Framework of Community Health.

In summary, the model has the following key characteristics:

- wholistic focus on determinants of well-being;
- community at its core;
- governance as its underpinning (self-government/jurisdiction, fiscal relationships/accountability, collective and individual rights, capacity/negotiations);
- premised on the components of the Medicine Wheel;
- inclusive of the four cycles of the lifespan (child, youth, adult, elder); and
- inclusive of the three components of social capital (bonding, bridging, linkage).



Proposed First Nations health reporting framework
Source: AFN Framework of Community Health.

Key principles

The AFN *Closing the Gap Reporting Framework* was developed in accordance with the following principles:

- The reporting framework should respect the distinctiveness of First Nations. First Nations must not be lumped into a pan-aboriginal policy process, which will of necessity look for "lowest common" solutions;

- The reporting framework will be based on the concept of reciprocal (mutual/shared) accountability. The federal government must demonstrate the extent to which it meets its fiduciary obligation to First Nations who possess Inherent Aboriginal and Treaty Rights;
- Indicators must flow from "expected results" which, in turn, flow from First Nations collective vision and objectives. The ten-year plan for Closing the Gap between First Nations and other Canadians has set the following vision:

A ten-year plan for closing the gap in quality of life between First Nations and the Canadian population. This will be achieved by recognizing and exercising First Nations jurisdiction, creating sustainable development opportunities, building institutional capacity, and through concentrated efforts on all of the determinants of health

- The framework will be a practical tool used for reporting to FPT [Federal, Provincial, Territorial] and First Nations governments, but also for public education to raise awareness on the needs, issues and special relationship of First Nations to these governments;
- The framework will allow for comparison with the general Canadian population to measure progress in closing disparities in outcomes;
- Indicators development and implementation of a First Nations reporting framework must respect the principles of OCAP (Ownership, Control, Access and Possession);
- Data will be reported by gender and, wherever possible, by urban/rural and on/away from community locations of residence; and
- More in-depth work on First Nations indicators development regarding each determinant will be undertaken in the future. Implementation of reporting frameworks must prioritize new data collection, analysis, interpretation and dissemination infrastructure in First Nations communities, organizations and governments.

Towards a Maori Statistics Framework[6]

Summary: This document[**] is an example of a framework that uses both focus areas or themes and cross-cutting dimensions. The document highlights six cross-cutting dimensions that are applied to different focus areas. The six dimensions relating to social well-being and economic self-determination identified are:

- sustainability of Te Ao Maori (Maori perspective/Maori World);
- social capability (since 'capital' is a word that Maori would not use in relation to people and social relations, and capability is more in keeping with the general approach being taken);

[**] Reprinted in this book in page 251.

- human resource potential (and not human capital);
- economic self-determination;
- environmental sustainability;
- empowerment and enablement.

Some of the examples of focus areas to which these dimensions are applied are: Maori language, Maori knowledge, Maori land, population, social connections and attachments, etc.

How is it useful? This could be a useful example of how to combine two types of frameworks, such as theme-based and goal-based, into one coherent framework. It also gives a different perspective on organizing priorities, goals, targets and themes.

Where is it useful? This example could be useful when trying to combine different frameworks of different levels. For example, if the local and regional level frameworks are different, a possibility could be to identify the cross-cutting themes found in both frameworks, and then apply them to the areas acknowledged in both the local and regional frameworks.

Endnotes

[1] DESA, 2006.
[2] Andersen and Poppel, 2002.
[3] Pathfinder Project, undated.
[4] Statistics New Zealand, undated.
[5] Assembly of First Nations, 2006.
[6] Statistics New Zealand, 2002.

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Chapter 2

Part 2

Right to health indicators: an incremental approach

Paul Hunt

This extract, from a report to the Members of the UN General Assembly from Paul Hunt, Special Rapporteur of the Commission on Human Rights on the right to health, illustrates a human rights-based approach to indicators. The extract contains paras 5-37 of the Special Rapporteur's interim report on "the right of everyone to enjoy the highest attainable standard of physical and mental health", UNGA 58th session, 10 October 2003, A/58/427, available at www.un.dk/doc/a58427.pdf.

5. In paragraph 33 of his preliminary report, the Special Rapporteur remarked that he wished to explore various analytical frameworks and tools that deepen understanding of the right to health. He identified three frameworks or tools of particular interest, the third being right to health indicators and benchmarks:

Third, [the Committee on Economic, Social and Cultural Rights] signals the importance of indicators and benchmarks [see paras. 57-58 of general comment No. 14]. The international right to health is subject to progressive realization. Inescapably, this means that what is expected of a State will vary over time. With a view to monitoring its progress, a State needs a device to measure this variable dimension of the right to health. [The Committee] suggests that the most appropriate device is the combined application of national right to health indicators and benchmarks. Thus, a State selects appropriate right to health indicators that will help it monitor different dimensions of the right to health. Each indicator will require disaggregation on the prohibited grounds of discrimination. Then the State sets appropriate national targets – or benchmarks – in relation to each disaggregated indicator. It may use these national indicators and benchmarks to monitor its progress over time, enabling it to recognize when policy adjustments are required. Of course, no matter how sophisticated they might be, right to health indicators and benchmarks will never

give a complete picture of the enjoyment of the right to health in a specific jurisdiction. At best, they provide useful background indications regarding the right to health in a particular national context."

6. Since his preliminary report, the Special Rapporteur has attended a workshop on right to health indicators organized by WHO. Drawing on that meeting and other consultations, the Special Rapporteur, in the following paragraphs, elaborates further his general approach to right to health indicators. He invites comments and suggestions from all parties on this general approach. The Special Rapporteur intends to devote continuing attention to right to health indicators, with a view to developing gradually a practical, realistic and balanced approach.

What are the roles for human rights indicators?

7. The United Nations Development Programme (UNDP) *Human Development Report 2000: Human Rights and Human Development*, devotes a chapter to, and makes a compelling case for, the careful use of human rights indicators: "Statistical indicators are a powerful tool in the struggle for human rights. They make it possible for people and organizations – from grass-roots activists and civil society to governments and the United Nations – to identify important actors and hold them accountable for their actions."[1] Indicators, it continues, can be used as tools for:
    - making better policies and monitoring progress;
    - identifying unintended impacts of laws, policies and practices;
    - identifying which actors are having an impact on the realization of rights;
    - revealing whether the obligations of these actors are being met;
    - giving early warning of potential violations, prompting preventive action;
    - enhancing social consensus on difficult trade-offs to be made in the face of resource constraints;
    - exposing issues that had been neglected or silenced.[2]

    Crucially, human rights indicators can help States, and others, recognize when national and international policy adjustments are required.

Is there a difference between a health indicator and a right to health indicator?

8. Health professionals and policy makers constantly use a wide array of health indicators. Is it possible to simply appropriate these health indicators and use them in the context of human rights? Or do right to health indicators have special features that distinguish them from health indicators? If so, what are these distinctive features of right to health indicators?

9. In recent years, these important unanswered questions have impeded the development of right to health indicators. The Special Rapporteur suggests it is time to provide preliminary answers to these difficult questions. The following preliminary response might need refining in the future, but it is offered with the objective of enabling the discussion about right to health indicators to progress.

10. The Special Rapporteur suggests that a right to health indicator derives from, reflects and is designed to monitor the realization or otherwise of specific right to health norms, usually with a view to holding a duty bearer to account (see E/CN.4/2003/58, paras. 10-36). Thus, what tends to distinguish a right to health indicator from a health indicator is less its substance than (i) its explicit derivation from specific right to health norms; and (ii) the purpose to which it is put, namely right to health monitoring with a view to holding duty-bearers to account.[3]

11. For the time being, this preliminary response requires three additional comments. First, while it is suggested that a health indicator may be regarded as a right to health indicator if it corresponds to a specific right to health norm, this correspondence – or link – has to be reasonably exact. For example, it is unconvincing to argue that a health indicator is a right to health indicator because it somehow reflects "the right of everyone to the enjoyment of the highest attainable standard of physical and mental health". In that example, the norm is exceedingly vague and the correspondence between indicator and norm will inevitably be inexact. The relationship between indicator and norm has to be reasonably close and precise.

12. Second, the right to health cannot be viewed in isolation: it is closely related to the enjoyment of other human rights and fundamental freedoms, including nondiscrimination and equality – two concepts that reflect the pre-occupation of human rights with vulnerable and disadvantaged groups. Just as the right to health has to be seen in this broader normative context, so do right to health indicators. Accordingly, right to health indicators should not only reflect specific right to health norms, but also related human rights provisions, including non-discrimination and equality. For example, while a health indicator might or might not be disaggregated, many right to health indicators will have to be disaggregated, otherwise they will fail to reflect a vital feature of the right to health.

13. Third, for its part, the human rights community must acknowledge that the collection of disaggregated data remains an enormous challenge for many States. Because of limited capacity, reliable disaggregated data is often unavailable. Nonetheless, as a point of departure, the goal should be to use, where relevant, right to health indicators that are disaggregated in relation to as many of the internationally prohibited grounds of discrimination as possible.[4]

Three categories of right to health indicators

14. The literature reveals a multitude of health indicators. But there is a more fundamental difficulty. So far as the Special Rapporteur is aware, there is no commonly agreed and consistent way of categorizing and labelling different types of health indicators. For example, the following categories and labels for indicators can be found: performance, statistical, variable, process, conduct, outcome, output, result, achievement, structural, screening, qualitative, quantitative, core and rated. The same indicator may appear in several categories. The lack of a common approach to the classification of health indicators represents a challenge to those who wish to introduce a simple, consistent and rational system for right to health indicators.

15. If the discussion about right to health indicators is to progress, there must be a degree of terminological clarity and consistency. The Special Rapporteur suggests that, to begin with, special attention is devoted to the following categories of right to health indicators: structural indicators, process indicators and outcome indicators. While there is no unanimity in the health literature, these categories and labels appear to be widely understood – for example, they are the terms routinely used by the WHO Department of Essential Drugs and Medicines Policy.[5] The Special Rapporteur accepts that, in due course, it might be necessary to look at other categories of indicators. Moreover, these categories themselves might need to be refined in the light of experience. But, so as to advance the discussion, he proposes to begin by giving particular attention to these three categories of indicators, as described in the following paragraphs.

16. The Special Rapporteur is pleased to report that Eibe Riedel, Vice-Chair of the Committee on Economic, Social and Cultural Rights (CESCR), has agreed to use the terms structural, process and outcome indicators, as described below, when discussing right to health indicators. Significantly, this agreement should lead to the development of consistent approaches, by the Special Rapporteur and the Committee, to right to health indicators. Such consistency will simplify the work of States, intergovernmental organizations, civil society groups and others, insofar as it relates to right to health indicators. The Special Rapporteur is most grateful to the Vice-Chair for his support in this endeavour.

17. The following discussion does not attempt to identify specific right to health indicators. It has a more modest ambition: to identify some basic categories and labels for right to health indicators. A later exercise will be to identify specific right to health indicators using the approach set out below.

Structural indicators

18. Structural indicators are among the simplest type of indicators. They are usually framed as a question and often generate a simple yes/no answer. The answer to the question usually depends on information that is easily available. In other words, structural indicators offer a rapid-assessment and cost-effective reporting methodology based on a questionnaire. As already indicated, the WHO Department of Essential Drugs and Medicines Policy routinely uses the label "structural indicators" and this questionnaire methodology.
19. Broadly speaking, structural indicators address whether or not key structures, systems and mechanisms are in place in relation to a particular issue. Thus, a right to health structural indicator would address whether or not key structures, systems and mechanisms that are considered necessary for, or conducive to, the realization of the right to health are in place.
20. By way of illustration, examples of structural indicators, taken from general law and policy, sexual and reproductive health, and essential medicines, include the following:
    - Does the State constitutionalize the right to health?
    - Does the State have a national human rights institution the mandate of which includes the right to health?
    - Has the Government adopted a national strategy and plan of action to reduce maternal mortality?
    - Does the Government have an Essential Medicines List?
    - Which medicines are free of charge at primary public health facilities:
        - o All medicines?
        - o Malaria medicines?
        - o HIV/AIDS-related medicines?
        - o Are all medicines free for under-fives/pregnant women/elderly persons/all who cannot afford them?
        - o Are no medicines free?
    - Have compulsory licensing provisions for pharmaceuticals been incorporated into national legislation?
21. These illustrations suggest both the utility and limitations of structural indicators. For instance, the answer to the first question might be "yes" – and this is a useful piece of information. But if a constitutionalized right to health neither generates any successful litigation nor is taken into account in national policy making processes, it is of very restricted value. In other words, structural indicators – like all indicators – are useful, but have their limitations. The usefulness of structural indicators is enhanced if they are employed with process and outcome indicators.

Process indicators, outcome indicators

General remarks

22. Process and outcome indicators can be designed to help a State monitor the variable dimension of the right to health that arises from the concept of progressive realization. (It is for this reason that they are sometimes referred to as variable indicators.) These are the indicators referred to by the Special Rapporteur in his preliminary report, the relevant passage from which is replicated in paragraph 5 above. They are also the indicators signalled by CESCR in general comments Nos. 14 (right to health) and 15 (right to water).[6] Their key feature is that they can be used to monitor change over time.
23. Significantly, while CESCR has affirmed the utility of process and outcome indicators, it has not yet identified specific right to health process and outcome indicators. This is a challenge for the future.
24. Alone, process and outcome indicators tell us very little. As general comments Nos. 14 and 15 explain, they become a helpful tool when used with benchmarks or targets. When process and outcome indicators are combined with benchmarks, they become a useful device for monitoring health over time. Thus, the under-five mortality rate is an outcome indicator – and the target of reducing under-five mortality by (say) 10 per cent in two years is a benchmark or target. The under-five mortality rate indicator alone, without some past, present or future benchmark, is uninformative. Many process and outcome indicators (and therefore their benchmarks, too) should be disaggregated on the prohibited grounds of discrimination.
25. There are important differences between structural indicators, on the one hand, and process and outcome indicators on the other. While a structural indicator does not usually need a benchmark (it usually permits only a yes/no answer), process and outcome indicators depend upon benchmarks or targets that usually consist of a percentage or number. Also, while a structural indicator may depend upon a simple questionnaire, process and outcome indicators may require a more sophisticated form of survey.

Process indicators

26. Process indicators provide information on the processes by which a health policy is implemented. They measure the degree to which activities that are necessary to attain certain health objectives are carried out, and the progress of those activities over time. They monitor, as it were, effort, not outcome.
27. By way of illustration, examples of process indicators, taken from sexual and reproductive health, and HIV/AIDS, include the following:[7]
    - percentage of women attended at least once during pregnancy by skilled health person-

nel for reasons relating to pregnancy;

- percentage of births attended by skilled health personnel;
- number of facilities with functioning basic essential obstetric care per 500,000 population;
- percentage of people with advanced HIV infection receiving antiretroviral;
- combination therapy.

Outcome indicators

28. Outcome indicators measure the results achieved by health-related policies. They show the "facts" about people's health, such as maternal mortality, prevalence of HIV, prevalence of rape, and so on. Outcome indicators usually reflect many interrelated processes that collectively determine an outcome, eg maternal mortality – an outcome indicator – is influenced by various processes, including maternal health care, sanitation and education. Many Millennium Development Goal indicators are outcome indicators.
29. By way of illustration, examples of outcome indicators, also taken from sexual and reproductive health, and HIV/AIDS, include the following:[8]

    - the number of maternal deaths per 100,000 live births;
    - the number of perinatal deaths per 1,000 births;
    - percentage of women who have undergone female genital mutilation;
    - percentage of young people (15-24 years) who are infected with HIV.

Right to health indicators for the national and international levels

30. The main focus of international human rights law is directed to the acts and omissions of States within their own jurisdictions. Naturally, therefore, discussions about human rights indicators tend to have the same orientation. Indeed, the illustrative indicators mentioned in the preceding paragraphs focus on the national level.
31. However, as the Special Rapporteur noted in his preliminary report, international human rights also place responsibilities on States in relation to their conduct beyond their own jurisdictions – consider the references to international assistance and cooperation, and similar formulations, in the Universal Declaration of Human Rights, as well as in binding human rights treaties, such as the International Covenant on Economic, Social and Cultural Rights and the Convention on the Rights of the Child. Moreover, the outcomes of recent world conferences include passages that resonate with the international assistance and cooperation provisions of international human rights law. In the Millennium Declaration, for example, 147 heads of State and Government – 191 nations in total – recognize that "in addition to our separate responsibilities to our

individual societies, we have a collective responsibility to uphold the principles of human dignity, equality and equity at the global level" (para. 2). The Millennium Declaration repeatedly affirms the twin principles of shared responsibility and global equity, principles that also animate the human rights concept of international assistance and cooperation.

32. In this context, the Special Rapporteur makes two general observations. First, international assistance and cooperation should not be understood as encompassing only financial and technical assistance: it also includes a responsibility to work actively towards equitable multilateral trading, investment and financial systems that are conducive to the reduction and elimination of poverty. Second, while lawyers may debate the legal nature and scope of international assistance and cooperation under international human rights law, nobody can seriously dispute that States have, to one degree or another, international human rights responsibilities that extend beyond their own borders.

33. In these circumstances, human rights indicators are needed to monitor the discharge of a State's human rights responsibilities that extend beyond its borders. The international community has already begun to identify indicators that monitor these responsibilities. For example, a number of indicators have been identified in relation to Millennium Development Goal 8, one of them being the amount of a donor's official development assistance as a percentage of its gross national product. In 2001, the General Assembly, at its special session on HIV/AIDS, adopted the Declaration of Commitment on HIV/AIDS "Global Crisis – Global Action" (resolution S-26/2) and, in the following year, the Programme Coordinating Board of UNAIDS approved a set of core indicators for implementation of the Declaration of Commitment.[9] Five of these core indicators relate to the global level. One indicator is the amount of funds spent by international donors on HIV/AIDS in developing countries and countries in transition; another is the percentage of transnational companies that are present in developing countries and that have HIV/AIDS workplace policies and programmes. The Special Rapporteur is not arguing here that these are human rights indicators, but that they provide a precedent for the formulation of human rights indicators at the international level.

34. The crucial point is that any attempt to identify right to health indicators must encompass the responsibilities of States at both the national and international levels. For his part, the Special Rapporteur proposes to identify, in his forthcoming work, possible right to health indicators at both levels.

Conclusion

35. This section has sought to clarify, and invites comments on, the basic concepts and terminology that the Special Rapporteur proposes to employ in his future work on right to health indicators. To facilitate understanding he has provided examples of structural, process and outcome indicators in the context of health. However, with the exception of the first two structural indicators (see para 20), the examples of health indicators set out in this section are not necessarily right to health indicators. Whether they are or not will be the subject of separate inquiry in forthcoming reports.

36. Subject to his resources and any comments he may receive on the approach outlined in this section, the Special Rapporteur aims to apply this approach to one or two health specializations, such as essential medicines, sexual and reproductive health, HIV/AIDS, children's health, and water and sanitation. In this way, collaborating with other key actors, the Special Rapporteur hopes gradually to develop a manageable set of right to health indicators that will assist States, as well as others committed to the better implementation of the international right to health.

37. The Special Rapporteur wishes to emphasize a point made in his preliminary report. It would be foolhardy to expect too much from right to health indicators. No matter how sophisticated they might be, right to health indicators will give a complete picture of neither the enjoyment of the right to health in a specific jurisdiction nor the State's conformity or otherwise with its international right to health obligations. Nonetheless, if carefully used, right to health indicators can help States, and others, monitor and measure the progressive realization of the international right to health.

Endnotes

[1] Human Development Report 2000: Human Rights and Human Development, UNDP, p. 89.

[2] Ibid.

[3] See Draft Guidelines: A Human Rights Approach to Poverty Reduction Strategies, OHCHR, www.unhchr.ch/development/povertyfinal.html, 2002, para 37.

[4] While this is the point of departure, strategies have to be contextualized and prioritized. Vulnerability, stigma and discrimination vary in different contexts. Thus, in a particular context, there may be a case for giving priority to the collection of some disaggregated data rather than others. But, from the human rights perspective, the goal remains: to use right to health indicators that are disaggregated in relation to as many of the internationally prohibited grounds of discrimination as possible.

[5] Indicators for Monitoring National Drug Policies: A Practical Manual, WHO, 1999.

[6] Respectively, paras. 57-58 and 53-54.

[7] The examples are drawn from Reproductive Health Indicators for Global Monitoring: Report of the Second Interagency Meeting, WHO, 2001, and Monitoring the Declaration of Commitment on HIV/AIDS: Guidelines on Construction of Core Indicators, UNAIDS, 2002.

[8] Ibid.

[9] See Monitoring the Declaration of Commitment on HIV/AIDS: Guidelines on Construction of Core Indicators, UNAIDS, 2002.

Chapter 3

Part 2

"Seven fortunes versus seven calamities": Cultural poverty from an indigenous peoples' perspective

John Bamba

There are shrimps under the leaves sunk on riverbeds, there are fishes in the water, there are animals in the forests.

Sasak be-hundang, arai be-ikan, hehutan be-jaluq.

Jalai Dayak proverb

"Underdevelopment, and its corresponding hunger and poverty, has its root in the minds and hearts of individuals and in the moral and ethical ideals of cultures. Value-neutral critics imprison people in poverty, as do cultures which embrace values that produce underdevelopment." This statement by Darrow L. Miller[1] is a crystal-clear interpretation of culture and all its values as the root causes of poverty. Wittingly or unwittingly, it explains why the "minds and hearts" as well as the "moral and ethical ideals" of individuals create poverty, primarily among others rather than for oneself.

When Christopher Columbus, James Cook and James Brooke believed that the native Americans (Indians), Australians (Aborigines) and Borneans (Dayaks) respectively were "uncivilized" based on their very own standard (of "minds and hearts"), they "imprisoned" those indigenous peoples in their own "moral and ethical ideals", including in terms of poverty. Since Columbus, Cook and Brooke were more powerful and shrewd, they were able to impose those standards, and eventually succeeded in changing indigenous peoples' own perceptions of what prosperity and poverty were. So, the issue of poverty is obviously an issue of politics, ideology and paradigm. And, as an ideology perpetuates, so does the quest for achieving its ideal conditions.

By saying this, I do not mean to say that poverty in the real sense of the term is non-existent in the life of indigenous peoples, even before Columbus, Cook, Brooke and the era that we know as

colonialism. But the faces and complexity of the poverty experienced by around one billion people today in the world – among them indigenous peoples – could have been different. So, is poverty structural or cultural? Is it internal or external? Or is it both? This paper does not challenge these theories or offer a new theoretical explanation of poverty and indigenous peoples. It only shares the so-called "moral and ethical ideals" of one indigenous community in Kalimantan/Borneo, the Jalai Dayak who live in the southern part of Ketapang District, West Kalimantan Province, Indonesia.

Why the popular theories of poverty do not fit with the conditions of indigenous peoples

I believe that what we intend to explain about the "cultural/social poverty" issue here is not the common understanding of "… the poor's subculture … so pervasive that these deviant attitudes are reproduced from one generation to another by parents who act as 'deviant role-models to their children'".[2] Indeed, such a definition needs no further explanation as its paradigm is already self-explanatory.

In order to talk about "cultural/social poverty" in relation to indigenous peoples, a totally different perspective must be taken. I therefore propose we approach this issue, firstly from indigenous peoples' own perception of poverty based on their cultural values and secondly, from the perspective of how indigenous peoples manage their livelihoods to achieve the ideal conditions. From these two angles, we hope to arrive at the "causes and roots of cultural/social poverty" according to the indigenous peoples' own perspectives. Again, I will use the Jalai Dayak in Kalimantan as a case study.

The meaning of "poor" and "rich" among the Jalai Dayak

Although there have been some critics of the indigenous peoples' philosophy of "living in harmony with nature" as the bases of their livelihood, the above quote from Jalai Dayak offers a very clear message of their perception of prosperity. The ideal conditions, as pictured through the availability of "shrimps, fishes and animals" in their natural ecosystem, can only be fulfilled when the supporting system is available. More simply put, shrimps and fishes cannot survive in polluted rivers and animals cannot exist when forests are destroyed and ruined.

An extension of the above proverb gives, "Farm a good harvest, live in a long house and store in a high rice barn." If these are considered as the indicators of prosperity for the Jalai Dayak then this signifies three main things: employment, collective livelihood and security. Again, these three conditions required other pre-conditions in order to exist.

For the Jalai Dayak in the southern part of Ketapang District, West Kalimantan, there are no exact words for "rich" unless the one borrowed from the Malay words of "*kaya*" and "*sugih*". Thus the word "*kayaq*" is in Jalai Dayak used mainly for people outside the community. The Jalai rarely

use the term for their own community members. "He/She/They are rich" is an expression mostly used for outsiders, such as the Chinese or Malay merchants, and signifies the possession of goods coming from outside. This can be understood by the fact that, within their own community, the gap between rich and poor is narrow. It can further be explained by their indicators of prosperity, which are based more on the availability of (natural) resources that can be accessed equally by all members of the community (the causes) than what can be possessed by them (the results). Back to the above proverb, it is not the "shrimps, fishes or animals" that matter but the quality of the "river-beds, rivers and forests" that sustain the livelihood they support.

Indeed, rivers and forests are the two most important things in all Dayaks' life, not only for the Jalai. This can be seen from the roles of rivers and forests in their self-identification. Most of the names of the Dayak sub-ethnic groups use names similar to or related to the rivers and forests near where they live. For the Jalai Dayak, the river and the immediate forest around their village are places where they make offerings to the *Duataq* – the Creator/good spirits – and the *Hantuq* – the bad spirits. It is signified by the saying, "Place the offerings for the Creator on the river and for the bad spirits at the end of the village."[3]

The uses of the term *ɳayaq* in the *Mas Kayaq* or *Urang Kayaq* title given to their selected and respected community members also proves that, on the one hand, both the term and the tradition are imported.[4] On the other hand, although the titles use the term *ɳayaq*, they have nothing to do with the title holders' possession of wealth or economic status. It is, however, an acknowledgment of the title holder's wisdom, cultural knowledge or leadership.

The Jalai Dayak equivalent word for "poor", which is *bansat*, relates to the inability to fulfil one's basic needs, especially food and shelter. The word *langɳap* means hunger and is signified by an inability to consume rice, which is replaced by cassava, wild tuber or bamboo shoots at worst. *Langɳap* also means "famine" due to natural disasters, such as a long drought or curse (*barau*). As the ability to produce rice from subsistence farming is openly-accessed by every community member, hunger is generally only possible through natural disaster (famine) and thus an external cause. In other words, a lack of food would only be experienced by the community as a whole, thus reducing the chances for widening differences within it.

In the case of shelter, the condition is perceived more as a matter of choice than inability. Therefore, as far as it relates to the issue of poverty, a particular living condition is considered "simple" or "unmanaged" rather than an inability. "Raw-cut poles, cutting-in-half bamboo roofs" (*tihang ƥambang, hataƥ ɳalah*) is the simplest house a Jalai Dayak could expect, due to the temporary condition of the house. Such houses are mostly found in their present rice fields. They could also be houses built by community members as temporary shelter while preparing more permanent ones in the village.

The particularity of an unexpected house condition is also pictured in the prayer of a young shaman. As the shamans' highest duty is to serve others voluntarily, their achievements are reflected in their condition of "not being able to take care of themselves or their family", which is signified by an inability to take care of their own houses.[5] This is due to the hectic services the shamans have to perform for their community. As this is included in the prayer of a shaman, this condition of having improper housing is "expected" rather than accepted as an indication of poverty.

Therefore, based on the Jalai Dayaks' understanding of poverty and prosperity, which is rooted in their experiences as indigenous peoples in Kalimantan, poverty is a matter of choice or natural disasters. The life of their ancestors in the past clearly showed that the gap between rich and poor was slim. Of course, there were community members who were considerably wealthier, as reflected by their possession of antiquities (ceramics, gongs and other music instruments), paddy stocks or large houses but, in those days, the wealth of the wealthier was not obtained from the suffering of others and they did not show off their wealth, which could have created social jealousy within the community.[6]

Seven fortunes versus seven calamities

We have to trace the Dayaks' natural resources management system as they pursue their ideals on prosperity. This is done in order to put the poverty/prosperity issue in its local context based on the culture in which the communities live. Thus to understand the issue of poverty based on the socio-cultural context of the Dayaks, it is imperative to understand how the Dayaks put various principles based on their local cultural values (hereafter, called the "Dayak System") into practice and how this system is challenged and confronted by other system as the results of the government's interventions (hereafter, called the "Development System"). This approach is in line with that of the International Social Science Council (ISSC), which is based on three aspects: first, the phenomenological description of their life conditions in the socio-cultural context; second, the hope and ideals of their life; third, the way in which they deal with the issue of poverty and the opportunity to do something and to succeed.[7] By confronting the Dayak System with the Development System, it is hoped that explanations of the root causes of he Dayaks' poverty can be obtained.

1. Sustainability (biodiversity) *versus* productivity (monoculture)

The Dayaks put sustainability as one of the most important considerations in their natural resource management system. This sustainability is inseparable from the biodiversity that has become characteristic of their natural resource management. The biodiversity is clearly seen in the number of crops they grow in their rice fields, the number of plant species found in their gardens (fruit, rubber, rattan) and in their surrounding forest areas. The management of an agricultural area (*Tembawang/Dahas*) is also done in an integrated way. It is not only the place for rice fields but also for rubber, rattan and fruit gardens, for small rivers for fish management (such as for fishing, fish traps and fish ponds), for new crops (cassava, sugar canes, sweet potato, etc.). It is also the place for hunting and putting animal traps, the place for medicines, wild vegetables and fruits, honey-bees' nests, and the place for the secondary house where the family raise the domestic animals, process the rubber sheets and the sugar cane. The biodiversity sustains the resources they need in the long run and allows them *to preserve their culture and traditions*.

However, biodiversity does have its price. In terms of economic gain, products are fewer and work is more extensive. This goes against the Development System that glorifies production and intensification. The Dayaks harvest their rice fields only once a year, from a field that is worked throughout the year. The Dayak System is now under massive attack from the Development System, which comes in the form of logging, monoculture plantation and mining activities. Millions of hectares of forests have been over-logged, hundreds of thousands more have been converted to monoculture palm oil and industrial tree plantations,[8] thousands of hectares of forested lands have been dug, turned upside-down and polluted with mercury by mining activities. The economic gains obtained from logging, plantations and mining activities are far more than what the Dayaks could obtain from their rice fields and rubber/rattan activities but the price people have to pay is also far more unbearable, economically, socially and culturally. Sustainability and biodiversity are the first two things to be sacrificed. It is undeniable that most of the "biodiversity and sustainability" of the Kalimantan forests has been "monoculturized and unsustainabilized" by logging, plantation and mining activities. Culturally, the Dayaks are also from diverse realities. There are hundreds of different Dayak sub-ethnic groups, speaking different languages and practising different traditions.

Table 1. European financial institutions and Indonesian oil palm, and pulp and paper business groups[9]

Country	Number of institutions	Number of Indonesian business groups to which financial services are provided	
		Oil palm	Pulp & paper
United Kingdom	22	12	5
Germany	19	14	7
The Netherlands	13	12	7
Switzerland	7	9	4
Denmark	4	1	3
Sweden	4	1	3
Total	**62**	**17**	**7**
Total concession areas		**2,919,699 (ha)**	
Total annual production capacity			**9,578,250 (ton)**

2. Collectivity (cooperation) *versus* individuality (competition)

Mutual help is the main management characteristic to be found in the Dayak System. It is reflected not only in agricultural works through the "working-in-groups system"[10] but also in their settlement areas, which are characterized by the long-houses. Mutual work is marked by the ritual of welcoming the new agricultural year (*Menyapat Tahun*, Jalai) as well as closing the current agricultural year (*Kaambarahuan*, Jalai). These two activities are carried out, shared and financed by the whole community. The spirit of collectivity is also reflected in the system of land ownership and the solidarity towards any community member who experiences any problems. The Dayaks' reactions to the Madurese aggression against one member of their community during the repeated ethnic wars between the two groups reflect this concept further. Indeed, the Dayaks might be considered as having a lack of competitive spirit because, for them, it is togetherness that matters. Most of the games the Dayak play are based on co-operation rather than competition.

Therefore, when the Development System was introduced to them, which prioritises individual competition, the Dayaks were often left behind by their competitors. The companies operating in their areas complained that the Dayak workers were less disciplined, less intelligent and lacked the education to work for the companies. It is said that the Dayaks' biggest challenge at present is their lack of human resources. It is said that they cannot compete with the migrant workers from Java and other islands because the Dayaks are always absent from their work for various rituals they have to attend in their communities. Therefore, the more companies operate in Kalimantan, the more migrant workers are brought in, leaving the local Dayaks as marginalized and minority groups in their own land.[11]

Collectivity is also reflected in their worldview, which treats nature as the house of all beings. The world is not only the home of human beings, plants and animals but also of non-physical beings such as the spirits. Therefore, management of natural resources is not only based on the interests of humans, plants and animals alone but also of other beings, dead or alive. Through nature, human beings communicate and maintain the existence and interests of all dwellers as it is believed that there is interconnection and interdependency.

3. Naturality (organic) *versus* engineered (inorganic)

The Dayaks believe in nature's revenge if humans go against the *adat*, which provides guidance and a path to life. *Adat* shows how to live in unity with nature. It is not, however, synonymous with Naturalism. This is why the term "Naturality" is used here instead of "Naturalism", which is perceived as fatalism or "… living in harmony with whatever fate it delivers."[12]

On the contrary, it is a life that treats nature not as a mere resource to be exploited but as a life support, which has its laws behind it. Human sufferings in the form of diseases, hunger or poverty are the result of humankind's failure to treat nature in line with its laws and existence. The principle of naturality resulted in the use of natural fertilizers and pesticides in agricultural activities as well as in the extraction of other natural resources. For the sake of effectivity and efficiency, human beings

carried out various engineering (genetic engineering, green revolution) leaving nature as a mere object to be exploited and treated as one wishes.

4. Spirituality (rituality) *versus* rationality (scientific)

Spirituality is reflected in various rituals carried out in the life-cycle. It is a way to maintain the links with nature. Every ritual has an important message to tell, to teach and to remind. Rituals connect human beings to other beings with whom they are interdependent. By having a spiritual connection with nature, human beings can find the solutions to their problems based on the law of nature and teachings of the ancestors. It is therefore a rational way of doing things within the spirituality of life. Spirituality here does not always mean "having connections with the spirits". Spirituality is a way of enhancing human capacity and understanding about "the way of nature". This aspect of spirituality contradicts the principle of rationality in the Development System, which considers rituals as a wasteful activity, and the sign of a lack of work ethos. In the Development System, rationality is glorified as the symbol of a modern way of life and educated society.

5. Process (effectivity) *versus* result (efficiency)

The various rituals following every step of an agricultural circle show how important the process is for the Dayaks. The process could be very complicated but the general belief is that the result of works depends very much on whether or not every step has been carried out consistently. The process shows the attachment to nature; that whatever human beings do, it should be done in unity with nature. While in the Development System, it is the result that decides the process, in the Indigenous System it is the process that decides the results. The priority that is put on the process has given the impression that the Dayaks' system is trivial, redundant and inefficient. In the end, it is accused of being an unproductive mode of production. The Dayaks' natural rubber gardens and dry paddy fields should therefore be replaced with more productive commodities such as palm-oil, hybrid rubber or tree plantations. When this is done, the Dayaks have to give up their customary land rights, are introduced to the market economy and forced to become dependent on the producers of seeds, fertilizers and chemical pesticides.

6. Subsistence (domesticity) *versus* commerciality (market)

Subsistence limits production. All production is for domestic consumption, including the direct extraction of natural resources. As a consequence, both exploitation and extraction of natural resources are limited. Although there are also goods produced for bartering with other products coming from outside, this production is limited and undertaken on the basis of seven principles. It becomes obvious that when production is based on market orientation, over-exploitation cannot be avoided, as happens with timber exploitation in many areas.

7. Customary law (locality) *versus* state law (global)

Adat laws regulate various relationships at the community level. It is therefore a localized legal system and not attached to global interests. Customary law is inseparable from *adat* law since it is part of the *adat*. *Adat* provides "moral and ethical" guidance to keep human beings living in unity with nature. Since *adat* law is based on convention and is not written, it has its own strengths and weaknesses. Convention may change over time, depending on the context and specific cases. Thus, in term of fines and sentences, it is relative to the conditions of the case. It opens up more space for debate and discussion, thus guaranteeing a democratic process in the search for truth. But this is also its weakness. In a community where an authoritarian rule is adopted, justice will be in the hands of the ruler. As *adat* law is a local legal system, it has a local jurisdiction and binds the members of a specific community. Non-members of the community tend to reject it and it creates more problems. As *adat* law is aimed at moral punishment rather than physical or material, non-members of the community tend to undervalue it. The relatively small value of *adat* law fines, when converted to certain currency, could encourage the commercialization of *adat* law internally and violations externally.

What is poverty from the Dayaks' perspective?

The seven principles summarize the way in which the Dayaks achieve their ideal of life based on their cultural values. Failure to achieve those ideals is believed to result from what is called *barau* (Jalai Dayak): a situation when nature fails to function normally and thus results in chaos. Harvests fail, diseases spread, incidents happening more frequently are all indications of *barau*. *Barau* is a result of *adat* transgression, a broken relationship with nature. The locust attacks on Jalai Dayak areas since 1997, destroying their crops and leaving them with no effective methods of stopping them, are an example of *barau*. This disaster is caused by the destruction of forests due to the forest fires that have happened every year since 1997, following every dry season. The locust has been dealt with using *adat* rituals that include providing offerings and the ritual of cleansing the village, but to no avail. The Jalai Dayak communities in the areas, together with the surrounding communities, are experiencing a food crisis and most of them have turned to the forests as the only available alternative to earn cash to buy rice. As a result, forest exploitation activities are increasing, resulting in more pressure on forests.

It is obvious that "poverty" for the Dayaks is linked directly to a failure to assess the *adat* that governs the way in which people should live. In relation to the way in which natural resources are managed, the above seven principles are applied. However, the conditions have changed greatly now that the Dayaks' existence is under attack from the Development System. In Kalimantan, logging, plantations, transmigrations and mining are the main activities of the Development System that is replacing the Indigenous System, and the Dayaks are often left with few choices. The results are marginalization and violations of their rights as indigenous peoples. The process of marginalization

has been taking place since colonial times right up to the present. It is therefore not very difficult to see the impacts, including in terms of "poverty".

"Cultural/social poverty" as experienced by the indigenous peoples should thus be viewed as their failure to live on the basis of their culture, which has resulted in their failure to maintain their way of life as distinct communities.

Endnotes

[1] Miller, Darrow L. (1997).

[2] Poverty: Its Definition and Measurement", http://www.sociologyonline.co.uk/soc_essays/Define.htm

[3] Duataq anjukiq ke arai, hantuq anjukiq ke jejulangan.

[4] Bamba, John (work in progress).

[5] Their kitchens are dirty and nested by larva while the house poles are coiled by wild plants. (Dapuran besipucung, tihang balit labat.)

[6] Sivaraksa, Sulak (1992) Seeds of Peace: A Buddhist Vision for Renewing Society, Berkeley-California: Parallax Press.

[7] ISSC (1992) in Britta Mikkelsen (1999) Metode Penelitian Partisipatoris & Upaya-Upaya Pemberdayaan: Sebuah Buku Pegangan Bagi Para Praktisi Lapangan (Methods for Development Work and Research: A Guide for Practitioners), Trans: Matheos Nalle, Jakarta: Yayasan Obor Indonesia (p. 207).

[8] For more information on the current condition of palm-oil and industrial tree plantation operations in Indonesia and the role of European financial institutions, see Table 1.

[9] Van Gelder, Jan Willem (2002) "European Banks and Palm-Oil and Pulp and Paper in Indonesia". A research paper prepared for WWF International, Netherlands (pp. 2-5).

[10] Kanayatn Dayak: Balalek; Jalai Dayak: Bejuruk.

[11] The Dayaks comprise approximately one third of Kalimantan's 9 million population.

[12] Miller, op. cit.

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Chapter 4

Part 2

Towards a Mâori Statistics Framework: A discussion document

Statistics New Zealand

2002

Introduction

Mâori need good quality statistical information to inform their own debates, decisionmaking and research, and to assist them to monitor the effects of government policies and programs relating to Mâori. The official statistics go some but not all of the way toward meeting these needs. Statistics New Zealand has been aware of and concerned by the limited relevance of much of the official data on Mâori issues and concerns for some time now. And, some small but ad-hoc steps have been taken to try to improve the situation (for example, by including a question on iwi in the population census). However, the department has been unable to address the matter of relevance in any comprehensive way because it has lacked an agreed framework for tackling the problem.

This paper represents work in progress. It sets out for critical comment, the Mâori statistics framework as it has been developed thus far. The paper builds on work undertaken over the past years, and these past attempts at devising a framework are the subject of the first section.

Source: http://www.stats.govt.nz/developments/maori-stats-framework.htm, a glossary explaining some of the Mâori terms used have been added as Appendix 2. This paper represents work in progress in the development of a Mâori statistics framework. It explains why a framework for Mâori statistics is needed, and outlines the process and rationale used to construct the framework. The release of the paper by Statistics New Zealand in 2002 was intended as the first step in a consultation process.

The second section explains the purpose of statistical frameworks and the reasons why a framework for Mâori statistics is needed.

The process used by Statistics New Zealand for the development of social indicators in constructing the framework is the subject of the third section.

The subject matter of the framework is Mâori development, which is seen as a process of improving Mâori well-being. These two concepts are defined in the fourth section.

The final section is devoted to describing the structure and the main elements of the framework, including the broad measurement dimensions.

Previous attempts at a framework

Work on a Mâori statistics framework has progressed in fits and starts since 1995 when the Mâori Statistics Forum set up a working party to formulate terms of reference for the development of a Mâori statistics framework. The terms of reference made it clear that the framework had to be "centred on Mâori people and their collective aspirations" and further, that it should be "linked to Mâori development".[1] The contractor employed to come up with a proposal took the view that rather than being simply *linked* to Mâori development, Mâori development should constitute the actual subject area of the framework and this was subsequently agreed to by the forum.[2] A number of principles were applied in the development of the proposed framework that were also agreed to by the forum. These were:

- The framework should recognise the demographic, socio-economic and cultural diversity of Mâori and different realities that characterize Mâori society.
- Mâori cultural institutions and both traditional and modern resources should be included among the units of measurement.
- Mâori should be recognised as both consumers/users and producers/providers of goods and services.
- The cultural attributes and socio-economic circumstances of an individual's household should be treated as standard analytical variables.
- Information should be collected and captured at the finest geographic level.
- As far as possible, standard definitions and classifications should be employed to ensure sectoral integration.
- The interconnectedness of Mâori development and the development of the nation as a whole should be acknowledged by the establishment of linkages between the Mâori statistical framework and the larger population, social and economic databases.

The draft framework that was submitted at the time, eventually floundered because not enough attention was given to conceptual matters, in particular, to defining Mâori development. A second paper was presented to the forum in November 2000, the central argument being that any resulting

framework should reflect a Mâori worldview.

A third paper seeking agreement on the definitions of Mâori well-being and Mâori development from a Mâori perspective was submitted to the forum in March 2001. The general approach was agreed to, and work commenced on selecting the statistics to be included, and led to the revision of the general shape and structure of the framework. It is this revision that is now being presented for critical comment. This paper is essentially a working document. The framework as presented is not finished. Comment is sought on the shape and structure of the framework, the values that underpin it, and the areas of measurement that have so far been selected.

The purpose of statistical frameworks

Mâori statistics have been collected by successive administrations since the late 1850s. It would be fair to say that up to the point when the Hunn Report was published in 1961 (with the exception of the departmental officials and intellectuals among them), Mâori were oblivious to official statistics and the impact they had on their lives. The report included a comprehensive statistical analysis, which highlighted the deprived state in which the Mâori people were living. The findings of the report generated widespread concern and mobilized Mâori support for the recommendations, which eventually found their way into government policy. The connection had been made between the statistical information that government departments collect and government decisions. By the 1970s, Mâori intellectuals and organizations questioned the relevance of much of the statistical information on which the urbanization policy of the 1960s and the social programs introduced to address the resulting problems were based.

The relevance issue is still with us. The notion that Mâori should be in control of their own development has gained currency in recent years and recent governments have shaped their policies toward this end. The devolution policies of the late 1980s and the early 1990s started the trend, and it was at this point that Statistics New Zealand became conscious of the need to upgrade Mâori data. The recent introduction of the capacity building approach to Mâori development has generated strong demand from Mâori community-based organizations for statistical information for their own purposes. While some of these demands can be met by reshaping existing outputs where this is possible, a lot of the data requirements cannot be met.

Very rarely have statistics on Mâori been collected specifically to meet Mâori needs. Rather, governments have had their own reasons for collecting these statistics and from 1951, when the practice of a separate Mâori census was discontinued, Mâori statistics have generally been collected and produced as a by-product of the information that is collected for the entire population. As a result, Mâori statistics tend to represent non-Mâori analytical frameworks and philosophical approaches and fail to represent Mâori realities and it is on the basis of the underlying assumptions that Mâori have questioned the relevance of the data.

An agreed framework is the starting point for addressing relevance (as well as validity and

consistency which have also emerged as issues). The Australian Bureau of Statistics observes that "A statistical framework maps the conceptual terrain surrounding the area of interest. In other words, frameworks can define the scope of an inquiry, delineate the important concepts associated with a topic, and organize these into a logical structure." And further, "Ultimately, the content and form a framework takes will be determined by the nature and scope of the topic, the purpose of the framework, and the perspective of those designing it." The bureau goes on to say that successful frameworks are: logical in structure; comprehensive but concise; dynamic and flexible to allow for change; and cognisant of other frameworks, classifications and standards. Above all, frameworks represent an agreed way of thinking about an area of interest and are therefore, valuable in promoting standards, consistency and comparability across data collections and between jurisdictions and sectors.[3] These are the criteria against which the Mâori statistics framework too should be judged.

The process used in constructing the Mâori Statistics Framework

Although the object of the exercise is to design a framework for a system of basic Mâori statistics and not a system of policy-related indicators, a process similar to that used for the selection of social indicators was adopted. Social reporting on the quality of life using indicators that represent various dimensions of that concept has become fashionable in many developed and developing countries, including New Zealand. And, while notions of what "quality of life" or "well-being" entail (the two seem to be used interchangeably) may vary from country to country depending on ideological and/or theoretical perspective, the process used to select appropriate indicators is generally the same.

There are two stages in the process. First, a conceptual framework is established and this usually occurs in two phases. First, the broad goals of society are identified, as these are almost invariably multidimensional in nature and therefore incapable of being measured. The second phase is devoted to systematically unpacking the different dimensions and organizing them according to some theoretical understanding. It is the goal dimensions that are measured by the indicators system and not the goals themselves. Sometimes the goal dimensions are broken down into sub-dimensions and sub-dimensions into domains and outcomes.

The second stage in the process is to identify and select the indicators.

Establishing the goals of Mâori development

The concept of Mâori development is derived from the definition of Mâori well-being. This is because Mâori people's well-being is considered to be the outcome, or ultimate end, of Mâori development. As this section follows through the process by which the definition of development was arrived at, it starts out with a discussion of well-being.

Defining Mâori well-being

There are several different approaches to the assessment and evaluation of well-being, most of which have been canvassed by Schmitt and Noll as a part of their work on a social reporting system for the European Commission.[4] Deciding what approach to take is an important step toward defining what the term 'well-being' means. The capabilities approach, which underpins the United Nations Development Program's human development approach to the measurement of progress,[5] was considered to be the most appropriate because it recognizes diversity among and within cultures and can therefore accommodate non-western world views, a property that other approaches do not have.

The capability approach is based on the writings of the 1998 Nobel Laureate, Amartya Sen. In essence, Sen argues for seeing well-being or quality of life in terms of states of being or doing that individuals or collectives value and their capability of achieving those states or activities.[6] What is important in the capability model is not what people are or what they do, but what they can or cannot be, and what they can or cannot do, given the opportunities or the freedoms. The model conceives of people directing their lives according to what they themselves value. Capabilities are a means to an end. They reflect opportunities, access and informed choices or in other words, the freedoms to function effectively.

Consistent with this approach, Mâori well-being is viewed as a function of the capability of Mâori individuals and collectives to live the kind of life that they want to live. Besides recognizing cultural diversity, this approach is consistent with Mâori thinking in several other respects:

- Although it is conceived in terms of individual development, it can readily be adapted to development at the collective and societal levels (Sen readily acknowledges that individual and collective well-being is intertwined and that the power of collective action is an essential driving force in the pursuit of development).
- Issues like freedom, security and the empowerment and participation of people, often overlooked by other approaches, are key themes.
- It is rights-based rather than needs-based, although it does not discount the fact that in order for people to choose and realize the kind of life they want to live, basic needs have to be satisfied.
- It recognizes the critical role that government plays, and the obligations that the rest of society and the world have in enabling a people's development.
- It does not attempt to define what the "good life" is but instead takes a pluralistic approach. It is, therefore, at odds with the use of Mâori/non-Mâori comparisons to measure Mâori development.
- It acknowledges the fluidity, complexity and diversity of Mâori society and recognizes multiple realities.

The dimensions of well-being

As stated above, the concept of Mâori well-being is still ambiguous and for purposes of measurement, needs to be clarified by unpacking its various dimensions. It is important for the reader to understand that the process of identifying the dimensions of a concept involves the exercise of value judgement, and that one of the most important functions of a statistical framework is to make those judgements transparent.

In making its choices, the project team responsible for developing this framework were guided by the theoretical perspective discussed above and by the literature on Mâori development. A number of conferences on this subject have been held over recent years, starting with the Hui Taumata in 1984.[7] As well, many academic and policy papers have been written. The most helpful was Margaret Forster's paper to the 2000 DevNet Conference, which suggests that there are four main goals of Mâori development.[8] These are articulated as: cultural affirmation, social well-being, economic self-determination, and self-determination. Although couched in different terms, all of these ideas had been identified in advance by the project team, who perceived them as aspects of life contributing to Mâori being able to live according to their own values and preferences.

For the purposes of the list of dimensions for the framework, Forster's list was extended by adding human resource potential, which was assumed to be subsumed under either social well-being or economic self-determination. The resulting list was:

- sustainability of Te Ao Mâori;
- social capability (since "capital" is a word that Mâori would not use in relation to people and social relations, and capability is more in keeping with the general approach being taken);
- human resource potential (and not human capital);
- economic self-determination;
- environmental sustainability;
- empowerment and enablement.

The dimensions as they now appear have been revised since the forum meeting in March 2002. As well, the first attempt at structuring a framework proved to be less than fruitful and the work done on it was eventually scrapped. As work on determining the proposed measures progressed, the boundaries between the different dimensions became more and more blurred. Measures of one dimension seemed to apply equally well to other dimensions. For example, is proficiency in the Mâori language a measure of cultural affirmation, social inclusion, human potential or empowerment? Or is it an equally valid measure of all four? There is nothing in the literature that suggests the dimensions need to be treated as mutually exclusive categories. On the contrary, in so far as they acknowledge links between dimensions, all of the known approaches to well-being assessment also acknowledge a degree of overlap. In this instance, outputs were being repeated to such an extent that questions had to be asked about the robustness of the proposed conceptual framework.

A review of the framework led to a reduction in the number of dimensions and a reversal of

approach. Instead of sub-dividing the dimensions into domains or areas of interest as the project team had been doing, areas of interest became the context within which the dimensions were to be measured. Together, the reduction in the number of dimensions and the reversal of approach had the effect of lessening the amount of repetitiveness by a considerable margin.

Nevertheless, overlaps were still very much in evidence. Since one of the dimensions was concerned with culture (meaning, a way of life), this is hardly surprising. A people's culture is all pervasive, it penetrates and influences all aspects of life. Moreover, based on its work with indigenous people in other parts of the world, UNESCO has observed that cultural survival is both the reason for and the ultimate end of indigenous people's development.[9] Cultural survival is no less critical for Mâori. Indeed, the notion of cultural vitality is at the very heart of the concept of Mâori well-being.

To reduce the extent to which the cultural dimension was cutting across the other dimensions of the framework, the focus was changed from cultural vitality, which now was seen as an integral component of Mâori well-being, to cultural inheritance or taonga tuku iho, now termed, Te Ao Mâori. As far as the project team is concerned, there is still likely to be overlaps but this will simply have to be lived with. Sen's views on the subject of ambiguity in this area of measurement are salutary. "Ambiguity", he says, "reflects the nature of human life" and where this condition is apparent, "the precise formulation of the idea should try to capture it". "In social investigation", he goes on to say, "it is undoubtedly more important to be vaguely right than to be precisely wrong."[10]

Defining Mâori development

Given the way in which Mâori well-being has been defined, how should Mâori development be viewed? In essence, Mâori development is a process of enablement, a process that seeks to extend people's scope for improving their own lives. It involves notions of:

- expanding opportunities;
- enhanced choice;
- better access (for example, to Mâori knowledge and institutions and to the knowledge and institutions of society generally);
- increasing participation not just in Mâori areas but also in the larger economic, social, cultural and political processes;
- increasing command over goods and services;
- increasing self-determination.

The ultimate end of the process is a state of well-being, a state in which Mâori have the capabilities and freedoms to live their life as they wish to. For the purposes of measurement, that desired state is defined by the variety of desirable outcomes that contribute to its achievement. In the context of the framework, these become the goal dimensions, that is, the dimensions of the ultimate end, well-being.

Thus, the thinking that went into the original conceptual framework remains largely intact (see Appendix 1). The changes that have been made have been to the specific elements that made up that framework, the way in which those elements were organised, and, of course, to the nomenclature.

Structure of the framework

The Mâori statistics framework is structured by areas of interest and the goal dimensions of well-being identified above. Measurement dimensions have been added as the first stage in the populating of the framework. The measurement dimensions establish the broad information requirements.

The framework presented here is intended to measure the goal dimensions of well-being and hence, progress with Mâori development, in the context of the areas, which are of most interest to Mâori. Thus, within each area of interest, one or more of the dimensions of the framework (ie sustainability of Te Ao Mâori, social capability, human resource potential, economic self-determination, environmental sustainability, and empowerment and enablement) will be identified and measured.

Areas of interest correspond to important aspects of the quality of life or well-being. Their selection represents yet another judgement call by the project team. Again, it relies heavily on conference literature and the knowledge of the members for support. Comment on the appropriateness and the completeness of the selection would be welcomed.

By measuring the goal dimensions within an area of interest, linkages among the dimensions are easier to demonstrate. As already mentioned, the project team's first attempt at constructing and populating the framework took the reverse approach. Each of the goal dimensions was identified and differentiated into areas of interest so that for example, Mâori language was seen as a component of what was then the cultural vitality dimension (but is now called sustainability of Te Ao Mâori) rather than the other way around. This was the reason why repetitiveness became such a problem. With the area of interest approach, it is possible to see at a glance what the linkages are within a particular area.

There is still a great deal of work to be done on populating the framework. The broad measurement categories derived from the goal dimensions within each area of interest mark only the beginning of the task. Work has already commenced on identifying outcomes for each area of interest and on specifying the statistical outputs needed to measure them. Some attention has also been given to the inputs. Value judgements are again involved in selecting the broad measurement areas. In making these judgements, the project team kept in mind, fundamental Mâori values like manaaki, hau, whanaungatanga and kaitiakitanga.

Now that the conceptual issues have been resolved and given competing priorities, it is expected that the identification of more specific information requirements will be completed by the end of the year.

The proposed framework follows.

Structure of the Māori Statistics Framework

Area of interest: Māori language	
Goal dimensions	**Measurement dimension**
Te Ao Māori	Use of the Māori language
	Spoken proficiency
	Availability of Māori language: • speakers • services (e.g., television/radio hours) • products (e.g., literature, music, shows)
Human resource potential	Acquisition of Māori language proficiency
	Recognition of proficiency
Empowerment and enablement	Opportunities to acquire/enhance proficiency (provision of formal and non-formal learning, includes mentoring)
	Access to opportunities to acquire/enhance proficiency
	Government spending on the provision of: • learning opportunities and resources • services (e.g., television and radio)
	Spending by Māori organizations on the provision of: • learning opportunities and resources • services (e.g., television and radio)
Economic self-determination	Purchase of, and expenditure on, Māori language related: • products • services • learning opportunities

Area of interest: Māori knowledge	
Goal dimensions	**Measurement dimension**
Te Ao Māori	Availability of expertise in specific areas of Māori knowledge, skills and competencies
	Production and availability of material relating to specific areas of Māori knowledge, skills and competencies including: • documents • sound-recordings • maps and images
Human resource potential	Acquisition of Māori knowledge, skills and competencies including: • self-directed learning • mentoring and coaching
	Recognition of competency (includes formal qualifications and/or hapū or iwi recognition)
Economic self-determination	Spending by Māori learners on learning-related activities
Social capability	Reciprocal contributions (in lieu of money) by learners including: • labour • food • care
	Barriers to accessing Māori knowledge, skills and competencies
Empowerment and enablement	Opportunities to acquire expertise in specific areas of Māori knowledge, skills and competencies including: • one-on-one mentoring and coaching (the Māori method of transmitting and acquiring knowledge) • non-formal and formal courses provided by Māori and public education providers
	Spending by Māori organizations on preserving, protecting and transmitting Māori knowledge, skills and competencies
	Government expenditure on purchasing and provision of: • Māori advice to assist in decision-making • learning opportunities • protecting and preserving Māori knowledge

Area of interest: Marae	
Goal dimensions	**Measurement dimension**
Te Ao Māori	Types of marae: • ancestral • other
	Performance of rituals – paepae numbers, kai-karanga numbers, kai-waiata numbers
Empowerment and enablement	Ownership of land and buildings: • whanau • hapū • iwi • Māori organization • local body
	Marae management and operations: hui held and their type resources (human, physical, financial) status of the land
Social capability	Use of marae by households: • frequency • purpose
	Contributions by individuals or households of time, labour, money to building, maintenance and operation of marae
	Role of individuals in respect of the marae
Area of interest: Wāhi taonga	
Goal dimension	**Measurement dimensions**
Environmental sustainability	Identification and recognition of sites by type including: • sites recognised by hapū and iwi but not by authorities • sites formally recognised by authorities (e.g., local bodies, government agencies)
	Quality of the resource obtained based on user observation of the resource site
	Depletion of natural resource stock (such as paua)
	Damage to and destruction of sites as result of local body management or operational procedures, and consents for development

Empowerment and enablement	Arrangements for hapū or iwi control over, or representation in, management, operation, protection and preservation of wāhi taonga
	Arrangements for representation in environmental management decision-making
	Number of hapū or iwi with environmental management plan, including those that have and have not been incorporated in local district plan
	Government and local body spending on protection and preservation of wāhi taonga
Te Ao Māori	Availability of expertise and materials on cultural and historical significance of wāhi taonga including: • experts • documents • sound recordings • maps and images
Social capability	Customary use of wāhi taonga by Māori individuals, households and organizations, including permits issued
	Relationships and working arrangements with mainstream environmental groups
	Contributions toward protection and preservation of wāhi taonga by Māori individuals and households including: • time • labour • money
	Access to wāhi taonga by individuals and households
Area of interest: Wāhi tapu	
Goal dimensions	**Measurement dimensions**
o ***Much of the information requirement for wāhi taonga will be repeated in this area***	

Area of interest: Māori land	
Goal dimension	**Measurement dimensions**
Te Ao Māori	Land held in Māori ownership by geographic location
Economic self-determination	Purposes for which is used – productive or otherwise
	Value of Māori lands
	Arrangements for retention and utilization of Māori landtrusts, and incorporations
Empowerment and enablement	Claims before courts, tribunals, involving land. Include a basis of the claim – e.g., raupatu, Public Works Act
	Cases heard by Māori Land Court by type – succession and outcome

Area of interest: Population	
Goal dimension	**Measurement dimension**
Social capability	Māori and iwi population size and growth
	Geographic distribution of the Māori and iwi population
	Proportion of iwi living inside and outside iwi territory
	Proportion of Māori in population
	Population structure – e.g., age, gender and location
Area of interest: Families and households	
Goal dimensions	**Measurement dimensions**
Social capability	Size and composition of Māori households
	Family size and type (including extended families)
	Characteristics of families/households: • with children in Māori-medium education • with children attending university or post-school training • with Māori language speakers • with members who contribute to care and support of whanau • that contribute to whanau, hapū, iwi affairs • with members who are self-employed • with members who have been hospitalised

Area of interest: Social connections and attachments	
Goal dimensions	**Measurement dimensions**
Te Ao Māori	Knowledge of iwi
	Knowledge of kinship ties and connections to others (within whanau, hapū, iwi and across iwi)
	Numbers registered on iwi register (recognition)
Social capability	Maintenance of relationship with kin living in community in which one/both parent(s) brought up
	Participation in organized community-based activities
	Culture-related leisure activities
	Contribution to and receipt of support from whanau including: • material support (eg money food, and labour) • advice/counselling • direct care • crisis support and management
	Contribution to maintenance and operation of hapū , iwi and/or Māori organizations including: • time • labour • money • other forms of donation
Empowerment and enablement	Formal and informal arrangements for care and maintenance of whanau such as: • whanau hui • legal arrangements like whanau trusts

Area of interest: Modern knowledge, skills and competencies	
Goal dimensions	**Measurement dimensions**
Human resource potential	Distribution of knowledge, skills and competencies within Māori/iwi population
	Knowledge, skills and competencies used in paid or unpaid work for: • formal employer • hapū, iwi and other Māori organizations
	Acquisition of knowledge, skills and competencies through formal structured or non-formal education and training courses
	Knowledge, skills and competencies demanded by Māori and general market
Economic self-determination	Personal/household spending on acquiring knowledge, skills and competencies
	Use of knowledge, skills and competencies in paid and unpaid work or leisure activities
Empowerment and enablement	Opportunities to acquire generalized knowledge, skills and competencies through provision by Māori and public providers of structured formal and non-formal education and training courses
	Māori providers of formal structured and non-formal education and training including: • types of courses • resources (labour, physical, financial) • students and their attainments
	Spending by Māori organizations on the provision of structured formal and non-formal training programs
	Government spending on the purchase and provision of Māori-provided formal and non-formal structured training

Area of interest: Health	
Goal dimensions	**Measurement dimensions**
Human resource potential	Expectation of life
	Infant mortality
	Hospitalization rate
	Incidence and prevalence of diseases
Social capability	Arrangements for care of elderly, sick, disabled whanau members
	Use of primary health services including Māori health services
	Accessibility of primary health services
Empowerment and enablement	Māori providers of health services and programs including: • resources (human, physical, financial) • users • type of service, program
	Provision by health institutions for cultural needs of patients and whanau
	Spending by Māori organizations on provision of Māori health services and programs
	Government expenditure on the purchase and provision of Māori health services and programs
Area of interest: Housing	
Goal dimensions	**Measurement dimensions**
Economic self-determination	Home ownership
	Quality of Māori housing stock
	Barriers to acquisition/improvement in housing including: • finance • location • local body zoning • status of land
	Opportunities to purchase/rent a home through iwi operated schemes such as papakainga housing
	Housing-type preference
Empowerment and enablement	Māori organization's (e.g., marae and iwi authorities) spending on housing provision and services
	Government expenditure on housing assistance and on the purchase and provision of housing

Area of interest: Income and expenditure	
Goal dimensions	**Measurement dimension**
Economic self-determination	Level and source of personal and household income
	Household spending patterns
	Net worth, assets and debts of Māori households

Area of interest: Work	
Goal dimension	**Measurement dimensions**
Economic self-determination	Labour force participation
	Employment and unemployment rate
	Hours of work
	Industry structure including Māori service provision including: • kōhanga reo • Māori provider health services • Māori provider training services
	Occupation structure including Māori occupations including: • kaitiaki • kaitakawaenga • kaiako
	Job preferences
	Unpaid work by type and hours
Human resource potential	Labour demand in locality

Area of interest: Social problems	
Goal dimension	**Measurement dimensions**
Human resource potential	Level of Māori juvenile and adult offending
	Level of truancy, suspensions, expulsions
	Children in care
	Use of women's refuges

Empowerment and enablement	Māori-provided social services including: • types of service • resources (human, physical, financial) • clients
	Māori spending on provision of social services and social service programs
	Government spending on purchasing and provision of Māori-provided health services
Social capability	Māori voluntary community-based organizations including: • type • resources (human, physical, financial) • membership
	Contributions to and receipt of support or assistance from Māori community-based organizations

Area of interest: Māori business development	
Goal dimension	**Measurement dimension**
Economic self-determination	Number, distribution, structure and characteristics of Māori businesses
	Net worth, assets and debts
	Productivity
	Profitability

Area of interest: Participation in political decision-making processes	
Goal dimension	**Measurement dimension**
Empowerment and enablement	Participation in local and national elections
	Arrangements for participation in decision-making by iwi/hapū members
	Participation in iwi, hapū, Māori organization elections, appointments and other decision-making processes
	Representation in national and local decision-making organizations/bodies
	Partnerships with government agencies
	Funding/sponsorship of Māori institutions, individuals, events, activities
	Central and local government consultations

Area of interest: Rights	
Goal dimension	**Measurement dimension**
Empowerment and enablement	Claims/objections before local bodies, courts and tribunals
	Successful claims, objections before local bodies, courts, and tribunals
	Public agencies with responsiveness plans, procedures, and Māori language capability
Social capability	Access to justice: legal aid applications submitted/granted, applications to court
Te Ao Māori	Use of Māori institutions: number of rahui imposed and muru and tatau pounamu exercised, taiapu re-established
	Customary rights: authorisations by kaitiaki for customary fishing

Where to from here?

The shape and structure of the framework is based on a certain theoretical perspective. That perspective, which is explained in the body of this paper, was chosen because it accommodates Mâori ways of looking at the world. It was the project team's task to try and capture those world-views and to recast them in a way that would render them measurable.

The framework's function when it is finished will be to help Statistics New Zealand to improve the relevance of the statistics it collects to those Mâori individuals and organizations that need to plan and make decisions and give advice. There are certain areas covered in the framework on which it would not be appropriate for a government department to be collecting information. The department is well aware of the need for discretion and care in this sensitive area.

The department expects that iwi, hapû or Mâori communities and organizations may want to collect, produce and store some of this information themselves and that where this is the case, Statistics New Zealand's role will change from provider, to that of facilitator of local collection through its statistical capability building program.

Endnotes

[1] Minutes: May 1995.
[2] Minutes: June 1996.
[3] Australian Bureau of Statistics, 2001.
[4] Schmitt and Noll, 2000.
[5] UNDP, 2001.
[6] Sen, 1990.
[7] Department of Mâori Affairs, 1985.
[8] Forster, 2000.
[9] Fukuda-Parr, 2001.
[10] Sen, 1990.

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Appendix 1

CONCEPTUAL FRAMEWORK FOR MĀORI STATISTICS (as at March 2001)			
Definitions of well-being and development	**Dimensions of Māori wellbeing**	**Dimensions of Māori development**	**Areas of concern**
Well-being is a function of the ability of people to make the choices that enable them to realize the kind of life they wish to live Development is a process of expanding opportunities for people to realize the kind of life they wish to live	A secure cultural identity and freedom of cultural expression	Revitalization of Māori language, knowledge, traditions, expressive arts, institutions	CULTURAL VITALITY
	Strong connections and ties in the Māori community	Strengthening of Māori communities, social organizations, networks	SOCIAL COHESION (Internal)
	Respect and goodwill of mainstream society	Strengthening of linkages with mainstream NGOs	SOCIAL COHESION (External)
	Having the opportunity to live a long and healthy life	Increasing access to and command over the provision of health services	HUMAN CAPITAL
	Having the knowledge, skills and competencies to achieve the kind of life one chooses to live	Increasing access to and command over the provision of education and training services	HUMAN CAPITAL
	Having a level of income that enables one to achieve the kind of life one chooses to live	Increasing access to, and command over, the provision of, employment Fostering the development of Māori enterprise	STANDARD OF LIVING / LIVING CONDI-TIONS
	Being able to enjoy a clean and healthy natural environment	Protection of Māori food and medicine reserves Protection of sacred landmarks	NATURAL CAPITAL

	Being able to exercise rights as Māori	Recognizing and giving effect to rights under the Treaty of Waitangi Recognizing international instruments and other legal doctrines Recognizing Māori defined rights and institutions for Māori (tino rangatiratanga) Recognizing and giving effect to rights fundamental to all human beings	HUMAN RIGHTS

Appendix 2: Glossary of Terms

- hapû - clan or kinship group
- iwi - descent group or tribe
- kôhanga reo - Mâori language pre-school
- marae - Focal point and gathering place for dicsussions and celebrations for a kinship group. the marae has a complex of buildings and open space to cater for the community and its visitors.
- wâhi taonga - places of historical significance
- wâhi tapu - sacred places
- whanau - extended family group

Chapter 5

Part 2

Living Conditions in the Arctic

Thomas Andersen and Birger Poppel

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1. Introduction

Towards the end of the 1960s and in the 1970s the first living conditions studies were carried out in the Nordic countries. The Swedish Institute of Social Studies published the "Levnadsnivåundersøkning", which was the first study of living conditions, in 1968[1] and it was followed by Allardt's pan-Nordic study in 1972,[2] Norway in 1973/74,[3] Denmark in 1976[4] and Finland in 1978. Such studies now form part of the plan of work in the national statistical bureaus in Sweden, Norway, Finland and Denmark.

In Greenland studies of living conditions have never been institutionalized in the way they are in the Nordic countries. The Danish National Institute of Social Research did carry out the first real study of the Greenlanders' living conditions in 1970-73, but more than 20 years passed before Statistics Greenland carried out the next living conditions study in 1994. The need for such a study arose partly from a desire to measure the distributive effects of 15 years of Home Rule politics on different population groups and partly because of a lack of register statistics in different areas. Due to the small number of studies in Greenland, research on living conditions was thus at a beginner's level in 1994.

The 1994 study temporarily closed a number of "black holes"

in register statistics, but several invalid results prompted Statistics Greenland to evaluate the research design for future living conditions studies in Greenland. In this paper we introduce the result of these considerations; namely SLICA: "A Survey of Living Conditions in the Arctic; Inuit, Saami and the Indigenous Peoples of Chukotka". In section 2 we briefly describe the parameters of the Greenland survey from 1994. In section 3 we introduce the specific Arctic context, while in section 4 we present a general list of ground rules for living conditions studies among indigenous peoples in the Arctic based on our experiences from the 1994 survey. In section 5 we introduce SLICA which is a circumpolar study of living conditions among Inuit and Saami peoples, and in section 6 we discuss how to secure (a) context-specific and valid concepts of well-being and (b) focus on the relation between structural change and individual well-being within SLICA. Furthermore, we define our use of concepts like well-being and living conditions in this section. Finally, in section 7, the relationship between living conditions research and political planning in the Arctic in general and sustainable development more specifically is discussed.

2. The Greenland living conditions study 1994

The research design of the 1994 study was to a large extent a copy of the Scandinavian model which had been developed in connection with the earlier Nordic living conditions studies in the 1960s and 1970s.[5]

The selection of living condition dimensions and indicators was characterized by a "garbage-can" process in which those directorates, which were interested and had the time had most questions included in the final study. When operationalizing the questions, the living conditions study carried out in 1992 by the Danish National Institute of Social Research and Statistics Denmark[6] had a considerable influence. This meant, although it was not so intended, that large parts of the Greenland questionnaire were characterized by the *social indicator approach* on which the Scandinavian statistical bureaux base their living conditions studies[7] as well as by the factor which Eriksen and Uusitala in 1987 described as *The Scandinavian Model.*

During the analytic work on the data of the Greenland survey a number of problems arose which should lead to a discussion of the application of the Scandinavian model to future Greenland living conditions studies. In part it was a question of specific problems connected with transferring a concept of well-being between different types of society, and in part general problems connected with the application of the social indicator approach and the Scandinavian model on the Greenlandic reality. Thus the conclusion was that it is problematic to transfer a research design which presupposes a basic value consensus in society, and hence also implies the presence of universally necessary needs, from a relatively homogeneous late industrial society (such as Denmark) to a country which first of all is characterized by a non-parallel internal development, and secondly can hardly be described as industrialized, and which in addition has a completely different cultural and historic profile from the Nordic countries.[8]

The main conclusion was that to obtain valid measures of well-being in the Greenlandic popu-

lation it was necessary to develop a new research design including identification of new living conditions dimensions and new operationalizations of traditional dimensions adapted to the Greenland context. In section three, we describe the main features of the Greenland empirical context. As will be shown, the history of Greenland post-war development is very similar to that of other indigenous peoples in the Arctic.

3. The Arctic context

The political and economic changes in the period after the Second World War led to crucial changes in the traditional Greenland fishing/hunting culture, and hence in the traditional social structures. The changes in the industrial culture, the transition to a monetary economy, the educational mobility as well as the increased urbanization have meant that the norm, value and prestige systems in the Greenland society today are linked less to a subsistence production in extended families in small closed communities and primarily to wage earning in a more globalized and open society. In 1945 it was estimated that 66 per cent of the labour force in a population of 21,412 individuals was involved in hunting and fishing. In 1996 this proportion had decreased to approximately 25 per cent. A figure which also includes persons working in the modern fishing industry.

Without maintaining that the mode of production is the only decisive factor for the culture of a given people, it should be stressed that in Greenland it has been possible to identify a direct connection between changes in the mode of production and cultural and social changes.[9] It has been a question of a process of modernization which in some areas is reminiscent of industrialization of the modern Western societies – but also different as far as pace and point of departure and results are concerned.

The changed industrial structures and the urbanization in the 1950s and 1960s resulted in changes in the social structures which then led to a shift in the traditional norm and value systems, especially for people in the towns. New arrivals typically became unskilled workers in the fishing industry or fishermen in the new modern fishing fleet, and they lived in modern blocks of flats.

This process of change, and the population's attempt to adjust to it, was not without problems. Not least because it was extremely rapid. The changes in the economic, political and social structures led to a break with the traditional norm and value systems. Due to the rapidity of the process these systems were not naturally replaced by new norms and values. A lack of norms, or anomie, appeared in large segments of the population. This was accompanied by a general feeling of powerlessness or alienation in large parts of the population who felt they could not influence the process of modernization,[10] and the result was a number of serious life style problems. The increase in number of suicides was thus pronounced (approximately 12 per cent of all deaths in 1997 were due to suicide), crime, social problems (including the removal of children from their home and child abuse), and the consumption of alcohol and marijuana. This has not been characteristic of Greenland only but has also been occurring in other indigenous populations in the Arctic where a similar modern-

ization process has taken place. Jack Kruse, who is the director of US branch of SLICA, described the transformation of living conditions among indigenous peoples in the Arctic like this:

> *The last quarter of a century has brought a radical transformation of living conditions among Native people across the circumpolar world. There are few remaining doubts about the social-historical forces behind this revolution. Government policies in the late fifties initiated trends of modernization. The growth of the market economy, social welfare policies, consumerism, and mass communication accelerated these trends to their full momentum in the early seventies.*
>
> *The basic processes of changing living conditions are also well understood: settlement in permanent communities; monetization of work, trade and mutual aid; technological emancipation from toil and uncertainty (housing, clothing, feeding, transportation, hygiene and health maintenance); bureaucratization of social organization; personal mobility through schooling, vocational training, or professional experience; growing class stratification and status differentiation; increasing separation between public and private life; institutionalization of politics and the rule of law; concomitant development of civil society (voluntary associations, independent press, and private enterprises); and conversion of public discourse to conflicting ideologies of progress, mastership of destiny, formal rights and a self-conscious quest for identity.*
>
> *Almost in the space of one generation, most of the practical or mental references of what it had always meant to be an Inuit, Iñupiat, or a Saami became indeterminate, fluid, less reliable. At the same time, widening opportunities opened the door to rising expectations, both personal and collective. Inasmuch as the past no longer provided a handbook for the future, people sought – if only partially – to write their own futures. But the acceleration of change also frayed social bonds and weakened the bearings of social regulation. Today Native Arctic peoples are experiencing some of the highest rates of social problems (see, for example, Kirmayer, 1994; Berman and Leask, 1994).*
>
> *These global changes had deep implications for the living conditions of the Arctic's inhabitants. As Scardigli (1983) put it, there was a general shift from a cultural order to an economic order; in other words, from a closed society to a market society, and from a society governed by customs to a society governed by laws and regulations.*[11]

Thus, the political, economic and social developments in the indigenous societies in the period after the Second World War have been characterized by rapid and regionally different structural changes which have had crucial effects on the living conditions of these peoples.

4. A new set of ground rules for living conditions research in the Arctic

On the background of the criticism levelled at the Greenland living conditions study 1994,[12] and hence at the Scandinavian model and the social indicator approach, the Scandinavian model was revised and a general list of ground rules for living conditions studies among indigenous peoples in the Arctic produced:[13]

1. The identification of the dimensions and indicators for living conditions must be context-specific so that the well-being concept reflects the way of life and the priorities of the population.
2. The research design must be able to capture the effects of social, cultural, political and economic changes. Thus a correlation between structural events and changes in individual living conditions must be established.
3. The living condition dimensions and indicators must be identified, if not on the background of theories at least on that of hypotheses about and models of causal relationships between the indicators, and between the indicators and the structural variables.
4. The research design must be based on explicit definitions of living conditions and well-being so that the researchers, the respondents and the politicians will be able to evaluate the validity of the data.
5. Both evaluative and descriptive measures for well-being must be applied.
6. Both material and non-material indicators must be applied.
7. Data must be representative, reliable and valid.
8. The focus should be on resources rather than on the satisfaction of demands and preferences.
9. The selected dimensions and indicators of living conditions must be coherent and exhaustive.
10. It is assumed that it is feasible to talk of universal or generally necessary resources within that period of time to which a given living conditions study refers.
11. The study must be quantitative.
12. The analytical focus must be the allocation of resources between various segments of the population.
13. Data must be statistically comparable. This means that the same theoretical variables are operationalized, as far as it is possible, in the same manner.

The above critique may be extended to include living conditions studies among indigenous peoples in the Arctic. As mentioned in the introduction our preparatory work for the new Greenland living conditions study showed that especially the problems connected with the use of non-adequate concepts of well-being did not apply to the Greenland living conditions research only – but was a general problem connected with the study of living conditions among indigenous peoples in the Arctic. As these populations – in contrast to the Greenlanders – are relatively small, ethnic minori-

ties, the national statistical bureaux have only used few resources for developing specific assessment instruments in connection with living conditions studies among these peoples.

SLICA – A survey of living conditions in the Arctic; Inuit, Saami and the indigenous peoples of Chukotka

The Arctic Living Conditions Study among Inuit and Saami (SLICA) came into being as a reaction to the problems we had experienced in connection with the analysis of data from the Greenland living conditions study 1994. Thus at the beginning of 1997, Statistics Greenland initiated preparations for carrying out a new Greenland living conditions study. However, as described above we very soon discovered that our own problems with the living conditions study were similar to those encountered by other living conditions studies among indigenous peoples in the Arctic. We also encountered an increasing need among these populations – including Greenland – for opportunities for comparing one's own living conditions with those of other populations with the same developmental characteristics – instead of comparisons with the majority populations in the various countries, or, as in the case of Greenland, with Denmark. With this in mind Statistics Greenland initiated the comparative Arctic living conditions project instead of carrying out an exclusive Greenland study at the beginning of 1997.

At present approx. 40 international senior researchers and 15 research institutions in and outside the Arctic participate in the project. Furthermore a number of organizations representing the indigenous peoples are also acting as active participants in SLICA.

The main purposes of SLICA are:

1. To develop a new research design for comparative studies of the living conditions among the Inuit and Saami population in the Arctic region. This includes drawing up a selection of nominal and operational living conditions indicators based on earlier theoretical literature, the experiences from the Greenlandic living conditions study and consultations with the indigenous peoples' organizations.
2. To carry out a comparative, dynamic social analysis of the cause and effect relationship between the various political, economic, cultural and technological structures and individual living conditions, and between individual resources and individual conduct.
3. To map the living conditions among Inuit and Saami in Greenland, Inuvialuit, Nunavut, Nunavik, Labrador, Alaska, Sweden, Norway, Finland and Chukotka and the Kola Peninsula.
4. To create a better basis for local as well as national decisionmakers for political planning and implementation
5. To establish an interdisciplinary network of researchers and research institutions interested in living conditions research in the Arctic region.
6. To increase knowledge among the indigenous peoples concerning their own and other indig-

enous peoples' history of development and living conditions.

7. To train and include local students and researchers in the project.[14]

The project is a quantitative cross section study which will carry out 23,000 personal interviews (14,000 of these will be carried out in Canada by Statistics Canada) and which is expected to be completed at the end of 2002. The group of respondents is made up of Inuit and Saami in the Arctic who are at least 15 years old at the time when the collection of data takes place. The participating regions are shown in Figure 1.



Figure 1. The regions in SLICA

In September 2001 SLICA's phase 1, which include the development of a new research design and carrying out pilot studies, will be concluded. The actual data collection will take place during October 2001 to February 2002 while analyses and publishing are scheduled to 2002-3.

5. Focus on context, social change and the concepts of well-being within SLICA

In this section we focus on how we implement three crucial items of the list of ground rules presented in section 4 within SLICA. Firstly, we specify SLICA's concepts of well-being and living conditions. Secondly, we demonstrate how SLICA through the process of identifying living conditions indicators ensures that these are context-specific and thereby valid. In this connection we introduce the concept of household production as an example of context-specific and model based identification of living conditions indicators. Finally, we briefly discus how to include and measure the effects of structural changes on individual living conditions.

5.1. The concepts of well-being and living conditions in SLICA

We define living conditions by means of two components. First of all we define, as in the Scandinavian model, individual living conditions based on the individual's control of material as well as non-material resources which may be applied in order to influence one's own living conditions.[15] Focusing on resources rather than on demand satisfaction is a result of the recognition of the fact that the priorities of any individual between the satisfaction of social, cultural and physical needs are not universally given, but the level and the demand for satisfaction of the same types of need will vary with the historical, cultural and material context. This is true both inter- and intranationally. It is not the same as saying that it is impossible to establish a universal hierarchy of demands in a given society at a given time. It simply emphasizes that apart from a few basic needs, no universal hierarchy of demands separated from time and space exists. By focusing on resources it is emphasized that the individual is not simply a victim of a mechanical need for satisfaction but is equipped with a free will which will lead to a situation where the application and appropriation of resources at a conscious as well as at an unconscious level will change with time and place, and that different individuals may choose to apply the same resources in different ways.

Secondly, the definition of living conditions should include an assumption of the fact that the application of resources to a certain extent is influenced by structural conditions. In this connection it is relevant to include the arena approach which has developed as an extension of Coleman's social theory[16] and which was used in the first Norwegian study of living conditions at the beginning of the 1970s.[17]

The core of this point of view is the fact that well-being cannot be defined only as the individual possession of a number of resources – but as the individual possession of resources which may be applied in various arenas (= social structures as for example the labour market, the private sphere, the political/public life etc). It is especially relevant for this project as the process of development in the regions may be of a very heterogeneous nature so that the arenas, and hence the opportunity for applying specific resources, may differ considerably from the one region to the next. Thus the recognition of structural limits is important in the process of identifying the composite parts of individual well-being and for the analysis following. Thus living conditions are defined as:

individual possession of resources in the form of money, goods, services, mental and physical energy, social relations, physical security etc. by means of which the individual person may control and consciously direct his/her living conditions in so far as the necessary arenas are available.[18]

Well-being

The purpose of measuring living conditions is ultimately to obtain a picture of individual well-being.[19] The concept of well-being is a broader concept than that of living conditions because it also includes the person's subjective evaluation of his/her objective resources.

Only using objective measuring had some unfortunate consequences for the Greenland study of living conditions 1994.[20] We found, like Erik Allardt,[21] that to measure individual well-being adequately, it is necessary to combine the objective resources of the individual with the person's evaluation of these resources. Below is the outline of Allardt's conceptual apparatus for measuring well-being in the Nordic countries.

Table 1. Allardt's conceptual apparatus for measuring well-being

	Well-being	Happiness
Living standard	Satisfaction of needs defined in terms of material resources conditions	Subjective evaluations and experiences of material living
Quality of life	Satisfaction of needs defined in terms of other people, society and nature	Subjective evaluations and experiences of relations to other people, nature and society

Source: Allardt, 1975, p23.

Allardt's argument was that well-being should be measured subjectively (well-being) and objectively (happiness), and that the measuring should include material (level of living conditions) as well as non-material (quality of life) variables. Although well-being in this connection only signifies the objective measure, he actually includes all four dimensions in his concept of well-being.[22]

As the concept of well-being in SLICA, as argued above, should be based on resources and not on needs, we have adapted Allardt's model to fit this.

Table 2. The concepts of living conditions and well-being (SLICA)

	Descriptive well-being	Evaluative well-being
Material well-being	Descriptive measurement of material resources	Evaluative measurement of material resources
Non-material well-being	Descriptive measurement of non-material resources	Evaluative measurement of non-material resources

Source: Andersen, 2001.

In summing up, the following may be said about measuring well-being and living conditions in SLICA:

(1) we are interested in all aspects of living as experienced by individuals in the context of social groups;

(2) individual experiences with living conditions have objective and subjective components, the latter including satisfaction, expectations, and aspirations;

(3) we are interested in the resources individuals can apply, the ways in which they choose to apply these resources, and the barriers and incentives to the application of resources;

(4) we want to organize our dimensions of living conditions in terms that are both meaningful to Arctic indigenous peoples and that can be associated with hypotheses about regional, community, household, and individual differences in living conditions.

5.2. Context

Thus the concept of living conditions is constituted by individual resources as well as by access to the relevant arenas. Not all resources are equally important, however, and not all arenas are equally relevant. The obvious question, therefore, is how to select the adequate dimensions and indicators of living conditions.

As argued in Section 4, the first requirement is that the underlying concept of well-being in a reasonable measure corresponds with the idea of well-being in the group of respondents – in other words that the concept of well-being is context-specific. Our argument is that this can only be achieved by an interactive selection process between the researchers and representatives from the group of respondents. In Figure 2 we have described this process and the elements of the process, which are used within SLICA.

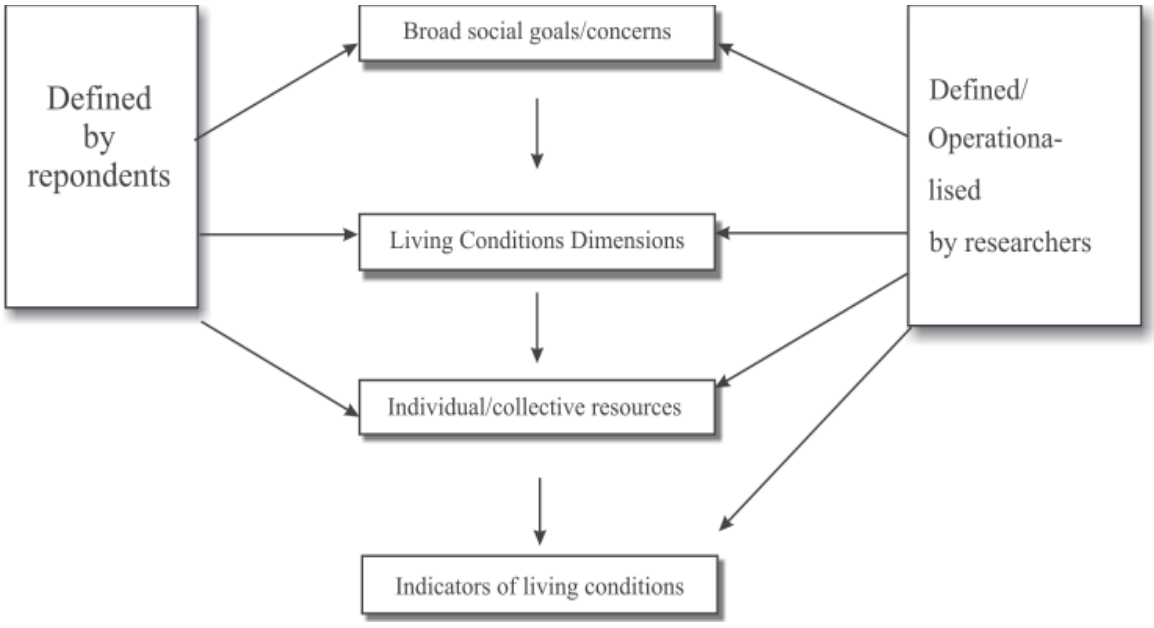


Figure 2. The process of defining indicators of living conditions (Andersen, 1999a).

Broad social goals

The starting point is to identify broad social goals that are generally accepted either by the researchers or by majorities of the respondents. These can be divided into two sub-categories:[23]

1. *Social concerns/goals that are dominant in all areas of the project.* Physical security, health, and sufficient and healthy nutrition are types of universally accepted social goals that are included in this category. These are goals that are identified by researchers in the project and/or on the basis of previous literature in the field of living conditions research. While these goals are universal by nature, the ways of reaching or satisfying them may vary over time and place. In addition we identify social goals that are not universal – but dominant among Inuit and Saami peoples in all areas of the project. These are defined by researchers and by Inuit and Saami representatives.
2. *Region-specific social goals.* While the basic social goals mentioned above are legitimate in all geographical areas of this project – there exist of course region-specific social goals in each area due to variations in material and technological conditions and cultural and political differences. These social goals are identified in an interactive process between researchers and Inuit and Saami representatives.

The implication for SLICA is that we develop two questionnaires: One that contains a common core of questions which is employed in all areas of the project and 11 questionnaires containing region-specific questions.

Dimensions of living conditions

Dimensions of living conditions are operationalized social goals in terms of variable clusters that comprise important areas of the well-being of the individual. The proper "translation" of social goals into dimensions of living conditions is very context-dependent. Food security is defined differently among Inuit in Chukotka than e.g., in Western Europe. The identification of dimensions of living conditions therefore takes place as an interactive process between researchers and Inuit and Saami representatives.

Individual/collective resources

Relevant individual and collective resources must be derived and operationalized from the dimensions of living conditions. The question is: Which individual resources are needed to obtain individual well-being within the different dimensions of living conditions.

Again, this translation is very context-dependent, which calls for a joint effort from researchers and the respondents. We want to underline again that the actual measurement of resources will be at the individual level while we recognize the influence of collective resources on the well-being of the individual. Collective resources are examined in socio-economic and cultural analyses of the different regions and will be related to the individually based survey data in the final analyses.

Living conditions indicators

Living conditions indicators are the actual questions to be posed as operationalizations or representations of the individual resources mentioned above. These will constitute the questionnaires. The questionnaires will be constructed by the researchers in the project and then pilot tested in all areas.

The above model for inclusion of the group of respondents in the process of selecting dimensions and indicators of living conditions ensures that the final research design will be context-specific and thus will reflect also the perceptions of well-being in the groups of respondents so that all relevant dimensions have been included, and that the theoretical variables are correctly and validly operationalized.

The household economy – an example. To illustrate the importance of this process and of the application of context-specific models for the identifications of living conditions indicators in general, SLICA has introduced an alternative way of measuring among others income among indigenous peoples in the Arctic. This model is described below.

In living conditions studies the unit of analysis is most often the individual as the main focus of the research is the individual well-being. This is also the case for SLICA. Studies[24] of ways of living and living conditions in small communities in the Arctic, however, document that more traditional family and household structures still play an important role in the Arctic region. Hence the SLICA research team has developed a household production model from which it is also possible to derive information at the individual level.

The household is in this model chosen as a central unit of analysis primarily because of three circumstances:

1. Even though family patterns and ways of living together through several generations have been – and still are – changing, it is still common, that a household consists of family members besides the nuclear family. It is also assumed that the share of three generation households is significantly bigger in the Arctic than in e.g.,x Scandinavia, Canada and the USA.
2. Despite the rapid economic, social and cultural change of the Arctic societies, a large part of the families are still dependent on subsistence hunting and fishing[25] or at least a combination of subsistence hunting/fishing, wage income and transfer payments.

In the 1994 Greenland Living Conditions Survey, one of the topics analysed was subsistence activities – measured as the respondents' participation in subsistence hunting and fishing activities as well as the share of the food supply stemming from such activities.

Whereas less than 9 per cent of the Greenland part of the labour force has subsistence hunting or fishing as their main occupation,[26] the degree to which people participate in those activities at all, is much more extensive. This is especially true for the settlement inhabitants. According to the 1994 Greenland Living Conditions Survey, 67 per cent of the population in the settlements indicating wage income as main income source were engaged in small-scale fishing and/or hunting activities (the corresponding figure for the town inhabitants was 28 per cent). Eighty per cent of the households in the settlements had members participating in hunting sea or land mammals and/or fish for the consumption of the household (and/or the sledge dogs) as a necessary supplement to their wage incomes.[27]

These figures show both the importance to the Greenland Inuit of having access to hunting and fishing activities and the significant difference between the more traditional living in the small settlements and the more modern ways of living in the towns. (There is no official distinction between the concepts of "towns" and "settlements". In practice, however, the "capitals" of the 18 municipalities are classified as towns, while other inhabited places are classified as settlements. The number of persons living in different towns range from 550 to 14.000, whereas the population figures in the settlements vary from 25 persons to 500.)

Most of all, however, the figures underline that contributions from subsistence activities are crucial to the survival of many households. In traditional statistical studies the outcome from these activities are not part of the income measurement due to the monetary concept of income most often applied by researchers and statisticians. The ultimate consequence is that from a GDP point of view, subsistence hunting and fishing do not contribute to the wealth of a nation.[28]

To grasp the importance of subsistence and how the household in the mixed subsistence-based economy works as a micro-enterprise in organizing productive activity and allocating the factors of production (land, labour, capital) to optimize income the household production model was developed[29] to and through the SLICA process.

The model (Figure 3) illustrates how an essential socio-economic unit below the regional economy level – the household – works as a micro-enterprise in the Arctic and makes it possible for living

conditions researchers to capture both monetary and non-monetary production and consumption within the household.

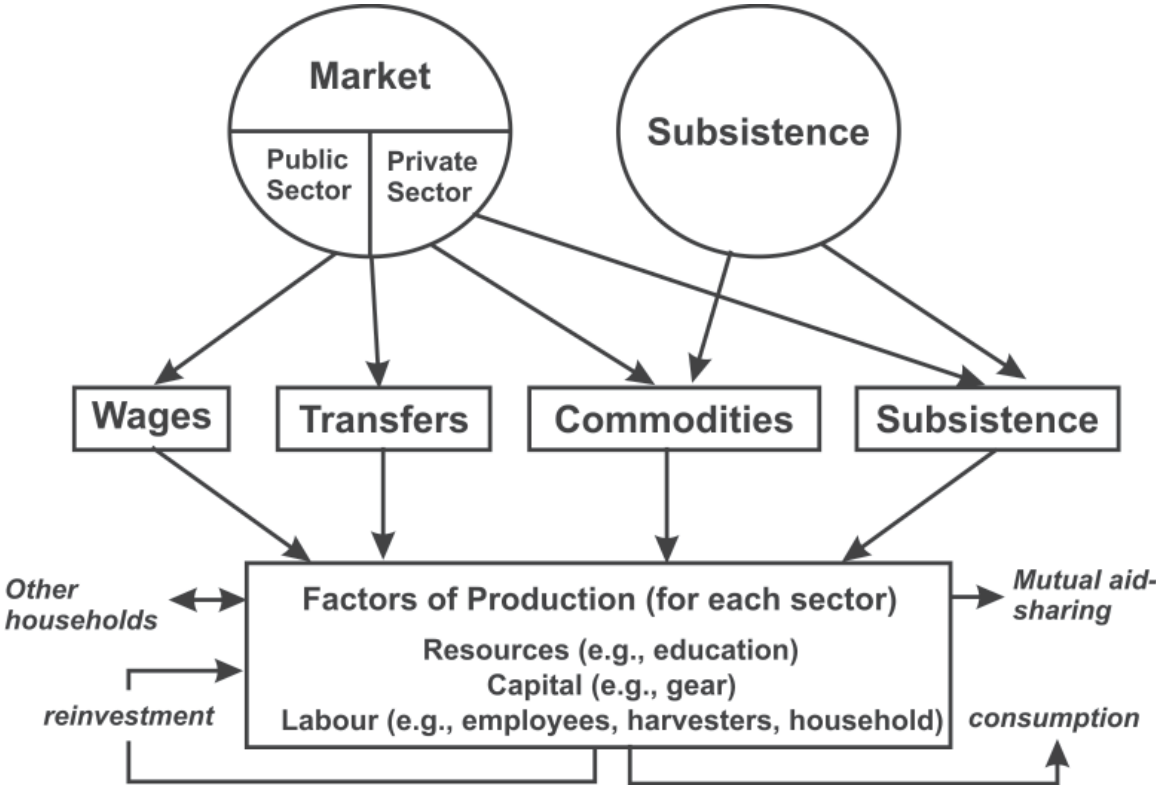


Figure 3. A household production model

There are three types of questions relevant to the household economy model: **characteristics** of the individual members (their western and traditional education for example); **activities** of the individual household members (wage labour and hunting for example); and **flows** of different types of cash and harvests into and out of the household.[30]

Households have access to land – not in the conventional sense of ownership – but to the traditional land base used for harvesting. Households own items used in production: boats, outboard motors, snow-mobiles, trucks. Household members work to produce money and harvests: they have paid jobs, they hunt and fish, and they process foods. We try to understand how everyone in the household fits together to do these things – this is the challenge theoretically as well as methodologically.[31]

As can be seen from the short description of and comments to the model, the main purpose is to understand how the household as a production unit works: the individuals' resources, the arenas they are being used in and the output of the process. How the process is being perceived and evaluated by the household members will be addressed by questions derived from "outside the model".

5.3. Focus on structural and individual change

As mentioned in Section 5 it is one of SLICA's main goals to carry out a dynamic social analysis of the effects of structural change on living conditions. As we are not able to measure the relationship between structural changes and individual well-being over time, we shall have to do it over place. Thus the value of a circumpolar comparison of living conditions is found in, among other things, a better understanding of how different structural conditions and changes affect individual resources in culturally comparable groups. For example, how has the exploitation of mineral resources affected the living conditions of the Inuit compared to areas where no such exploitation takes place? Or how have the G50 and G60 plans of the Danish government affected the living conditions of the Greenland population in contrast to areas where no concentration policy, for example, was initiated?

The first task is thus to identify the most important structural changes or "forces of change" which have influenced the freedom of choice, either by (1) changing the resources people possess, or (2) affecting them so that new arenas are chosen where their resources are more or less sufficient, or (3) creating completely new arenas. Kruse and Hannah[32] have identified the following important causes of structural changes among Saami and Inuit in the Arctic:

- Climate change
- Government policies
- Native self-government
- Resource development
- Technology
- Animal rights groups
- Contaminants
- Increased access to the north
- Religion
- Education

The question is whether these structural and institutional factors affect individual living conditions and well-being. Mohatt, McDiarmid and Montoya[33] presented an overview of the impact of social change among Alaska Natives on human health. They pointed out that forces for change are cumulative, a combination of "big" history (e.g., disasters, social change, economics); and "little" history (e.g., family and individual trauma, developmental trauma, biological/hereditary events within family history, emotional events). They emphasised the importance of understanding how these forces of change affect the coherence of individuals, families, and communities. Quoting Antonovsky, they defined coherence as

… a global orientation that expresses the intent to which one has a pervasive, enduring though dynamic feeling of confidence that one's external environments are predictable and that there is a high probability that things will work out as well as can reasonably be expected.[34]

We raise Mohatt's point here because it would be a delusion to think that we can partition the effects of concurrent forces for change on arena outcomes and, even if we could, we would lose sight of the cumulative effects. These cumulative effects may be the most important in that they become a resource limitation in all living conditions dimensions at the same time. This means that the loss of a sense of confidence in a degree of social and cultural continuity, for example, can undermine the ability and the will to act, and hence the freedom of choice of the individual in general.

However, we assume, as mentioned above, that we are able to identify some direct effects of well-being based on the structural changes which have taken place in the Inuit and Saami societies during the period after the Second World War.

Figure 4 describes our view of the overall co-variation between structural change and a changed individual well-being. The model is an illustrative one and not an attempt at reproducing reality precisely. Thus the list of the structural and institutional forces of change is not exhaustive.

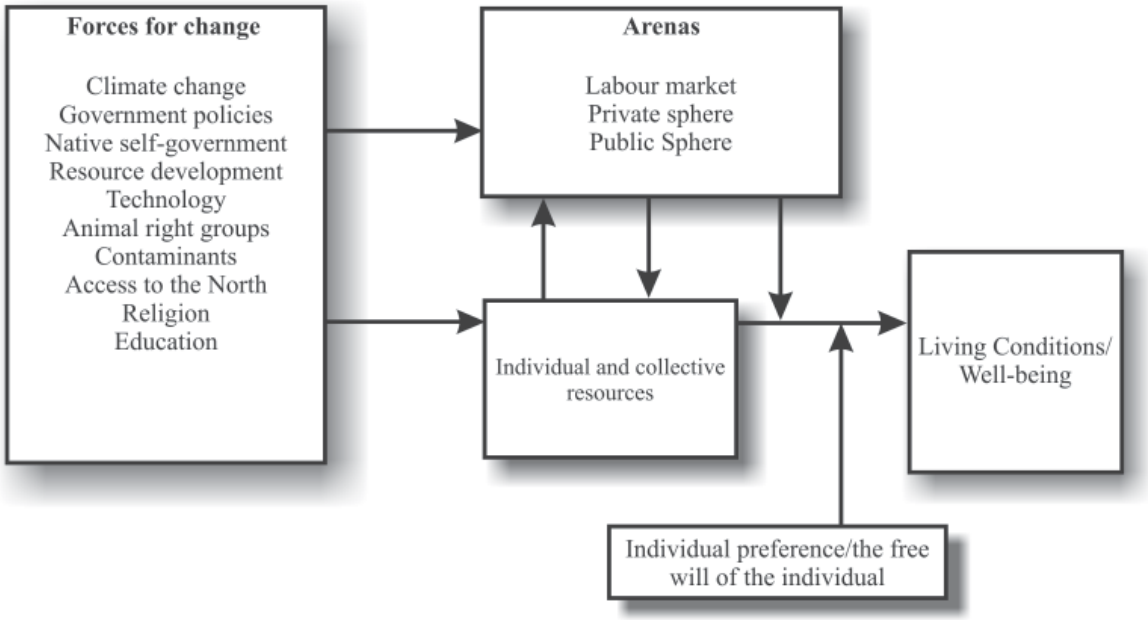


Figure 4. A model for explaining and describing living conditions among Inuit and Saami in the Arctic (Andersen, 1999a)

The model may look rather deterministic at first glance. To underline the individual choice or the free will of man we have added a box to indicate that acquiring and employing individual resources is not only conditioned by forces of change or access to arenas, but also by the individual choice. As a consequence of Mohatt's argument one might draw an arrow which indicates a correlation between the forces of change and the general will and ability of the individual person to manage his/her resources.

Two consequences arise from the above model. First of all, the identification of specific causes of change should contribute to steering the selection and operationalization of the living conditions indicators. Secondly, SLICA will produce region-specific socioeconomic reports which will make it possible to correlate and compare these structural events with the living conditions of the individual so that in the analysis phase it will be possible to carry out dynamic social analyses and thus identify how the forces of change have affected the living conditions and the well-being in the various regions. In this way focus remains on change and not on static descriptions of the Inuit and Saami living conditions in the Arctic.

5.4. An outline of SLICA's research design

The above sections of the paper have mainly been oriented towards (1) a discussion of the experiences from the Greenland Living Conditions Survey 1994, (2) the basic model for living conditions research among Inuit and Saami within SLICA, and (3) a selective discussion of how this model may be implemented in a comparative study of these populations. The drawing up of the actual questionnaire is not discussed here. However, below we have listed the living conditions dimensions included in SLICA's research design.

Part A: Family

(1) Family relationships and (2) Household economy;

Part B: Background

(1) Mobility, (2) Language, and (3) Education;

Part C: Lifestyle

(1) Employment, (2) Harvest, (3) Leisure, (4) Spirituality, (5) Identity and (7) Health;

Part D: Environment

(1) Housing, (2) Income and expenses, (3) Technology, (4) Safety and justice, (5) Resource management, (6) Environmental health, (7) Political resources and (8) Community viability

This list contains not only living conditions dimensions specific to indigenous peoples in the Arctic but of course also a number of more traditional topics. The point is that the important theoretical variables or resources do not always differ between different kinds of societies – but that they have to be operationalized differently to measure well-being among indigenous peoples in the Arctic and eg well-being of the inhabitants of western, industrialized countries as was shown in the example regarding income measurement in section 6.2.

6. The perspective: Living conditions research and political planning in the Arctic

If living conditions research is going to play a role in connection with political planning and implementation in the Arctic, it will have to become relevant again, and in order to be relevant research must again become theory-propelled and must to a greater extent focus on the interplay between events at system level and individual well-being. Furthermore, living conditions research must be based on context-specific research designs in order to obtain meaningful and realistic measurement of well-being.

If these conditions are included in the living conditions studies, living conditions research may contribute with new and essential knowledge about the indigenous peoples in the Arctic. Not least in connection with planning, implementation and evaluation of the sustainable process of development which plays such an important role in setting the political agenda in the Arctic.

In 1996, the Arctic Council, whose members represent all the eight countries geographically linked to the Arctic region, defined sustainable development as a concept not only related to the environment but also to economic and social development and as a question of securing the cultural welfare of the Arctic inhabitants.[35] In order to acquire a correct understanding of how living as well as non-living resources should be regulated in a sustainable way, it is necessary to focus in a greater measure on the social aspects of sustainable development. In order to understand how resources were regulated in the past, how they are regulated today, and how they should be regulated in the future, it is important to include human activity, politico-economic systems, cultural conditions and technological aspects in the concept of sustainability.

Only by including in the mental picture the social, cultural, political, economic and technological differences in the various Arctic societies it is possible to plan and implement a sustainable development in the Arctic. A sustainable regulation of the resources is not a question only of adapting the political and economic control systems. In order to avoid "the tragedy of the commons"[36] and "the tragic necessity of Leviathan",[37] it is necessary to learn more about the living conditions, informal institutions, political resources, attitudes, values and welfare priorities among the Arctic peoples who actually manage the resources.

The majority of the indigenous peoples in the Arctic have, as shown above, experienced rapid changes in a number of exogenic variables which to a great extent have affected their lives. Today many of these people mix traditional activities with wage labour, for example. They adapt the traditional lifestyle. Seen from the perspective of sustainable development it is important to study how these events at the system level affect habits of diet, consumption patterns, occupational conditions, incentive structures, and, in continuation of these factors, the ways in which the individual person relates to the living and the non-living resources. When the concept of sustainability does not exclusively relate to animals, plants and minerals but to human beings also, it becomes relevant to study how the above events have affected the living conditions of the indigenous peoples, that is their health, opportunities for work, housing, level and sources of income, educational level, family structures, social networks as well as their attitudes, values and priorities in general.

By carrying out a representative, comparative study of individual living conditions, it becomes possible to expose how various indigenous peoples with different cultural, technological, political and economic structures manage their resources. In this way it becomes possible to learn more of the causal relations between economic, political and cultural systems and the way in which the resources are managed. A comparative study of these conditions makes it possible to identify some of the key variables that decide whether the management of resources is a success or a failure.

Thus living conditions research may contribute considerably to political planning in the Arctic – not least in connection with the implementation of the sustainable development process if it is based on adequate and meaningful research designs.We are convinced that the comparative study of living conditions among Inuit and Saami in the Arctic is a major step in the right direction.

Since this article about the Survey of Living Conditions in the Arctic (SliCA) was first published, interviews have been conducted among the Inuit in Northern Alaska, in the five settlement regions in Canada, in Greenland and among the indigenous peoples of Chukotka, from 2001 to 2006. The results of this part of the survey have been made available on the project website (see below) and analyses have been presented in a number of aticles.

Interviews among the Saami in Northern Norway, Northern Sweden and the Kola Peninsula were conducted in the period 2006 to 2008.

The international core questionnaire, sampling procedures, results from the survey among the Inuit as well as more detailed information about development of the SLiCA project can be found on www.arcticlivingconditions.org

Endnotes

[1] Johanson, 1970.
[2] Allardt, 1975.
[3] NOU, 1976.
[4] Hansen, 1978.
[5] Eriksen and Uusitalo, 1987; Hansen, 1990.
[6] Danmarks Statistik and Socialforskningsinstituttet, 1992.
[7] *Ibid*; Vogel, 1996; Statistiska Centralbyrån, 1995.
[8] For a detailed critique of these approaches, see Andersen, 1998, 2001.
[9] Kruse, 1999; Andersen, 2001.
[10] Hansen, 1999.
[11] Kruse, 1999.
[12] Andersen, 2001.
[13] *Ibid*.
[14] Andersen, 1999b.
[15] Titmuss, 1958.
[16] Coleman, 1971.
[17] Ringen, 1975, 1995.

[18] Andersen, 1999a.

[19] Allardt, 1975.

[20] Andersen, 2001.

[21] Allardt, 1975.

[22] *Ibid*.

[23] Kruse and Hannah, 1998.

[24] Eg Hertz, 1995; Nuttall, 1998; Dahl, 2000.

[25] The concept of subsistence (hunting and/or fishing) as "hunting and/or fishing for the household economy, with a distribution system which secures that the community shares the products" is based on the definition by Kapel and Petersen (1982).

[26] Danielsen *et al.*, 1998.

[27] Andersen and Statistics Greenland, 1995.

[28] Poppel *et al.*, 2000.

[29] Usher, 2000a.

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[31] *Ibid*.

[32] Kruse and Hannah, 1998.

[33] Mohatt. *et al.*, 1988.

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Chapter 6

Part 2

Development and Deprivation of Indigenous Peoples / Scheduled Tribes in India: What the Figures Tell

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Introduction

The UNDP's representations of human development and deprivation encapsulated in the Human Development Index (HDI), Human Poverty Index (HPI), Gender Development Index (GDI) and Gender Empowerment Measure (GEM), have now become standard measures in development discussion. These indices are generally calculated at the country level and also at the sub-country or state and provincial levels.

This study attempts to calculate these indices for a specific socio-economic group, the Scheduled Tribes (STs). The purpose of this exercise is to compare the existence of the STs in terms of these indices vis-à-vis India as a whole, and also to place the STs of India in a global context of development and deprivation. The paper also looks at trends in poverty reduction among the Scheduled Tribes and briefly at some key factors in their poverty and deprivation.

The STs in India are a legal category, roughly coinciding with *adivasis* (meaning original settlers or indigenous peoples). There are some, like the tea garden workers in Assam, who should be but are not listed among the ST. But more or less, one can take STs to correspond with indigenous peoples in the international vocabulary.

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The methodology for this study was discussed at a workshop at the IHD. Thanks to all who participated in that workshop. Particular thanks to Prof P. N. Kulkarni, JNU, Delhi, who provided crucial suggestions.

The study was presented at a workshop in Delhi on 28 April 2006 and at the World Bank-IFAD-Inter-American Development Bank-UN Permanent Forum for Indigenous Issues, Conference on "Poverty and Indigenous Peoples," at New York on 9 and 10 May 2006. Our thanks again to all those who participated in the workshop and conference for their encouraging, helpful and critical comments.

All responsibility for any errors remains that of the authors alone.

The database for this study identifies STs as a social group and much official data is disaggregated by some, though not all, social groups. The other important social group for which such data is disaggregated is that of the Scheduled Castes (SCs), or the former low, often untouchable castes, or *dalits* (meaning oppressed), as they are now identified. This study will sometimes compare STs with SCs. The "other" is the population minus the STs and SCs, i.e., "other than SC and ST". They, however, do not form a homogenous social group. This category includes not only the upper (or forward) castes, but also the middle castes (or backward castes, BCs) and religious minorities. Finally, the terms "all" and "all-India" refer to the whole population.

In addition to the decadal census, the Indian government collects fairly large-scale sample data. The two most important collections are those of the National Sample Survey (NSS) and the National Health and Family Survey (NHFS). Some of the sample surveys are conducted annually. But, as in the case of consumption expenditure, on which poverty estimates are based, the most reliable are the five-yearly surveys. The two NSS studies used here are those of the 50th Round (1993-94) and 55th Round (1999-2000).

The Human Development Index

The Human Development Index (HDI) is a composite representing three dimensions of human development: economic, educational and health. The indicators for these are per capita monthly expenditure adjusted for inequality; a combination of literacy rate and intensity of formal education; and a combination of life expectancy at age one and infant mortality (see Table 1).

Table 1. Human Development Index

State	Human Development Index HDI_ALL	Human Development Index HDI_ST	Rank of ALL in IHD Human Development Index	Rank of ALL in National Human Devp. Report	Relative diff. of HDI between ALL and STs (%)
1	2	3	4	5	6
Andhra Pradesh	0.527	0.392	4	5	35
Assam	0.479	0.529	7	6	-9
Bihar	0.408		9	10	
Gujarat	0.593	0.472	1	2	26
Karnataka	0.539	0.426	3	3	27
Madhya Pradesh	0.398	0.281	8	9	42
Maharashtra	0.592	0.409	2	1	45
Orissa	0.365	0.260	10	8	41
Rajasthan	0.496	0.340	6	7	46
West Bengal	0.518	0.397	5	4	31
All India	0.504	0.383			32

Source: Columns 2, 3, 4, and 6 as calculated by IHD. Column 5 from Planning Commission, 2002.

Human Poverty Index

The Human Poverty Index (HPI) is also a composite index with three dimensions of deprivation: longevity/health, educational and economic. Longevity deprivation is captured by the indicator: persons not expected to survive beyond age 40. Educational deprivation is a weighted combination of illiteracy rate and proportion of children not enrolled in school. Economic deprivation is an average of four variables, namely: proportion of population below the poverty line; proportion of children in the age group 12 to 23 months not fully vaccinated; proportion of population living in *kutcha* (non-permanent) houses; and proportion of population without access to basic amenities (water, sanitation and electricity).

Table 2. Human Poverty Index

State	Human Poverty Index ALL	Human Poverty Index ST	Relative difference of HPI between ALL & ST (%) difference	Rank of ALL in National Human Devpt. Report HPI	Rank of ALL in IHD HPI
1	2	3	4	5	6
Andhra Pradesh	39.50	49.56	25	5	6
Assam	44.68	47.64	7	9	8
Bihar	50.28			10	10
Gujarat	26.36	38.97	48	2	2
Karnataka	30.26			3	3
Madhya Pradesh	38.20	52.23	37	6	5
Maharashtra	24.25	35.98	48	1	1
Orissa	45.04	57.47	28	8	9
Rajasthan	42.50	55.30	30	7	7
West Bengal	36.80	52.82	44	4	4
All India	36.94	47.55	29		

Source: Columns 2, 3, 4, and 6 as calculated by IHD. Column 5 from Planning Commission, 2002.

The Planning Commission uses per capita consumption, adjusted for inequality and inflation, as the indicator of economic development. This gives a series that is consistent over 1981 to 2001. Since we were calculating HDI for 1991, we did not use the inflation adjustment. The All-India per capita consumption we have is Rs.219 as against the Planning Commission's Rs.97.53. The extent of divergence/convergence in the index then also increases with the divergence/convergence in consumption in our procedure as compared to the Planning Commission's procedure.

But even when we re-calculate the HDI using the Planning Commission's inflation-adjustment of per capita expenditure, the All-India HDI is 0.343 as against ST-HDI of 0.253. This results in a 36 per cent difference between the All-India and ST HDIs. This is even higher that our 32 per cent difference. So, we can be confident that our procedure has not overstated the difference be-

tween All-India and ST HDIs. In fact, it has probably understated this difference, the reason being that for calculating life expectancy at age one, there are no separate life tables for STs. We were forced to use the same life table as for the All-India population.[1] Child mortality among STs is higher than with the All-India population: 46.3 for STs as against 29.3 for all-India.[2] This itself would reduce life expectancy for STs, but it is not reflected in the life tables that we used. Consequently, we are understating the difference in life expectancy between STs and All-India.

International comparisons

What can be done to facilitate international comparisons?[3] Our HDI of 0.504 is close to UNDP's 0.514. With India in the medium-income, medium-human development category, where do the STs stand?

The UNDP's HDI uses per capita Gross Domestic Product (GDP), with Purchasing Power Parity US$ (PPP$). Since Indian income figures are not available for social groups, we followed the Planning Commission's use of inequality-adjusted per capita consumption. This, however, makes it difficult to make direct comparisons between our HDI for STs and those of UNDP. But some broad statements can be made.[4]

There is a considerable difference between the HDI for All-India and the HDI for STs. A difference of about 30 per cent would put the STs in a different category in international comparisons. They would be firmly in the low human development category, including sub-Saharan Africa, as against the middle human development status of All-India. Further, the STs of Orissa, already a state with low human development in India, would fall at the bottom of the HDI of sub-Saharan Africa.

Table 3. HDI for STs and state of Orissa compared with All-India and sub-Saharan Africa

IHD's HDI for All-India (1991)	0.504
UNDP's HDI for India (1990)	0.514
IHD's HDI for STs (1991)	0.383
UNDP's HDI for bottom 25 countries (all in sub-Saharan Africa, SSA)	0.423 to 0.259
IHD's HDI for Orissa STs (1991)	0.260

Source: Table 1 and UNDP, 2004

In the case of the HPI, the major difference between the methods of the Planning Commission and UNDP is in the use of the national and state poverty lines versus the $1/day/per capita to indicate poverty in income. But we can be confident that the difference of roughly 30 per cent between All-India and ST HPI is not an overestimate.

Table 4. International comparison of HPI

	(%)
IHD's HPI for All-India (1991)	36.4
UNDP's HPI for All-India (1991-2000)	31.4
IHD's HPI for STs (1991)	47.55
IHD's HPI for Orissa STs (1991)	57.47
Rajasthan	55.30
West Bengal	52.82
Madhya Pradesh	52.23
UNDP's HPI for bottom 25 countries (all in SSA)	2 in 30s 16 in 40s 3 in 50s 2 in 60s

Source: Table 2 and UNDP, 2004.

In a broad sense, the STs constitute a world within a world. Although India is an emerging world power, there is within India a state of development and deprivation, a state of social existence – that of the STs – that is more akin to sub-Saharan Africa in HDI and HPI.

Orissa

To illustrate just how serious the deprivation is, we take a closer look at the state of Orissa, which is already a state with low human development. Within Orissa, the districts with the lowest HDI values (as calculated in the *Orissa Human Development Report, 2004*) fall in one contiguous belt in the south and south-west of the state. There is a concentration of ST population in this belt.

Table 5. NSS-region-wise and social group-wise distribution of poverty in Orissa, 1999-2000

	ST	Others	All
Coastal	66.63	24.32	31.74
Northern	61.69	34.67	49.81
Southern	92.42	77.65	87.05
Orissa	73.08	33.29	48.01

Source: Government of Orissa, 2004, Table 2.5.

Table 6. NSS region-wise trend in poverty ratio (rural), 1993-94 to 1999-2000

	1993-94	1999-2000	Change
Coastal	43.50	31.80	11.7
Northern	45.80	49.80	- 4
Southern	68.80	87.20	- 18.4
Orissa	48.56	48.01	0.55

Source: Government of Orissa, 2004, Table 2.6.

Not only were there very high levels of poverty, going up to 92 per cent for STs in Southern Orissa, but this is a region in which the incidence of poverty actually increased between 1993-94 and 1999-2000.

Table 7. Population below poverty line: comparing STs in Orissa with sub-Saharan Africa (SSA)

STs in Orissa	73.9% (1999-2000)	
Southern Orissa (NSS region)	87.05%	
STs in Southern Orissa	92.42%	
Sub-Saharan Africa (SSA) (2000)		
Bottom 25 countries (all in SSA)	< 60%	12 countries
	60-70%	8 countries
	> 70%	1 country

Source: Government of Orissa, 2004 and UNDP, 2004.

When comparing the incidence of poverty of STs in Orissa with Africa, it is easily seen that almost no other country has a similar incidence of poverty. Of course, this is based on the assumption that we can compare these poverty rates, an issue discussed in Annex 1.

The picture is the same for infant mortality rates. While there were improvements for both coastal and Northern Orissa, there was no change, or even a slight deterioration, for Southern Orissa. At 125 the infant mortality rate for Southern Orissa was higher than the average for sub-Saharan Africa and only six countries there had a higher infant mortality rate. Infant mortaility is an indicator of human deprivation that is not based on a money-metric, and, therefore, does not present the same problems of international comparisons. We can therefore be more confident in this comparison than in the one based on poverty incidence, which is measured in monetary terms.

Table 8. Infant mortality rate

	1991	1997-99
Orissa coastal	127	92
Northern Orissa	100	93
Southern Orissa	**123**	**125**
Sub-Saharan Africa		108 (2002)
LDCs		99
Countries in SSA which had a higher infant mortality rate than South Orissa:		
Angola	154	
Congo, DR	129	
Mozambique	125	
Guinea-Bissau	130	
Niger	156	
Sierra Leone	165	

Source: Deolalikar, 2005, Annex, Table 8 and UNDP, HDR, 2004, for sub-Saharan Africa (SSA).

Only six countries in the world, all in sub-Saharan Africa, had a higher infant mortality rate than Southern Orissa. But if the indigenous people of Southern Orissa were to constitute a separate nation, its mortality rate would be among the worst in the world.

The Millennium Development Goals and STs

The HDI and HPI give a snapshot view of development and deprivation at a point of time. Since some key data for 2000 or 2001 are not yet available, it is not possible to calculate HDI and HPI for STs in 2000-1 and compare them with those for 1991. But in order to get an idea of the changes in the condition of the Scheduled Tribes over this period, it is possible to look at just the indicator of incidence of poverty, for which data are available. Again there are problems of comparability of data, which are discussed in the Annex.

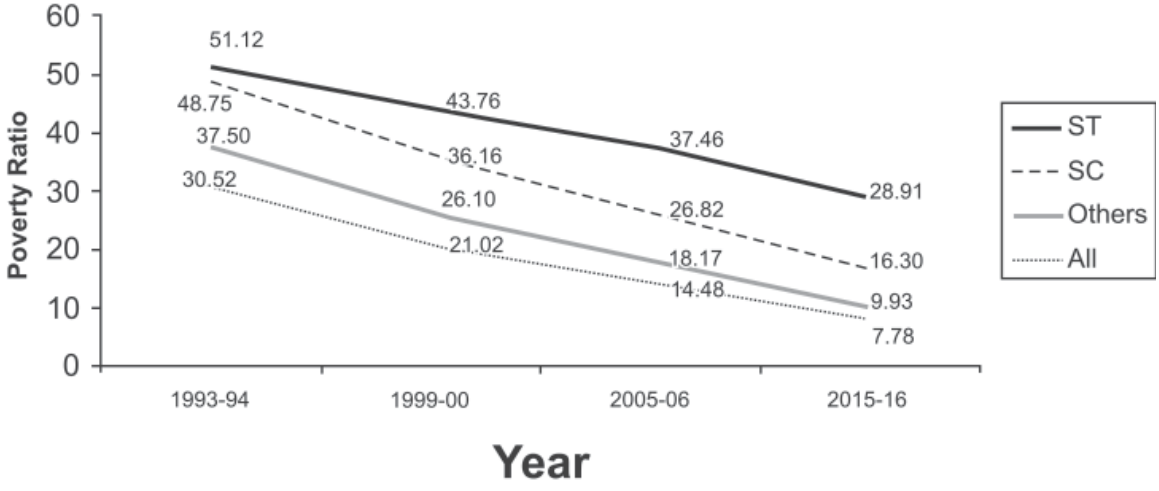
The Millennium Development Goals (MDGs) are commitments made by the countries of the world. The key MDG is that of halving the incidence of poverty between 1990 and 2015. How do India and the Scheduled Tribes fare in this regard?

Table 9. Poverty ratio among social groups, 1993-94 to 2015-16

			Projected	Projected	Annual compound rate of decrease
Category	1993-94	1999-00	2005-06	2015-16	1994-2000
ST	51.12	43.76	37.46	28.91	2.56
SC	48.75	36.16	26.82	16.30	4.86
Others	30.52	21.02	14.48	7.78	6.03
All	37.50	26.10	18.17	9.93	5.86

Sources: NSS, 50th and 55th Rounds and projections for 2005-06 and 2015-16 based on annual compound rates of decrease calculated for 1993-94 and 1999-2000.

Fig. 1: Poverty Ratio among Social Groups in 1993-94 to 2015-16



Source: NSS 50th and 55th Rounds for 2 and 3.

With All-India poverty at 37.5 per cent in 1993-94, the MDG target for 2015-16 is set at 18.75 per cent. The Government of India[5] claimed that India would reach the MDG poverty reduction target far ahead of time, ie long before 2015. If current poverty reduction trends continue, then the All-India target of 18.75 per cent below the poverty line is likely to be reached before 2015. But the figures above show that the STs will not reach the MDG target. They will still have a poverty incidence of 28.91 per cent in 2015-16, which is 10.16 per cent above the MDG target.

If we take the more conservative target of 50 per cent reduction in incidence of poverty among STs, the MDG target for STs would be 25.56 per cent (rather than the equality-based national target of 18.75 per cent). Even with this conservative target, the STs would not reach the MDG poverty reduction target by 2015.

There are problems with comparing the NSS poverty ratio figures for 1993-94 and 1999-2000 (see Annex 1). In any case, the prediction that the indigenous peoples of India will not achieve the MDG target in poverty reduction is made on the basis of the most optimistic projection of poverty reduction achievement. If the actual performance turns out to be less than the figures above show, that would only strengthen the likelihood that the STs of India will not meet the MDG poverty reduction target.

Table 10. Poverty gap between social groups (%)

	1993-94	1999-2000
ST/all	13.62	17.66
SC/all	11.25	10.66

Source: Calculated from Table 9.

In the second half of the 1990s the poverty gap between the STs and the rest increased, while that between the SCs and the rest decreased. The STs not only started out with a higher poverty level than the rest of India, but they have also fallen further behind the rest. In summary, the STs have not benefited as much as the rest of the population either from state interventions or from the market liberalization and globalization policies that the Indian economy has witnessed in this period. The factors behind this difference in performance will be briefly examined later in this paper.

Gender Equality Index

Table 11. Gender Equality Index

State	ST female as % of ST male	All female as % of all male
Andhra Pradesh	87.0	82.1
Assam	82.8	74.2
Bihar		48.7
Gujarat	83.5	72.4
Karnataka	77.2	79.1
Madhya Pradesh	81.6	65.7
Maharashtra	89.9	83.8
Orissa	67.0	61.3
Rajasthan	68.0	60.9
West Bengal	79.4	66.1
All India	80.2	69.1

As one would expect, the Gender Equality Index (GEI) among STs, at 80.2 per cent, is higher than that for all-India at 69.1 per cent. The GEI as calculated here, following the Planning Commission's methodology, is very limited. Its three variables are: economic attainment, as measured by the worker population ratio; health attainment, as measured by life expectancy at age one and infant mortality; and educational attainment, as measured by the literacy rate of those above age six and the intensity of formal education. All three variables are given equal weight in the calculation of the GEI. The high rate of ST female workforce participation, compared to All-India female workforce participation, makes the ST GEI somewhat higher than that for all. The high rate of ST female workforce participation says nothing about the quality of that participation. ST women are less likely to be in regular wage employment than ST men, and more likely to be in casual wage employment. On the other hand, it should be noted that the gap between female and male educational attainment is higher for STs than for all-India. This would mean that there is a less than proportionate participation of ST women in the modern sector of the economy compared to ST men.

Dimensions of deprivation

We look at a few dimensions of deprivation among the STs taking only those aspects that can be seen from nationwide statistics.

Table 12. Comparative literacy rates (1991 and 2001)

	ST	SC	Other than ST/SC	Gap of other to ST
1991	29.6	37.41	57.69	28.09
2001	47.1	54.69	68.81	21.71

Source: Planning Commission, Table 2.3.

Table 13. Secondary school drop-out ratios (%)

	ST	All	Gap
1996-97	84.2	70.0	14.2
2003-04	80.3	62.6	17.7
Decrease in 2003-04 over 1996-97	3.9	7.4	+3.5

Source : Planning Commission, 2005, Table 2.4.

In overall literacy the STs have reduced the gap with the others from 1991 to 2001 (Table 12); and the decrease in dropout ratios over this period shows an improvement in completion in all categories of school education. But the education gap between STs and All-India has gone up from 14.2 to 17.7 per cent in the important area of secondary school education, while the *dalits* (SCs) are closing this gap.

Table 14. Status of STs in key health indicators (1998-99)

	ST	All	% Difference ST and all
Infant mortality	84.2	67.6	24.5
Neo-natal mortality	53.3	43.4	22.8
Child mortality	46.3	29.3	58.0
Under-5 mortality	126.6	94.9	33.4
Ante-natal care check-up	56.5	65.4	13.6
% Institutional deliveries	17.1	33.6	49.1
% Women with anaemia	64.9	51.8	25.2
% Children undernourished (weight for age)	55.9	47.0	18.7
Full immunization	26.4	42.0	37.1

Source: NFHS, 1998-99, Planning Commission, Table 2.11.

The ST and all-India difference is greater for under-five mortality than it is for infant mortality. The reasons lie in low birth weight, greater incidence of malnutrition, lower immunization rate, lesser access to safe drinking water and to infrastructure, including roads, and to lower levels of women's education. Infrastructure is largely a matter of state provision, rather than one of per capita

income or consumption. The ST areas are under-provided, compared to the rest of the country, in terms of roads, electricity and health infrastructure. Lesser access to some aspects of infrastructure is illustrated below (Tables 15 and 16).

Table 15. Percentage of households with access to electricity

Year	All	ST	Gap
1991	42.4	22.8	19.6
2001	55.8	36.5	19.3

Source: Planning Commission, Table 2.15.

Table 16. Percentage of households with improved drinking water facility

Year	All	ST	Gap
1991	64.1	43.2	20.9
2001	79.2	61.7	17.5

Source: Planning Commission, Table 2.18.

Factors in poverty

We now briefly investigate some of the factors responsible for poverty and deprivation of the indigenous peoples of India, focusing on those factors that can be illustrated through All-India statistics from either the censuses or the NSS.

Table 17. Rural/urban composition by social groups

	1993-94		1999-2000	
Social group	Rural	Urban	Rural	Urban
ST	91.44	8.56	88.96	11.04
SC	82.78	17.22	81.17	18.83
Other	71.38	28.62	70.86	29.14
All	75.17	24.83	74.49	24.51

Source: NSS, 50th and 55th Rounds.

The STs are more rural than other social groups, although this difference has diminished to an extent. Given that the incidence of rural poverty is higher than that of urban poverty, we can expect poverty among STs to be higher than among other social groups.

Moreover, within the rural areas, as seen in Table 18, the STs are much less numerous in the non-farm sector. Their economy is less diversified than that of other social groups; it is largely based in and around agriculture.

Table 18. Occupational distribution of social groups (2001)

Type of work	ST	Other than ST/SC
Cultivators	44.7	32.5
Agricultural labourers	36.9	20.7
Household industry	2.1	2.1
Other work (non-farm)	16.3	42.2

Source: Census, 2001, quoted in Planning Commission, Table 2.13.

Table 19. Employment status of urban population by work category and social group (1999-2000)

Category	ST	All	Gap
Self-employed	28.79	40.55	- 11.77
Regular salaried	37.24	41.36	- 4.13
Casual wage worker	33.98	18.09	15.89

Source: NSS 55th Round.

In urban areas the STs are much less likely to be self-employed, which would mean that they have less access to capital and/or also less knowledge of and capability in business methods. More important, they are less likely to be regular workers and much more likely to be casual workers (Table 19).

This could be due to discrimination in the labour market, and also to STs not having the types of skills required for regular employment. But the "labour market in India has been historically characterized by exclusionary and discriminatory practices".[6] Hiring on bases other than merit has been a common phenomenon; hiring is on bases such as caste, community, language and regional affiliation. These practices have segmented the labour market.

"Channels of information and routes of recruitment were both mostly personalized and, therefore, available only to a few".[7] The STs lack the kinship networks to secure regular wage work in urban areas. That would result in them being over-represented among casual wage workers even in urban areas. Since the market does not itself end the social exclusion of STs, it makes more relevant the current debate on affirmative action or quotas as forms of positive discrimination necessary to distribute more evenly the gains from the opportunities opened up by globalization.

Table 20. Poverty among different land size groups in rural areas by social groups in 1999-2000

Land size	ST	SC	OBC	Others	Total
Landless	40.39	36.14	27.36	17.23	28.62
0-0.4 hectares	48.85	37.28	30.70	21.85	31.44
0.4-1 hectares	47.78	34.18	24.82	15.13	26.42
1-2 hectares	38.84	31.25	21.68	12.52	22.16
2-4 hectares	39.62	25.00	16.28	7.80	16.95
> 4 hectares	34.85	17.26	10.74	4.79	10.55
Total	44.45	35.48	25.64	15.90	26.56

Source: NSS 55th Round.
Note: OBC = other backward class

What stands out in Table 20 is that even STs in the highest landowning class (more than 4 hectares) have an incidence of poverty as high as 34.85 per cent. Similar landowning classes among the rest have much lower levels of poverty, while the "others" have a poverty incidence of only 4.79 per cent in this landowning category.

The high incidence of poverty even in the largest landowning category shows the low productivity of ST agriculture, which is largely hill agriculture, compared to plains agriculture.

Moreover, the prices of hill and forest products (NTFP) take account only of the costs of collection. They do not include the costs of regeneration or plantation and management, or the external effects on the environment (depletion of organic matter, soil erosion, etc) which reduce productivity. Consequently, forest products are under-priced, leading to a loss of value in the hill/forest economies.[8] This however, is something we cannot illustrate using the type of data above.

Gender disparity among STs

Table 21. ST literacy rates by gender (%)

	1991	2001
Male	40.65	59.17
Female	18.19	34.76
Gap (M-F)	22.46	24.41

Source: Census, 1991 and 2001, Planning Commission, 2006, Table 2.3.

While female literacy has almost doubled, the male literacy rate has also increased by about 50 per cent. But the gap between male and female has increased from 22.46 per cent in 1991 to 24.41 per cent in 2001. This is a disturbing trend and is not in line with the All-India trend of a narrowing of the gap between males and females in education.

Table 22. Employment status of STs by gender

Category	Male		Female		Male-female gap	
	1993-94	1999-00	1993-94	1999-00	1993-94	1999-00
Self-employed	48.25	47.11	50.30	47.85	- 2.04	- 0.73
Regular wage worker	8.78	9.46	3.24	3.70	5.54	5.76
Casual wage worker	42.97	43.42	46.47	48.45	- 3.50	- 5.03

Source: NSS 50th and 55th Rounds.

Table 22 shows that casualisation among ST women is higher than among ST men.

Other factors

There are also other factors in the continuing historical shift in production objectives (from subsistence to income maximization) and in access to resources (a *laissez faire* transition from communal to individualized modes of access), in which the weak and women lose out.

We can list seven factors in the poverty and deprivation of indigenous peoples in India, four of which can be seen from the statistics:

1. a production factor in the low productivity of agriculture;
2. an economic structure factor in the low urbanization of STs and their poor presence in the non-farm sector and in services requiring capital, and discrimination in the labour market discrimination in the labour market;
3. a gender factor in the inequality between men and women;
4. a state factor in the poor supply of services, such as medical care, education and infrastructure.

The three factors that we cannot discern from the statistics are:

5. ongoing historical changes in internal access to resources;
6. a market factor in the under-pricing of forest/hill products; and
7. resource predation in the seizure of lands and forests.

The last, the loss of productive resources due to mines, dams, etc has been and remains an important factor. Study is needed to try to define the magnitude of such loss by the indigenous peoples in comparison to the rest of the population. Given the location of most dams and mines in hill/forest regions it would be reasonable to expect that the indigenous peoples, proportionately more than the rest of the population, have lost their productive resources and, owing to the absence of proper rehabilitation, have been turned destitute. The pace of such destitution of the indigenous peoples has certainly increased over the past 10 years or so, with the commodities boom leading to many new mining projects. The resistance to such destitution has been met, as at Kalinganagar in Orissa, with police gunfire.

Does self-governance make a difference to development outcomes?

Some Indian Scheduled Tribes now have states that they largely administer themselves, to the extent that there can be such self-governance within the ambit of the Indian politio-economic system. These are some of the states of North-east India, Meghalaya, Nagaland, Mizoram and Arunachal Pradesh. Does such self-governance make a difference to development outcomes?

Table 23. Incidence of poverty among STs in different states

Incidence of poverty (%)	States
Extremely high (> 50)	Orissa, Jharkhand*, M.P. (including Chattisgarh)
High (35 to 50)	W. Bengal, Maharastra, Assam, U.P. (including Uttaranchal)
Moderate (20 to 30)	Andhra Pradesh, Gujarat, Karnataka, Rajasthan
Low (< 20)	North-eastern states*

Note: *Poverty lines of Bihar and Assam have been used to calculate head count ratio (HCR) in the states of Jharkhand and the North-eastern states respectively.
Source: Based on the calculation of HCR for all states from unit level data of NSSO, 55th round, 1999-2000.

Table 23 is very different for the North-east from that in Planning Commission documents (2005) and official calculations. In the Planning Commission's calculations the incidence of poverty for the North-eastern states is not calculated independently. Rather the poverty ratio of Assam is assumed to hold for the North-eastern states. This is an obviously incorrect procedure, adopted for political reasons.

In our table poverty head count ratio (HCR) has been calculated using the Assam poverty line, but not the Assam poverty ratio. But some adjustments need to be made even in that. As pointed out by Papola,[9] the cost of living is higher in the hills compared to the plains. There are higher requirements for nutrition, clothing and fuel, and prices are also higher. Using the 30 to 40 per cent higher cost of living, put forward as a rough approximation by Papola, the poverty HCR in the North-eastern states could go up from less than 20 per cent to around 30 per cent.

Because of a lack of data we are unable to calculate the HDI and HPI for these states. But data on some of the variables used in those indices are available. We reproduce it below so as to be able to compare these outcomes with those of indigenous peoples at an All-India level.

Table 24. Comparing self-governing ST states with All-India ST

	All-India ST	Arunachal Pradesh	Meghalaya	Mizoram	Nagaland
Literacy (2001)	47.1	49.6	61.3	89.3	65.9
Infant mortality (98-99)	84.2	63.1	89.0	37	42.1
Child mortality (98-99)	46.3	37.4	36.2	18.4	22.7
Any anaemia among women (98-99)	64.9	62.5	63.3	48.0	38.4
Vaccination, measles	34.3	33.6	17.7	71.0	19.6
Children undernourished (weight for age)	55.9	24.3	37.9	27.7	24.1

Source: Planning Commission, 2005.

Arunachal Pradesh does better than All-India STs in four indicators, and is close to the All-India level in two indicators. Meghalaya does better than All-India STs in three indicators, is at all-India level in two and worse than All-India level in one indicator. Mizoram does better than All-India STs in all indicators, and by a wide margin. Nagaland does better than All-India STs in five indicators, and worse only in one: vaccination against measles.

On these indicators, Mizoram and even Nagaland are clearly superior to All-India ST levels. But the surprise is that Meghalaya, the oldest of these states, does not match the performance of Mizoram and Nagaland. Is it that the administrations in the latter two states are more responsive than in the former to meeting the needs of the people?

Conclusion

This study found that the HDI and HPI for STs are around 30 per cent lower than the corresponding All-India indices. Making international comparisons, development and deprivation among the STs of India would place them in an existence similar to that of the poorer countries of sub-Saharan Africa. The trend of poverty reduction among the STs is such that they will not meet the MDG of reducing by half the incidence of poverty by 2015. If current trends of takeover of their resources, without any rebuilding of their livelihoods, continue then their condition could worsen, even as India as a whole meets the MDG target of reducing poverty by half. Policies substantially different from those currently being pursued are needed to enable the STs to emerge from the state of extreme deprivation in which they now largely exist.

Annex 1

Methodology and data base of HDI and HPI for all sections of the population and STs

We have followed the Indian Planning Commission's methodology for calculating HDI and HPI. But we differed in certain aspects. Our main task was to calculate HDI and HPI for STs and for comparison to make the same calculation for all sections of the population.

The major difference is in the realm of construction of variables, as similar figures are not available from the same source as the Planning Commission used. To maintain comparability, we had to construct variables for all sections from the same source.

Let us begin with the per capita consumption variable. Our per capita consumption figures are inequality adjusted but not inflation adjusted, since we calculated the index for only one year, 1991. Our results differed from similar figures calculated by the Planning Commission by at most 5 per

cent.

Second, life expectancy at age one and infant mortality rate are not available for STs from official publications. We have estimates provided by S. Iruda Rajan and P. Mahanachandran for all the population and STs. Our infant mortality rates for all the population and for STs are obtained from the estimates made by them. As life expectancy at age one is not available for STs, we used the following procedure:

We took child mortality rate at age five, life expectancy at age one and probability of surviving at age 40 across 15 major states (excluding Kerala) from the SRS-based abridged life table for 1988-92. We regressed separately child mortality rate at age five on life expectancy at age one and probability of surviving at age 40 across the 15 major states to obtain the following regression estimates:

1. $e_1(x) = 71.95 - 69.85\ q_5$

2. Not $l_x(40) = 0.058 + 1.179\ q_5$

By fitting child mortality figures of all the population and STs obtained from Iruda Rajan and Manchandran (1998), we obtained estimated values of life expectancy at age one and probability of not surviving at age 40 for all and for STs.

Adjusted intensity of formal education was calculated following Planning Commission methodology but we have used actual age groupwise data for 1991 and 2001 censuses and interpolated from them.

Some problems in comparison: Inter-temporal and international

In India, there has been much debate about the reliability of poverty figures based on the 55th Round and on its comparability with earlier figures.[10] There was a change in method in the survey questions in the 55th Round. But it has been argued[11] that there is little difference between the original NSS figures and modifications needed to make them consistent with figures from the earlier rounds. They argue that the 55th Round may overstate the extent of poverty reduction by about two percentage points, but few question that there was in fact some poverty reduction between 1993-94 and 1999-2000. Since the difference is small, we remained with the official NSS figures. The Government of India, for instance, in its report on the status of the MDGs (2005), uses the NSS figures. In any case, utilizing the NSS figures overstates the extent of poverty reduction and its rate. If, despite the most optimistic interpretation, we still find that the indigenous peoples will not meet the MDG goal for poverty reduction, we cannot be accused of overstatement.

In a set of two papers, Sanjay Reddy and Thomas Pogge[12] criticize the World Bank's estimates of poverty on a global scale. These are the poverty estimates used by UNDP in their calculation of HDI and HPI; so the criticisms are relevant. The first point is that the World Bank's $1/day/per capita is unrelated to any clear conception of what poverty is. More important to international comparisons is the criticism of the way in which Purchasing Power Parity (PPP) is calculated.

The comparisons are made on the basis of price ratios that weight each commodity in proportion

to its share in international consumption expenditure. In line with Engels' law, international consumption is shifting towards services. But this, as Pogge and Reddy point out, is irrelevant to the poor, whose consumption is largely made up of food and non-service goods. Given that the prices of services in poor countries tend to be relatively lower than their prices in developed countries, while the prices of cereals and food tend not to be as low in comparison to developed country prices, such a PPP underestimates the extent of poverty in developing countries. It gives greater weight to the lower price of services in developing countries, but that does not reflect the extent of services in the consumption of the poor. "Very low incomes should therefore be assessed by relating them *not* to the prices of *all* goods and services, but *only* to the prices of those commodities they must consume to meet their basic needs."[13]

The current procedure underestimates poverty in developing countries. Does it affect all developing countries proportionately? That is difficult to say. It would depend on the relative prices of services and basic need commodities in each country. Overall one can say that the extent of poverty would be greater than currently shown. But there is no indication that the poverty-based ranking of different countries is likely to change substantially.

What would the Reddy and Pogge criticism mean for the kind of international comparisons we make in this paper? In the first place it should be noted that income and poverty figures make up only one-third of the HDI and even less (just above 10 per cent) of the HPI. The rest is taken from data about health and educational attainments, which can be directly compared. Any likely over- or underestimate is likely to be greater in the case of HDI than in that of HPI. Thus we can be more sure of the HPI comparisons. At the same time, it is also likely that for both HDI and HPI there will be no substantial changes in ranking.

With regard to the STs of India we came to the conservative figure of a difference of 30 per cent between them and the All-India HDI and HPI. This calculation is fairly robust and it is unlikely that income factors overstate this difference, since income figures account for only about 33 per cent and 8 per cent respectively in the two calculations. If anything, the difference is understated – since we do not have separate life tables for STs and had to use the All-India life tables for them too. NSS consumption figures do include non-purchased consumption, so it is likely that ST consumption of gathered foods is not understated.

But can we make an international point of time comparison of STs in India with people in other countries? This is what we have done in this paper, of course, with the assumption that the 30 per cent difference in India can be compared with a similar difference in the world. This point of time comparison would be less problematic than one that tried to compare trends.

Annex 2

Population of indigenous peoples (Scheduled Tribes) in India, 2001

	Total population (mn)	Indigenous Peoples (mn)	% of Indigenous to total population
All-India	1,028	84	8.2
Andhra Pradesh	76	5	6.6
Assam	26	3	12.4
Bihar			
Gujarat	50	7	14.8
Karnataka	52	3	6.6
Madhya Pradesh	60	12	20.3
Maharashtra	96	8	8.9
Orissa	36	8	22
Rajasthan	56	7	12.6
West Bengal	80	4	5.5
Arunachal Pradesh	1.097	0.7	64.2
Nagaland	1.990	1.774	89.1
Manipur	2.166	0.741	34.2
Mizoram	0.888	0.839	94.5
Tripura	3.199	0.993	31.1
Meghalaya	2.318	1.992	85.9

Source: Census of India, 2001, quoted in Planning Commission, 2005, Annexure 1.1.

Endnotes

[1] Registrar General, 1995.

[2] Planning Commission, 1998-99, Table 2.11.

[3] Some of the issues involved in international comparisons are discussed in Annex 1.

[4] Some problems in international and inter-temporal comparisons are discussed in Annex 1.

[5] CSO, 2005.

[6] Papola, 2005, p. 2.

[7] Ibid, p. 3.

[8] See Dasgupta and Maler, 1990, and Nathan, 2004.

[9] Papola, 2001.

[10] Deaton and Dreze, Abhijit Sen, Sundaram and Tendulkar.

[11] For example by Sundaram and Tendulkar, 2004.

[12] Reddy and Pogge, 2005 and Pogge and Reddy 2005.

[13] Pogge and Reddy, 2005, p. 17.

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Chapter 7

Part 2

Pilot Study on Data Disaggregation and Indigenous Peoples in Nueva Vizcaya, Philippines

Leah Enkiwe-Abayao

This paper describes the methodology and summarises the findings of a pilot study conducted by the Tebtebba Foundation. A full report of the study is available in Bernabe Almirol, Benjamin Navarro, Simon Luke Aquino and Adrian Cerezo (2006) 'Data Disaggregation Pilot project in Nueva Vizcaya Province, Philippines', *Indigenous Perspectives*, Vol. VIII number 2.

At all its sessions, the Permanent Forum on Indigenous Issues identified inadequate collection and disaggregation of data about indigenous peoples as a major information and methodological challenge.[1] In response, the Tebtebba Indigenous Peoples' International Center for Policy Research and Education decided to conduct an exploratory study to generate data and help develop a methodology for collection and disaggregation of data for indigenous peoples in the Philippines.

This project, with funding from the United Nations Development Program Regional Indigenous Peoples' Program (UNDP-RIPP), aimed to conduct a pilot study on data collection and disaggregation relevant to indigenous peoples in one province in the Philippines. Although the Indigenous Peoples' Rights Act (IPRA) was already in effect, its implementation was very limited, as shown in the annual reports of its implementing arm, the National Commission on Indigenous Peoples (NCIP). The need for systematic collection of disaggregated data on indigenous peoples is crucial for the implementation of policies and programs for these peoples.

The project emerged out of the following recognized needs:

- to collect statistical data on indigenous peoples for global comparative purposes;
- to collect and produce statistical data that is useful to indigenous peoples at local level;
- to draw out data collection techniques that can produce cred-

ible research outputs analysing the situation of indigenous peoples, including a measurement of both the process and the outcome of development activities in indigenous communities;

- to develop a methodology for data collection and data disaggregation useful to indigenous peoples in the Philippines;
- to collect data disaggregated by ethnicity in order to pay special attention to how the needs of indigenous peoples in particular locations of the Philippines may be met;
- to generate policy recommendations and/or policy articulation.

This project was exploratory, given the timeframe and financial limitations. It was also an attempt to enhance quantitative research by using other sources available at the local level. Thus it differed from the usual survey process. The project aimed to collect and disaggregate data in one province where a substantial population of indigenous people is mixed with large non-indigenous groups. One of the targets was to establish the size of the population of indigenous peoples in Nueva Vizcaya.[2] The present Philippine statistical system operates on a framework that does not allow gathering of data on ethnicity, or indigenous issues and concerns.

This project started with ambitious objectives and high hopes that it could accomplish a great deal, even with meagre project funding. Big challenges were met as the project was implemented. This included modification of the objectives, development of the research design, construction of an interview guide and management of the funds.

Objectives of the pilot study

The study had two general objectives: 1) to generate data on indigenous peoples in Nueva Vizcaya useful for analysing their situation; 2) to develop a methodology for collecting statistical data and disaggregating data for indigenous peoples. Specifically, the study aimed to:

(a) capture the relevant socio-economic characteristics of the indigenous households; verify ethnic roots of indigenous people;

(b) determine the extent of access of indigenous people to government services;

(c) determine the political participation of indigenous peoples;

(d) appraise the degree of disintegration of indigenous peoples' cultural markers.

This initiative was also intended to complement the efforts of the National Statistics Office (NSO) of the Philippines, which is tasked with collecting demographic data and statistics for national planning.

Building on data at the local level

Building on administrative data at the local level, this study used demographic data generated by barangay[3] officials with the assistance of the Department of Interior and Local Government (DILG) and the Department of Health (DOH). This was the basis for a barangay-level household listing for all the municipalities of the province of Nueva Vizcaya. This process also allowed the barangay officials to put together their data and update their records. Key informants were interviewed to verify the ethnicity of the households in the list.

The household listing provided the basis for the sample frame of the survey, which covered six of the 15 municipalities of Nueva Vizcaya: Kasibu, Bayombong, Dupax del Sur, Ambaguio, Kayapa and Alfonso Castañeda. These municipalities were chosen because they represent the varying environment of an indigenous community in the Philippines: Bayombong represents the urban setting; Ambaguio, Alfonso Castañeda, Kasibu and Kayapa the rural or village setting; and Dupax del Sur the mix of urban and rural environments. Simple random sampling was then employed to choose respondents from these municipalities. Each municipality covered a sample size of 600 households.[4]

Working with survey/census experts and indigenous peoples

Two statisticians working with the National Statistics and Coordination Board (NSCB) and one statistician from the Philippines National Census were tapped as consultants for the project. All three had experience in conducting government surveys and censuses. They led a series of in-house workshops to prepare the research design and methodology, and to formulate the interview guide, the survey operational guidelines and data encoding tools. Two research assistants and three data encoders/enumerators were also hired for the survey. The data encoders and the research assistants were indigenous people from Nueva Vizcaya.

There are things to consider when beginners venture into a survey on indigenous peoples:

1) ***Are we asking appropriate and measurable questions?*** It took time and much effort to formulate questions and construct an interview guide for the survey. To formulate questions for the interview guide, several points had to be discussed for each specific objective, with arguments for and against the inclusion of related topics. The statisticians cautioned against formulating questions seeking data that they thought could not be measured. "Think ahead of the kind of data that your question will produce: can it be measured? and how?" asked one of the consultants. Questions about indigenous peoples need to be translated into measurable formats if they are to lead to quantitative research. Many questions were set aside for consideration in other research using qualitative research methodologies. Another challenge was to find appropriate formats for the answers. Would these be rate, ratio or something else? There is a long list of data that indigenous peoples would like to generate, but there is a limit to the sort of data that surveys can produce. Much work is

needed to enhance survey methods to generate data useful to indigenous peoples.

2) ***Simplified and focused objectives*** are important in surveys, especially when there are financial and time constraints. Some of the objectives set in this pilot study were insufficiently addressed, for lack of money and time. The objectives of the project were based on a holistic approach to configuring indigenous peoples' issues. The statistics team found they had much to work on. A broad scope requires long meetings and workshops are needed to formulate the research design (especially the interview guide) and to process, analyse and interpret the data. And the wider the scope, the more funding is needed.

3) ***Sufficient funds and appropriate timeframe***: Unlike popular qualitative research methods, surveys are expensive to carry out, especially when they are conducted in distant villages or areas where the households to be interviewed are far from each other. In such situations, operational expenses alone can eat up 90 per cent of the survey budget because interviewers need travel to distant places and spend time conducting the interviews, so the duration of the interview schedule needs to be extended. This pilot study ran out of money to pay the research team.

4) ***Free prior and informed consent (FPIC)***: some indigenous communities raised the FPIC question during the survey. This pilot study addressed it by explaining the purpose of the survey and giving potential respondents a choice on whether or not to be interviewed. In some cases potential respondents chose not to be interviewed.

The survey used a 13-page Interview guide with 76 questions. It was translated into Ilokano – a language common to all the respondents. It was divided into five sections: General household information; Ethnicity; General socio-economic services; Political participation; Cultural markers and Degree of disintegration. The sampling design was prepared by the statisticians and is shown in Annex 1.

Key findings of the pilot study

Based on the published research report[5] the following are the highlights of the findings of the pilot study:

The indigenous peoples of Nueva Vizcaya

Table 1, next page, shows that 28.8 per cent of the households of Nueva Vizcaya (the sub-total of the highlighted sections) belong to indigenous peoples. They are the Kalanguya, Ifugao, Ibaloi, Kankana-ey, Bago, Bontoc, Kalinga, Karao, Isinai, Gaddang, Bugkalot, Ibanag, Itawes, Itneg/ Isneg, Ita/ Agat/ Dumagat,Yogad and I'wak.

Table 1. Ethnicity of households based on the pilot project's household listing and verified using key informant interviewing. Province of Nueva Vizcaya, 2005.

Ethnicity	Frequency	Percentage
Ilocano	47,847	65.921
Tagalog	2,361	3.253
Bisaya (not specified)	273	0.376
Bisaya (Cebuano)	4	0.006
Bisaya (Waray)	5	0.007
Bisaya (Ilonggo)	13	0.018
Bicolano	231	0.318
Pangasinense	206	0.284
Kapampangan	55	0.076
Batangeño	16	0.022
Moro (not specified)	31	0.043
Moro (Maranao)	2	0.003
Moro (Tausug)	1	0.001
Baguis	1	0.001
Kalanguya	**7,373**	**10.158**
Ifugao (not specified sub-group)	**4,878**	**6.721**
Ifugao (Ayangan)	**65**	**0.090**
Ifugao (Tuwali)	**10**	**0.014**
Ifugao (Yattuka)	**4**	**0.006**
Igorot (Ibaloi)	**2,802**	**3.860**
Igorot (Kankanaey)	**697**	**0.960**
Igorot (not specified)	**522**	**0.719**
Igorot (Bago)	**135**	**0.186**
Igorot (Barleg)	**68**	**0.094**
Igorot (Bontoc)	**66**	**0.091**
Igorot (Kalinga)	**36**	**0.050**
Igorot (Karao)	**11**	**0.015**
Isinai	**1,592**	**2.193**
Gaddang	**1,543**	**2.126**
Bugkalot	**707**	**0.974**
I'wak	**196**	**0.270**
Ibanag	**85**	**0.117**
Itawes/Itawit	**15**	**0.021**
Itneg/Isneg	**48**	**0.066**
Ita/Agta/Dumagat	**34**	**0.047**
Yogad	**14**	**0.019**
Foreign nationalities	54	0.073
KIs failed to verify/ identify ethnicity	581	0.800
Grand total	**72,582**	**100.000**

Ethnicity of households by self ascription: Table 2 shows that 41.5 per cent – or the majority of respondents – claim that they are Kalanguya/Ikalahan. The Ibaloi and Ifugao are the second and third largest groups, comprising 14.8 per cent and 12.4 per cent of respondents, respectively.

Table 2. Ethnicity of household head by self-ascription: Survey sites in Nueva Vizcaya, 2005

Ethnicity by self-ascription	Frequency	Percentage
Ilongot/Bugkalot	16	3.0
Kalanguya/Ikalahan	224	41.5
Isinay	48	8.9
Gaddang	46	8.5
Iwak	2	0.4
Ifugao	67	12.4
Ibaloi	80	14.8
Kankanaey	24	4.4
Others	32	5.9
Igorot	4	0.7
Ilocano	24	4.4
Karao	3	0.6
Tagalog	1	0.2
No response	1	0.2
Total	540	100.0

Ethnicity of households as ascribed by others: Table 3 shows that when ethnicity is ascribed by others, the term "Igorot" is predominantly used to refer to indigenous peoples in Nueva Vizcaya. Almost two-fifths (39.1 per cent) of all respondents said they are perceived by others as Igorots. This is expected of people not belonging to the major ethnicities indicated. However, among the group specifically identified, the Kalanguya/Ikalahan is still the largest group with 15.9 percent of the total.

Table 3. Ethnicity of household head as ascribed by others: Survey sites in Nueva Vizcaya, 2005

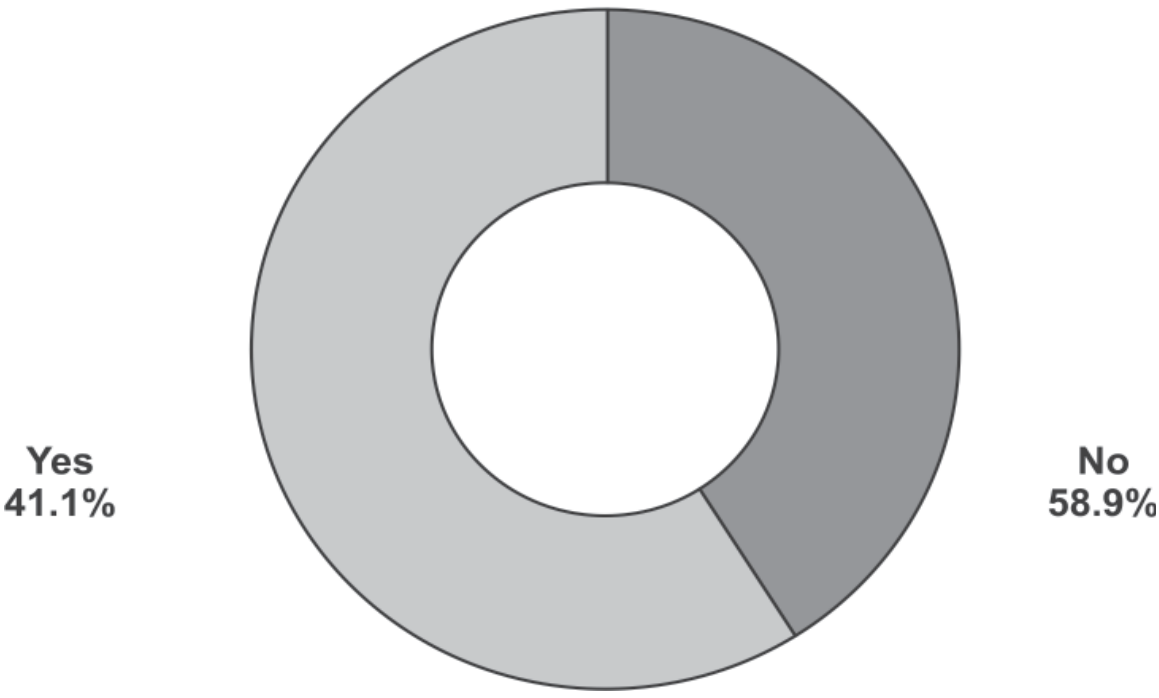
Ethnicity as Ascribed by Others	Frequency	Percent
Ilongot/Bugkalot	16	3.0
Kalanguya/Ikalahan	86	15.9
Isinay	49	9.1
Gaddang	48	8.9
Iwak	1	0.2
Ifugao	65	12.0
Ibaloi	32	5.9
Kankanaey	10	1.9
Other	232	43.0
Igorot	211	39.1
Ilocano	19	3.5
Karao	2	0.4
No Response	1	0.2

Comparing ethnicity by self-ascription and ethnicity as ascribed by others, discrepancies exist for the cases of Kalanguya/Ikalahan, Ibaloi and Kankanaey. Specifically, of the 224 (41.5 per cent) self-ascribed Kalanguya/Ikalahan in Table 2, only 83 (37.1 per cent) were ascribed by others as Kalanguya/Ikalahan (Table 3). A significant percentage (62.9 per cent) had a different ethnicity ascribed to them by others. Likewise, for the Ibaloi, 60 per cent were described by others as belonging to a different ethnicity from the one they claimed for themselves.

Access of households to government health services

For those who used health services from a health facility, 29 per cent of the respondents used a barangay health station more than all the other types of health facility. The data also showed that indigenous people used the nearest hospital: municipal hospital (17 per cent), provincial hospital (16 per cent), regional hospital/public medical center (15 per cent) and the district hospital (4 per cent). For those who went to a government health facility for medical services, a substantial proportion (41.1 per cent) said that they received the needed medicine from the health facility free of charge. However, the majority of indigenous respondents (58.9 per cent) were not able to receive the health services for free, as shown in Figure 1.

Figure 1: Medicines Received Free by Indigenous Peoples from Government Health Facility: Survey Sites in Nueva Vizcaya, 2005



The vitality of customary law and traditions in households

About half of indigenous people claim that they engage in traditional rituals and practices in the life cycle, agriculture and hunting, healing, and honoring the departed.

Traditional practices related to the honouring of the departed are most prevalent, with 65.0 per cent of respondents adhering to them. Next to this are practices related to the life cycle, with more than half (55.2 per cent) of all respondents confirming their practice of the indigenous rituals related to birth, death and marriage. Of significance, too, are healing rituals, practised by 40.7 per cent. Rituals related to agriculture, hunting and fishing are least practised: only 23 per cent of respondents professed that they still practised these rituals.

As to customary laws, one in every two indigenous respondents said they used customary law in settling disputes. More than half (51.7 per cent) still practise customary ways of settling land and water disputes and 54.6 per cent said they practised customary inheritance of property.

Half of all respondents (49.4 per cent) said that they continue to observe practices related to the management of forest and water resources. Almost the same proportion (48.1 per cent) have abandoned such practices, while the rest were either not aware of such traditional practices (2.2 per cent)

or made no response (0.2 per cent).

Regarding the role of traditional leaders, the majority (62.2 per cent) of respondents were of the view that elders are slowly being replaced by local government officials. Only 30.9 per cent of respondents believed that elders continue to exert an influence in the community affairs of indigenous peoples. A minority (5.9 per cent) believed that elders no longer influenced community affairs. Indigenous peoples face s problem of transmission of oral tradition. The material culture of indigenous peoples is not intact as many items are sold to antique collectors.

In terms of awareness of the Indigenous Peoples Rights Act (IPRA), only a minority (28.3 per cent) of respondents professed awareness of this landmark legislation. The majority (71.5 per cent) were not aware of it.

Perceptions of political participation

Table 4 shows that majority, or 79.6 per cent, of all respondents were aware that a barangay assembly had been convened within the last six months. However, Table 5 shows that only three-fourths (64.6 per cent) had actually participated in these assemblies. The rest either did not participate (15.4 per cent) or were of the opinion that these exercises were not applicable to them (20.0 per cent).

Table 4. Awareness of indigenous people of purok or barangay assembly in the last 6 months: Survey sites, Nueva Vizcaya, 2005

Response	Frequency	Percentage
Yes	430	79.6
No	110	20.4
Total	540	100.0

Table 5. Participation of indigenous people in purok or barangay assembly in the last 6 months: Survey sites, Nueva Vizcaya, 2005

Response	Frequency	Percentage
Yes	349	64.6
No	83	15.4
Not applicable	108	20.0
Total	540	100.0

Most respondents (78.7 per cent) were of the opinion that they had been consulted on matters affecting the general welfare of the community.

Table 6. Consultation with indigenous peoples on matters that affect general welfare: Survey sites, Nueva Vizcaya, 2005

Response	Frequency	Percentage
Yes	425	78.7
No	115	21.3

Conclusion

A significant number of indigenous people are found in Nueva Vizcaya. They may appear low in number (28.8 per cent) compared to the overall provincial population, but the figure affirms the existence of indigenous people. The pilot project still has to process data that captures in detail the characteristics of indigenous peoples in Nueva Vizcaya. Affirmation of ethnicity is significant in this province.

Access to government services, particularly health, is available and indigenous people are able to use government health facilities. However, the majority found that such facilities do not offer services for free.

The vitality of customary law and traditions as manifested in rituals and in settling disputes is remarkable. This vitality may form a strong cultural marker for indigenous peoples in Nueva Vizcaya.

Endnotes

[1] See http://www.un.org/esa/socdev/unpfii/en/data.html

[2] Nueva Vizcaya is one of the five provinces of Region II in northeastern Luzon, Philippines. It is bounded on the north by the Ifugao and Lamut rivers, on the northeast by the province of Isabela, on the east by Quirino Province and the Sierra Madre mountain range, on the west by Benguet Province and the Cordillera mountain range, on the south by the Caraballo mountain range, on the southeast by Aurora Province and on the southwest by Pangasinan. The land area of the province is approximately 437,880 hectare s. Nueva Vizcaya was chosen as the project site for the following reasons: a) the province is the homeland of several indigenous peoples: the Bugkalot, Kalanguya, Ifugao, Isinai, Gaddang, Ibaloi and Iwak groups; b) the province is a settling place for several indigenous peoples coming from the adjacent provinces of Ifugao and Benguet; c) there is a very significant population of lowlanders from other provinces of northern Luzon who belong to the dominant population; d) the issue of indigenous identity is being used to build constituencies for or against development projects, pitting one indigenous group against another.

[3] The barangay is the smallest unit of local government in the Philippines.

[4] The target size of 600 was reduced to 570 because of security problems. Military operations against the Communist Party of the Philippines-New Peoples' Army (CPP-NPA) were being conducted at the time of the survey.

[5] Bernabe Almirol, Benjamin Navarro, Simon Luke Aquino and Adrian Cerezo. 'Data Disaggregation Pilot project in Nueva Vizcaya Province, Philippines', Indigenous Perspectives, Vol. VIII number 2. 2006.

Annex 1

Sampling design prepared by the survey experts

The domain of the survey is the entire survey area (ie, the six municipalities). The sampling units are the residential households. The initial sample size estimation was formulated as follows:

Based on the survey objective of determining ethnicity, it is assumed that a major parameter being estimated is population proportion according to ethnicity. Hence, we assume a margin of error, e = 0.03 and 95 per cent confidence ($\alpha = 0.05$).

With the assumptions that margin of error, e=0.03, confidence internal, $\alpha = 0.05$, $S^2 \approx p(1-p)$, and $p = \frac{1}{2}$, we substitute accordingly to obtain

$$n = \frac{z_{\alpha/2}^2 S^2}{e^2} = \frac{z_{0.05/2}^2 S^2}{e^2} = \frac{z_{0.025}^2 S^2}{e^2}$$

$$\Rightarrow n = \frac{z^2_{\alpha/2}\left[p(1-p)\right]}{e^2} = \frac{(1.96)^2\left[\frac{1}{2}\left(1-\frac{1}{2}\right)\right]}{(0.03)^2}$$ since z = 1.96 at $\alpha = 0.025$ as per standard normal probabilities.

$$\Rightarrow n = 1067$$

The total sample was 1,200 including a replacement set of 133. However, adjustments were made in the process of conducting the survey due to funding and time constraints. This resulted to a reduction of the sample size by half (n = 600). Thus, using (2) and calculating for e given n = 600, we have

$$\Rightarrow e = \frac{z_{\alpha/2}}{2\sqrt{n}} = = \frac{1.96}{2\sqrt{600}} = 0.04$$, where z = 1.96 at $\alpha = 0.5$, or 95 per cent confidence interval

Hence, with this revision, the error margin is at e = 0.04.

Source: Bernabe Almirol, Benjamin Navarro, Simon Luke Aquino and Adrian Cerezo. "Data Disaggregation Pilot project in Nueva Vizcaya Province, Philippines", *Indigenous Perspectives*, Vol. VIII number 2. 2006.

Chapter 8

Part 2

An Index to Assess the Impact of Development Interventions on the Community of Kanawan Aytas

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Introduction

For about 30 years, many government groups, non-governmental organizations and volunteers have come to provide help to Kanawan Aytas. The various forms of assistance given included the community water system, school buildings, public toilets, day care centre, medical missions, vaccinations, livelihood projects, food, clothing, books, and other goods.

Despite all these, the Aytas remain poor, eating only once or twice a day. According to the tribal leaders, they were just passive recipients: "We were not consulted by those who came to give help", except for a few, particularly Lawrence Ong, the beloved volunteer who helped the Aytas for about 20 years. He was responsible for establishing an elementary school in Kanawan. As a founding member of the Bataan Center for Innovative Science & Technology (BCISTI) in 1999, Lawrence Ong linked the BCISTI group to the Aytas before he passed away in 2001.

Lawrence had lamented the inadvertent cultivation of a "dole-out" mentality among many beneficiaries of NGOs. NGOs often work within a relatively short time limit for accomplishing development or charity work. But it requires a long time and a great deal of

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patience to prepare a community adequately for development interventions. The authors of this study believe there is no alternative to adequate social preparation because short cuts taken to meet deadlines for reports can be non-productive and even disastrous.

BCISTI established the Rural Livelihood Incubator (LINC) program as a mechanism to mobilize science and technology resources for direct mitigation of poverty. The original objectives were to generate employment opportunities and to establish sustainable means of livelihood as long term solutions to poverty and socio-political unrest in rural areas. Through the years, as we in BCISTI gained experience and learned from our interaction with the Aytas and other poor communities of Morong, our framework for development evolved into a holistic approach that now includes education, preservation of cultural heritage, development of sustainable means of livelihood, and the improvement of health status.

An opportunity for development came when the University of the Philippines together with the Michigan State University obtained a two-year grant from the US National Institutes of Health for the exploratory phase of a grant on Philippine Biodiversity and Drug Development.[1] To prepare the Aytas for their possible participation in the project, B.B. Motin translated the National Commission on Indigenous Peoples (NCIP) Administrative Order No. 3, Guidelines on the issuance of a Free and Prior Informed Consent (FPIC). He explained this and the provisions of the Indigenous Peoples Rights Act (IPRA) to the Aytas during several sessions held with the tribal leaders and the community. The research team in collaboration with BCISTI held a series of meetings and public consultations with the Aytas over several months to explain the project and discuss the concepts of biodiversity, conservation, bioprospecting, benefit sharing, intellectual property rights on traditional knowledge, and other relevant matters. During one of these meetings held on January 17, 2004 a tribal leader, Belen Restum, asked: "How can you ensure that your proposed activities will not damage our culture?"

The need for appropriate types of assistance

The concern raised by Belen Restum is very valid and her critical view is based on the sad experience of Ayta communities in Bataan. Although many forms of assistance are sincere efforts to help the Aytas, these have apparently done little for the development of Aytas. A more serious concern is the extraction of exorbitant profits in the guise of helping Aytas.

Often, the source of advice on agriculture is the salesmen who advise on the use of fertilizers without benefit of soil analysis. Hoping to increase their harvest, the Aytas take loans from dealers to buy fertilizers and pesticides. At harvest time, almost all the produce ends up as payment for the debt and the family goes hungry. In times of urgent need, portions of the reservation under the stewardship of some Ayta families were pawned to lowlanders and up to now many of the areas have not been redeemed.

Almost all Aytas working in the Subic Bay Freeport Zone (SBFZ) are heavily indebted to

usurers. When SBFZ shifted salary payments from cash to direct deposit to employees' accounts, accessible through automatic teller machines (ATMs), the usurers took advantage of the Aytas' ignorance and illiteracy. Not knowing how to use ATMs, Aytas gladly accepted the cash offer of usurers in exchange for their ATM cards. The usurers keep the ATM cards, withdraw the bi-monthly salary of the Aytas, and give them only a small percentage. One Ayta took a loan of 30,000 Philippine pesos in exchange for the usurer's control of the ATM card. Out of the salary of 6,300 pesos withdrawn monthly by the usurer from the Ayta's ATM account, the usurer kept PhP4,800 and gave only PhP1,500 to the Ayta. After three years, when the Ayta was able to get help to redeem his ATM card, the usurer asked the Ayta to pay PhP34,800 before giving back his card.

Approach to defining a development index for the Aytas

The type of assistance to be given to a community of indigenous people must be carefully studied and it must be planned in consultation with the beneficiaries. If not properly done, the assistance may even be counter-productive and may encourage a "dole-out" mentality among recipients.

There is a need to assess objectively the impact of development interventions on indigenous communities, but the attempt to determine impact is hampered by the lack of a proper development index applicable to such communities. The standard economic indicators such as the Human Development Index (HDI) used by the UN do not include a cultural indicator and they are not directly applicable to a predominantly non-monetary economy. To address this need, the modified socio-cultural development index (SCDI) was designed by Motin et al[2] to help assess the effect of future development projects on the Ayta community.

The methodology used to arrive at a socio-cultural development index was developed in 2004 by Motin[3] with the active participation of the Kanawan Ayta community. Over a span of 10 months, several consultations, workshops and interviews were held in the Kanawan Reservation and in BCISTI. Five meetings were held with the whole community; four with high school students and parents; two with the tribal council and elders; and one meeting with the elders, tribal council and officers of the people's organization. The elders, tribal chieftain and some members of the tribal council presided over the meetings. B.B. Motin served as facilitator and held interviews while a fourth year high school student recorded the minutes of meetings. Since the Aytas have very few written records, the inputs of elders, tribal leaders and household representatives were critical. Care was taken to obtain and validate information in succeeding meetings to ensure gathering of accurate information.

The meetings were held in an informal atmosphere to encourage community members to ask questions, add details and make corrections. To maintain the enthusiasm of the Aytas, the concern raised by Belen Restum was discussed at length. At the start of each workshop, a list of topics was written on the board and the Aytas suggested other topics before the participants agreed on a final agenda for the day. Important information discussed by participants was noted on the board and at the end of the discussion session, the facilitator verified with them the information listed before giving

a summary.

The Human Development Index (HDI) has been used by the United Nations Development Program (UNDP) since 1993 for measuring and comparing the status of development among countries. The development indicators include life expectancy at birth, knowledge as measured by adult literacy and enrolment ratio, and standard of living as measured by Gross Domestic Product (GDP) per capita. These development indicators are not directly applicable to indigenous tribes. For the Kanawan community, life expectancy at birth can be skewed by high infant mortality rates and GDP does not take into account the non-monetary components of economy such as bartering, food gathered from the forest, and small farm production for home and community consumption. Moreover, HDI does not include a cultural development indicator, a very important concern of Aytas as Belen Restum's question showed.

For the SCDI designed in consultation with Kanawan Aytas, four development indicators were considered: cultural integrity, education, earnings from employment and livelihood, and health. The Aytas decided on the relative weights of the main and sub-indicators with the aid of a pie diagram.

Brief history of the Kanawan Aytas

Of the 18 communities of Aytas in Bataan, 17 belong to the Magbukún tribe. According to their traditional oral history (documented by BB Motin), the tribe originated from Apo Alipon's family, who came from Zambales to Morong, Bataan. From their first settlement in what is now known as Barangay Mabayo of Morong town, the semi-nomadic tribe moved around mostly in the forested area of the mountain range dominated by Mt Natib, Mt Silanganan, and Mt Sta Rosa. From the six children of Apo Alipon and Lola Moray, three clans emerged and expanded to other areas of the Mt Natib mountain range and eventually into the Mariveles Mountains, giving rise to the 17 communities of Magbukún Aytas in Bataan.

According to oral tradition, Kanawan is a historical place for the Mabukún Aytas because this was the place where Apo Alipon gathered all his descendants just before he died. He admonished them to love the land and maintain it as a communal property. The clan of the youngest two children remained in the Morong area on the north-western side of the Mt Natib mountain range. Their tranquil life as a semi-nomadic group was affected from time to time by conflicts with newcomers who claimed large tracts of land in Morong; by dispersals caused by wars and attacks by neighboring communities; and by government enforced settlements and relocations. In 1945, in an effort to limit the areas occupied by indigenous peoples in their ancestral domain, the government encouraged members of indigenous tribes to come together and live in assigned settlements. Instead of moving around a number of temporary living areas in the Bataan National Park, the Magbukún Aytas of Morong were convinced by the government to settle in Sitio Lemon, Barangay Sabang. In 1979, they were again displaced when the government ordered the Aytas to vacate Sitio Lemon to make way for the Philippine Refugee Processing Center (PRPC). From there, they moved across the Batalan River to settle anew in Sitio Kanawan.

Demography and health status of the Magbukún Aytas of Kanawan

Kanawan had a population of 289 with 52% male and 48% female. Pure Aytas (Kulots) comprised 51% of the population whereas 17% were descendants of intermarriages (Mestizos) and 32% were non-indigenous (Unats). The age distribution of pure Aytas and Mestizos is: 39 infants, 0-5 years old; 34 children, 6-12 years old; 35 adolescents, 13-19 years old; 44 young adults, 20-35 years old; 39 adults, 36-60 years old; and 5 adults who were 61 and over.[4]

The intermittent availability of clean water and sanitation is a major problem in Kanawan. In 2004, only 12 households had direct access to water, seven had sanitary toilets and only three households had a dishwashing area. The sick, and pregnant and nursing mothers, are assisted by traditional healers and midwives. When the traditional healing practices do not seem to work, the patient is brought to the Morong Health Center (MHC) about nine kilometres away from the Ayta community. The very seriously ill are carried in a hammock from the village down the Kanawan ridge, then across the hanging bridge for a tricycle ride to MHC, or they are brought to Balanga or Olongapo City.

Of 39 deaths that occurred from 1980 to 2004, 13 were of people aged 25-82. Kanawan has an alarmingly high mortality rate among children. Out of 185 live births, nine infants survived less than a week, four lived up to two months and 13 died before the age of one year. Data from MHC shows that 49 per cent of Kanawan children under six years of age are underweight and lung infection is the primary cause of deaths. The estimated infant mortality rate (IMR) for 1980-2004 is 26 out of 185, or 141 per 1,000 live births. In comparison, IMR values of other Philippine indigenous groups for which data exists are: 63 per 1.000 for the Apayao, 67 per 1,000 for the Ifugao and 65 per 1,000 for the Kalinga – all three groups residing in the Cordillera Mountains.

For the purpose of assessing health status, Motin et al[5] arbitrarily assigned a rating of 1.0 to 1 per cent infant mortality and a rating of 0.0 to 20 per cent infant mortality. On this scale, the Kanawan Ayta IMR of 141 per thousand (14.1 per cent) is equivalent to a rating of 0.300.

For populations where infant mortality is high, one approach is to calculate life expectancy at age 10 instead of at birth as a measure of other factors that affect longevity. Among the Kanawan Aytas, the average life expectancy at age 10 is 48 years. This computation was based on deaths in Kanawan over a period of 24 years and therefore not from a single cohort. In the absence of better data, Motin et al[6] used this to estimate the Life Expectancy Index (LEI). Based on life expectancy at age 10, the LEI was estimated using the formula given by the National Statistics Coordination Board of the Philippines. With the value of 25 for minimum life expectancy and 85 for maximum life expectancy at birth adjusted to minimum (15-year) and maximum (75-year) life expectancies at age 10. The value of LEI computed as ([48-15]/ [75-15]) for Aytas of Kanawan came out at 0.550. The health component of SCDI, taken as the average of IMR and LEI, was 0.425.

Cultural integrity

In their own words, the Aytas were able to understand and explain the concept of cultural integrity as a measure of their ability to live according to their traditions. For them, the most important factor in assessing cultural integrity is the communal ownership of the reservation and their ancestral domain, followed by the Magbukún language, their traditional way of choosing a tribal leader, customs, rituals and ceremonies, and their traditional costume and tools. In 2004, they filed an application for a Certificate of Ancestral Domain Title (CADT) but this is still being processed by the NCIP and the Department of Agrarian Reform (DAR). The Kanawan elders worry that without a CADT, they could again be driven from their land. If members of the tribe are scattered, they would eventually lose their cultural heritage. To some extent this is already happening in a few Ayta communities of Bataan. Thus for Kanawan Aytas obtaining a CADT is the highest priority because it will be a major legal step toward Ayta control of their ancestral domain.

The table below shows the relative weights and ratings given by the Aytas for the component indicators of cultural integrity.

Table 1. Indicators of cultural integrity

Indicator	Relative weight	Rating
Communal ownership of land	50	1.000
Language	15	0.700
Traditional system of governance	12	1.000
Customs	10	0.867
Traditional ceremonies and rituals	7	0.650
Costumes and tools	6	0.536
Weighted average		0.889

(Reprinted from Motin, Cruz, Gifford & Kron, Indigenous Perspectives,2006.)

A weighted average of ratings, 0.889 for the cultural indicators was obtained by Motin et al (2006). This was taken as the cultural component of the SCDI of Kanawan Aytas.

Educational status

There were 95 Aytas aged 15 and above in Kanawan in 2004 and among them, the literacy rate was 31 out of 95 (0.33 per cent). The Aytas consider those who have at least gone through Grade III as literate because they can already read and sign documents The proportion of high school graduates among them was extremely low, two out of 95 (0.021 per cent), and there are no college graduates. The enrollment ratio in elementary and high school among Aytas aged six to 19 years is 49 out of 68 (0.72 per cent). The educational component of SCDI, computed by averaging these values was 0.268.

Earnings from livelihood and employment

The Aytas have seasonal livelihood activities. Many still depend on forest-based livelihood activities such as honey gathering from December to May and hunting wild pig and deer from June to December. They grow rice on irrigated land from December to May and they plant rice, sweet potato, corn, and miscellaneous crops in their swidden farms in the rainy months of June to August.

In 2004, the 12 Aytas who worked in Subic earned a total of 1,500,700 pesos. However, after adjustment for the amount paid to usurers, the earnings were reduced to 924,700 pesos. All other households earned an estimated value of 1,238,700 pesos, giving a total of 2,163,400 pesos for the community of 297 Aytas. The average yearly income in Kanawan is therefore 7,282 pesos or US$0.37 per person per day, a value less than 40 per cent of the extreme poverty line defined by the UN.[7] The future development target is to elevate the economic status of the Aytas above the extreme poverty line to $2 per day per person. If the $2 per day per person target is assigned an SCDI rating of 1.0, the estimated economic component of SCDI for the Kanawan Aytas is 0.185. (The value previously reported by Motin et al in 2006 when income was not adjusted for debts was 0.230.)

The composite Socio-Cultural Development Index

Using a pie chart as a visual aid, the Aytas arrived at a consensus of the importance of the four development indicators.[8] They assigned the values 40 per cent to cultural integrity, 30 per cent to education, 20 per cent to income and livelihood, and 10 per cent to health. The weighted average of the ratings of these indicators gave a relatively low value of 0.516 for SCDI despite the high value and high relative weight of cultural integrity. The SCDI value originally computed was higher (0.524) because debts were not taken into consideration. The low SCDI reflects the poor educational economic and health status of the community.

SCDI, a tool for assessing the impact of development programs on indigenous communities

The SCDI value of 0.516 for Kanawan Aytas in 2004 is the benchmark against which the impact of the current development program in Kanawan will be assessed. However, since the Aytas assigned the highest weight to cultural integrity, even relatively large improvements in health and economic indicators can be negated if they perceive cultural integrity to be decreasing.

We propose that the modified index, SCDI, as well as the general strategy used to define a development index for an indigenous community, be used as a tool for future assessment of development interventions elsewhere in the Philippines and the world. The relative weights of indicators are

expected to differ for other communities, depending on the priorities, values and aspirations of their members. Thus, the absolute value of SCDI cannot be compared among communities. What is important will be the use of changes in SCDI value ("SCDI) to assess the impact of development measures on the community.

Current initiatives to improve the Kanawan SCDI

In January 2007, CBMSF was awarded a grant by the Philippine Tropical Forest Conservation Foundation (PTFCF) for a project that was drafted with the active participation of Kanawan Aytas. The project is for the "Establishment of an Integrated Reforestation, Conservation, and Sustainable Livelihood Program for the Kanawan Aytas at the Bataan National Park". Its main objective is to motivate, mobilize and empower Aytas to rehabilitate and conserve the 218-ha Kanawan Reservation and a dipterocarp-rich forest near Kanawan. The other, equally important, objective is to ensure that the rehabilitation and conservation efforts can be sustained beyond the project period by establishing alternative means of livelihood that fit the Aytas' traditional lifestyle and cultural heritage.

Several strategies have been used to increase awareness and concern for biodiversity and conservation among different age groups. Elementary school children participate in school gardening and Learning-Is-Fun (LIF) sessions held on weekends by students and volunteers from the University of the Philippines Civic Welfare Training Service (UP CWTS). Adolescents regularly participate in the clean-up of the hiking trail to Bisay Falls and recorded the minutes of meetings. Adults were organized into four committees in charge of the nursery, forest inventory, reforestation, and monitoring of activities. Regular community meetings are held to reiterate project goals, aims and plans; present updates; and discuss problems and ways to improve project implementation.

The project's taxonomist/field biologist provides continuing training in parataxonomy, forest inventory, and conservation. A nursery with its own water source has been established. Several thousand seedlings of forest trees and fruit trees were transplanted to the reforestation and agroforestry sites during the last rainy season. The Aytas are provided food for work equivalent to half their labour cost. The other half is their counterpart in the project. The Aytas own the project because they actively participated in project planning, they provide labour as a counterpart, the community is updated on progress of the project, they participate in solving problems, and most important of all, they own the land.

After five years, the different fruit trees (cashew, jackfruit, coconut, etc.) will start bearing fruit and become a source of earnings for the community. Papaya and banana are also being planted to provide supplementary income within a shorter period. In the meantime, other means of livelihood are being developed. A group from the Asian Institute of Tourism identified tourism assets, drafted a brochure and management plan of the trail to Bisay Falls, and provided training for Aytas who will become ecotourism aides and managers. The processing of some non-timber forest products is currently being developed for eventual commercialization with the help of a food technologist,

biotechnologists and an expert in social entrepreneurship.

The PTFCF project has also provided help in securing the rights of the Aytas on the reservation and their ancestral domain through assistance in the development of the Ancestral Domain Sustainable Development and Protection Plan (ADSDPP), the relocation survey of the reservation, and the processing of a corrected land plan for approval by Department of Environment and Natural Resources (DENR).

The PTFCF project presents an opportunity for testing the utility of the SCDI developed by Motin, et al.[9] At the end of the project, SCDI will again be determined and compared with the baseline value of 0.524 to assess the impact of the PTFCF project and other factors on the community.

Endnotes

[1] Motin B.B., L.J. Cruz, F. Gifford and M.A. Kron (2006) Indigenous Perspectives, Vol. 8, pp. 51-71.

[2] Motin, et al., 2006.

[3] Motin, et al., 2006.

[4] Information in this section is from Motin, et al., 2006.

[5] Motin, et al., 2006.

[6] Ibid.

[7] Jeffrey Sachs, 2005.

[8] Motin, et al., 2006.

[9] Motin, et al., 2006.

Chapter 9

Part 2

Considering Indicators of Biodiversity for Food Security of Indigenous Peoples

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I. Introduction and context

This paper is based on a presentation by Harriet Kuhnlein to the International Experts Seminar on Indicators Relevant for Indigenous Peoples, the Convention on Biological Diversity and the Millennium Development Goals in Banaue, Ifugao, Philippines, March 5-9, 2007.

The purpose of this paper is to present many of the facets and possibilities of indigenous peoples' food security, and indicators that can document the key role played by biodiversity for food security. It was written to support Target 8.2 of the Working Group on Article 8(j) and related provisions of the Convention on Biological Diversity.[1]

Food security is an essential condition for health and well-being. As defined by the World Food Summit of the United Nations, "Food security exists when all people at all times, have physical and economic access to sufficient, safe, and nutritious food to meet their dietary needs and food preferences for an active and healthy life".[2] Food security can be considered in various ways to represent food availability, access and use at different levels of data aggregation: individuals or families, a community, or larger populations such as nation states.[3]

Biodiversity refers to variation within and among species within an ecosystem; in the case discussed here, the species used as food by a cultural group of indigenous peoples. Dietary diversity is regarded as an essential component of successful food supplies that support food security.[4] Dietary diversity is also a suggested indicator of dietary nutritional adequacy.[5]

Indigenous peoples' territories tend to coincide with areas with

high biodiversity,[6] and indigenous peoples' traditional knowledge of food resources in local environments mirrors this biodiversity. Where these resources are not encroached upon and continue to be accessible and available, they tend to provide for a nutritionally adequate diet and therefore for food security.[7]

For a discussion on **identifying indigenous peoples** in various world regions see Bartlett et al., 2007. Generally speaking, an estimated 370 million indigenous peoples living in 70 countries identify themselves by their cultural integrity and lifestyles, which include traditional knowledge of local ecosystems and the food resources they provide.

Indigenous peoples have taken a special interest in the right to food: the 2002 'Declaration of Atitlan' from the Indigenous Peoples' Consultation on the Right to Food is a clear example of this recognition.[8]

According to the UN Permanent Forum on Indigenous Issues (UNPFII), the rights-based approach to development requires the development of a conceptual framework for rights-based indicators that are relevant to indigenous and tribal peoples. It should take into account not only a process of full, active and meaningful participation of indigenous and tribal communities at all stages of data collection, but also incorporate indicators that are of particular significance to indigenous peoples, such as access to territories (land and waters) and to resources, participation in decision-making, and issues of discrimination or exclusion in economic, social and cultural rights.[9] In its fourth session the UNPFII notes that states should recognize the rights of indigenous peoples to food and nutritional security and the sustainable production and consumption of healthy and nutritious foods by using appropriate sustainable technology.[10] There is a particular need to ensure that indigenous peoples who depend on marine and terrestrial resources are supported in protecting and ensuring their rights to and sustainable use of those resources.

The UNPFII encourages the Food and Agriculture Organization (FAO) and the Sustainable Agricultural and Rural Development Initiative to work further on the development of cultural indicators for identifying priorities and criteria and methodologies for the right to food and food security, with the participation of indigenous peoples, taking into account the protection and restoration of indigenous peoples' traditional foods systems and their agrobiodiversity and associated traditional knowledge and livelihoods.[11] The threats to sustaining such systems, such as monoculture cash crop production, mineral extraction, environmental contamination and genetically modified seeds and technology, should be addressed.

II. Traditional indigenous food and market food: Indigenous peoples' food systems

Currently, indigenous peoples in most regions of the world have food resources derived from both local traditionally known resources and also from industrialized food supplies that are purchased.[12] "Traditional foods" are those foods that indigenous peoples have access to locally, usually

without having to purchase them, and within traditional knowledge and the natural environment from farming or wild harvesting. Alternatively, "market foods" are those foods that enter communities often through global industrially sponsored retail outlets, and which must be purchased (eg sugar, oil). A shift from traditional food to market food is associated with a rise in nutrition-related chronic diseases, and as a consequence, the use of traditional food is considered a safeguard protecting health.[13]

In some circumstances, indigenous peoples may purchase some of their culturally-based traditional foods (i.e., wild meat) when others with land and/or time harvest them, and in some cases indigenous peoples count as their own certain species introduced from other regions.[14]

With respect to food diversity and food security, a shift from a subsistence-based food system to one based on market food will increase household food expenses. Indigenous peoples tend to be income poor,[15] and purchasing food at low cost tends to result in lower dietary nutrient density than when traditional food provides the major source of calories.[16] However, this depends greatly on region and food accessibility. Thus, when considering research to identify indicators of food security, estimates must be made about accessibility of purchased food, including income and proximity/availability of transport for communities to markets where industrial food supplies are sold, and the costs of these foods. Moreover, traditional cultural foods that may be available for purchase in either rural or urban areas will have an impact on food security, and this depends on accessibility and price.[17]

III. Indigenous peoples' traditional food issues

Access to traditional food

Indigenous peoples' access to traditional food resources may be unrestricted, or it may be restricted by various social and environmental constraints. The list of constraints indigenous peoples face in accessing their cultural foods is endless, but among the most important are land dispossession and trespassing restrictions, encroachment of outsiders with deforestation and agriculture objectives, relocation to unfamiliar territories or urban areas where cultural foods are not available, ecosystem destruction (e.g., dams on territories), and lack of equipment for food harvesting. Time trends in access to traditional food are also important: they usually show a decline.[18]

Species diversity and availability

Availability of traditional food system species, including subspecies and cultivars, is key to food diversity, and cultural recognition by indigenous peoples is important for food security.[19] Indigenous peoples recognize threats from declining numbers of individuals within a species (e.g., declining numbers of caribou within a herd) as well as declining diversity of food within a species (e.g., banana cultivars).[20] Related to species diversity and availability are practices for conservation of these resources and strategies for species and/or general environmental management or co-management.

Relative importance of traditional food and market food as percentage of total energy and nutrient requirements

It has been demonstrated in Arctic Canada that when market food of poor nutrient density displaces traditional foods from the daily food of indigenous peoples, the dietary nutrient quality declines. This may increase nutritional risk (obesity and its correlates in chronic disease), thus undermining food security.[21] This phenomenon can be demonstrated by assessing the proportion of dietary energy from traditional food and market food. In the same manner, the proportion of various nutrients from traditional food and market food can be assessed.[22]

Sharing and sales

Sharing of food and other resources is recognized as an important cultural principle of indigeneity, and helps to ensure social cohesion and food security of the least advantaged households in a community.[23] In some areas, sales of traditional food resources enhance income, but work against nutrition of family members especially if the income generated is used to purchase food of less nutrient density. This has been shown for the Samburu of Kenya who may be forced to sell their pastoral animal resources for income, and then purchase low nutrient density carbohydrate staples.[24]

Traditional food knowledge transfer to younger generations

Lapses in transfer of traditional knowledge to younger generations work against maintenance of traditional food use. Younger generations therefore will displace traditional food with purchased foods which are often of poorer quality. Traditional food knowledge taught to younger generations can relate to hunting, harvesting, agricultural practices, food preparation skills and taste appreciation.[25] Reduced use of traditional food by younger men and women compared with older people has been well documented with Canadian Arctic communities of indigenous peoples[26] as well as with the Samburu in Kenya.[27]

Disincentives to traditional food use

Younger members of communities make less use of traditional food,[28] and this can be influenced by attitudes of teachers in the formal education system who are not from the culture, and who introduce new foods and ideas about food quality. This is especially apparent in boarding schools for indigenous children. Exposure to media, social contact outside of the home territory, and introduction to new foods, including highly processed "trash" foods, contribute to declining use of traditional foods by all community members.[29]

Time, energy for traditional food harvest and paid employment

It is well known in communities of indigenous peoples that paid employment (wage labour) results in less available time and effort for pursuing traditional food harvesting and preparation activities.[30] In the case of the people in the Nuxalk nation, British Columbia, Canada, employment

of men in logging removed them from the community during key fishing and hunting seasons. For women, employment in fish canneries during the early 1900s removed them from their homes during the peak traditional food season, from June to October. This interfered with home processing and preservation of their own traditional foods, as well as opportunities to transfer this local knowledge to younger members of their families. Thus the required time for traditional food pursuits, access to traditional foods, and transfer of traditional food knowledge to the next generation were all affected.[31] With income generated in paid employment, store foods are purchased and displace traditional foods from the diet. However, traditional foods can still be harvested by unemployed members of the community, and these resources can be generally shared.

Taste appreciation by age and gender

Few studies have been done on taste appreciation for traditional foods, and changes that take place over time. In a grandmother-mother-daughter study with the Nuxalk, it was demonstrated that those who used the traditional foods the most appreciated them more highly. Thus grandmothers gave these foods higher scores, as did those who harvested them more often. This effect was seen with both animal and plant foods.[32]

Contaminants

Contaminants are serious issues for food systems of indigenous peoples in many parts of the world: they affect food safety and thus food security. Organochlorines such as PCBs, heavy metals such as mercury, radioactivity and microbiological contaminants are the largest categories of contaminants that most seriously affect health status in communities.[33] Indigenous people may become ill from use of contaminated foods. Moreover, the knowledge that their foods contain contaminants may deter people from using these foods, even if the levels of contaminants present are below guidelines set by health authorities. Decreasing use of traditional food affects many aspects of wellness, including nutrition and social and cultural activities.[34]

Social cohesion and activities; spirituality

Indigenous peoples' food systems provide many aspects of cultural life, including avenues of social cohesion and personal pride and respect. Many cultures experience spirituality when attending to their agricultural, hunting or fishing food harvest activities.[35]

IV. Methods of assessing indigenous peoples food' systems to develop indicators

Using participatory research methods with indigenous peoples

When assessment of indigenous peoples' food security with relevant indicators takes place, the people most directly affected must be active participants in the process to provide validity and clearly portray the circumstances surrounding food security and the well-being it provides. Experts from outside the culture under study will likely be engaged in research collaboration in order to gain understanding of a food security situation. Collaborators from within the culture ensure that the skills, knowledge and methods will be efficiently available to address the issues studied.[36] Issues that must be addressed in the research collaboration include: funding, ethics and consent of participants, research partnerships for mutual benefit, intellectual property rights, respect and understanding for diversity by engaging local translators and interviewers, advice from local communities, capacity building for the research process, transparency in resource use, and effective management and evaluation of the research.[37]

Interview methods to identify food security issues and food diversity

For a detailed presentation of interview methods on food use and food security derived from work with indigenous peoples, see the manual on methods to document indigenous peoples' food systems at www.mcgill.ca/files/cine/manual.pdf.

For research on indigenous peoples' food systems and food security it is necessary to develop an interview structure, and to ensure that databases include local food and local perceptions. Usually, food use interviews include a "food frequency" protocol, and a "24-hour recall" protocol that is administered on two non-consecutive days to each individual. In addition to these two types of interviews, sociocultural interviews that include food security questions can be administered. The manual provides guidance on interview methods and data collection forms.

Food lists: traditional food and market food

Within a community it is important to first establish a list of food resources that are available, and to scientifically identify these resources.[38] This will involve having key knowledgeable community members begin the listing, which is then completed in a focus group or community meeting. To identify the cultural food resources, it is useful to separate the local, traditional food list from a list of foods usually purchased in markets. Even before creating these lists, it is useful to gain understanding of usual patterns of food purchasing and local harvest. Once the lists are completed, usually with local and common food names, experts in scientific nomenclature must be engaged to reliably iden-

tify the foods with scientific nomenclature. It is also relevant at this time to establish the seasonality of use of each species, and if pertinent, information on which segments of the society may make special use of this food. This establishes the foundation for a biodiversity assessment.

Food composition databases to establish contents of nutrients and other food components

To appreciate the extent of food security for energy (calories) as well as particular nutrients or other food components, analysis of the frequency and recall data collected as identified above must be conducted using a database of composition of the foods contained in the two food lists. This requires collaboration of a food composition specialist to create the database, including the relevant local traditional food and the market food usually consumed. The food composition database is used together with the frequency and/or food recall data for each individual to establish dietary adequacy.

Taste appreciation scores

An important component of food use is how people perceive the acceptability of the food. For indigenous peoples, their often unique species and methods of appreciation are particularly important in considering food security. Scales for ranking taste appreciation and other food acceptability parameters (texture, smell, color, etc.) among foods have been developed, and one example is presented in www.mcgill.ca/files/cine/manual.pdf.

Card sorts for cultural food attributes

Other food attributes, perceived positively or negatively, can be determined at the same time as meetings to establish the food lists. These attributes are derived with a "card sort" exercise with individuals usually involved in food gathering and preparation. Methodology for this is explained further in Blum, et al. (1997), which describes a strategy of placing names or pictures of foods on cards and proceeding with a game of sorting the cards by food attributes named by the interviewee.

Food security interviews

To date, the creation of international food security interviews has focused on financial aspects of hunger and food security. One sample question is: "This week, did you experience hunger and concern that you do not have enough money to purchase food?"[39] However, there have been attempts to modify the standard instrument to incorporate consideration for local food system issues of indigenous peoples unrelated to use of money.[40]

V. Possible indicators

Number of species/parts consumed

When the traditional food list is established together with scientific names and varieties or cultivars, as well as parts of each consumed (roots, leaves, etc.) the actual, simple number of species listed can be considered as an indicator of food knowledge in the culture. This can be done separately for traditional and market food, if warranted. For example, in some cases, urban dwellers may have only one list – that of purchased food.

Knowledge of species and use by age, gender, season

Documented traditional knowledge of each of the traditional species and how each can be used as food, by preparation method, in what season(s) and by what age/gender groups in the society, can also be an indicator. This can be developed with a scale, for example, to identify and roughly quantify the most significant species for population segments; these can be counted and used as an indicator.

Availability of traditional species and temporal changes in availability

Ecological assessments can be done to enumerate availability of species (animals or plants) per unit of territory.[41] At the same time the knowledge of elders can be determined with qualitative interviews to establish the temporal changes that have taken place in availability of food species within regions. This information can also be developed into a scale that can be used with the food list to roughly quantify change over time in food availability and access by indigenous peoples in the area. This gives further depth and nuance to the indicator. The presence of policies for effective conservation and management or co-management of food species can be enumerated as a related indicator.

Scores for food security

The food security interview noted above can be developed to issue a food security score for each individual interviewed. It is preferable to ensure review of the interview instrument with those within the culture to ensure the most relevant considerations. For example, if money or economic resources are not the main avenue of access for food, the interview must be modified to reflect the factors driving food access. These interviews must also consider season, environmental threats, etc. Data from enumerating food security can be used in conjunction with temporal trends in food availability as well as the numbers of species.

Market food available: what is used, money spent, percentage of income

Availability of market food, the cost of these foods, and the proportion of income spent on food are all important considerations for food security. When few market foods are purchased, the main

indicator of food biodiversity rests with the traditional foods, as noted above. See for example the market food cost score sheets in Blum, et al. (1997).

Traditional food: percentage of dietary energy/protein/other nutrients by age, gender, season, and by traditional or market food

A variety of indicators can be developed from nutritional data resulting from analyses of the 24-hour recall information with the food composition database. The proportion of energy or other nutrients can be divided among traditional local foods in contrast to food purchased, and then further analysed by age, gender and season. In this way the importance of particular species as well as diversity of species for dietary quality can be gleaned. For example, it may then be possible to identify a critical number of species that are essential for dietary quality.

Taste appreciation by age/gender/species for traditional/market food

As noted above, scores for taste and other food acceptability parameters can be developed from interviews on species in the traditional food list and on the market food list. Results can be built into indicators for food acceptability and food security by species, and by age and gender. Foods can thus be ranked for their importance.

Cultural importance/spirituality for traditional/market food

Foods have significant importance in cultures for many reasons, including the possibility of being used for spiritual occasions. Interviews can be developed for identifying these important parameters, and scales and ranking by importance can be attributed. These factors can then be incorporated into indicator scores. A related but important factor is the use of species or parts for traditional medicines, perhaps as ingestants such as teas, soups, etc. These items can be given separate scores or scales for medicinal properties and these can be incorporated into indicator scores for a particular species.

Contaminants present by safety guidelines

Many regions inhabited by indigenous peoples face environmental threats from industrially derived contaminants. These foods can be enumerated for extent of use and measured scientifically for the presence of a variety of biological, heavy metal or organochlorine contaminants. In this way contaminant threat can be incorporated into an indicator score for food species of a particular culture. Another possibility to consider is the extent of species use in individual diets and resulting exposure in the context of safety guidelines.[42] Other environmental threats (climate change, dams, etc.) and their impact on food availability can be documented with interviews and accessibility of each species. This can be enumerated and form the basis of an indicator.

Export/sales externally, by number of species

If species important for food security become less accessible because they are harvested for sale and/or export outside the community, this will affect food security. This threat can be quantified by an availability/loss score and incorporated into an indicator. By the same token, sales that result in income that is then spent on food must also be taken into account. Indicators that capture this phenomenon can be derived from analysis of dietary data.

VI. Summary of considerations for indicators of biodiversity for food security of indigenous peoples

There are many options for the derivation of indicators that measure food security for indigenous peoples. The variety of issues that communities of indigenous peoples face should be assessed as a first step in deciding which indicators it would be most useful to developed for a particular area. Community priorities for facing threats to food security should be taken into account to develop the most salient indicator(s) that are possible with the resources required to develop them.

Only by creating the food system list with delineation of traditional and market foods can consideration be given to biodiversity issues, both for locally derived foods and those imported into the area, and the importance of unique species within these two components of the food system. By developing research strategies on the issues of interest, relevant indicators can be created. This will require thorough understanding of the components of the food system list, analysis of food use data specific to the indigenous peoples concerned, and social research methods.

Some issues for indicator development may have factors with more than one scale or score that can be mathematically incorporated into one or several indicators. The possibilities are endless, and therefore require careful consideration of the most salient indicators for the purposes served by the indicator within the culture, and the resources required to complete the research.

By considering the important issues of diversity in food species within food systems, the availability and accessibility of traditional food to indigenous peoples can be made into relevant indicators of food security. The importance of cultural values of sharing, knowledge transfer to younger generations, disincentives to traditional food use and appreciation of cultural traditional foods are also important for construction of meaningful indicators of food security. Finally, when addressing food security, indicators should also identify matters related to strategies in place for food safety and conservation of the diversity of species within a food system.

Endnotes

[1] www.cbd.int/convention/convention.shtml.

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[3] FAO, 1996; FAO, 2006.

[4] Ruel, 2003.

[5] Hatloy, et al., 1998; Roche et al, 2007; Foote et al., 2004.

[6] Alarcon-Chaires, 2005.

[7] Chweya and Eyzaguirre, 1999, Grivetti and Olge, 2000, Olge et al., 2001; Kuhnlein and Receveur, 2007.

[8] www.tebtebba.org/tebtebba_files/finance/susdev/atitlan.html.

[9] UNPFII, 2007.

[10] Paragraph 23.

[11] Paragraph 34, UNPFII, 2005.

[12] Kuhnlein and Receveur, 1996.

[13] Uauy, et al., 2001; Kuhnlein et al., 2004.

[14] Chan, et al., 2006; Kimiywe et al., 2007.

[15] Hall and Patrinos, 2005.

[16] Kuhnlein, et al., 2004.

[17] Kimiywe, et al., 2007.

[18] Alarcon-Chaires, 2005; Kuhnlein, 1992; Department of Indian and Northern Affairs, 1980; Lambden, et al., 2007; Krause, et al., 1992; Damman et al., 2007.

[19] Kennedy, et al., 2005; Toledo and Burlingame, 2006.

[20] Kuhnlein, 1995; Englberger, 2003; Fleuret, 1979; Booth, et al., 1993,

[21] Kuhnlein, et al., 2004; Uauy, 2001.

[22] Kuhnlein, et al., 2004.

[23] Lambden, et al., 2007.

[24] Holzman, 2007.

[25] Kuhnlein, 1992; Kuhnlein, 1989.

[26] Kinloch, et al., 1992; Morrison, et al., 1995; Kuhnlein, et al., 1995; Kuhnlein, 1995.

[27] Holzman, 2003.

[28] See for example Kuhnlein, et al., 1995.

[29] Kuhnlein, 1992; Kuhnlein and Turner, 1986.

[30] See for example Kuhnlein, 1992.

[31] Kuhnlein, 1992.

[32] Kuhnlein, 1992; Kuhnlein, 1989.

[33] Kuhnlein and Chan, 2000; Passos et al., 2007; Kinloch, et al., 1992.

[34] Kuhnlein and Chan, 2000.

[35] For examples see Holzman, 2003; Lambden et al., 2007.

[36] Sims and Kuhnlein, 1993.

[37] CIHR, 2007; UNPFII, 2007.

[38] See www.mcgill.ca/files/cine/manual.pdf, page 19.

[39] Bickel, et al., 2000.

[40] CINE, personal communication, 2005.

[41] See as example, Lepofsky, et al., 1985.

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Chapter 10

Part 2

A First Nations Approach to Health Indicator Development

Based on a presentation by **Jay Lambert**

In the lead-up to the First Ministers Meeting in 2005, the Assembly of First Nations (AFN) in Canada initiated the development of indicators to measure progress in meeting the 10-year plan to "close the gap" in quality of life between First Nations and other Canadians. It was already clear that such a gap existed: on the UN Human Development Index, the First Nations population lagged significantly behind the rest of Canada, while the Community Well-Being Index developed by Indian Northern Affairs Canada (INAC) ranked 92 First Nations communities among the bottom 100 communities in Canada.

The effort by the AFN to develop quality of life indicators was part of a momentum to decolonize information and research for the individual and collective benefit of First Nations, and to challenge the status quo by presenting an alternative approach. The indicators would reflect the AFN's model of policy development, which provides a broad policy framework used by all AFN departments.

This paper is based on a presentation by Jay Lambert at the International Experts Seminar on Indicators Relevant for Indigenous Peoples, the Convention on Biodiversity and the Millenium Development Goals held in Banaue, Ifugao on 5-9 March 2007, and on the booklet *Understanding Indicators* published by the National Aboriginal Health Organization.[1]

A First Nations planning model

Three broad processes exist for First Nations policy development in Canada: a process controlled by First Nations, a process controlled by other governments, and a joint process. The AFN

policy model seeks to combines the strongest elements of these three processes, so that First Nations leadership, as well as independent research and expertise, play a central role in directing change to achieve sustainable solutions. The model relies on evidence-based research and best practice, while requiring that policy development responds to, and is directed by, First Nations. It requires clear political commitment and mandates for change, as well as joint, principled policy engagement to develop options for consideration and adoption by First Nations governments.

To sum up, successful First Nations policy development requires First Nations leadership, national dialogue, independent expertise, a clear mandate for change, and joint principles and policy processes. First Nations self-government is key to the entire policy and planning model.

This model (see diagram on page 227) sets the process for policy development. Its content is based on a First Nations wholistic perspective, with the community at its core. It focuses on 14 key determinants of well being:

- self-determination;
- health care;
- education/lifelong learning;
- housing;
- economic development;
- environmental stewardship;
- employment;
- lands/resources;
- justice/corrections;
- social services;
- languages, heritage and culture;
- gender;
- rural/urban;
- on/away from reserve.

The last three are cross-cutting determinants.

The perspective considers governance components: First Nations self-government, fiscal relations, collective and individual rights, and capacity. And it takes in social capital: bonding (within the community), bridging (among communities) and linkages (outside the community).

Limited data sources present a big challenge for indicators work with First Nations.[2] Most Canadian indicators currently in use were developed without considering First Nations' interests, frameworks or realities, so they often miss issues that are important to First Nations communities: for example, Canadian indicators do not include availability of running water in homes. Centrally driven processes and policy emphasize national level accountability rather than First Nations' interests or local relevance and utility.

Data specific to First Nations data is often fragmented or unavailable. This is due to the lack of data infrastructure in First Nations communities, lack of First Nations identifiers in provincial and territorial health databases, and the absence of shared national standards. Data relating to First Nations, Inuit and Métis is often combined into pan-Aboriginal statistics that are less useful to all three groups.

Even where data exists – in government databases, for example – First Nations may not have access to it.

Looking at health

First Nations often describe health as a balance between various elements. These include the physical, mental, emotional and spiritual realms as well as the environment, culture, family, and community. Well-being "flows from balance and harmony among all elements of personal and collective life."[3]

It is fundamentally understood that all things are interconnected. Elder Jim Dumont captures the concept when he speaks of "the total health of the total person in the total environment." [4]

The World Health Organization's constitution defines health holistically as "a state of complete physical, social and mental well-being, and not merely the absence of disease or infirmity."[5]

In 1974 a landmark Canadian document known as the Lalonde Report[6] was one of the first government reports to recognize that health involves much more than the health care system. It influenced understanding of health internationally. The report stated that health depends on four related factors: biology, environment, lifestyle and access to healthcare services.

According to Lalonde, "Good health is the bedrock on which social progress is built. A nation of healthy people can do those things that make life worthwhile, and as the level of health increases so does the potential for happiness."[7]

Developing a health reporting framework

Although the health status of First Nations peoples has been improving, it remains substantially lower than the Canadian average. Efforts to improve First Nations health involve many issues and still unanswered questions. One of the key changes is the recognition of the need to collect and analyse health information specific to First Nations.

The health reporting framework was initially driven by a Canadian government initiative to develop an Aboriginal Health Reporting Framework. This consisted of 20 common indicators, and was intended to apply to the three recognized aboriginal groups in Canada: First Nations, Inuit and

Métis. The AFN opposed the pan-Aboriginal approach, and proposed a First Nations-specific health reporting framework.

This framework provides a basic conceptual structure and a way of looking at health and the factors that affect it.

The framework was developed on the basis of a set of guiding principles (see box) and a literature review, which identified some key health issues for First Nations. The review showed, for example, that injuries are the largest contributor to premature death for on-reserve First Nations, with the next largest being circulatory diseases and cancer. Suicide is among the leading causes of death in First Nations for people aged 10-44.

Significant chronic diseases in First Nations populations include (in order of magnitude) diabetes, heart disease, high blood pressure, cancer, arthritis and rheumatism. Rates for all of these exceed the rates in the general population of Canada.

First Nations also suffer high rates of infectious diseases (in particular tuberculosis), sexually transmitted diseases, and food and waterborne diseases, and increasing rates of overweight and obesite individuals.

According to the National Aboriginal Health Organization (NAHO), the key health challenges for aboriginal peoples relate to:

- self-determination;
- physical and human environments;
- emotional and mental health;
- chronic diseases and disabilities;
- healthy childhoods;
- access to effective and appropriate services.

Following the literature review, preliminary indicators were identified, but it was impossible to proceed further without consultation and validation at community level. A National Dialogue Session in February 2006 concluded that much work was needed before the AFN could validate relevant indicators that could be used across the country.

Key concerns included the lack of capacity of First Nations to collect, manage and analyse data. The lack of data available to serve as appropriate indicators seriously compromises the ability to develop a wholistic framework representative of First Nations.

Principles of the First Nations Health Reporting Framework

The First Nations Health Reporting Framework was developed in accordance with the following principles:

- The health reporting framework will have a First Nations focus.
- The health reporting framework will be based on the concept of reciprocal accountability.
- The framework will be a practical tool used for community planning that will also allow for reporting to federal, provincial and territorial governments.
- The framework will allow for comparison with Canadian data.
- Selected indicators will be tied to data reporting mechanisms that are currently in place or could conceivably be implemented in the near future.
- Traditional indicators that are considered immeasurable will be omitted from this framework but referenced in the text for future consideration.
- The principles of ownership, control, access and possession will be respected.

Health indicators

A health indicator represents a variable, susceptible to direct measurement, which reflects the state of health and well-being of persons in a community. It measures data which is translated into usable information. Indicators are important for monitoring the health of a population, factors that influence health and the effectiveness of health services.

The First Nations Health Reporting Framework looks at four domains: individual health, environmental health, community health and social/cultural health. The indicators for social and cultural health include unique First Nations measures related to the effects of colonization, such as residential schools; self-determination; language; cultural practices; and traditional land use. The indicators are shown in the box.

For individual health, it has indicators for morbidity and mortality, but also well-being and quality of life. It looks at health determinants in terms of personal choices, and also social and physical environments. For community health, it takes in self-determination and cultural continuity. The framework covers both traditional and Western-based services.

Indicators for First Nations health

The First Nations Health Reporting Framework organises indicators as follows:

Individual health

Morbidity and mortality

- Life expectancy
- Diabetes
- Unintentional injuries
- Suicide

Well-being and quality of life

- Self-related health
- Mental health
- Impact of residential schools

Health determinants

Personal choices

- Alcohol/drug consumption
- Immunization coverage

Social and physical environments

- Income level
- Housing quality
- Drinking water quality

Community health

Self-determination

- Community control of health services
- Involvement of youth and elders in community decision making

Cultural continuity

- Language knowledge and use
- Traditional use of land
- Participation in traditional spiritual ceremonies and rituals

Health services

Traditional services

- Availability and use of traditional healers and medicines
- Involvement of youth and elders in community decision making

Health services

- Western-based services
- Access to primary or mental health care
- Access to home care services
- Satisfaction with health care services

Endnotes

[1] NAHO (2007) Understanding Health Indicators, Ottawa: NAHO.

[2] Existing sources include the First Nations Regional Longitudinal Health Survey (which covers only people living on reserves); the Canadian census, from which it is difficult to disaggregate data; the Aboriginal Peoples Survey (which covers only people living off-reserve); the INAC Departmental Data; Health Canada; the First Nations and Inuit Health Branch (FNIHB) in-house statistics; and other federal departments, whose data is difficult to access and generally fails to disaggregate data for First Nations.

[3] Royal Commission on Aboriginal Peoples (1996) "Gathering Strength", Ottwawa: Ministry of Supplies and Services.

[4] Dumont, J., cited in NAHO (2007) Understanding Health Indicators, Ottawa: NAHO.

[5] WHO (1948) Constitution of the World Health Organization.

[6] Lalonde, M. (1974) A new perspective on the health of Canadians, Ottawa: Ministry of Supplies and Services.

[7] Ibid.

Chapter 11

Part 2

Language Vitality and Endangerment

UNESCO Ad Hoc Expert Group on Endangered Languages[1]

Document submitted to the International Expert Meeting on UNESCO Programme Safeguarding of Endangered Languages Paris, 10-12 March 2003.
Source: www.unesco.org/culture/ich/index.php?pg=00142.

This paper was written in response to a request from UNESCO to develop a framework for determining the vitality of a language in order to assist in policy development, identification of needs and appropriate safeguarding measures. For an example of implementation of the methodology, see *The National Indigenous Languages Survey Report 2005*, prepared by the Australian Institute of Aboriginal and Torres Strait Islander Studies at the request of the Australian government.

Language diversity is essential to the human heritage. Each and every language[2] embodies the unique cultural wisdom of a people. The loss of any language is thus a loss for all humanity.

Though approximately six thousand languages still exist, many are under threat. There is an imperative need for language documentation, new policy initiatives, and new materials to enhance the vitality of these languages.

The cooperative efforts of language communities, language professionals, NGOs and governments will be indispensable in countering this threat. There is a pressing need to build support for language communities in their efforts to establish meaningful new roles for their endangered languages.

I speak my favourite language
because
that's who I am.
We teach our children our favourite language,
because
we want them to know who they are.

Christine Johnson, Tohono O'odham elder, American Indian Language Development Institute, June 2002.

I. Preamble

A language is *endangered* when it is on a path toward extinction. Without adequate documentation, a language that is extinct can never be revived.

A language is in danger when its speakers cease to use it, use it in an increasingly reduced number of communicative domains, and cease to pass it on from one generation to the next. That is, there are no new speakers, adults or children.

About 97 per cent of the world's people speak about 4 per cent of the world's languages; and conversely, about 96 per cent of the world's *languages* are spoken by about 3 per cent of the world's *people*[3]. Most of the world's language heterogeneity, then, is under the stewardship of a very small number of people.

Even languages with many thousands of speakers are no longer being acquired by children; at least 50 per cent of the world's more than six thousand languages are losing speakers. We estimate that, in most world regions, about 90 per cent of the languages may be replaced by dominant languages by the end of the 21st century.

Language endangerment may be the result of *external* forces such as military, economic, religious, cultural, or educational subjugation, or it may be caused by *internal* forces, such as a community's negative attitude towards its own language. Internal pressures often have their source in external ones, and both halt the intergenerational transmission of linguistic and cultural traditions. Many indigenous peoples, associating their disadvantaged social position with their culture, have come to believe that their languages are not worth retaining. They abandon their languages and cultures in hopes of overcoming discrimination, to secure a livelihood, and enhance social mobility, or to assimilate to the global marketplace.

The extinction of each language results in the irrecoverable loss of unique cultural, historical, and ecological knowledge. Each language is a unique expression of the human experience of the world. Thus, the knowledge of any single language may be the key to answering fundamental questions of the future. Every time a language dies, we have less evidence for understanding patterns in the structure and function of human language, human prehistory, and the maintenance of the world's diverse ecosystems. Above all, speakers of these languages may experience the loss of their language as a loss of their original ethnic and cultural identity.[4]

Raising awareness about language loss and language diversity will only be successful when meaningful contemporary roles for minority languages can be established, for the requirements of modern life within the community as well as in national and international contexts. Meaningful contemporary roles include the use of these languages in everyday life, commerce, education, writing, the arts, and/or the media. Economic and political support by both local communities and national governments are needed to establish such roles.

There is an urgent need in almost all countries for more reliable information about the situation of the minority languages as a basis for language support efforts at all levels.

II. Background

UNESCO's Constitution includes the maintenance and perpetuation of language diversity as a basic principle:

> *to contribute to peace and security by promoting collaboration among the nations through education, science and culture in order to further universal respect for justice, for the rule of law and for human rights and fundamental freedoms which are affirmed for the peoples of the world without distinction of race, sex, language, religion, by the Charter of the United Nations.*[5]
>
> *Based on this principle, UNESCO has developed programs aimed at promoting languages as instruments of education and culture, and as significant means through which to participate in national life.*[6]

Among these programs was the project *The Red Book of Languages in Danger of Disappearing*. The purpose of that project was:

1. to systematically gather information on endangered languages (including their status and the degree of urgency for undertaking research);
2. to strengthen research and the collection of materials relating to endangered languages for which little or no such activities have been undertaken to date, and that belong to a specific category such as language isolates, languages of special interest for typological and historical-comparative linguistics, and are in imminent danger of extinction;
3. to undertake activities aiming to establish a world-wide project committee and a network of regional centres as focal points for large areas on the basis of existing contacts; and
4. to encourage publication of materials and the results of studies on endangered languages.

One crucial goal, however, is missing from the Red Book project – that is, to *work with* the endangered-language communities toward language maintenance, development, revitalization, and perpetuation. Any research in endangered language communities must be reciprocal and collaborative. Reciprocity here entails researchers not only offering their services as a quid pro quo for what they receive from the speech community, but being more actively involved with the community in designing, implementing, and evaluating their research projects.

At the 31st Session of the UNESCO General Conference (October 2001), the unanimously-adopted *Universal Declaration on Cultural Diversity* recognized a relationship between biodiversity, cultural diversity, and linguistic diversity. UNESCO's action plan recommends that Member States, in conjunction with speaker communities, undertake steps to ensure:

1. sustaining the linguistic diversity of humanity and giving support to expression, creation, and dissemination of the greatest possible number of languages;
2. encouraging linguistic diversity at all levels of education, wherever possible, and fostering the learning of several languages from the youngest age;
3. incorporating, where appropriate, traditional pedagogies into the education process with a view to preserving and making full use of culturally-appropriate methods of communication

and transmission of knowledge; and where permitted by speaker communities, encouraging universal access to information in the public domain through the global network, including promoting linguistic diversity in cyberspace.

III. Supporting endangered languages

3.1. The role of the speech community

In all parts of the world, members of ethnolinguistic minorities are increasingly abandoning their native language in favour of another language, including in childrearing and formal education.

Among ethnolinguistic communities, a variety of opinions on the future prospects of their languages can be observed. Some speakers of endangered languages come to consider their own language backward and impractical. Such negative views are often directly related to the socioeconomic pressure of a dominant speech community. Other speakers of endangered languages, however, attempt to directly counter these threats to their language, and commit themselves to language stabilization and revitalization activities. These communities may establish environments such as daycare centers, schools, or at least classes in which their languages are exclusively spoken.

In the end, it is the speakers, not outsiders, who maintain or abandon languages. Still, if communities ask for support to reinforce their threatened languages, language specialists should make their skills available to and work with these ethnolinguistic minorities.

3.2. External specialists and speech communities

External language specialists, primarily linguists, educators, and activists see their first task as documentation. This includes the collection, annotation, and analysis of data from endangered languages. The second task entails their active participation in educational programs. Speakers increasingly demand control over the terms and conditions that govern research; furthermore, they claim rights to the outcomes and future uses of the research.

Increasing numbers of people in ethnolinguistic minorities also make demands on research: first, they demand control over the terms and conditions that govern research; second, they claim rights to the outcomes and future uses of the research. (They want, for example, the right to informed consent and to veto power, they want to know how results will benefit them, and they want to be able to determine how research results will be disseminated. But above all, they want an *equal relationship* with outside researchers and want to be actors in a process that is theirs, not someone else's.)

3.3. What can be done?

Just as speech community members react differently to language endangerment, so do linguists, educators, and activists to requests for assistance by speech communities. Such requests relate mainly to five essential areas for sustaining endangered languages:

1. **Basic linguistic and pedagogical training:** providing language teachers with training in basic linguistics, language teaching methods and techniques, curriculum development, and teaching materials development.
2. **Sustainable development in literacy and local documentation skills:** training local language workers to develop orthographies if needed, read, write, and analyse their own languages, and produce pedagogical materials. One of the effective strategies here is the establishment of local research centres, where speakers of endangered languages will be trained to study, document and archive their own language materials. Literacy is useful to the teaching and learning of such languages.
3. **Supporting and developing national language policy:** National language policies must support diversity, including endangered languages. More social scientists and humanists, and speakers of endangered languages themselves should be actively involved in the formulation of national language policies.
4. **Supporting and developing educational policy:** In the educational sector, a number of linguists are engaged in implementing increasingly popular mother tongue education programs. Since 1953 and especially in the past 15 years, UNESCO has been instrumental in this development through its policy statements. So-called mother tongue education, however, often does not refer to education in the ancestral languages of ethnolinguistic minorities (ie endangered languages), but rather to the teaching of these languages as school subjects. The most common educational model for teaching ethnolinguistic minority children in schools still uses locally or nationally dominant languages as media of instruction. Teaching exclusively in these languages supports their spread, at the expense of endangered languages. For example, fewer than 10 per cent of the approximately 2,000 African languages are currently used in teaching, and none of these 10 per cent is an endangered language. We favour the inclusion of regional languages (often called "mother tongues") in formal education, but not at the expense of ethnolinguistic minorities.[7] A great deal of research shows that acquiring bilingual capability need in no way diminish competence in the official language.
5. **Improving living conditions and respect for the human rights of speaker communities:** Language documenters, though not directly involved in economic and social development, can help governments identify overlooked populations. For example, national HIV/AIDS awareness or poverty-alleviation programs often do not consider minority communities, especially if they are illiterate. Linguists and educators can be vital mediators by supporting the communities in formulating claims about their linguistic and other human rights. Conversely, materials such as those on health care, community development, or lan-

guage education produced for these marginalized communities require specialist input. Concepts and content need to be conveyed in a culturally meaningful way.

3.4. Linguistic diversity and ecodiversity

Among the 900 eco-regions of the world that WWF has mapped out, 238 (referred to as Global 200 Ecoregions) are found to be of the utmost importance for the maintenance of the world's ecological viability. Within these Global 200 Ecoregions, we find a vast number of ethnolinguistic groups. These are the peoples who have accumulated rich ecological knowledge in their long history of living in their environment.

Conservation biology needs to be paralleled by conservation linguistics. Researchers are exploring not just the parallels, but the links between the world's biodiversity and linguistic/cultural diversity, as well as the causes and consequences of diversity loss at all levels. This connection is significant in itself, because it suggests that the diversity of life is made up of diversity in nature, culture, and language. This has been called *biocultural diversity* by Luisa Maffi; and Michael Krauss has introduced the term *logosphere* to described the web linking the world's languages.[8]

3.5. Salvage documentation

A language that can no longer be maintained, perpetuated, or revitalized still merits the most complete documentation possible. This is because each language embodies unique cultural and ecological knowledge in it. It is also because languages are diverse. Documentation of such a language is important for several reasons: 1) it enriches the human intellectual property, 2) it presents a cultural perspective that may be new to our current knowledge, and 3) the process of documentation often helps the language resource person to re-activate the linguistic and cultural knowledge.

IV. Assessing language endangerment and urgency for documentation

4.1. A caveat

No single factor alone can be used to assess a language's vitality or its need for documentation. Language communities are complex and diverse; even assessing the number of actual speakers of a language is difficult. We identify six factors to evaluate a language's vitality and state of endangerment, two factors to assess language attitudes, and one factor to evaluate the urgency for documentation. Taken together, these nine factors are especially useful for characterizing a language's overall sociolinguistic situation.

4.2. Language vitality assessment

4.2.1. *Major evaluative factors of language vitality*

Below we explain the six major factors identified: 1) intergenerational language transmission; 2) absolute number of speakers; 3) proportion of speakers within the total population; 4) trends in existing language domains; 5) response to new domains and media; and 6) materials for language education and literacy. Note that ***none of these factors should be used alone.*** A language that is ranked highly according to one criterion may deserve immediate and urgent attention due to other factors.

Factor 1: Intergenerational language transmission

The most commonly used factor in evaluating the vitality of a language is whether or not it is being transmitted from one generation to the next (Fishman 1991). Endangerment can be ranked on a continuum from stability to extinction. Even "safe" (below), however, does not guarantee language vitality, because at any time speakers may cease to pass on their language to the next generation. Six degrees of endangerment may be distinguished with regards to intergenerational language transmission:

Safe (5): The language is spoken by *all generations*. There is no sign of linguistic threat from any other language, and the intergenerational transmission of the language seems uninterrupted.

Stable yet threatened (5-): The language is spoken in most contexts by all generations with unbroken intergenerational transmission, yet multilingualism in the native language and one or more dominant language(s) has usurped certain important communication contexts. Note that multilingualism alone is not necessarily a threat to languages.

Unsafe (4): Most but not all children or families of a particular community speak their language as their first language, but it may be restricted to specific social domains (such as at home where children interact with their parents and grandparents).

Definitively endangered (3): The language is no longer being learned as the mother tongue by children in the home. The youngest speakers are thus of the *parental generation*. At this stage, parents may still speak their language to their children, but their children do not typically respond in the language.

Severely endangered (2): The language is *spoken* only by *grandparents and older generations*; while the parent generation may still *understand* the language, they typically do not speak it to their children.

Critically endangered (1): The youngest speakers are in the *great-grandparental generation*, and the language is not used for everyday interactions. These older people often *remember* only part of the language but *do not use* it, since there may not be anyone to speak with.

Extinct (0): There is no one who can speak or remember the language.

Degree of endangerment	Grade	Speaker population
safe	5	The language is used by all ages, from children up.
unsafe	4	The language is used by some children in all domains; it is used by all children in limited domains.
definitively endangered	3	The language is used mostly by the parental generation and up.
severely endangered	2	The language is used mostly by the grandparental generation and up.
critically endangered	1	The language is used mostly by very few speakers, of great-grandparental generation.
extinct	0	There exists no speaker.

Factor 2: Absolute number of speakers

It is impossible to provide a valid interpretation of absolute numbers, but a small speech community is always at risk. A small population is much more vulnerable to decimation (eg by disease, warfare, or natural disaster) than a larger one. A small language group may also merge with a neighbouring group, losing its own language and culture.

Factor 3: Proportion of speakers within the total population

The number of speakers in relation to the total population of a group is a significant indicator of language vitality, where "group" may refer to the ethnic, religious, regional, or national group with which the speaker community identifies. The following scale can be used to appraise degrees of endangerment.

Degree of endangerment	Grade	Proportion of speakers within the total reference population
safe	5	All speak the language.
unsafe	4	Nearly all speak the language.
definitively endangered	3	A majority speak the language.
severely endangered	2	A minority speak the language.
critically endangered	1	Very few speak the language.
extinct	0	None speak the language.

Factor 4: Trends in existing language domains

Where, with whom, and the range of topics for which a language is used directly affects whether or not it will be transmitted to the next generation.

Universal use (5): The language of the ethnolinguistic group is the language of interaction, identity, thinking, creativity, and entertainment, and is actively used in all discourse domains for all purposes.

Multilingual parity (4): One or more dominant languages, rather than the language of the ethnolinguistic group, is/are the primary language(s) in most official domains: government, public offices, and educational institutions. The language in question, however, may well continue to be integral to a number of public domains, especially in traditional religious institutions, local stores, and those places where members of the community socialize. The coexistence of the dominant and non-dominant languages results in speakers' using each language for a different function (*diglossia*), whereby the non-dominant language is used in informal and home contexts and the dominant language is used in official and public contexts. Speakers may consider the dominant language to be the language of social and economic opportunity. However, older members of the community may continue to use only their own minority language. Note that multilingualism, common throughout the world, does not necessarily lead to language loss.

Dwindling domains (3): The non-dominant language loses ground and, at home, parents begin to use the dominant language in their everyday interactions with their children, and children become *semi-speakers* of their own language (*receptive bilinguals*). Parents and older members of the community tend to be productively bilingual in the dominant and indigenous languages: they understand and speak both. Bilingual children may exist in families where the indigenous language is actively used.

Limited or formal domains (2): The non-dominant language is used only in highly formal domains, as especially in ritual and administration. The language may also still be used at the community centre, at festivals, and at ceremonial occasions where these older members of the community have a chance to meet. The limited domain may also include homes where grandparents and other older extended family members reside, and other traditional gathering places of the elderly. Many people can understand the language but cannot speak it.

Highly limited domain (1): The non-dominant language is used in very restricted domains at special occasions, usually by very few individuals in a community, eg ritual leaders on ceremonial occasions. Some other individuals may remember at least some of the language (*rememberers*).

Extinct (0): The language is not spoken at any place at any time.

Degree of endangerment	Grade	Domains and functions
universal use	5	The language is used in all domains and for all functions
multilingual parity	4	Two or more languages may be used in most social domains and for most functions.
dwindling domains	3	The language is in home domains and for many functions, but the dominant language begins to penetrate even home domains.
limited or formal domains	2	The language is used in limited social domains and for several functions.
highly limited domains	1	The language is used only in a very restricted domains and for a very few functions.
extinct	0	The language is not used in any domain nor for any function.

Note that multilingualism is a fact of life in most areas of the world. Speakers do *not* have to be monolingual for their language to be vital. It is crucial that the indigenous language serve *a meaningful function* in culturally important domains.

Factor 5: Response to new domains and media

New areas for language use may emerge as community living conditions change. While some language communities do succeed in expanding their own language into the new domain, most do not. Schools, new work environments, new media, including broadcast media and the Internet, usually serve only to expand the scope and power of the dominant language at the expense of endangered languages. Although no existing domains of the endangered language may be lost, the use of the dominant language in the new domain has mesmerizing power, as with television.

If the communities do not meet the challenges of modernity with their language, it becomes increasingly irrelevant and stigmatized.

Degree of endangerment	Grade	New domains and media accepted by the endangered language
dynamic	5	The language is used in all new domains.
robust/active	4	The language is used in most new domains.
receptive	3	The language is used in many domains.
coping	2	The language is used in some new domains.
minimal	1	The language is used only in a few new domains.
inactive	0	The language is not used in any new domains.

The type and use of these new domains will vary according to the local context. One example of the possible use of this criterion is: an endangered language enjoys one new domain, broadcast media, including radio and television, but only for a half-hour a week. Though the availability of these media gives the language a potentially high ranking, the extreme time limitation results in limited exposure to the language, which thus would rank only a 2 or 3. Inevitably, there will be different levels of achievement in different media.

In education, assigning criteria can be based on two dimensions: up to what level, and how broadly across the curriculum, the endangered language is used. An endangered language which is the medium of instruction for all courses and at all levels will rank much higher than an endangered language that is taught only one hour per week.

All new domains, be they in employment, education, or the media, must be considered together when assessing an endangered language community's response.

Factor 6: Materials for language education and literacy

Education *in* the language is essential for language vitality. There are language communities that maintain strong oral traditions, and some do not wish their language to be written. In other communities, literacy in their language is a source of pride. In general, however, literacy is directly linked with social and economic development. Needed are books and materials on all topics for various ages and language abilities.

Grade	Accessibility of written materials
5	There is an established orthography, literacy tradition with grammars, dictionaries, texts, literature, and everyday media. Writing in the language is used in administration and education.
4	Written materials exist, and at school, children are developing literacy in the language. Writing in the language is not used in administration.
3	Written materials exist and children may be exposed to the written form at school. Literacy is not promoted through print media.
2	Written materials exist, but they may only be useful for some members of the community; and for others, they may have a symbolic significance. Literacy education in the language is not a part of the school curriculum.
1	A practical orthography is known to the community and some material is being written.
0	No orthography available to the community.

4.2.2. *Language attitudes and policies*

The maintenance, promotion, or abandonment of non-dominant languages may be dictated by the dominant linguistic culture, be it regional or national. The linguistic ideology of a state may inspire linguistic minorities to mobilize their populations toward the maintenance of their languages, or may force them to abandon them. These linguistic attitudes can be a powerful force both for promotion and loss of their languages.

Members of the dominant culture shape the ideological environment, propagating a value system in which their own language is seen as a positive asset, and believed to be a unifying symbol for the region or state. When several larger linguistic communities compete for the same political or social space, they may each have their own conflicting linguistic attitudes. This leads to the general perception that multiple languages cause divisiveness and are a threat to national unity. The fostering of a single dominant language is one attempt to deal with this *real* or *merely perceived* threat. In doing so, the governing body may legislate the use of language. Accordingly, the policies may discourage or even prohibit the use of other languages. National policy, including the lack of overt policy, has in any case a direct impact on the language attitude of the community itself.

4.2.2.1. Language attitudes and policies: dominant and non-dominant language communities

A country's government may have an explicit language use policy for its multiple languages. At one extreme, one language may be designated as the sole official language of the country, while all others are condemned. At the other extreme, all languages of a nation may receive equal official status. Equal legal status, however, does not guarantee language maintenance and long-term vitality of a language.

Factor 7: Governmental and institutional language attitudes and policies, including official status and use

Governments and institutions have explicit policies and/or implicit attitudes toward the dominant and subordinate languages.

Equal support (5): All of a country's languages are valued as assets. All languages are protected by law, and the government encourages the maintenance of all languages by implementing explicit policies.

Differentiated support (4): Non-dominant languages are explicitly protected by the government, but there are clear differences in the contexts in which the dominant/official language(s) and non-dominant (protected) language(s) are used. The government encourages ethnolinguistic groups to maintain and use their languages, most often in private domains (as the home language), rather than in public domains (eg in schools). Some of the domains of non-dominant language use enjoy high prestige (eg at ceremonial occasions).

Passive assimilation (3): The dominant group is indifferent as to whether or not minority languages are spoken, as long as the dominant group's language is the language of interaction. Though this is not an explicit language policy, the dominant group's language is the *de facto* official language. Most domains of non-dominant language use do not enjoy high prestige.

Active assimilation (2): The government encourages minority groups to abandon their own languages by providing education for the minority group members in the dominant language. Speaking and/or writing in non-dominant languages is not encouraged.

Forced assimilation (1): The government has an explicit language policy declaring the dominant group's language to be the *only* official national language, while the languages of subordinate groups are neither recognized nor supported.

Prohibition (0): Minority languages are prohibited from use in any domain. Languages may be tolerated in private domains.

Degree of support	Grade	Official attitudes toward language
equal support	5	All languages are protected.
differentiated support	4	Minority languages are protected primarily as the language of the private domains. The use of the language is prestigious.
passive assimilation	3	No explicit policy exists for minority languages; the dominant language prevails in the public domain.
active assimilation	2	Government encourages assimilation to the dominant language. There is no protection for minority languages.
forced assimilation	1	The dominant language is the sole official language, while non-dominant languages are neither recognized nor protected.
prohibition	0	Minority languages are prohibited.

Factor 8: Community members' attitudes toward their own language

Members of a speech community are not usually neutral towards their own language. They may see it as essential to their community and identity and promote it; they may use it without promoting it; they may be ashamed of it and, therefore, not promote it; or they may see it as a nuisance and actively avoid using it.

When members' attitudes towards their language are very positive, the language may be seen as a key symbol of group identity. Just as people value family traditions, festivals and community events, members of the community may see their language as a cultural core value, vital to their community and ethnic identity. If members view their language as hindrance to economic mobility and integration into mainstream society, they may develop negative attitudes toward their language.

Grade	Community members' attitudes toward language
5	*All* members value their language and wish to see it promoted.
4	*Most* members support language maintenance.
3	*Many* members support language maintenance; others are indifferent or may even support language loss.
2	*Some* members support language maintenance; others are indifferent or may even support language loss.
1	Only *a few* members support language maintenance; others are indifferent or may even support language loss.
0	*No one* cares if the language is lost; all prefer to use a dominant language.

4.2.2.2. Language attitudes and policies: Interaction and social effects

Attitudes towards the language, be they positive, indifferent, or negative, interact with governmental policy and societal pressures to result in increased or decreased language use in different domains.

In many cases, community members abandon their language because they believe they have no alternative, or because they do not have enough knowledge about the long-term consequences of the "choices" they make. People in such a situation have often been presented with an either-or choice ("either you cling to your mother-tongue and identity but don't get a job," or "you leave your language and have better chances in life"). Actually, maintaining and using both languages will allow even better chances in life.

When languages have an unequal power relationship, members of the subordinate group usually speak both their native language and the dominant language. Speakers may gradually come to use only the dominant language. On the other hand, the subordinate group may resist linguistic domination and mobilize its members to revitalize or fortify their language. Strategies for such linguistic activism must be tailored to the particular sociolinguistic situation, which generally is one of three types:

a. Language revival: re-introducing a language that has been in limited use for some time, such as Hebrew after the creation of the state of Israel, or Gaelic in Ireland;

b. Language fortification: increasing the presence of the non-dominant language to counterbalance a perceived linguistic threat of a dominant language, such as Welsh;

c. Language maintenance: supporting the stable use, in speaking and in writing (where orthographies exist), of the non-dominant language in a region or state with both multilingualism and a dominant language (lingua franca), such as Maori in New Zealand.

For language vitality, speakers ideally not only strongly value their language, but they also know in which social domains their language is to be supported. A positive attitude is critical for the long-term stability of a language.

4.2.3. *Urgency for documentation*

Factor 9: Amount and quality of documentation

As a guide for assessing the urgency for documenting a language, the type and quality of existing language materials must be identified. Of central importance are written texts, including transcribed, translated, and annotated audiovisual recordings of natural speech. Such information importantly helps members of the language community formulate specific tasks, and enables linguists to design research projects together with members of the language community.

Nature of documentation	Grade	Language documentation
superlative	5	There are comprehensive grammars and dictionaries, extensive texts; constant flow of language materials. Abundant annotated high-quality audio and video recordings exist.
good	4	There are one good grammar and a number of adequate grammars, dictionaries, texts, literature, and occasionally updated everyday media; adequate annotated high-quality audio and video recordings.
fair	3	There may be an adequate grammar or sufficient amount of grammars, dictionaries, and texts, but no everyday media; audio and video recordings may exist in varying quality or degree of annotation.
fragmentary	2	There are some grammatical sketches, word-lists, and texts useful for limited linguistic research but with inadequate coverage. Audio and video recordings may exist in varying quality, with or without any annotation.
inadequate	1	Only a few grammatical sketches, short word-lists, and fragmentary texts. Audio and video recordings do not exist, are of unusable quality, or are completely un-annotated.
undocumented	0	No material exists.

4.3. Language vitality index: Evaluating the significance of factors

This section describes how the above nine factors may be used. Taken together, the tables are a useful instrument for assessing the situation of a community's language, the type of support needed for language maintenance, revitalization, perpetuation, and for documentation.

The vitality of languages varies widely depending on the different situations of speech communities. The needs for documentation also differ under varying conditions. **Languages cannot be assessed simply by adding the numbers**; we therefore suggest such simple addition *not be done*. Instead, the language vitality factors given above may be examined according to the purpose of the assessment.

Above we have explored the following factors:

Factor 1.	Intergenerational language transmission (scale)
Factor 2.	Absolute number of speakers (real numbers)
Factor 3.	Proportion of speakers within the total population (scale)
Factor 4.	Trends in existing language domains (scale)
Factor 5.	Response to new domains and media (scale)
Factor 6.	Materials for language education and literacy (scale)
Factor 7.	Governmental and institutional language attitudes and policies, including official status and use: (scale)
Factor 8.	Community members' attitudes toward their own language (scale)
Factor 9.	Amount and quality of documentation (scale)

The factor descriptions given above are offered as guidelines. Each user should adapt these guidelines to the local context and to the specific purpose sought.

Example 1. Self-assessment by a speech community

A speech community may examine these factors first to assess their language situation and to determine whether action is needed, and if so, what to do next. For this purpose, although all factors are important, the first six are especially useful. The community may find that the language is mostly being spoken by grandparents and the older generation so their language could be characterized as "severely endangered" (Grade 2) with regard to Factor 1 "intergenerational language transmission." In addition, the community may find that the language is used mainly on ceremonial occasions and at community festivals. In terms of Factor 4 "trends in existing language domains," then, the language use can be assessed at the level of "limited or formal domains" (Grade 2). On the other hand, the community may find that "most members of the community support language maintenance" (Grade 4, Factor 8 "community members' attitudes toward their own language"). At this point, the community members may conclude that their language is in extreme danger of being lost in a short period of time if nothing is done about the situation. They have also found that the community people are very much interested in reversing language shift and have expressed their support for language revitalization efforts. Once the community considers the full range of factors and completes its self-assessment, it will have a well-founded basis on which to seek support from relevant agencies.

Example 2. External evaluation

The guidelines could also be utilized as a policy tool by other bodies, of an official or voluntary nature, concerned with language maintenance, revitalization, literacy development, or documentation.

When more than one language is being considered, each of the above factors may become an important point of comparison. The result of such comparison has a wide range of possibilities for fortifying language diversity in a particular region: it may be useful in ranking the severity of language endangerment for the purpose of support; in educating the public on the importance of lan-

guage diversity; in formulating a language policy for the purpose of maintaining language diversity; in mobilizing language specialists to counter the language shift; or in alerting the national and international organizations of the diminishing human intellectual resources (see Appendix 1 for an example of comparison of languages in Venezuela).

V. Concluding remarks

The world faces new challenges in keeping its languages alive and well. It is time for the peoples of the world to pool their resources and build on the strengths of their linguistic and cultural diversity. This entails pooling the resources at all levels: individual language specialists, local speaker community, NGOs, and governmental and institutional organizations.

At the local community level and over the past several decades, for example, many people have been working to develop language education programs, usually with extremely limited technical resources. Unlike teachers of major languages of the world, they lack not only formal training in language teaching, now often required by local governments, but also language curricula and, even more crucially, usable basic language descriptions. These language teachers require a variety of skills: some are pedagogical in nature (eg curriculum and materials development, language teaching techniques and methods); some are sociolinguistic (eg analysis of ongoing language contact processes, of past and present ancestral language functions); and some are linguistic (eg data collection, analysis, and description).

Similarly, linguists, language activists, and policy makers have a long-term task to compile and disseminate the most effective and viable mechanisms for sustaining and revitalizing the world's endangered languages. Most importantly, they have the responsibility of working collaboratively with endangered language communities that enjoy an equal partnership in the projects.

We all share the responsibility of ensuring that no languages will disappear and that all languages will be maintained and perpetuated into the future generations. The reason why we must fortify the diversity of language is, indeed, captured by a Navajo elder:

If you don't breathe,
there is no air.
If you don't walk,
there is no earth.
If you don't speak,
there is no world.

Paraphrased by Yamamoto from a Navajo elder's words, PBS-TV Millennium Series Tribal Wisdom and the Modern World, *hosted by David Maybury-Lewis aired on May 24,1992*

Endnotes

[1] This document was prepared by the UNESCO Ad hoc Expert Group on Endangered Languages (see Appendix 3 for the list of members who contributed to this paper). This document results from the work of many people (listed in Appendix 2) and has undergone many revisions. We acknowledge the support of the Japanese Education Ministry's (MEXT, Monbu-kagaku-sho) Grant-in-Aid for Scientific Research on Priority Areas Endangered Languages of the Pacific Rim (Osahito Miyaoka, director) which was essential to the present document.

[2] Throughout this document, the term language includes sign language, and speech or endangered-language communities also refer also to sign language communities.

[3] Bernard 1996, p. 142.

[4] Bernard 1992, Hale 1998.

[5] UNESCO Constitution Article 1.

[6] Noriko Aikawa, 2001, p. 13.

[7] The Hague Recommendations on the Educational Rights of National Minorities 1996; Skutnabb-Kangas 2000.

[8] Analogous to biosphere, the web linking the world's ecosystems; Maffi, Krauss, and Yamamoto 2001, p. 74.

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Appendix 1. Language vitality assessment: An example from Venezuela prepared by María E. Villalón

In this document nine factors have been proposed to assess language vitality and need for documentation. These can be applied simultaneously to several languages in order to obtain a comparative picture of their relative strength, appraise their contrasting sociolinguistic situation, and to establish priorities for action. The following example illustrates the comparative application of the factors across three indigenous languages of Venezuela, a country that recognizes and protects its minority languages. Mapoyo is a Cariban language no longer naturally spoken, but remembered by a handful of elders in a multi-ethnic community all of whose members communicate in Spanish, which is also the first language learned by all the Mapoyo children. Kari'ña is a Cariban language as well, but has many more speakers, most of whom are bilingual. Some elders learned Kari'ña as their first language and can speak it fluently, although nowadays Spanish is the preferred language of communication for most Kari'ña, numbering over 8,000. Sanima, related to Yanomami, has over two thousand speakers, yet very few of them are bilingual in the dominant Spanish language.

The "number of speakers" in the table below refers to the number of fully competent speakers. In the case of Kari'ña and Sanima the figures given are but estimates, for no recent reliable statistics are available. The Mapoyo ciphers are more precise, and based on relatively recent fieldwork.[a] They are placed in parenthesis to indicate that they quantify "rememberers" rather than speakers. With regards to "Materials for language education and literacy," I have given Mapoyo a 1, because a practical orthography has been developed for the first time, and will be presented shortly to the community, along with audiovisual learning materials.[b] Finally, although Venezuelan Sanima is basically undocumented, unannotated recordings of varying quality exist, as well as a grammatical sketch of the closely related and better-documented Brazilian variety.[c] Thus, it may be ranked as a 1 on "amount and quality of documentation."

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[a] Villalón, María Eugenia & Tania Granadillo (2000) "Los marcadores de Persona de la Lengua Mapoyo" In Hein van der Voort and Simon van de Kerke (eds), Indigenous Languages of Lowland South America. CNWS Publications Vol. 90, (ILLA) Vol. 1. Leiden: Leiden University, pp. 197-211.

[b] Villalón, María Eugenia (1999) Registro y Documentación de las Lenguas Indígenas Mapoyo y Kari'ña del Estado Bolívar. Parte I: Mapoyo. Caracas: Instituto del Patrimonio Cultural.

[c] Borgman, Donald M. (1990) "Sanuma" in Derbyshire, Desmond C. and Geoffrey K. Pullum (eds) Handbook of Amazonian Languages, Vol. 2. New York: Mouton de Gruyter, pp. 16-248.

Estimated degree of endangerment and urgency for documentation: The case of three Venezuelan indigenous languages

Factors			
	Mapoyo	**Kari'ña**	**Sanima**
Intergenerational language transmission	0	2	5
Absolute number of speakers	(7)	650	2500
Proportion of speakers within the total population	1	2	5
Trends in existing language domains	0	2	5
Response to new domains and media	0	1	---
Materials for language education and literacy	1	3	0
Governmental & institutional language attitudes and policies including official status & use	5	5	5
Community members' attitudes toward their own language	2	3	5
Amount and quality of documentation	1	3	1

Appendix 2. Acknowledgments

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Chapter 12

Part 2

Project to revitalize indigenous cultural values, Cotacachi County, Imbabura Province, Ecuador

Yolanda Terán, Andes Chinchasuyo, Ecuador

Location

This paper was presented at the International Experts Seminar on Indicators Relevant for Indigenous Peoples, the Convention on Biodiversity and the Millenium Development Goals held in Banaue, Ifugao on March 5-9, 2007.

Ecuador is located in South America between Colombia and Peru. The country has four geographic areas: the coast, the highlands, the Amazon and the Galapagos Islands. It has 12 million inhabitants, of which 45 per cent are indigenous peoples and 5 per cent are African-Ecuadorians.

Most of the indigenous peoples live in the highlands and in the Amazon region. On the coast are the Awa, Chachi, Tsachila, Manteño, Huancavilca and Puná nations. In the highlands inside the Kichwa nation live the following *pueblos*: Karanki, Natabuela, Otavalo, Kitukara, Panzaleo, Chibuleo, Salasaca, Kichwa of Tungurahua, Waranka, Puruhá, Cañari and Saraguro. In the Amazon region live the nations of Cofán, Secoya, Siona, Huaorani, Shiwiar, Zápara, Shuar, Achuar and Kichwa from the Amazon. We have 12 different indigenous languages and the majority of the speakers are from Kichwa and Shuar nations.

Education

From 1940 indigenous peoples began a dialogue with the Ecuadorian government in order to have our own education. At this time the landlords asked the indigenous communities to put their fingerprints on a white paper, and with this "document" they stole our traditional lands. To stop this exploitation, an illiterate woman, Dolores Cacuango from Cayambe County, opened the first four indigenous schools to teach children how to read and write using our languages and philosophies.

On November 9, 1988 the government officially created the National Directorate for Intercultural Bilingual Education, DINEIB. Ecuador was the first country in South America to have such an institution.

To address this new challenge, DINEIB created the Model for Intercultural Bilingual Education (MOSEIB), and trained people to become teachers, providing them with the methodologies and giving them the appropriate books that reflect our cultural identity. In addition, the teachers were taught to love and revalue the indigenous cultures, languages, principles of life, views of the world, costumes, songs, spirituality, etc. We also addressed self-esteem with teachers, parents and children, to help them to appreciate indigenous education.

In 1999, within this context and with cooperation between DINEIB, the Provincial Directorate of Intercultural Bilingual Education (DIPEIB), the German institution GTZ, the mayor of Cotacahi County and the Museum of Cultures from Cotacachi, the **Revitalization of Indigenous Values Project** was carried out with indigenous and non-indigenous primary school students, teachers, parents and spiritual leaders from urban and rural areas.

It was decided to include participation by the museum to create a link between the museum and the indigenous communities who are the owners of the cultural objects exhibited there.

Before the start of the project all the social actors and educators from Cotacachi, considering the real needs of the students, decided to work on the theme of interculturalism in the following areas: production, environment, health, nutrition and indigenous spirituality.

The participants in the project were 180 boys and girls aged 13. They were selected from indigenous communities such as La Calera, El Topo Alto and El Cercado, and also from a *mestizo* urban school in Cotacachi. Several activities were developed with each group of students for two weeks inside and outside the museum.

The cultural interpreter from the museum taught the students the concept of *indigenous production* with models, photographs and archaeological objects. She taught them about the climate floors, the climate, and ancestral agricultural techniques such as terraces, *pukaras* and water channels. Then the students were provided with agricultural tools and they reconstructed the agricultural techniques on a piece of land provided by the museum. The students worked in mixed groups, and from that practical activity we learned that the students like to study using practical methods.



Museo de las Culturas, Cotacachi

To reinforce the knowledge, the students also visited some ancestral terraces around Cotacachi, to see their shape and feel their power. Under the guidance of an elder they ran in circles, in a snake shape and also learned how to call the Father Wind with Kichwa words and hand movements.

In this project the students shared their food at the communal table, at which everyone eats a piece of everything. Each group of students brought some prepared food to share. Before eating an elder prayed to the Creator. This exercise gave the students the opportunity to know the different foods according to their climate floor.

On the topic of Values and Spirituality, the museum interpreter gave the students information about the indigenous ceremonies conducted in June and September, the role of Saint Ann, the Queen of Cotacachi, and the role of Yumbos dancers who through singing and whistling cure the World. The importance of caring for and preserving Mother Earth, and of respect for dead people, was explained to them.

To practise this knowledge the students dramatized:

- The Yumbos Dance using some objects from the museum like masks, winds, sandals, etc.;
- The Day of Death using natural flowers, prepared food, eggs, fruit, small wooden crosses;
- Saint Ann's feast, for which the students carried the sculpture of Saint Ann from a school to the museum. The Catholic Church and the community also participated in this procession.



Yumbos Dance

The *Inti Raimi* ceremony is performed every June to thank the Father Sun for its protection and for caring for the products for our daily life**.** When the time for the ceremony approached, it was decided to end this cultural revival project with a Children's Inti Raimi Ceremony. Two elders taught the students the Inti Raimi dance to help them to remember the correct dance steps and the roles of boys and girls in it.

During the training the ancestral problem between La Calera and El Cercado communities came to light. Because of this quarrel, every June there are fights where stones are thrown and several people injured. On June 24 the indigenous communities dance from their communities to the Plaza of Cotacachi, where they dance in circles, in lines and then fight with other dancers in front of the church to win the Plaza and to demonstrate political power and strength.

To decrease these negative consequences of the Inti Raimi, it was decided to conduct the ceremony with children from La Calera and El Cercado communities. So on June 23 the students, with guidance from the spiritual leader, took the Purification Bath at the Tum Tum small eye of water in Cotacachi. The shaman asked permission from Mother Earth to enter and take the bath. He blessed the water and presented the offerings. Then the students went to dance in the community, visiting each house, where they ate traditional food and drank *chicha*, a soft beverage prepared with maize.



Entering the Plaza

On June 24 the students entered the Plaza of Cotacachi, dancing in circles and in lines. They came from different corners of the Plaza and after dancing three rounds, instead of fighting the students shook hands for the first time in several years. This symbolic act was done with the participation of the Catholic Church, local authorities, UNESCO and UNICEF representatives, and hundreds of visitors and members of indigenous communities.



The Inti Raimi ceremony brings together the indigenous peoples of Ecuador, either in Ecuador or abroad, every June. In any case there is a lot of preparation for it, with special food for all the community and with the best ancestral clothes. Maize is the main product for food preparation and for making the ancestral beverage, the *chicha*, which is done with the mixture of several types of maize.

To celebrate this ceremony the indigenous peoples who are in other countries return to Ecuador. Others who stay abroad also celebrate it together with other non-indigenous peoples.

Observing the performance of the ceremony everywhere we conclude that:

- The ancestral ceremony is still alive in Ecuador and in other countries where Ecuadorian

indigenous stay.

- There are some modifications of the clothes and music, but the cultural essence of the ceremony remains to the present day. The music rhythm invite peoples to dance in circles.
- Nowadays the participation of women and children is allowed.
- The ceremony of the Purification Bath and the Inti Raimi dance are done in all countries where indigenous people from Otavalo are living, such as in Spain, New York, Chicago, Montreal, England, Japan, Malaysia, Hungary, Brazil, etc.
- The essence of the ceremony is alive despite the time and place: the use of castles adorned with food; the *chicha*, and the *mediano*, especial baskets fill with prepared food and fruits.
- The Inti Raimi is an inter- and multicultural ceremony, and holistic. It serves to revive energies, to give thanks and to re-encounter Mother Earth.








Chapter 13

Part 2

Participatory Arrangements and the Future of Traditional Occupations in Relation to Contemporary Policy Framework: A Case Study of the Kadazans, Sabah, Malaysia

Jannie Lasimbang

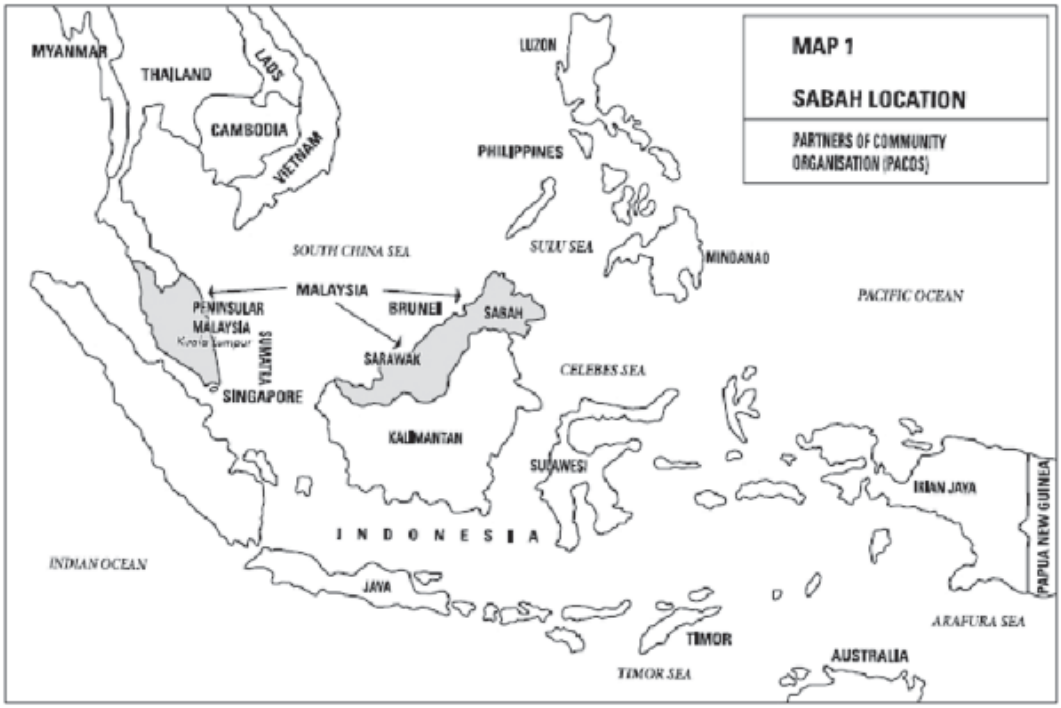
I. Background

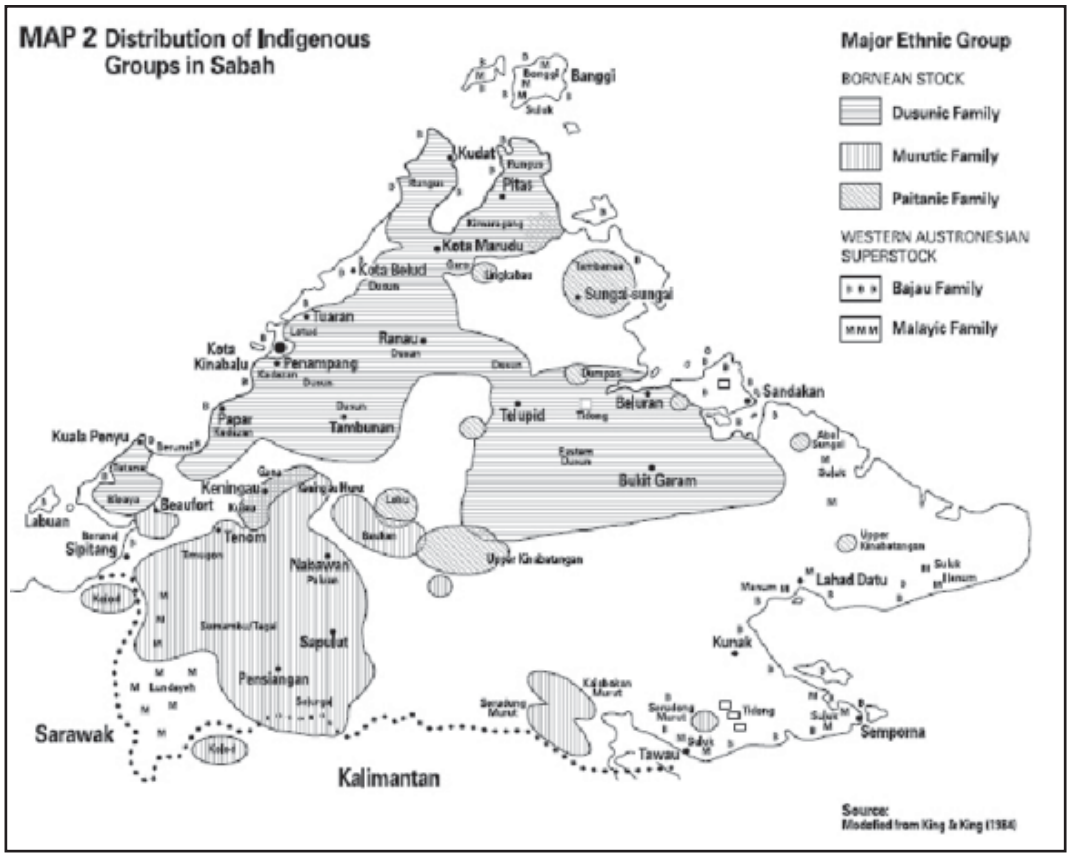
1.1. Indigenous peoples of Sabah

Sabah occupies the northern portion of the island of Borneo, and covers an area of 73,619 square kilometres. Previously known as North Borneo, it is bounded by the South China Sea on the west, and the Sulu and Sulawesi seas on the east (see Map 1). An estimated 39 different indigenous communities made up 51 per cent of Sabah's 2.5 million[1] population in 1996.[2] Table 1 shows the ethnic groups found in Sabah, which comprise both the Borneon group and non-Borneon group (see also Map 2).

Table 1. Sabah's ethnic groups

Borneon group	**Sub-groups**
DUSUN	Dusun, Coastal Kadazan, Kimaragang, Eastern/Labuk Kadazan, Suang Lotud, Kuijau, Tatana, Dusun Sungai, Tangara, Bisaya, Rungus, Dumpas, Sonsogon
PAITAN	Tambanuo, Upper Kinabatangan, Sinabu, Lobuu, Rumanau, Abai Sungai, Lingkabau
MURUT	Kolod, Okolo, Gana, Kalabakan, Sabangkung, Serudung, Tagal, Sumambu, Baukan, Nabai, Timugon, Paluan, Lundayeh
DAYAK	Iban
Non-Borneon group	
Originally from Philippines	Bonggi (Palawan), Illanun (Lanao, Mindanao), Suluk (Jolo), Tausug, Bajau (Southern Philippines)
Originally from Indonesia	Bugis (Sulawesi), Idaa'an, Tidung, Cocos (Cocos Islands, Australia) Kedayan


MAP 1
SABAH LOCATION
PARTNERS OF COMMUNITY ORGANISATION (PACOS)
MYANMAR
THAILAND
LAOS
CAMBODIA
VIETNAM
LUZON
PHILIPPINES
SOUTH CHINA SEA
SULU SEA
MINDANAO
PACIFIC OCEAN
MALAYSIA
BRUNEI
SABAH
PENINSULAR MALAYSIA
Kuala Lumpur
SUMATRA
SARAWAK
SINGAPORE
CELEBES SEA
KALIMANTAN
SULAWESI
IRIAN JAYA
PAPUA NEW GUINEA
INDONESIA
INDIAN OCEAN
JAVA
ARAFURA SEA
TIMOR
AUSTRALIA
TIMOR SEA


MAP 2 Distribution of Indigenous Groups in Sabah
Major Ethnic Group
BORNEAN STOCK
Dusunic Family
Murutic Family
Paitanic Family
WESTERN AUSTRONESIAN SUPERSTOCK
Bajau Family
Malayic Family
Banggi
Kudat
Pitas
Kota Marudu
Kota Belud
Sungai-sungai
Tuaran
Ranau
Kota Kinabalu
Penampang
Papar
Tambunan
Kuala Penyu
Telupid
Beluran
Sandakan
Bukit Garam
Keningau
Beaufort
Labuan
Sipitang
Tenom
Nabawan
Upper Kinabatangan
Lahad Datu
Kunak
Sapulut
Pensiangan
Sarawak
Kalimantan
Tawau
Semporna
Source:
Modified from King & King (1984)

There is a lack of written material on the origin of the Borneon indigenous peoples, but archaeologists say that Sabah was first inhabited at least 30,000 years ago, when the early inhabitants frequented the Madai limestone caves for shelter and food. It has been said that the Borneon peoples are of Mongoloid stock, and once came from Mongolia. During one of their migratory waves, they moved southwards towards the Philippines and Indonesian Archipelagos, Borneo Island and Peninsular Malaysia. Migration was possible because of the shallow waters of the Sunda Shelf, which stretches from the Gulf of Siam to the Java Sea. As recently as 15,000 years ago, water levels were 200 metres lower, and the whole shelf was a land mass uniting Sumatra, Java, Bali, and Borneo to the Asian mainland. Similarities in physical features, mode of farming, social practices, composition of diet and even languages spoken, strengthen the credibility of this theory.

This case study will focus on the Kadazans, of the Dusun group, residing in Penampang on Sabah's East Coast. The entry of the Brunei Sultanate and the British into North Borneo greatly influenced the traditional way of life of the Kadazans, particularly their traditional occupations. Its colonial history and the subsequent impact of rapid changes brought about by urbanization and the rise of consumerism makes the group an ideal subject for a case study of change and continuity in the practice of traditional occupations. For despite the threats to the Kadazan indigenous knowledge and economic systems, these have survived, and it appears that the recognition of the significance of such systems has come full circle. The experience of the Kadazans also provides important insights into the struggle to maintain the integrity of traditional ways of life in the modern context.

1.2. Demographic information

Although the majority of the estimated 104,924 Kadazan population is concentrated in Penampang,[3] many have also settled in other districts throughout Sabah. Residency in other districts is mostly due to job requirements – and is most frequently associated with those holding government jobs.

Of the Kadazan population of 26,161 living in Penampang, 13,341 are females while 12,820 are males. There is no data on age distribution, but it is believed that of the 2.5 million Sabahan population in 1996, about 47 per cent were between the age of 0 and19 years, 37.5 per cent 20-40 years, and another 15.5 per cent were aged 40 and above. The same high proportion of children and teenagers can also be observed within the Kadazan community.

There is also no official data on literacy levels among Kadazans, but it is generally believed that this community was among the first to be exposed to missionary schools during British rule, which might lead us to expect greater exposure to, familiarity with and participation in formal education. Available data, however, indicate that the Penampang district is the second highest in terms of the ratio of population to the number of primary schools, and the highest population to secondary school ratio. However, this data may be misleading since Penampang is close to the state capital and many parents send their children to schools in the capital city.

Table 2. Ratio of Schools/Students in Penampang

	Ratio of schools/students	
	Penampang	**Sabah average**
Primary schools	24/9, 559 = 398	972/284, 232 = 292
Secondary schools	4/4, 908 = 1227	141/137, 529 = 975

Source: *Yearbook of Statistics*, Sabah, 1996.

In terms of health conditions, the Kadazans generally have a high infant mortality rate and crude death rate in comparison with the Sabah and national averages (see Table 3 below). Some of the ailments that are most common among Kadazans are thalassaemia, nasal cancer, diabetes and hypertension.

Table 3. Vital statistics on Penampang Kadazan

	Kadazans (1995)	**Sabah average** (1995)	**National average** (1995)
Crude natural rate of population increase	24.3	25.9	23.5
Crude birth rate	28.2	28.2	28.0
Crude death rate	3.9	2.9	4.5
Infant mortality rate	18.3	16.4	11.3

Source: *Yearbook of Statistics*, Sabah, 1996.

1.3. Socio-economic profile, natural resources and traditional knowledge systems

1.3.1. *Major economic activities*

The Kadazans are traditionally subsistence agriculturists, planting a mixture of wet paddy and other crops such as vegetables and fruit trees. They also gather and hunt for food (bamboo shoots, ferns, and animals) and other necessities (such as rattan, firewood, building materials, medicinal plants) from the surrounding environment. Animals such as buffalo, pigs and chickens are reared to supplement their diet. Other sources of protein are obtained from fishing in the rivers and on the coasts. A more recent development introduced by the British was the cultivation and tapping of rubber trees. Rubber was planted by the Kadazans in smallholdings of between 5 and 15 acres.

Presently, most Kadazans are either employed as civil servants, involved in businesses or continue as subsistence farmers. There is no precise data available on the income and expenditure patterns among the Kadazans, but a rapid appraisal indicates that for a typical subsistence farmer in Penampang, for example, cash income is accrued from the sale of agricultural products (25 per cent), the sale of reared animals (25 per cent), payment for labour (25 per cent) and other cash contributions, e.g., from children or other relatives (25 per cent). The bulk of cash expenditure is for the purchase of food, necessities, luxury items and transportation (50 per cent), expenses for school-going children (25 per cent), medical expenses or savings (15 per cent) and social expenses (10 per cent). Figures 1, 2 and 3 (below) show the main sources from which income is derived for subsistence farmers, civil servants, and those working for private firms, respectively, as well as the principal means of expenditure for this income.

Fig. 1
Subsistence Farmers

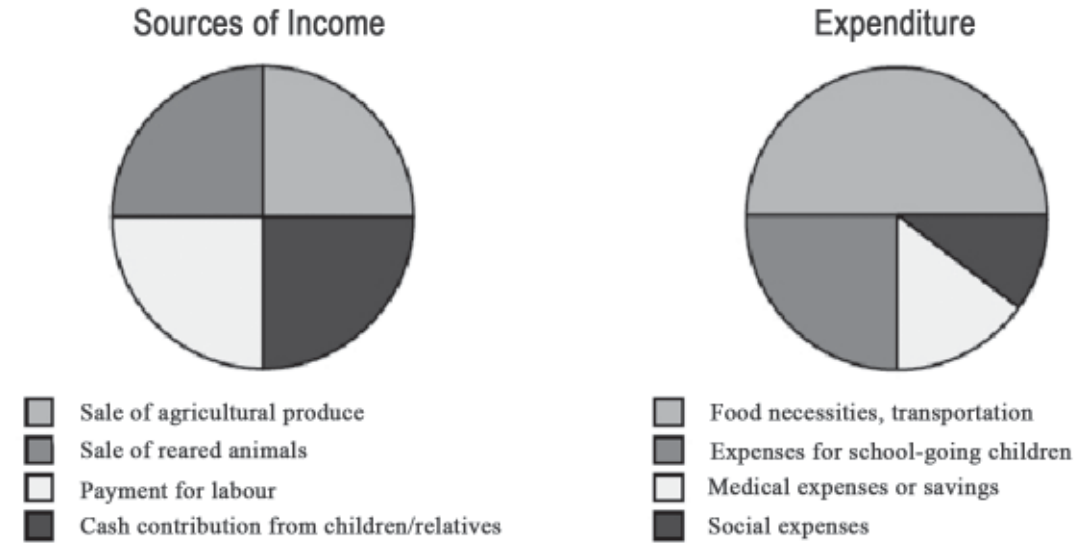


Fig. 2
Civil Servants

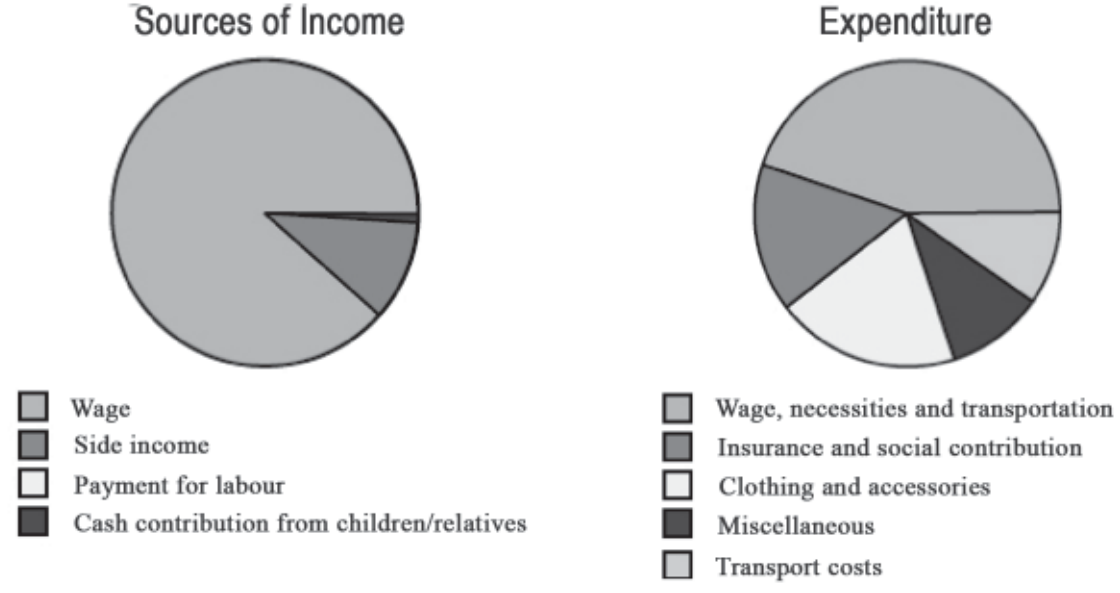
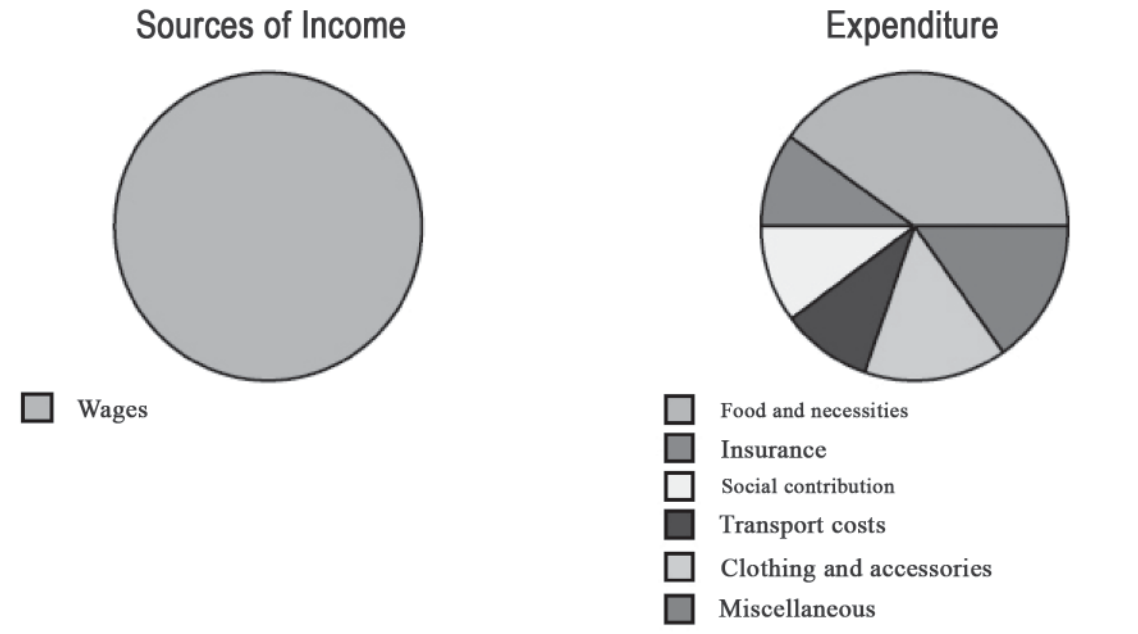


Fig. 3
Employee and Private Firms



1.3.2. *Resource use and management*

Except for a few villages along the Crocker Range, most of the villages in the Penampang district are accessible by road. The district, which covers 466 square kilometres or 0.6 per cent of the total land area of Sabah, is fast becoming a suburban area. Natural resources, such as agricultural land and forest areas, have already been alienated from the indigenous people. Most of the 12,401 native titles,[4] representing 10,979 ha in the district, are held by Kadazans, although some also hold country leases[5] (6,599 representing 2,878 ha). Nowadays, land is considered by many as an important commodity rather than an important part of one's heritage, and is often used as collateral to get loans.

Many of the forest areas in the Penampang district have been exploited and replaced by either rubber smallholdings or residences. The early inhabitants of the district settled along the Moyog river and its tributaries. At present, the Moyog river, which has become the end-point in waste disposal because of the lack of proper drainage, is highly polluted with coliform bacteria.

Nevertheless, despite the changes over the years which have put a strain on the natural resources in Penampang, there is a growing consciousness among Kadazans of the need to protect and manage their natural resources and environment. Although the influence of consumerism has permeated the community, it is still possible to harness existing knowledge of traditional resource management methods. Such efforts can be enhanced through exposure of the Kadazans to other traditional communities and to innovations. There are already numerous attempts to restore the integrity of commu-

nity resources using indigenous knowledge systems and methods, innovative technologies, and campaigns to strengthen existing environmental laws and policies.

1.3.3. *Kadazan traditional knowledge systems*

The over-riding principle of the Kadazan traditional knowledge system – like the knowledge systems of many other indigenous communities – is based on harmony between the community and the immediate environment. Importance is placed on respect for, community pride in, and maintenance of the integrity of the natural resource base. As the Kadazan have traditionally been subsistence farmers, many components of the Kadazan traditional knowledge system such as the arts, economy, social structure, beliefs, culture and resource management methods are related to agriculture. Aside from that, the remnants of an ancient judicial, political and health system continue to be practised. Some aspects of the indigenous knowledge systems are adapted into statutory laws or otherwise formally acknowledged, albeit in a limited way, but in general these knowledge systems are misunderstood and not adequately recognized for their contribution and significance (*Appendix 1* outlines some key elements of traditional knowledge employed in the 11 different knowledge systems).

Yet today, there is renewed interest among indigenous communities, including the younger generation, in discussing the relevance of such knowledge systems and in revitalizing them. Over the last four years, the Indigenous Peoples Network of Malaysia has been leading annual discussions around such issues, while at the sub-regional level, indigenous organizations of Sabah have held related thematic workshops. Some of the issues identified during one of these workshops, which require further discussion, include issues related to the conflict between dominant and traditional religion; 'competition' between indigenous and modern technology; gender-related issues; the lack of understanding of and information on indigenous systems; and the acceptance, revitalization and continued practice of indigenous knowledge systems.

II. Traditional work practices and occupations

2.1. Traditional roles and occupations

As mentioned earlier, traditional economic activities of the Kadazans mainly involve agriculture, fishing, hunting and gathering as well as commerce. However, traditional Kadazan society also generated a broad range of other occupations, which might be practised in combination with subsistence activities, to meet the various needs of its members. While some traditional occupations involve payment for services rendered, others do not. Traditional occupations or activities that involve payment – whether in cash or kind – include those carried out by herbalists (*mongungusap*), priestesses (*bobohizan*), blacksmiths (*modsusupu*), midwives (*mogkukuzut)* and carpenters (*tukang kazu*). Other occupations or social activities are found in the field of education, politics and jurisprudence. A list of traditional occupations and tasks can be found in Table 4 below, which gives an idea of the range

of traditional roles and occupations in Kadazan culture, by listing these and describing the tasks involved.

Table 4. Traditional occupations

Traditional occupations/tasks	Description of tasks
Agriculture	
Momumuazam	Person who raises animals
Momumutanom	Farmers
Mogogotidong	Hill rice farmers
Momomoguzang	Person who does milling work
Mongongomot	Person who does harvesting work
Monunungkasip	Person who hunts animals using traps
Gugumamas	Person who does weeding work
Health	
Bobohizan	Priestess, traditional healer
Momumugus	Masseur
Momumuinait	Conjurer, person who appeals to the spirits
Mogkukuzut	Midwife
Magagavo	Person who has the ability to diagnose sickness through touch
Mongugusap	Doctor, medical practitioner or specialist
Education	
Monggigia	Teacher, instructor
Papapaabal	Reporter, person who spreads news or information
Mononolita	Storyteller
Artisans	
Huhumozou	Singer
Mamamaa'	A house builder
Momomolukis	Artist
Tukang kazu	Professional in woodwork
Tukang bosi	Professional in ironwork
Mononombi	Tailor
Monunuku	Surveyor
Mangangavo	Skilful weaver (for cloth making)
Mamamatu	Skilful weaver (for mat or basket making)
Commerce	
Dudumagang	Trader, merchant
Mononompua	Waiter, hostess
Mamamajak	Wholesaler
Moguguntob	Accountant
Fishing	
Mongiginsada'	Fisherman
Magagapon	Professional fisherman using fishing rod
Momumukot	Professional fisherman using dragnet
Tutumohop	Diver
Huhumazag	Sailor

Other economic activities	
Magagasu	Hunter
Magagangkat	Transportation service worker
Magagansak	Cook
Mamamabo	One who transports by carrying things on her/his back
Politics	
Gugumaga	Opposition
Hahansanon	Person that one relies on, trusts as a leader
Huguan	Leader
Momomolinta	Governor, ruler
Momumutus	Person who decides, judge
Momumuu'an	Organizer
Tutumanud	Follower
Vovozoon	Chief, head
Jurisprudence	
Monguguasa	Authority
Mongugukum	The person who sentences
Mononoizuk	Investigator
Mamamadawa'	Prosecutor

2.2. Agriculture and related activities

As mentioned above, many of the traditional economic activities of the Kadazan revolve around agricultural production and related subsistence activities – such as wet and hill paddy cultivation, buffalo herding and rearing of other animals, fishing and collecting bivalves and shells from rivers and coastal areas, hunting, as well as commerce.

2.2.1. *Labour time spent in the agricultural and subsistence activities*

Rice farming activities are seasonal – the planting season is usually in August and September, while the harvesting season usually takes place between January and March. A minimum of three weeks a year is usually spent on rice farming activities, and even today, family members of farming communities employed by government or companies take time off during these seasons to help with the work. Today, buffalo herding is often left to elders although there are some exceptions where other members of the family undertake the task. This work, which once involved a considerable amount of time for younger members of the family, is now very insignificant. Buffalo are often neglected and left to roam around. Due to a lack of grazing reserves, owners – particularly elders – only occasionally check on their animals.

Time taken for fishing activities along rivers using nets (*pukot* and *ambat*) and harpoons (*sinapang sada'*) is also very much reduced, and today would be considered a pastime for youths in Penampang. Fish farming (and the construction of fresh water ponds), however, is now popular and has developed into a lucrative business. Traditional fishing using the hook and line (*tapon*) and fishing nets (*sizud)* in paddy fields, and searching for bivalves along the coasts are activities which are still carried out occasionally, particularly by older women.

2.2.2. *Gender roles/division of labour*

A division of labour based on gender is still practised in traditional activities, but it is not so defined as before. Both men and women work together in rice farming, but the men continue to construct fences, plough and harrow fields, while other preparatory work, particularly weeding, is now done together with women. Transplanting of rice seedlings is also no longer considered as women's work. With technological innovations, work after harvesting has been reduced and this work is not confined to a particular gender. Nevertheless, the heavier tasks still fall on men's shoulders, while the lighter but more tedious tasks in agricultural production are generally performed by women.

In the modern sector, the division of labour according to gender is undefined. Both men and women seek jobs with government and private institutions. However, it can be observed that more women tend to be interested in community work, whether this work is paid or voluntary. Women tend to predominate in small-scale businesses, which provide a steady income for the family. Men generally predominate in larger scale businesses, such as construction and other development projects.

2.2.3. *Market integration/access*

Due to the fairly good and extensive road network in the Penampang district, the degree of market integration and access to nearby markets for the sale of agricultural produce has expanded. The weekly market or *tamu*, as well as permanent market places for surplus agricultural and other products, are popular. Except for the blacksmiths and some herbalists who now sell their wares in such markets, those involved in more traditional types of occupations, such as the priestesses (*bobohizan*), midwives (*mogkukuzut)* and carpenters (*tukang kazu*), still confine their services to their own village or to those whom they know.

2.2.4. *Traditional work practices*

In a traditional Kadazan community, large families usually form the bulk of the workforce in carrying out farming activities. However, *mitabang* or labour exchange is also an important part of the traditional work practices, particularly during planting and harvesting, the erecting of buildings and the cleaning of the surrounding environment. If *mitabang* cannot be organized, *mokitanud*, another traditional work practice whereby help is sought from neighbours who are compensated with food and drinks, is employed. During weddings and deaths, relatives and neighbours willingly come forward to help the family concerned. Another common work practice is that of apprenticeship, where the apprentice stays and works with and for the teacher until all the skills and knowledge associated with the occupation have been learnt.

In a more modern or urban context, practices such as *mitabang* and *mokitanud* continue to be employed, but apart from compensating participants with food and drinks, cash payment may also be made. Family members who are employed in offices or for the government may also take leave from their jobs during planting, harvesting, festivals, or deaths to help out.

2.3. Context of traditional occupations

Traditional occupations and tasks, as mentioned earlier, harmonize with the needs and interests of the community. These needs include, above all, food, which is obtained by working the land, collecting from the forests, fishing from rivers and coastal areas, and thence the need for artisans to construct and innovate tools for such subsistence-related work. There is also the need to look after the health of the community, from whence derive the important roles of the herbalist, masseur/masseuse, priestess, and midwife. There is also the need for ensuring social order and the smooth administration of the village, giving rise to the roles of the council of elders and those who administer justice in native courts. Other material needs which cannot be met by items produced within the community are obtained through trade, and hence the development of trade-related occupations, as found in Table 4.

Besides their role in meeting the material needs of the community, traditional occupations also came about and thrived because of a homogenous social environment, wherein everyone in the community held similar beliefs and concepts of social responsibility. Before the intrusion of other religions, the Kadazan were united by a traditional belief system and world-view based on the concept that all matter has a spirit, and therefore ought to be treated with respect. Wrongdoings by members of the community will cause an imbalance in the environment, rendering it 'hot' (*ahasu*) and resulting in tragedies, sickness and a barren earth. When this happens, priestesses are asked to conduct spiritual healing ceremonies and to restore the balance and healthy condition of the universe and the immediate environment.

As the success of traditional customary law (known as *adat*) and the judicial system depends on a community which upholds traditional ideals of social responsibility, the village heads and elders are respected and are constantly called upon because of their ability to resolve conflicts that arise in the community. The *Bobohizan* and the elders help fulfil the community's need for spiritual and moral development.

Another element which ensured the continuity of traditional occupations was related to the suitability of these occupations to the surrounding natural environment and resources of the area, which sustain the livelihood of the community. Penampang, with its rich alluvial plains suitable for wet paddy cultivation, has sustained creativity among a wide variety of artisans in the area, such as the *modsusupu*, who makes agricultural implements such as ploughs and harrows, or the *mamamatu*, who weaves mats and winnows.

2.3.1. *Traditional governance, policy and legislative framework*

Traditionally, the unit of administration and governance is the village. Among the Kadazans, a Council of Elders used to manage each village. The Council consisted of the *Huguan Pogun*, or village head; *Bobohizan* or priestesses, who ensured moral and spiritual integrity; *Mongungusap* or herbalists; the *Pangazou* or warriors and the *Huguan Siou* or paramount leader who was responsible for the security of the community; and the *mohoingan tangaba'a ḳoubasanan* or elders, knowledgeable about the *adat* or customary laws of the community.

From the little that is known about the Council of Elders, it appears that it was the village administrative body which made important decisions pertaining to the security, development, justice, health and moral and spiritual standards of the community. Although specific tasks were left to individuals or to a group of specialists, the Council would normally have met to assess local situations and make decisions on matters that affect the *Pogun*, literally translated as nation or country, but understood today as village or *kampung*. The details of the process of decision making are unknown today, but apparently in the headhunting days of inter-tribal warfare, the decision to attack or retaliate against another village would have been made in consultation with all these wise elders and community members at large. Most decisions – particularly difficult ones – were probably not made in a rash manner, but may have involved several days of wisdom and omen-seeking through prayers, interpretation of dreams and consultation with seers.

The institution of the Council of Elders has now completely disappeared, having been replaced by the *JKKK* system (*Jawatankuasa Kemajuan dan Keselamatan Kampung*) or the Village Security and Development Committee. Members of this committee used to be elected by the community, but in recent years their appointment has been based on their allegiance to the government of the day. Among the problems with this system, as perceived by indigenous communities, including the Kadazans, is the tendency for the chairman to dominate the decision-making process and for the committee itself to be male-dominated. The *JKKK* also invariably focuses on physical development, rather than taking a more holistic approach to community development. Complaints of mismanagement and self-interest have also surfaced since the government practice of awarding development projects to *JKKK* chairmen began.

There is not much information available on the traditional policy and legislative context, because much of the former framework has been diluted over the years, and the line of true traditional legislators has now become unclear. The position of the *Huguan Pogun* (village head) or *Ketua Kampung*, as these are now popularly called, was traditionally passed down patrilineally from generation to generation. Today, the appointed *Ketua Kampungs* may not necessarily have the experience or command of the intricate customary laws or *adat*, nor does the system of appointment provide the continuity for passing on the knowledge and experience from generation to generation, as was the case in the past. It is, however, generally acknowledged that the automatic inheritance of the title and role of village leader does not, in itself, guarantee the continuity of accumulated wisdom and knowledge concerning the *adat*.

These unwritten customary laws – related to the land and its uses, behaviour, social relationships, crimes and transgressions, and customs related to marriage, birth and death – are derived from generations of experience and wisdom. They continue to inform the administration of Kadazan affairs, both at the village level and through the native courts.

Indigenous jurisprudence, with its concepts based on respect for and integrity of the family and community pride, has traditionally been practised in a fair and open system. To some extent, continuity with the past system of the council of elders can be found today in the Native Court system (see below), where wrongdoings that go against social customs are judged fairly in a native court by a collective entity comprising village heads and elders. Village elders will openly discuss the problem and express their views to the village head, who together with other village heads, will act as judge.

The person who commits the crime acts as his own lawyer and is free to call her/his own witnesses. The punishment or *sogit* imposed on the person takes the form of a fine or imprisonment, or even banishment, although this is no longer practised. The money paid in the form of a fine is not valued in itself, but meted out with the purpose of restoring the pride of the individual herself/himself, of her/his family and the community, and by way of compensation for the shame he or she brought upon them.

2.3.2. *Participatory nature of traditional organization*

As gleaned from the scant information available on past processes of decision-making among the Council of Elders, as well as the present process for reaching verdicts in a native court, the overall approach to decision-making among the Kadazan is one that is very much participatory in nature. While the Council's final decision was made by the few elders, it was based on consultation with other members of the community, and after listening to comments made by community members during the course of social interaction. A community perspective has tended to shape decision-making within Kadazan institutions. This process is participatory when compared to the present decision-making process of the *JKKK*, where decisions are mostly made by the chairman and the system of appointment (rather than election) is the norm.

Another important and participatory approach to all community activities which remains strong today is the practise of *mitabang* and *mokitanud*, popularly referred to today in Malay as *gotongroyong*, for the sharing of labour and community participation in work (see above). Participatory work arrangements which considerably lighten the burden of work, not only include activities that fulfil the common interests of those involved, but also foster a sense of social responsibility, whereby community members practise lending a helping hand to others in need without being asked or expecting reciprocity, for example, in cases of death, crisis, accidents or disasters.

Holding feasts that involve joint contribution and preparation of food through *mizungu*, or potluck as it is sometimes called, also further strengthens the sense of unity and participation of the community. The upbringing of children as a community responsibility is another important example of the sense of mutual trust and participation within indigenous society. It is common practice for parents to adopt children of relatives or even those who are not blood relations, and to treat them as their own offspring in times of financial need or crisis.

2.3.3. *Contemporary indigenous organizations*

Apart from the traditional and modern governance institutions described above, other types of organizations often formed in Kadazan communities include cultural, youth or sports groups. PACOS[6] (Partners of Community Organizations, Sabah), a local NGO working with communities in Penampang and elsewhere, has started to build alternative community organizations. Using the concepts and principles employed by PACOS it usually takes time to build and strengthen these community organizations, but their methods have been found to be effective and empowering.

Some 15 community organizations, including groups like the *Koisaan Manampasi Pitabangan*

Gulu-Gulu (KMPGG) and *Koisaan Pisompuuvan Tonibung (*KPT*)*, are among the organizations formed through PACOS's initiative. KPT started in 1993 as part of an effort to bring youths to work together in order to build solidarity by organizing activities to support the Nampasan community and other villages in Penampang district. One of KPT's primary objectives is to ensure indigenous moral and cultural integrity in the face of urbanization and other pressures which lure youths into negative activities or vices. Concretely, its activities include supporting families during weddings (preparation of camps, food preparation, and a traditional music troupe) and during burials (grave digging, slaughtering buffalo, burial), as well as in farming activities. It also supports other communities who face land problems, and whose youths are active in promoting traditional culture among communities in Sabah.

Later, the KPT introduced socio-economic activities to raise funds for programmes and to promote self-reliance. These included promoting the creation of small businesses and of wet rice cultivation. The organization also managed to get funding for a community project to innovate agricultural tools based on indigenous knowledge. In August 1998, three other villages came together to form the current community organization. Attempts to involve all sectors in these majority-Kadazan villages continue through activities that include strengthening of the *adat*, promoting unity, and strengthening the economic base, while at the same time, ensuring cultural and resource integrity. Current activities include the construction of a cultural centre which will also serve as a training facility for rural youths in dairy and rice farming while fostering discussion and the promotion of indigenous knowledge systems.

Other local organizations that are actively working with indigenous communities include the Kadazandusun Language Foundation (KLF) and the Kadazandusun Cultural Organization (KCA). The KLF, started in January 1996, is involved in conducting linguistic research, preparing literature in vernacular languages, assisting in literacy education and conducting language classes. The KCA was formed in 1962 and has a wide membership base, but its activities are now limited to promoting cultural events, such as the state-wide harvest festival, and indigenous language promotion. In the past, it was involved in producing a Kadazan dictionary, conducting research and setting up many community-based organizations to promote culture and address related issues.

2.4. The modern legal and policy frameworks

As explained above, the Kadazans, like other indigenous communities in Sabah, have their own unwritten customary laws or *adat* born out of generations of knowledge and experience. As mentioned above, each traditional knowledge system has its own rules and regulations – which may or may not have been eroded – to ensure order, harmony and continuity. Apart from that, various modern legal and policy frameworks exist, some of which were introduced during the period of British rule and continue to be used by the present Sabah government, and which often conflict with the *adat*. These include policy and legislation on land and other resources, language and culture, as well as programmes for indigenous communities, including the Kadazans. A brief account of these laws and policies follows.

2.4.1. *Native Ordinance, Chapter* 64

This Ordinance, which was enacted in December 1952, outlines who is a "native" and the procedures to get a declaration of native status through the Native Courts. According to this Ordinance, a "native" is any person whose parents (or at least one parent) are indigenous to Sabah and have (has) been living as a member of a "native" community. It also includes indigenous peoples of Sarawak, Brunei, Indonesia, and Sulu-Philippines who have been living in Sabah for three to five years consecutively, prior to 1963. Although this definition is not comprehensive, it nevertheless provides a necessary recognition of the indigenous way of life.

2.4.2. *Native Courts Ordinance, Chapter 86*

This Ordinance, enacted in 1953, outlines the constitution of Native Courts and the rules governing these courts. Among the important sections of the Ordinance are those outlining the jurisdiction, procedure, and powers of the Native Court system. To date, few changes have been made to this Ordinance, but attempts to codify indigenous customary law and to streamline the procedures by giving more systematic training have been met with approval from native chiefs. The Sabah Attorney General's Office conducts training in this area.

2.4.3. *Policy on indigenous languages*

In 1997, a subject entitled "Pupil's Own Language" was introduced as part of the primary school curriculum in seven schools where Kadazan is widely spoken. The curriculum and teaching materials are being developed by a local NGO with the support of the government, and there are plans to expand and implement similar curricula in the schools of other ethnic communities in Sabah. The local media – newspapers and radio – have also been giving adequate coverage and airtime in the Kadazan language since the 1960s. Although, there is no apparent pressure from the government to reduce the use of indigenous languages, it has always been left to the various communities to develop their own language without the active support of the government, unless this support is politically expedient. Currently, the use of Kadazan in the media and in these selected schools is established, and its usage and popularity are expected to increase as support from the government increases, as it may do in the future.

2.4.4. *The Federal Constitution*

The special position of Sabah's natives and customary rights to land are guaranteed by the Federal Constitution under Article 161A(5). This article on the Special Position of Natives of Sabah and Sarawak outlines the conditions for the alienation of lands and the preferential treatment given to natives by the state which is not given to the Orang Asli in Peninsular Malaysia.[7] Other sections under Article 161 in the Federal Constitution also state the rights of the Sabah government to legislate its own laws, as well as its freedom to control land and forest utilization, local government and some other forms of development in the region. These provisions are important as they guarantee more autonomy to Sabah, thus benefiting indigenous peoples and Sabahans in general.

2.4.5. *"Positive discrimination" policy*

The introduction of the five-year Malaysia Plans,[8] with the aim of restructuring society and eradicating poverty, gave rise to the policy of positive discrimination, supposedly to enable *bumiputras* ("sons of the soil") of Malaysia to benefit from the development efforts of the government. Although targeted primarily at the Malays, the indigenous peoples of Sabah have also been included. This policy made it compulsory for 30 per cent of businesses to be awarded to *bumiputras*, to recruit at least 30 per cent *bumiputras* to government and commercial enterprises, and also to award at least 30 per cent of scholarships and places in institutions of higher learning to *bumiputras*.

2.4.6. *Protected areas/Parks Ordinance, 1962*

Under the National Parks Ordinance of 1962 and subsequent amendments in 1977, a total of 265,794 hectares or 3 per cent of Sabah's total land area has been gazetted as national park. Since this Ordinance prohibits anyone from entering or removing anything from the park without permission, indigenous communities which once used these areas to collect food and medicinal plants are now denied access, or have been dispossessed of their lands because they were not consulted when these boundaries were drawn. The non-recognition of the indigenous system of resource management, with its principles guiding resource use and protection, coupled with the disdain for traditional agricultural practices – particularly hill paddy cultivation – continue to deprive the state of the contribution of indigenous communities to the economy, as well as to the overall understanding and practice of sustainable resource management, and to sap government resources in conflict management. Although the level of understanding among policy-makers and foresters regarding indigenous knowledge systems and traditional practices is growing, there is still a long way to go towards obtaining the full cooperation of both sides in the management of protected areas and parks.

2.4.7. *Land Ordinance, 1930, Chapter 68*

Sabah was first leased to the British North Borneo Chartered Company in 1882, and then became a British Protectorate in 1888. Under British rule, all land was owned by the state, and the system of land titling was introduced as a means to collect revenue. Although it appeared to systematize land-use in British North Borneo, it also allowed British companies to own and open land to feed the demand for raw materials such as tobacco, rubber and hemp in Britain, where industrial capitalism was growing. The Land Ordinance, which was enacted in December 1930, tried to capture the *adat* on land, but fell short in its understanding of the traditional indigenous systems of land-use and ownership, including the agricultural system.

Sections 15[9] and 65,[10] which touch on native customary land rights, do not recognize, among other things, the fallow period which is an essential element of traditional agricultural practice. The fallow period is the "natural regeneration" period between the cultivation of a plot of land and the next planting time. If a plot of land is cultivated for a period of time, it will be also be left alone for a number of years before it will be cultivated again. This practice is important for maintaining the

fertility of the land naturally, without the use of chemical fertilizers, in order to restore ecosystems and promote biodiversity to the largest extent possible. The normal fallow period, as practised in traditional upland agriculture, is five to ten years, depending on the qualities of the soil. While current pressure for land has tended to reduce the fallow period, it remains an important feature of agriculture.

Non-recognition of the fallow period under the Land Ordinance means that indigenous peoples can lose their rights to the land, since the Lands and Survey Department considers land which is fallow as "idle" and not "under cultivation".[11] In general, the loopholes and conflicting provisions within the Ordinance also point to the dominant interest behind it lying in the exploitation of resources for profit, which denies indigenous communities their *a priori* rights as expressed in other sections of the Ordinance. Indigenous representatives have recommended a review and eventual removal of some sections of the Land Ordinance, where they conflict with traditional land-use and resource management methods.

2.4.8. *Forest Enactment, 1968*

Although the provisions under the Forest Enactment of 1968 are probably the most detailed regarding the *a priori* rights of indigenous peoples to the forest and its products, the implementation of Section 8[12] was hardly adhered to when forest reserves were declared. In establishing these reserves – most of which were declared in the mid-1970s and early 1980s – the government failed to notify communities that they needed to come forward before the alienation of their lands was finalized. As a result, many communities within and at the periphery of these reserves have lost their rights to the forest. The government, through the Forest Department, continues to face conflicts, and current attempts to include communities in protecting the forests are often misunderstood due to years of intensive forest exploitation through logging and the negative perception of the ability of indigenous communities to manage their forest resources.

2.5. Kadazan education

2.5.1. *The transmission of traditional skills and knowledge-training*

Traditional skills and knowledge – whether for specific traditional occupations or for daily living – are acquired in four different ways depending on the type of "knowledge" in question. Knowledge may be transmitted through:

1. a process of apprenticeship;
2. the practice of the oral tradition;
3. direct observation and instruction; and
4. dreams, natural talents or divine gift.

For example, specific occupations which require a high degree of discipline and scientific, technical and spiritual understanding such as healing (spiritual and herbal), carpentry, and *modsupu*

(making of tools from wood or iron), are learned through apprenticeship. The apprentice would stay with his/her master until all the knowledge that is required to practise the occupation is passed on from master to pupil. Besides those skills and techniques learned from their teachers, *Bobohizans* and herbalists may also acquire further knowledge through dreams. A *bobohizan* would normally need to undergo about seven to ten years of apprenticeship before being considered able to lead any ceremonies. Other occupations such as carpentry and *modsupu* require less discipline and time to learn.

Repetition and practice are central to learning in the oral tradition, through which knowledge and skills are passed down from one generation to another. They are employed in transmitting knowledge related to healing (particularly in using herbal medicines), language, *adat* (customary laws and culture) and social and kinship relations. The elders' practice of instructing and training chosen persons to observe ceremonial tasks, for example on occasions of deaths, weddings or *momuga* (the name-giving ceremony), is an important way of passing down skills and knowledge. Children are also instructed and exposed to different tasks in the community from a young age, with the aim of passing down knowledge and skills.

The traditional education system is thus very much linked to the way of life of the people. It is open to all who are interested to learn, unlike modern education which makes earlier achievements a prerequisite for further educational opportunities. Today, the holistic approach of traditional education is rapidly being replaced by the formal educational system, which promotes compartmentalized thinking. The oral tradition and training of the mind to the discipline of this tradition (ie the mnemonic method) are no longer practised widely. Instead, the Kadazans, like many other indigenous peoples who have gone through the modern education system, are relying more heavily on written materials, which leads to the increasing isolation of the more elderly members of the community. This, coupled with the increased dominance of the predominantly male, politically active and educated individuals in the community, rather than the traditional knowledge holders – those who are endowed with knowledge and wisdom but not necessary elders in the community – has significantly compromised moral integrity and traditional knowledge among the Kadazans in Penampang.

2.5.2. *The formal educational system*

Access to formal education for the Kadazans in Penampang has steadily increased over the last few years due to improved road conditions, proximity to town centres where most secondary and tertiary institutions are located and, most significantly, improvement in the socio-economic status of the community, which has enabled many to pay for schooling. Despite the overall improvement in socio-economic conditions, it remains a financial burden for many Kadazan families to send their children to town for secondary and tertiary education, as many villages only have primary schools. The costs involved are difficult for parents to meet, as boarding facilities in the towns are inadequate and they have to find the money for expensive bus fares to and from school. In many cases, rural schools within the district lack adequate facilities and standards of education, due to the low level of commitment on the part of teachers posted to these areas, many of whom find it difficult to adjust to and understand the indigenous way of life.

A child who goes to boarding school becomes separated from a young age from her/his commu-

nity and, therefore, from exposure to the realities of the traditional way of life. This separation is one of the most important factors leading to young people's lack of interest in maintaining traditional activities, occupations, culture and values. Another factor is that the school curricula are developed centrally and do not recognize, teach or promote indigenous cultures and values.

In terms of vocational training, there are only four sectoral-type vocational institutions in Sabah – agriculture, forestry, technical and entrepreneurial training institutions. None of these institutions incorporate any indigenous knowledge as part of their curricula, but rather attempt to replace it with more "modern" concepts. A new vocational-type training centre is being set up by the *Koisaan Pisompuuvan Tonibung* and PACOS to encourage youths from different indigenous communities in Sabah to re-learn skills and innovate appropriate tools and methods, based on indigenous knowledge.

Currently, one primary school in Penampang has been chosen to teach the Kadazan language on a trial basis, under the new "Pupils' Own Language" curriculum, yet indigenous values are completely missing. Dropout rates are high, particularly among rural students, as they become bored with inappropriate curricula that are alien to their way of life. Increasing numbers of students in the sub-urban areas are leaving or are expelled as they get trapped by the social problems related to urbanization. Glue sniffing, drugs, gangsterism, *bohsia/bohjan* – a phenomenon whereby teenagers search for sex in exchange for favours – are but a few of the ugly symptoms of societal breakdown. Many parents confess that such problems also stem from the fact that they have neglected their children in their quest for increased income and luxuries in life.

III. Conclusions: The erosion and revitalization of traditional occupations

3.1. Erosion of traditional occupations

With the changes that have come about in the natural, social and economic environment through the imposition or influence of outsiders (government, companies, other communities, etc), traditional occupations are slowly disappearing. This imposition – whether subtle or obvious – occurs as a result of conflict between two systems: the belief, political, cultural, economic and education systems of the dominant society in conflict with those of indigenous society. To what extent this imposition by outsiders on indigenous society is avoidable, or simply the necessary outcome of a dynamic process of change that comes with time, has been the subject of discussion at several recent workshops conducted by indigenous leaders and representatives.

With the expansion of foreign religious institutions in Sabah by the colonialists – Christianity in the case of the British, and Islam in the case of the Malays – the traditional belief system has undergone systematic persecution. There is a lack of understanding on the part of the leaders and followers of these "dominant religions", which often confuses religious forms and rituals with indigenous spirituality[13] and thus, because these outer forms are "different" from what they know, they

continue to label the traditional belief system as "pagan". The suppression and forced conversion of *bobohizans*, *mongugusap* and *momumurinait* (see Table 4) and the prohibition by leaders of the dominant religions against conducting spiritual ceremonies have almost completely eroded the role of these traditional healers. Compared to other traditional healers (*mogkukuzut* and *momumugus* or midwives and masseurs), the *bobohizans*, *mongugusap* and *momumurinait* have experienced greater persecution, as their healing power is intimately tied to indigenous spirituality and to the indigenous belief system.

The introduction and strong promotion of modern medicines and the disdain of health professionals for the use of traditional medicines have also caused many indigenous peoples to lose their knowledge of traditional medicines. The loss of the forests as a key source of medicinal plants and animals is another factor contributing to the disappearance of such knowledge.

Another case of cultural conflict that has led to the erosion of traditional occupations is the change in land-use in Penampang, from land being predominantly devoted to wet rice cultivation, to the opening of town and housing centres. This land-use conversion has resulted in changes in the community's occupational patterns, from being predominantly farmers, towards becoming traders, wage earners, contractors and labourers. The disappearance of traditional occupations may also have come about as the result of a lack of will among indigenous people to maintain the identity of the area by supporting the work of indigenous artisans and builders. For example, as Penampang has become a residential centre, the desire to have modern concrete houses has sidelined traditional house-builders, whose expertise is in the construction of wooden structures.

Another issue is the divergent education systems, and in particular, the methods used and the perceived purpose of transferring knowledge. While the indigenous education system stresses an holistic approach, using learning methods such as the oral tradition and exposure to experience from an early age, the modern education system has tended to be more compartmentalized and reliant on written and theoretical methods of learning. School curricula, which look down on indigenous innovations and technology, have caused a gap in the transmission of traditional knowledge, whereby the younger generations are now alienated from their own culture. The physical separation of school-going indigenous students from their environment has also led to a lack of interest in and knowledge of traditional practices and innovations.

Although, as mentioned above, indigenous jurisprudence has survived and gained a certain recognition from the government through the native court system, the lack of cohesiveness in the community has made it difficult to fully and effectively put these concepts into practice. The current practice by the state government of appointing village heads who support the party in power, rather than elders who are knowledgeable of the *adat* and customs, has had negative implications for the integrity of the indigenous judicial system, and perhaps the indigenous political system as a whole.

All these changes have brought us to a point where the Kadazans themselves now look with disdain on their own traditions and strive to be like other dominant groups, without reflecting on how to integrate important traditional values into their current way of life. The subtle and direct forms of coercion, practised by various institutions and individuals, to discard indigenous systems which are considered as old-fashioned, pagan and/or stumbling blocks to progress, have had a significant impact on how the Kadazans view their own traditions. However, there are still many who continue

with the traditional practices, and the conditions are still appropriate for many of the Kadazan traditional occupations to be maintained, which makes it necessary at this time to reflect on and evaluate what can be retained and revitalized in the current context.

3.2. Sustaining traditional occupations

3.2.1. *Context analysis*

Sustaining traditional occupations in the current context would have to involve serious reflection within the Kadazan community on what can and should be revitalized and promoted. Some traditions were lost quite early, as a result of impositions by outsiders and the desire for progress within the community; these two forces continue to pose the greatest challenge to the continuity of indigenous culture and tradition. Many of the traditional knowledge systems remain poorly understood – be it from lack of adequate information or from the difficulty of fitting these systems into compartmentalized "western" thinking – making it too complex to provide a good framework for learning, reflection and practice. Still, there are many who may have simply suppressed this information and thereby generations of wisdom – out of fear, in which case drawing these out in a conducive environment is still conceivable.

It is important to remember that indigenous systems are dynamic, and to be able to sustain themselves, they must make sense in the light of the current context as well. This too requires careful thought and debate, lest the struggle to revitalize traditional occupations be limited only to what is believed to be possible, with no accompanying political struggle (political, meaning what *should* be). More and more members of the Kadazan community are becoming aware of the importance of maintaining their culture and values. Only a few indigenous organizations have worked with communities in an effort to bring together Kadazans and other indigenous communities to reflect on these issues.

3.2.2. *Innovative approaches to sustaining traditional occupations*

In addition to the debates and discussions mentioned above, other methods to support the process of Kadazan reflection could take the form of **workshops** and **discussions** on the community's historical struggle, and the relevance of indigenous knowledge systems – particularly the Kadazan agricultural, political, economic, socio-cultural and belief systems – in today's context. The knowledge, innovations and practices within these systems should also be harnessed to strengthen other aspects of life and institutions within the Kadazan community. This should also involve the continued practice of, exposure to and dissemination of important Kadazan concepts and principles, particularly among the youth and children. **Inter-village gatherings** for the purpose of discussing important issues of concern, which indigenous communities can take turns to organize, have been found to be effective and interesting opportunities for reviving traditional work practices and values.

Joint training and co-operation with relevant government departments and individuals can

also be organized to encourage recognition and support for traditional occupations. Since issues such as environmental conservation, food security and intellectual property rights are of mutual concern, indigenous communities could take up these issues as opportunities to push for legislative and policy changes and to promote the recognition of indigenous knowledge and practices, thus acting in support of persons who have inherited the knowledge on these issues. If such cooperation is not possible, indigenous communities can also hold dialogues, campaigns and protests to achieve the same or similar objectives.

Capacity-building activities are also necessary to equip indigenous communities to better handle issues which affect them, particularly in asserting the right to determine their own way of life, to promote indigenous knowledge systems and to preserve resources and their integrity. Capacity-building activities can take the form of formal and informal training, in which participants can be involved in curriculum design and implementation.

The production of **popular education** materials is also important to bridge whatever information gap exists. Audio-visual materials are usually popular, effective and easy to understand. Besides these, reviving important traditional ceremonies and practices, such as the traditional resource management practise of *managal*,[14] has been found to be effective in capturing the interest of indigenous communities, apart from achieving the desired objective, which in this case is controlling the harvesting of fish from rivers.

By **adapting traditional learning methods**, such as those utilized in indigenous forest management, to suit the thinking of younger people, it is possible to revitalize traditional practices and occupations. This may also imply "unlearning", for those who have gone to formal schools, and careful explanation and interpretation of indigenous beliefs, to render them relevant in the modern context. Other activities to draw in young people may be more straightforward, such as involving youth in the innovation of agricultural tools that make work easier and less burdensome and might attract them toward farming activities and other traditional work.

Other innovative ways to disseminate information and create interest are **village-to-village visits, marches, formation of harvesting groups, traditional music bands, speaking tours** and **carnivals**. Exposure to indigenous communities in other areas or other countries who have managed to revive their traditional occupations can also be organized to share experiences and inspire action. The low level of interest among youths in taking up traditional occupations could also be addressed by forming groups in line with their interests and concerns, such as groups working on traditional art, traditional health-care and nutrition, traditional music and dances, as well as the art of self-defence.

3.2.3. *Creating the conditions for survival and development*

As mentioned above, sustaining traditional occupations requires an holistic understanding of a community's economic, socio-cultural and political systems. For the purpose of assessing the opportunities for learning, reflection and practice, as well as the achievements in any community, the following conditions should be considered:

Economically, members of the indigenous community should have enough food and infra-

structure to meet their basic needs and be comfortable enough in terms of their livelihood not to need to over-exploit the environment for economic gain. Under these conditions, indigenous resource management concepts which respect the environment and all forms of life, can continue to be upheld by the various community members involved in traditional economic activities and occupations, such as farming, fishing, hunting and gathering, and commerce. Thus presence of, and access to, a healthy resource base, such as clean water, and good and sufficient agricultural land and forests, are important preconditions for sustaining traditional cultures and occupations.

The ability to determine and *limit* one's economic status is a problem commonly faced by indigenous community members, particularly those living in suburban areas, such as the Kadazan community. This was an issue identified during a meeting of Malaysia's indigenous representatives in 1997. In order to safeguard traditional values, culture, occupations and relationships, a community should be clear on the limit to its ambition for economic progress; possibly one which is based on parity in economic status with other indigenous communities. Other important indicators of community well-being could be the presence of a healthy social environment and a healthy population, resulting from its access to and control of a diverse and chemical-free source of food.

Socio-culturally, conditions for the healthy survival and development of traditional cultures may include the absence of, or lower levels of consumption of alcohol and drugs; respect for women, elders and children; and the low incidence of crimes. In a socio-culturally balanced community, members should have an holistic outlook on life, with an attitude of endurance (*tahan lasak*) in the face of challenges.

A community should uphold the principles of social responsibility and reciprocity. It should also be active in promoting important values to the younger generation to ensure continuity not only of these values, but of the activities and traditional place-holders of the community who advocate these values such as the *bobohizan*, village elders and educators. Harmonious relationships among different ethnic and religious groups and a willingness to help other communities would also form part of a healthy, balanced community.

Politically, the healthy community should be well informed on all issues, uphold a democratic approach to decision-making, with sound participatory processes and mechanisms in place. Other important features are the ability of community members to stand up for their right to self-determination and the freedom to form associations and affiliate themselves with like-minded individuals and organizations.

Appendix 1
Indigenous systems: *Wisdom accumulated through generations*

The following is a brief description of the practices and principles behind some of the indigenous systems still held by some Kadazans and other indigenous communities:

Agriculture system

- Cosmological and environmental indicators are monitored to ensure a healthy crop and good harvest. Rice fields are also carefully selected based on these indicators.
- Maintenance and development of biodiversity, which ensures food security and a diversity of species.
- Innovations of appropriate agricultural tools.
- Pest-management based on traditional knowledge and practices acquired and tested over generations.

Resource management system

- Adherence to the concept that all matter has spirit and therefore all objects, plants and animals have to be respected, and to the principle of *Gompi-Guno*, ie, use and protection of resources that are important to the community.
- Maintenance of the close link between the land and the resources found therein, such as soil, water, and forests. The concept of resource management is to ensure the integrity of these resources. The destruction of land-based resources will result in the destruction of forests and rivers as well.
- Agricultural practices: rotational agriculture in hill paddy cultivation, such as allowing sufficient fallow period to maintain fertility of the soil. As soon as the field is cleared during the dry season, a dibble stick[15] is used to plant the rice together with fast growing trees and food crops such as the various local gourds (*gorouk*, *sangop*, *batad)* which quickly provide cover for the bare earth to reduce the risk of soil erosion.
- Terracing to control soil erosion.
- Community control over harvesting of resources from rivers, such as the practice of *managal.*
- Collecting only enough mature plants and animals to meet the family's need. Following the collection of vegetables such as *pakis* and *lombiding* (variety of ferns) and *soko* (bamboo shoots) the collector has to clean the surroundings to ensure that new and healthy shoots will grow.

- Ensuring the continued propagation of fruit trees by prohibiting the opening of hilltops and following beliefs such as *tuva pogovian*, or prohibiting harvesting of the last fruit.

Education system

- The oral tradition, through continual repetition, ensures that the *adat* and its norms will mould positive moral values.
- From a very young age, children are exposed to different activities in the community and are also encouraged to practise and apply knowledge.
- The system of apprenticeship ensures that important knowledge and skills are passed down. This is especially true for artisans in a community.
- Elders demonstrate skills/ritual practices and serve as role models to younger generations.

Social system

- Social gatherings and the practice of working together or *mogitaatabang*, *mokitanud* mark community living.
- Socialization is marked by behavioural controls based on social practice such as *Ohusian*, *Oguhian*, *Ovusung*, *Osial and Opuunan*.

  Ohusian - Respect for the environment, particularly plants and animals.

  Oguhian - Respect for other people.

  Ovusung - Respect for the elders.

  Osial - Respect for peers and others in a group.

  Opuunan - This concept could be interpreted as a form of social responsibility and concern for the welfare of others.

Juridical system

- Emphasizes democratic and direct ways of resolving conflicts, whereby defendants and prosecutors represent themselves. Traditionally, common moral values accepted by the community form the basis for un-codified customary laws, so different communities may mete out different judgements and punishments.
- Native Courts have been institutionalized and are recognized by the government. Customary laws are being codified and village heads and *Ketua Anak Negeri* or Native Chiefs are being given training to conduct proper court proceedings.

- The basis for success is the cohesiveness of a particular community and the prevalence of a common social concept of individual and family integrity as a way of gaining respect and status.

Arts

- Indigenous communities have their own division of labour to meet the needs of the community. Their arts and crafts are related to everyday activities and the environment; eg, architecture, crafts, agricultural tools, musical instruments, and other necessities of life, such as the *bakid (*carrying basket made from bamboo), *suud* (harrow), and *ladu (plough)*.
- These implements and innovations to support peoples' livelihood have been developed over generations and continue to be improved upon as artisans' skills and knowledge develop through interaction with other communities.

Cultural system

- The diverse culture that continues to thrive has survived cultural borrowing and impositions of foreign cultures. However, we can already see erosion in the loss of command of their language among indigenous children, and the fact that young people are no longer interested in farming.
- There is a lack of understanding of the traditional way of life and an increasing inability to play traditional instruments, although most of the traditional dances have survived.

Health system

- The indigenous health system is based on a holistic way of looking at physical body, the spiritual state and the environment.
- Healing of any ailment therefore involves use of traditional medicines, and avoidance of certain foods (*modihin*).
- It also involves avoiding certain environments and plants or circumstances as mentioned earlier in the concept of *ohusian* and *opuunan*.
- Although a dying practice, the *bobohizan* is still called upon to restore the balance of "hot" and "cold" through ceremonies.

Political system

- The political system has also suffered the intrusion of alien political systems. Traditionally, a Council of Elders of the Kadazan consisting of the *huguan siou*, *mohoingon kampung*, *bobohizan* and *mongungusap* governed a community. This set-up is now replaced by the *JKKK* in all communities in Sabah.

Economic system

- The indigenous economic system is based on four basic principles; ie, sustainable use of resources, reciprocity, social responsibility and integration.
  1. *Sustainable use of resources to ensure that resources are not over-exploited;*
  2. Reciprocity as practised in exchange "paid" labour, or giving part of one's produce or hunted meat to other members of the community. All members tacitly understand that such gifts and services will be reciprocated;
  3. Social responsibility to support other members of the community, especially those who are in need; for example, buying from those in need even though the item purchased may not be needed, or helping out during crises and death without being asked; and
  4. *Trading is integrative, in that it promotes understanding among different communities and members of a community, as practised in bartering in* tamus *(weekly markets) and other direct trade between communities.*

Belief system

- The close link between the physical and spiritual realms involves respect for spirits that look after all matter, such as rocks, trees, bodies of water, and food crops. This understanding forms the basis of almost all the other indigenous belief systems.
- The *bobohizan* or priestesses play a central role and are also responsible for maintaining the moral values and well-being of a community.
- The belief system is not so much understood in a community in a conceptual way, but lived through their daily life. In the modern context, much of the conceptual belief is unknown and the "form" tends to be mistaken for "the belief system" itself.

Endnotes

[1] Indigenous peoples make up 72.3 per cent of the population if the 747,100 non-Malaysian citizens residing in Sabah are not included, making the Sabah population 1,775,600 according to 1996 Official Statistics.

[2] Monthly Statistical Bulletin, Sabah, June 1997.

[3] 1996 population statistics provide an estimate of 26,161 Kadazans living in Penampang.

[4] Native Titles (NT) are freehold land titles held by native or indigenous peoples of Sabah. They can be obtained by registering ownership through the Lands and Survey Department, based (mainly) on native customary rights, inheritance or simply through normal application ie without having any prior relation to the land . Native titles used to have fixed land-use conditions but this is now not a rule. The premium is low – RM 0.50 per acre. NTs can be passed to the next generation or sold but may not go to non-natives.

[5] Country leases are lands leased to the holder by the government for fixed period of 99 years. Premiums are much higher, but country leases also carry a higher market value than NTs.

[6] Partners of Community Organizations, Sabah (PACOS) is a Trust set up for indigenous peoples in Sabah. Although it was registered under the Trustees Ordinance in 1997, it has been actively involved with indigenous communities since 1983 as a different legal entity.

[7] The Orang Asli are indigenous to Peninsular Malaysia but they do not have the same privileges as the indigenous peoples of Sabah and Sarawak.

[8] Malaysia's five-year plans run from 1965-1970 (First Malaysia Plan), 1970-1975 (Second Malaysia Plan) and so on. The current Plan is the Seventh Malaysia Plan (1995 -2000).

[9] Article 15 of the Land Ordinance: Definition of Customary Rights: "Native customary rights shall be held to be – land possessed by customary tenure; land planted with fruit trees, when the number of fruit trees amounts to twenty and upwards to each acre; isolated fruit trees, and sago, rattan, or other plants of economic value, that the claimant can prove to the satisfaction of the Collector were planted or upkept and regularly enjoyed by him as his personal property; grazing land that the claimant agrees to keep stocked with a sufficient number of cattle or horses to keep down the undergrowth; land that has been cultivated or built on within three years; burial grounds or shrines; usual rights of way for men and animals from rivers, roads, or houses to any or all of the above."

[10] Article 65 of the Land Ordinance on the definition of Customary Tenure: "Customary tenure" means the lawful possession of land by natives either by continuous occupation or cultivation for three or more consecutive years.

[11] As described above, Articles 15 and 65 recognize three years of consecutive cultivation as one of the crucial categories for establishing native customary land rights.

[12] Article 8 of the Forest Enactment of 1968 requires that clear notice be given, in the area and other appropriate locations, and in languages that ensure that local residents are aware of the government's intention to declare an area as a forest reserve. A period of three months is also provided for those with objections to present them.

[13] The essence of indigenous spirituality is the belief that all matter has a spirit and must be respected, while indigenous forms and rituals are the physical or outward expressions of this belief, such as the conducting of healing rituals. All religions share many core concepts, but because indigenous spirituality is not much understood, and only the outer rituals are seen, the indigenous belief system is looked down upon and practitioners are called "pagans" or "heathens".

[14] Managal is a traditional practice for managing resources, usually fish from rivers. The whole community usually agrees to refrain from fishing in the river for a specified period of between six months and two years, and anyone caught fishing during this period will be fined according to an amount also specified by the community. The ceremony which ends the Managal period is a happy event where the whole community participates in a collective "fishing spree".

[15] A dibble stick is a small hand tool used to make holes in the ground for planting, often made of bamboo.

References

Department of Statistics (1997) *Monthly Statistical Bulletin*, Sabah, June 1997.

Government of Malaysia. *Federal Constitution*. Kuala Lumpur: Government Printers.

Kadazan Dusun Cultural Association (1995) *Malay – English Dictionary*, Sabah: KDCA.

Lasimbang, Jannie (1996) "The Indigenous Peoples of Sabah" in: C. Nicholas, R. Singh (eds), *Indigenous Peoples of Asia: Many Peoples, One Struggle*, Bangkok: Asia Indigenous Peoples Pact.

Lee, Hun Hoe (1973) *Cases of Native Customary Law in Sabah*, Sarawak: Government Printers.

Sabah Government (1930) *Land Ordinance, 1930*, Sabah: Government Printers.

Sabah Government (1950) *Native Court Ordinance, 1950*, Sabah: Government Printers.

Sabah Government (1952) *Interpretation (Definition of Native) Ordinance 1952*, Sabah: Government Printers.

Sabah Government (1968) *Forest Enactment, 196*, Sabah: Government Printers.

Sabah Government (1977) *National Parks Enactment, 1977*, Sabah: Government Printers.

Syed Abdullah Idid, Dato' S. Ahmad (1993) *Native Court and Customary Law of Sabah*, Sabah: Government Printers.

Chapter 14

Part 2

Annotated Bibliography

Allan Cariño

2010 Biodiversity Indicators Partnership.

<www.twentyten.net>

Description of the indicators selected by over 190 governments at the CBD in 2001 and endorsed by the World Summit on Sustainable Development in 2002 as measures for the 2010 target to "achieve by 2010 a significant reduction of the current rate of biodiversity loss at the global, regional and national level as a contribution to poverty alleviation." The target is divided into seven focal areas: (1) Status and trends of the components of biodiversity (2) Sustainable use (3) Threats to biodiversity (4) Ecosystem integrity and ecosystem goods and services (5) Status of traditional knowledge, innovations and practices (6) Status of access and benefits sharing (7) Status of resource transfers. Details other indicator initiatives concerned with biodiversity: Countdown 2010, SEBI 2010, Ark 2010, Circumpolar Biodiversity Monitoring Program.

DANIDA. DANIDA *Monitoring and Indicators: Indigenous Peoples in Bilateral Assisstance*. Copenhagen: Ministry of Foreign Affairs, 2006.

<www.danidadevforum.um.dk/en/menu/Topics/MonitoringAndIndicatorsIndigenousPeopleInBilateralAssistance.htm>

Explains DANIDA's strategy for developing indicators on indigenous peoples, including suggestions for ways to align indicators relevant to indigenous peoples with Poverty Reduction Strategies (PRS) and monitoring of the Millennium Development Goals (MDGs). Chapter 2 provides background on DANIDA's strategy for support to indigenous peoples and related monitoring and indicator issues, and is followed by a presentation of internationally defined goals, indicators and targets (Chapter 3). Chapter 4 discusses objectives and indicators at national level, i.e., in Poverty Reduction Strategy papers (PRSPs). Chapter 5 deals with the monitoring linkage between sector

programme support (SPS) and PRSPs. Chapter 6 concentrates on practical advice, presenting a number of examples of IP monitoring in relation to each of the four key sectors. Chapter 7 presents more general issues, tools and methods related to IP issues in SPS, while Chapter 8 summarises the main conclusions and challenges. Contains a glossary of acronyms and two annexes: (1) References – a list of documents from various international agencies and NGOs (2) IP Indicators and Approach to IP monitoring in International Organisations – a breakdown of the policy and positions taken towards IP indicators on an agency-by-agency basis, including the World Bank, Inter-American and Asian development banks, European Union, International Labour Organization and UN Permanent Forum on Indigenous Issues.

ECLAC. *Report of the Workshop on Indicators for Follow-Up of the AGRO 2015 Plan for the Improvement of Agricultural and Rural Life in the Summits of the Americas. (LC/CAR/L.91)*. Economic Comission for Latin America and the Caribbean, 15 May 2006. 20 June 2008.

<www.eclac.cl/publicaciones/xml/8/24498/L.91.pdf>

Provides a background to the conferences and publications leading up to the workshop on AGRO 2015 indicators and contains a report on the workshop itself. The workshop aim to review indicators specific to the Carribean and Latin America in four main dimensions: (1) production-trade (2) ecological-environmental (3) socio-cultural-human (4) political-institutional. Following the review, the workshop aimed to agree on the set of indicators that countries in the region would use to monitor their progress on the AGRO 2015 Plan. The report provides a conceptual framework that explains the motivations governing the indicators selected. It includes a full finalised list of the indicators discussed.

Esty, Daniel C., Marc Levy, Tanja Srebotnjak and Alexander D Sherbinin. *2005 Environmental Sustainability Index: Benchmarking National Environmental Stewardship*. New Haven: Yale Center for Environmental Law & Policy, 2005. 6 July 2008.

<http://sedac.ciesin.columbia.edu/es/esi/downloads.html>

Outlines the Environmental Sustainability Index (ESI), which sets out to provide a benchmark for the ability of nations to protect the environment over the coming decades. It does this by formulating 21 indicators (detailed in the document) drawn from 79 data sets (also included in the document). The document claims that the ESI permits the reader to make comparisons between countries in the following areas: (1) Environmental systems (2) Reducing environmental stresses (3) Reducing human vulnerability to environmental stresses and (4) Societal and institutional capacity to respond to environmental challenges.

First Nations Centre. *Understanding Health Indicators*. Ottawa: National Aboriginal Health Organization, 2007. 8 July 2008.

< www.naho.ca/firstnations/english/resources.php>

Offers an indigenous perspective on health indicators from an introductory level. Includes guidance on possible approach, places to get data, how to make use of indicators, and frameworks for organisation of indicators, with examples. Some attention is also paid to specific issues relating to health among First Nations in Canada, with descriptions of previous work on indigenous health indicators. The document includes a glossary and bibliography.

Hall, Gillette, and Harry A. Patrinos. World Bank. *Executive Summary, Indigenous Peoples, Poverty and Human Development in Latin America* 1994-2004. Mar. 2006.

<http://wbln0018.worldbank.org/LAC/lacinfoclient.nsf/8d6661f6799ea8a48525673900537f95/3bb82428dd9dbea785257004007c113d/$FILE/IndigPeoplesPoverty_Exec_Summ_en.pdf>. Summary of a full report published by Palgrave Macmillan

Explores the changes in the poverty status of indigenous peoples in South America in quantitative terms. Outlines statistical findings (through explanation of poverty indicators) in specific areas including education, earnings, health insurance and others. It finds that despite the much increased prominence of indigenous peoples' groups and issues in South American discourse, there have not yet been substantial reductions in indigenous poverty. The document details how this might be remedied in four targeted areas: education, health, accountability in social services and improved data collection.

Hunt, Paul. United Nations. Special Rapporteur on the Right of Everyone to the Enjoyment of the Highest Attainable Standard of Physical and Mental Health. *Economic, Social and Cultural Rights*. 03 Mar. 2006.

<http://daccessdds.un.org/doc/UNDOC/GEN/G06/114/69/PDF/G0611469.pdf?OpenElement>

Describes the activities of the Rapporteur. Explains that the right to health can be understood as a right to an effective and integrated health system, accessible to all. In reference to the MDGs and the World Summit of September 2005, the Special Rapporteur urges health ministers in low and middle income countries to prepare health programs bold enough to achieve the health MDGs. The document then sets out a substantial human rights-based approach to health indicators and by way of illustration applies this approach to the reproductive health strategy endorsed by the World Health Assembly in May 2004.

Inter-American Development Bank. Strategy for Indigenous Development. 2006. 6 July 2008

<http://idbdocs.iadb.org/wsdocs/getdocument.aspx?docnum=691275>

Outlines the bank's policy on indigenous development and the rationale behind that policy. This document is a medium-term guidance paper presenting the vision, priorities and line of action for the bank's work in issues of indigenous development. It focuses on the concept of "development with identity", with some exploration of that subject. Also included is a brief overview of the status of indigenous peoples in the region and a summary of the bank's experience in this area. Issues highlighted include the large percentage of the total population in the region that are indigenous, and the disproportionate number of those people living below the poverty line. This paper is the partner document to a paper entitled "Operational Policy on Indigenous Peoples". The operational policy document is a binding document for the Bank that establishes longer-term objectives, principles, requirements, conditions and rules that should govern its action.

IWGIA. *Indigenous Affairs: Issue on Africa and the MDGs* (2006). First Quarter

Contains the following articles: (1) MDGs, globalisation and indigenous peoples in Africa (2) Will pastoral legislation disempower pastoralists in the Sahel? (3) Cause for celebration or celebration of a cause: Pastoralism and poverty reduction strategies in East Africa (4) In the shadow of the MDGs: Pastoralist women and children in Tanzania (5) The health situation of women and children in Central African pygmy peoples (6) Mother tongue: Old debates and new initiatives in San education.

Marks, Nic, Saamah Abdallah, Andrew Simms, and Sam Thompson. *The Happy Plant Index: An Index of Human Well-Being and Environmental Impact. The New Economics Foundation (Nef)*. London: Nef, 2006.

<www.happyplanetindex.org>

Formulates a measure for comparison of countries based on "the ecological efficiency with which human well-being is delivered" as an alternative to reliance upon Gross Domestic Product (GDP). The Happy Planet Index (HPI) aims especially to take into account life span and high subjective life satisfaction as points of measure. The equation used is broadly:

HPI = Life Satisfaction x Life Expectancy / Ecological Footprint.

The document analyses and compares the global results with other indicator methods such as GDP and the Human Development Index (HDI). The G8 countries perform poorly on the HPI scale, while island nations perform well as a notable trend. Three appendices: (1) Data Limitations – Analyses and examines problems, particularly in regard to self-reported data (2) Data Sources and Estimation Procedures – catalogues all sources of data used in measuring life expectancy, ecological footprint, life satisfaction. (3) Calculating the HPI – detailed step-by-step walkthrough of the calculations and their application.

Pettersen, Torunn, and Even Hoydahl. *Developing Saami Statistics in Norway*. Nordic Saami Institute and Statistics Norway. Wellington, New Zealand, 2005.

This paper aims to address the lack of statistical and demographic data on the Saami. It begins with a brief introduction to some general main features of Saami social conditions. The next section deals with the background to, and the organisation of, the work on a Saami statistics project, and some comments on how the challenges can be met. The document then addresses more comprehensively various aspects of two approaches to producing Saami statistics: (1) geographical and (2) individual based.

Statistics New Zealand, Te Tari Tatu. *Indicator Guidelines*.

<www.stats.govt.nz/products-and-services/user-guides/indicator-guidelines/default.htm>

The guidelines are divided into the following areas: (1) Criteria for indicator selection (2) Working with indicators including guidance in developing, interpreting and presenting indicators (3) Definitions (4) Useful links.

UNDP. "Using Indicators for Human Rights Accountability", Chapter 5 in *Human Development Report 2000*. New York: Oxford University Press, 2000. 89-111. Published for the United Nations Development Programme (UNDP).

Describes the purpose and use of indicators as a tool to achieve accountability. Also offers detailed and wide ranging guidance and exploration of the important considerations in thinking about and creating indicators, and their possible uses and misuses. Outlines some overlaps and contrasts between human development indicators and human rights indicators.

United Nations. UNEP, Convention on Biological Diversity. *Indicators for Assessing Progress Towards the 2010 Biodiversity Target: Status of Traditional Knowledge, Innovations and Practices*. 04 Nov. 2005. Document from the Working Group on Article 8(j), fourth meeting, Granada, Spain, 23-27 January 2006.

<www.cbd.int/doc/meetings/tk/wg8j-04/official/wg8j-04-10-en.pdf>

Pays particular attention to: (1) Language indicators including the commissioning of UNESCO to prepare a database of indigenous languages with statistics available from different points in time. (2) Indicators to assess the status of traditional knowledge, innovations and practices subdivided as follows: i) land-based indicators, ii) people-based indicators iii) programme and policy based indicators iv) culture-based indicators. (3) Possible options on indicators for the protection of innovations, knowledge and practices in indigenous communities. Annexes: (1) Provisional indicators for assessing progress towards the 2010 biodiversity target. (2) Listing of proposed indicators, data sources and methodology.

United Nations Permanent Forum on Indigenous Issues. *Report of the Inter-Agency Support Group on Indigenous Issues to the Fifth Session*. E/C.19/2006/3/Add.1 07 Mar. 2006.

<http://daccessdds.un.org/doc/UNDOC/GEN/N06/262/65/PDF/N0626265.pdf?OpenElement>

This document lists data sources and data-collection systems throughout the systems of the UN, including: national institutions, international organisations/institutions and specific projects. It then notes the gaps and current efforts at filling those gaps and developing indicators programmes. It concludes that a working group should be formed to co-ordinate inter-agency work in the area of indigenous indicators.

United Nations. Secretariat of the Permanent Forum on Indigenous Issues. ECOSOC. *Concept Note for Meeting on Indigenous Peoples and Indicators of Well-Being*. 22 Mar. 2006. Policy Research Conference, Ottawa.

<www.un.org/esa/socdev/unpfii/documents/concept_note_indicators_en.pdf>

The first section, on background, focuses especially on recommendations from a workshop of the Permanent Forum on Data Collection and Disaggregation for Indigenous Peoples, January 2004. The second section describes the positions taken by the Permanent Forum, the ILO and DANIDA on work on indicators. The third section gives a brief summary of issues and questions in the topic of indicators.

United Nations. UNPFII. *Report of the Meeting on Indigenous Peoples and Indicators of Well-Being*. New York, 2006. Fifth Session 15-26 May; E/C. 19/2006/CRP.3. Reporting on a meeting in Ottawa in March of 2006.

Describes discussion of gaps in data and between governmental and indigenous perspectives. Refera to indicators in the following areas: (1) Gender and children, especially violence against indigenous women (2) Political involvement of indigenous peoples (3) Traditional governance (4) Intermarriage/interplay between indigenous and non-indigenous systems (5) Possible aligning of indigenous-specific indicators with the MDGs. Also describes a number of collaborative activities on indicators between indigenous peoples and governments. Recommends two main core themes for further focus: (1) Identity, land and ways of living, (2) Indigenous rights to, and perspectives on, development.

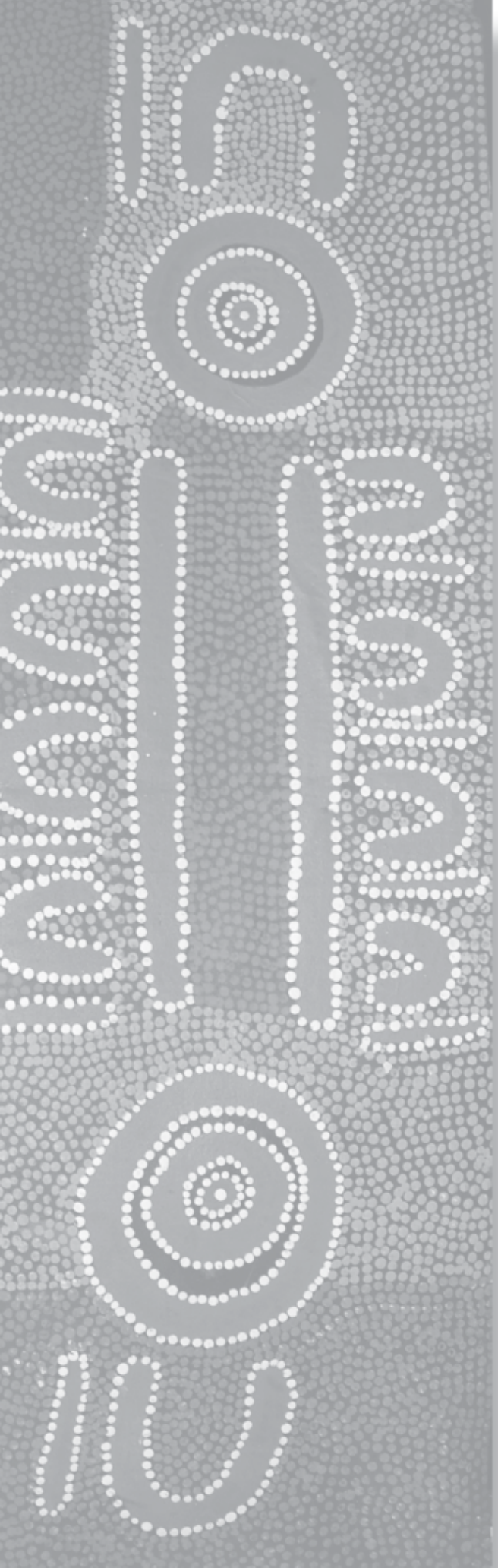
White, Jerry P., Dan Beavon, and Nicholas Spence, eds. *Aboriginal Well-Being: Canada's Continuing Challenge*. Toronto: Thompson Educational, 2007.

The book is divided into three main sections. (1) An introduction and a general formulation and explanation of "indicators of well-being" as an operational concept. In this first section the two

indices addressed in the other two major sections of the book – the Human Development Index (HDI) and the Community Well-Being Index (CWB) – are compared to other frameworks of composite indicators of well-being. In doing this the approaches and methodologies of these other indicator frameworks are briefly summarised. (2) The second section is dedicated to explanation and analysis using the HDI. The methodology is briefly explained and then use of the HDI is demonstrated in relation to the particular concerns of Canadian indigenous peoples on gender issues, on and off-reserve differences, and provincial and regional differences in Canada, and so on. (3) The third section focuses on the CWB, which is a composite indicator framework consisting of four major areas: education, labour force, income and housing. Following an overview of the picture painted for indigenous peoples in Canada by use of the CWB, the rest of the section is dedicated to its application to particular communities and examples in the Canadian context.

Woodley, Ellen, Eve Crowley, Caroline Dookie, and Andrea Carmen. *Cultural Indicators of Indigenous Peoples' Food and Agro-Ecological Systems*. International Indian Treaty Council and Sustainable Agriculture and Rural Development (SARD). Puerto Cabezas, 2006.

Provides a summary of a literature review that elaborates on and validates indigenous peoples' views about some of the most important cultural indicators of food security, food sovereignty, agro-ecological systems and sustainable development. Four central arguments are put forward: (1) Culture should be considered a "fourth pillar" of sustainable development in addition to social, economic and environmental pillars. (2) Improved understanding and transparency between indigenous peoples and those who work with them can be brought about by agreement on a set of indicators. (3) Five main cultural indicator areas are proposed and validation for them is offered. They are listed in indicator tables attached at the back of the document: access to land, scarcity of flora and fauna, traditional knowledge, capacity for adaptability, self-governance. (4) Further review and refinement by different parties is then required.



Part Three

- Strategic Plan for the Convention on Biological Diversity
- The Convention on Biological Diversity 2010 Target
- Indigenous Languages in the context of the Convention on Biological Diversity
- Official list of MDG indicators after the 2007 revision
- Commission on Sustainable Development: Indicators of Sustainable Development – 3rd edition

Chapter 1

Part 3

Strategic Plan for the Convention on Biological Diversity

1. In 2002, 10 years after the Convention on Biological Diversity was opened for signature, the Parties have developed this Strategic Plan in order to guide its further implementation at the national, regional and global levels.
2. The purpose is to effectively halt the loss of biodiversity so as to secure the continuity of its beneficial uses through the conservation and sustainable use of its components and the fair and equitable sharing of benefits arising from the use of genetic resources.

The Strategic Plan for the Convention on Biological Diversity is contained in the annex to decision VI/26 of the Conference of Parties of the Convention. The provisional indicators for assessing progress in implementing the goals and objectives of the Strategic Plan are contained in annex I of decision VIII/15.

A. The issue

Biodiversity is the living foundation for sustainable development

3. Biodiversity – the variability within and among living organisms and the systems they inhabit – is the foundation upon which human civilization has been built. In addition to its intrinsic value, biodiversity provides goods and services that underpin sustainable development in many important ways, thus contributing to poverty alleviation. First, it supports the ecosystem func-

tions essential for life on Earth, such as the provision of fresh water, soil conservation and climate stability. Second, it provides products such as food, medicines and materials for industry. Finally, biodiversity is at the heart of many cultural values.

The rate of loss is still accelerating

4. The rate of biodiversity loss is increasing at an unprecedented rate, threatening the very existence of life as it is currently understood. The maintenance of biodiversity is a necessary condition for sustainable development, and as such constitutes one of the great challenges of the modern era.

The threats must be addressed

5. Addressing the threats to biodiversity requires immediate and long-term fundamental changes in the way resources are used and benefits are distributed. Achieving these adjustments will require broad-based action among a wide range of actors.

The Convention is an essential instrument for achieving sustainable development

6. The importance of the biodiversity challenge was universally acknowledged at the United Nations Conference on Environment and Development, which met in Rio de Janeiro in 1992, and through the development of the Convention on Biological Diversity. In ratifying the Convention, the Parties have committed themselves to undertaking national and international measures aimed at its achieving three objectives: the conservation of biological diversity; the sustainable use of its components; and the fair and equitable sharing of benefits arising out of the utilization of genetic resources.

Achievements

7. Since the adoption of the Convention, the Conference of the Parties has met several times and, on each occasion, through its decisions has taken steps to translate the general provisions of the Convention into practical action. This process has initiated national action plans in over 100 countries, raised awareness about biodiversity and led to the adoption of the Cartagena Protocol on Biosafety, a landmark treaty which provides an international regulatory framework for the safe transfer, handling and use of any living modified organisms resulting from modern biotechnology.

The challenges

8. The implementation of the Convention on Biological Diversity has been impeded by many obstacles, as outlined in the appendix hereto. A fundamental challenge for the Convention lies in the broad scope of its three objectives. The need to mainstream the conservation and sustainable use of biological resources across all sectors of the national economy, the society and the policy-making framework is a complex challenge at the heart of the Convention. This will mean cooperation with many different actors, such as regional bodies and organizations. Integrated management of natural resources, based on the ecosystem approach, is the most effective way to promote this aim of the Convention.
9. The scope of the Convention means that the provision by developed country Parties of resources to implement the Convention is critical and essential.
10. The Strategic Plan can promote broad-based action by bringing about a convergence of actions around agreed goals and collective objectives.

B. Mission

11. Parties commit themselves to a more effective and coherent implementation of the three objectives of the Convention, to achieve by 2010 a significant reduction of the current rate of biodiversity loss at the global, regional and national level as a contribution to poverty alleviation and to the benefit of all life on earth.

C. Strategic goals and objectives

Goal 1: The Convention is fulfilling its leadership role in international biodiversity issues.

1.1. The Convention is setting the global biodiversity agenda.

1.2. The Convention is promoting cooperation between all relevant international instruments and processes to enhance policy coherence.

1.3. Other international processes are actively supporting implementation of the Convention, in a manner consistent with their respective frameworks.

1.4. The Cartagena Protocol on Biosafety is widely implemented.

1.5 . Biodiversity concerns are being integrated into relevant sectoral or cross-sectoral plans,

programmes and policies at the regional and global levels.

1.6. Parties are collaborating at the regional and subregional levels to implement the Convention.

Goal 2: Parties have improved financial, human, scientific, technical, and technological capacity to implement the Convention.

2.1. All Parties have adequate capacity for implementation of priority actions in national biodiversity strategy and action plans.

2.2. Developing country Parties, in particular the least developed and the small island developing States amongst them, and other Parties with economies in transition, have sufficient resources available to implement the three objectives of the Convention.

2.3. Developing country Parties, in particular the least developed and the small island developing States amongst them, and other Parties with economies in transition, have increased resources and technology transfer available to implement the Cartagena Protocol on Biosafety.

2.4. All Parties have adequate capacity to implement the Cartagena Protocol on Biosafety.

2.5. Technical and scientific cooperation is making a significant contribution to building capacity.

Goal 3: National biodiversity strategies and action plans and the integration of biodiversity concerns into relevant sectors serve as an effective framework for the implementation of the objectives of the Convention.

3.1. Every Party has effective national strategies, plans and programmes in place to provide a national framework for implementing the three objectives of the Convention and to set clear national priorities.

3.2. Every Party to the Cartagena Protocol on Biosafety has a regulatory framework in place and functioning to implement the Protocol.

3.3. Biodiversity concerns are being integrated into relevant national sectoral and cross-sectoral plans, programmes and policies.

3.4. The priorities in national biodiversity strategies and action plans are being actively implemented, as a means to achieve national implementation of the Convention, and as a significant contribution towards the global biodiversity agenda.

Goal 4: There is a better understanding of the importance of biodiversity and of the Convention, and this has led to broader engagement across society in implementation.

4.1. All Parties are implementing a communication, education, and public awareness strategy and promoting public participation in support of the Convention.

4.2. Every Party to the Cartagena Protocol on Biosafety is promoting and facilitating public awareness, education and participation in support of the Protocol.

4.3. Indigenous and local communities are effectively involved in implementation and in the processes of the Convention, at national, regional and international levels.

4.4. Key actors and stakeholders, including the private sector, are engaged in partnership to implement the Convention and are integrating biodiversity concerns into their relevant sectoral and cross-sectoral plans, programmes and policies.

D. Review

12. The Strategic Plan will be implemented through the programmes of work of the Convention on Biological Diversity implementation of national biodiversity strategies and action plans, and other national, regional and international activities.

13. Better methods should be developed to objectively evaluate progress in the implementation of the Convention and the Strategic Plan.

Appendix
Obstacles to the Implementation of the Convention on Biological Diversity

1. Political/societal obstacles

1. Lack of political will and support to implement the Convention on Biological Diversity
2. Limited public participation and stakeholder involvement
3. Lack of mainstreaming and integration of biodiversity issues into other sectors, including use of tools such as environmental impact assessments
4. Political instability
5. Lack of precautionary and proactive measures, causing reactive policies.

2. Institutional, technical and capacity-related obstacles

1. Inadequate capacity to act, caused by institutional weaknesses
2. Lack of human resources
3. Lack of transfer of technology and expertise
4. Loss of traditional knowledge
5. Lack of adequate scientific research capacities to support all the objectives.

3. Lack of accessible knowledge/information

1. Loss of biodiversity and the corresponding goods and services it provides not properly understood and documented
2. Existing scientific and traditional knowledge not fully utilized.
3. Dissemination of information on international and national level not efficient
4. Lack of public education and awareness at all levels.

4. Economic policy and financial resources

1. Lack of financial and human resources
2. Fragmentation of GEF financing
3. Lack of economic incentive measures
4. Lack of benefit-sharing.

5. Collaboration/cooperation

1. Lack of synergies at the national and international levels
2. Lack of horizontal cooperation among stakeholders
3. Lack of effective partnerships
4. Lack of engagement of scientific community.

6. Legal/juridical impediments

1. Lack of appropriate policies and laws

7. Socio-economic factors

1. Poverty
2. Population pressure
3. Unsustainable consumption and production patterns
4. Lack of capacities for local communities.

8. Natural phenomena and environmental change

1. Climate change
2. Natural disasters.

Provisional indicators for assessing progress in implementing the goals and objectives of the Strategic Plan

Strategic goals and objectives	Possible indicators
Goal 1: The Convention is fulfilling its leadership role in international biodiversity issues.	
1.1 The Convention is setting the global biodiversity agenda.	CBD provisions, COP decisions and 2010 target reflected in workplans of major international forums
1.2 The Convention is promoting cooperation between all relevant international instruments and processes to enhance policy coherence.	
1.3 Other international processes are actively supporting implementation of the Convention, in a manner consistent with their respective frameworks.	
1.4 The Cartagena Protocol on Biosafety is widely implemented.	
1.5 Biodiversity concerns are being integrated into relevant sectoral or cross-sectoral plans, programmes and policies at the regional and global levels.	*Possible indicator to be developed:* *Number of regional/global plans, programmes and policies which specifically address the integration of biodiversity concerns into relevant sectoral or cross-sectoral plans, programmes and policies* *Application of planning tools such as strategic environmental assessment to assess the degree to which biodiversity concerns are being integrated* *Biodiversity integrated into the criteria of multilateral donors and regional development banks*
1.6 Parties are collaborating at the regional and subregional levels to implement the Convention.	*Possible indicator to be developed:* *Number of Parties that are part of (sub-) regional biodiversity-related agreements*
Goal 2: Parties have improved financial, human, scientific, technical, and technological capacity to implement the Convention.	
2.1 All Parties have adequate capacity for implementation of priority actions in national biodiversity strategy and action plans.	
2.2 Developing country Parties, in particular the least developed and the small island developing States amongst them, and other Parties with economies in transition, have sufficient resources available to implement the three objectives of the Convention.	Official development assistance provided in support of the Convention (OECD-DAC Statistics Committee)
2.3 Developing country Parties, in particular the least developed and the small island developing States amongst them, and other Parties with economies in transition, have increased resources and technology transfer available to implement the Cartagena Protocol on Biosafety.	
2.4 All Parties have adequate capacity to implement the Cartagena Protocol on Biosafety.	
2.5 Technical and scientific cooperation is making a significant contribution to building capacity.	*Indicator to be developed consistent with VII/30*

Goal 3: National biodiversity strategies and action plans and the integration of biodiversity concerns into relevant sectors serve as an effective framework for the implementation of the objectives of the Convention.	
3.1 Every Party has effective national strategies, plans and programmes in place to provide a national framework for implementing the three objectives of the Convention and to set clear national priorities.	Number of Parties with national biodiversity strategies
3.2 Every Party to the Cartagena Protocol on Biosafety has a regulatory framework in place and functioning to implement the Protocol.	
3.3 Biodiversity concerns are being integrated into relevant national sectoral and cross-sectoral plans, programmes and policies.	*To be developed* *Percentage of Parties with relevant national sectoral and cross-sectoral plans, programmes and policies in which biodiversity concerns are integrated*
3.4 The priorities in national biodiversity strategies and action plans are being actively implemented, as a means to achieve national implementation of the Convention, and as a significant contribution towards the global biodiversity agenda.	*To be developed* *Number of national biodiversity strategies and action plans that are being actively implemented*
Goal 4: There is a better understanding of the importance of biodiversity and of the Convention, and this has led to broader engagement across society in implementation.	
4.1 All Parties are implementing a communication, education, and public awareness strategy and promoting public participation in support of the Convention.	*Possible indicator to be developed:* *Number of Parties implementing a communication, education and public awareness strategy and promoting public participation* *Percentage of public awareness programmes/projects about the importance of biodiversity* *Percentage of Parties with biodiversity on their public school curricula*
4.2 Every Party to the Cartagena Protocol on Biosafety is promoting and facilitating public awareness, education and participation in support of the Protocol.	
4.3 Indigenous and local communities are effectively involved in implementation and in the processes of the Convention, at national, regional and international levels.	*To be developed by the Ad Hoc Open-ended Working Group on Article 8(j)*
4.4 Key actors and stakeholders, including the private sector, are engaged in partnership to implement the Convention and are integrating biodiversity concerns into their relevant sectoral and cross-sectoral plans, programmes and policies.	*To be developed* *Indicator targeting private sector engagement, e.g., Voluntary type 2 partnerships in support of the implementation of the Convention*

Chapter 2

Part 3

The Convention on Biological Diversity 2010 Target

In April 2002, the Parties to the Convention committed themselves to achieve by 2010 a significant reduction of the current rate of biodiversity loss at the global, regional and national level as a contribution to poverty alleviation and to the benefit of all life on Earth.

This target was subsequently endorsed by the World Summit on Sustainable Development and the United Nations General Assembly, and was incorporated as a new target under the Millennium Development Goals.

Source: CBD website: www.cbd.int/2010-target. The indicators relevant to the provisional framework of goals and targets are contained in Annex II of Decision VIII/15 of the Conference of Parties.

Focal areas

Following the adoption of the Strategic Plan, the Conference of the Parties (COP) developed a framework to enhance the evaluation of achievements and progress toward its implementation and that of its 2010 Biodiversity Target (paragraph 1 of Decision VII/30). This framework includes the following seven focal areas:

- **Reducing the rate of loss of the components of biodiversity**, including: (i) biomes, habitats and ecosystems; (ii) species and populations; and (iii) genetic diversity;

- **Promoting sustainable use of biodiversity**;
- **Addressing the major threats to biodiversity**, including those arising from invasive alien species, climate change, pollution, and habitat change;
- **Maintaining ecosystem integrity**, and the provision of goods and services provided by biodiversity in ecosystems, in support of human well-being;
- **Protecting traditional knowledge, innovations and practices**;
- **Ensuring the fair and equitable sharing of benefits arising out of the use of genetic resources**; and
- **Mobilizing financial and technical resources**, especially for developing countries, in particular least developed countries and small island developing states among them, and countries with economies in transition, for implementing the Convention and the Strategic Plan.

Goals and sub-targets

In Decision VII/30, the COP decided to establish goals and sub-targets (listed below) for each focal area, to clarify the 2010 Biodiversity Target and promote coherence among the programmes of work of the Convention by providing a flexible framework within which national and/or regional targets may be developed.

The COP requested the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) to review and further refine the goals and sub-targets, ensuring that they are linked to relevant Millennium Development Goals, initiatives of the World Summit on Sustainable Development, and the goals articulated by other relevant international processes; and to identify indicators for the sub-targets, ideally associated with the indicators adopted to assess progress towards the 2010 Biodiversity Target.

Focal area: Protect the components of biodiversity

Goal 1. ***Promote the conservation of the biological diversity of ecosystems, habitats and biomes***

- Target 1.1: At least 10% of each of the world's ecological regions effectively conserved.
- Target 1.2: Areas of particular importance to biodiversity protected

Goal 2. ***Promote the conservation of species diversity***

- Target 2.1: Restore, maintain, or reduce the decline of populations of species of selected taxonomic groups
- Target 2.2: Status of threatened species improved.

Goal 3. ***Promote the conservation of genetic diversity***

- Target 3.1: Genetic diversity of crops, livestock, and of harvested species of trees, fish and wildlife and other valuable species conserved, and associated indigenous and local knowledge maintained.

Focal area: Promote sustainable use

Goal 4. ***Promote sustainable use and consumption.***

- Target 4.1: Biodiversity-based products derived from sources that are sustainably managed, and production areas managed consistent with the conservation of biodiversity.
- Target 4.2: Unsustainable consumption, of biological resources, or that impacts upon biodiversity, reduced.
- Target 4.3: No species of wild flora or fauna endangered by international trade.

Focal area: Address threats to biodiversity

Goal 5. ***Pressures from habitat loss, land use change and degradation, and unsustainable water use, reduced.***

- Target 5.1: Rate of loss and degradation of natural habitats decreased.

Goal 6. ***Control threats from invasive alien species.***

- Target 6.1: Pathways for major potential alien invasive species controlled.
- Target 6.2: Management plans in place for major alien species that threaten ecosystems, habitats or species.

Goal 7. ***Address challenges to biodiversity from climate change, and pollution.***

- Target 7.1: Maintain and enhance resilience of the components of biodiversity to adapt to climate change
- Target 7.2: Reduce pollution and its impacts on biodiversity

Focal area: Maintain goods and services from biodiversity to support human well-being

Goal 8. ***Maintain capacity of ecosystems to deliver goods and services and support livelihoods***

- Target 8.1: Capacity of ecosystems to deliver goods and services maintained.
- Target 8.2: Biological resources that support sustainable livelihoods, local food security and health care, especially of poor people maintained.

Focal area: Protect traditional knowledge, innovations and practices

Goal 9. ***Maintain socio-cultural diversity of indigenous and local communities***

- Target 9.1: Protect traditional knowledge, innovations and practices
- Target 9.2: Protect the rights of indigenous and local communities over their traditional knowledge, innovations and practices, including their rights to benefit sharing

Focal area: Ensure the fair and equitable sharing of benefits arising out of the use of genetic resources

Goal 10. ***Ensure the fair and equitable sharing of benefits arising out of the use of genetic resources***

- Target 10.1: All transfers of genetic resources are in line with the Convention on Biological Diversity, the International Treaty on Plant Genetic Resources for Food and Agriculture and other applicable agreements.
- Target 10.2: Benefits arising from the commercial and other utilization of genetic resources shared with the countries providing such resources.

Focal area: Ensure provision of adequate resources

Goal 11. ***Parties have improved financial, human, scientific, technical and technological capacity to implement the Convention***

- Target 11.1: New and additional financial resources are transferred to developing country Parties, to allow for the effective implementation of their commitments under the Convention, in accordance with Article 20.

- Target 11.2: Technology is transferred to developing country Parties, to allow for the effective implementation of their commitments under the Convention, in accordance with its Article 20, paragraph 4.

Indicators

The Conference of the Parties (COP) agreed on a provisional list of global headline indicators, to assess progress at the global level towards the 2010 target (Decision VII/30), and to effectively communicate trends in biodiversity related to the three objectives of the Convention.

Development of the indicators

In Decision VII/30 the COP established a process for testing and developing the indicators, with inputs from SBSTTA, the ad hoc Working Groups on Access and Benefit Sharing and Article 8(j), and an Ad Hoc Technical Expert Group (AHTEG) on indicators for assessing progress towards the 2010 biodiversity target. The work of the AHTEG (Montreal, 19-22 October 2004) was prepared by an electronic discussion forum in which a series of task forces commented on possible indicators and lead organziations. The AHTEG meeting was preceded by a Liaison Group meeting (Montreal, 18 October 2004) in which representatives of possible lead organizations on individual indicators discussed strategies for supporting the process. The organizations are now members of the 2010 Biodiversity Indicators Partnership, established at the initiative of UNEP-World Conservation Monitoring Centre and with funding from the Global Environmental Facility.

The provisional indicators are shown in the table, next page.

Indicators relevant to the provisional framework of goals and targets

Goals and targets	Relevant indicators
Protect the components of biodiversity	
Goal 1. Promote the conservation of the biological diversity of ecosystems, habitats and biomes	
Target 1.1: At least 10% of each of the world's ecological regions effectively conserved.	• Coverage of protected areas • Trends in extent of selected biomes, ecosystems and habitats • Trends in abundance and distribution of selected species
Target 1.2: Areas of particular importance to biodiversity protected.	• Trends in extent of selected biomes, ecosystems and habitats • Trends in abundance and distribution of selected species • Coverage of protected areas
Goal 2. Promote the conservation of species diversity	
Target 2.1: Restore, maintain, or reduce the decline of populations of species of selected taxonomic groups.	• Trends in abundance and distribution of selected species • Change in status of threatened species
Target 2.2: Status of threatened species improved.	• Change in status of threatened species • Trends in abundance and distribution of selected species • Coverage of protected areas
Goal 3. Promote the conservation of genetic diversity	
Target 3.1: Genetic diversity of crops, livestock, and of harvested species of trees, fish and wildlife and other valuable species conserved, and associated indigenous and local knowledge maintained.	• Trends in genetic diversity of domesticated animals, cultivated plants, and fish species of major socio-economic importance • *Biodiversity used in food and medicine(indicator under development)* • Trends in abundance and distribution of selected species
Promote sustainable use	
Goal 4. Promote sustainable use and consumption.	
Target 4.1: Biodiversity-based products derived from sources that are sustainably managed, and production areas managed consistent with the conservation of biodiversity.	• Area of forest, agricultural and aquaculture ecosystems under sustainable management • *Proportion of products derived from sustainable sources (indicator under development)* • Trends in abundance and distribution of selected species • Marine trophic index • Nitrogen deposition • Water quality in aquatic ecosystems
Target 4.2. Unsustainable consumption, of biological resources, or that impacts upon biodiversity, reduced.	• Ecological footprint and related concepts
Target 4.3: No species of wild flora or fauna endangered by international trade.	• Change in status of threatened species

Address threats to biodiversity	
Goal 5. Pressures from habitat loss, land use change and degradation, and unsustainable water use, reduced.	
Target 5.1. Rate of loss and degradation of natural habitats decreased.	• Trends in extent of selected biomes, ecosystems and habitats • Trends in abundance and distribution of selected species • Marine trophic index
Goal 6. Control threats from invasive alien species	
Target 6.1. Pathways for major potential alien invasive species controlled.	• Trends in invasive alien species
Target 6. 2. Management plans in place for major alien species that threaten ecosystems, habitats or species.	• Trends in invasive alien species
Goal 7. Address challenges to biodiversity from climate change, and pollution	
Target 7.1. Maintain and enhance resilience of the components of biodiversity to adapt to climate change.	• Connectivity/fragmentation of ecosystems
Target 7.2. Reduce pollution and its impacts on biodiversity.	• Nitrogen deposition • Water quality in aquatic ecosystems
Maintain goods and services from biodiversity to support human well-being	
Goal 8. Maintain capacity of ecosystems to deliver goods and services and support livelihoods	
Target 8.1. Capacity of ecosystems to deliver goods and services maintained.	• *Biodiversity used in food and medicine (indicator under development)* • Water quality in aquatic ecosystems • Marine trophic index • Incidence of human-induced ecosystem failure
Target 8.2. Biological resources that support sustainable livelihoods, local food security and health care, especially of poor people maintained.	• Health and well-being of communities who depend directly on local ecosystem goods and services • *Biodiversity used in food and medicine*
Protect traditional knowledge, innovations and practices	
Goal 9 Maintain socio-cultural diversity of indigenous and local communities	
Target 9.1. Protect traditional knowledge, innovations and practices.	• Status and trends of linguistic diversity and numbers of speakers of indigenous languages • *Additional indicators to be developed*
Target 9.2. Protect the rights of indigenous and local communities over their traditional knowledge, innovations and practices, including their rights to benefit-sharing.	• *Indicator to be developed*
Ensure the fair and equitable sharing of benefits arising out of the use of genetic resources	
Goal 10. Ensure the fair and equitable sharing of benefits arising out of the use of genetic resources	
Target 10.1. All access to genetic resources is in line with the Convention on Biological Diversity and its relevant provisions.	• *Indicator to be developed*
Target 10.2. Benefits arising from the commercial and other utilization of genetic resources shared in a fair and equitable way with the countries providing such resources in line with the Convention on Biological Diversity and its relevant provisions	• *Indicator to be developed*

Ensure provision of adequate resources	
Goal 11: Parties have improved financial, human, scientific, technical and technological capacity to implement the Convention	
Target 11.1. New and additional financial resources are transferred to developing country Parties, to allow for the effective implementation of their commitments under the Convention, in accordance with Article 20.	• Official development assistance provided in support of the Convention
Target 11.2. Technology is transferred to developing country Parties, to allow for the effective implementation of their commitments under the Convention, in accordance with its Article 20, paragraph 4.	• *Indicator to be developed*

Chapter 3

Part 3

Indigenous Languages in the context of the Convention on Biological Diversity

Introduction

This paper was prepared by the Secretariat of the Convention on Biological Diversity for the International Expert Group Meeting on Indigenous Languages, held on 8-10 January 2008, in New York, and released by the Secretariat of the Permanent Forum on Indigenous Issues of the UN Department of Economic and Social Affairs, Division of Social Policy and Development. Document reference: PFII/2008/EGM1/11

1. The Convention on Biological Diversity is unique among major international environmental instruments in its acknowledgement of the key role indigenous and local communities play in conserving life on Earth. The Convention's Preamble recognizes that indigenous and local communities embodying traditional lifestyles have close and traditional dependence on biological resources. In Article 8(j) Parties to the Convention undertook to respect, preserve, maintain and promote the wider use of traditional knowledge relevant for conservation and sustainable use of biological diversity, with the approval and involvement of indigenous and local communities. Through the open-ended Working Group on Article 8(j) and related provisions (traditional knowledge[1]) the Parties to the Convention have created a unique and important forum which promotes active partnerships between governments and indigenous and local communities, in pursuit of the goals of the Convention.
2. The Executive Secretary of the Convention, Dr. Ahmed Djoghlaf, notes that "we are also beginning to understand that biological diversity and cultural and linguistic diversity are intimately related and mutually supporting. The diversity of ideas

and knowledge held in a multitude of indigenous languages throughout the world is a vast resource in addressing environmental challenges of climate change. In fact, language has been called the 'DNA of cultures' because each language represents the cultural knowledge that a people have inherited from their ancestors, and each new generation continues to add to this heritage."

3. The interrelated nature of biological diversity, traditional knowledge and language necessitates a comprehensive approach to the conservation of biological diversity. Indigenous languages are treasuries of vast traditional knowledge concerning ecological systems and processes. Indigenous languages hold the knowledge of how to protect and sustainably use some of the most vulnerable and biologically diverse ecosystems in the world. By far the largest share of the world's linguistic diversity is found in indigenous and local communities, where people continue to speak the language of their ancestors. Dr. Ahmed Djoghlaf commenting on the state of the world's indigenous languages, said, "Sadly, these are the languages which are under the greatest threat of loss. As linguistic diversity and biological diversity are inseparable, when an indigenous language is lost, so too is the traditional knowledge for how to maintain certain aspects of the world's biological diversity. Therefore, the protection of indigenous languages should be a priority in global efforts to address biodiversity loss, climate change and other environmental challenges."
4. This note was prepared by the Executive Secretary as a contribution to the UNPFII's expert meeting. It provides an update of work on language indicators undertaken so far within the context and framework of the Convention on Biological diversity.

Indigenous and local languages as indicators for traditional knowledge

5. In decision VII/30, annex II, the Conference of the Parties adopted a framework to enhance the evaluation of progress in the implementation of the Strategic Plan of the Convention on Biological Diversity, covering seven focal areas, one of which is "protect traditional knowledge, innovations and practices". In each of these focal areas, goals, sub-targets and indicators are to be identified. In paragraph 7 of decision VII/30, the Conference of Parties requested the Ad Hoc Open-ended Working Group on Article 8(j) and Related Provisions to explore the need and possible options for indicators for the protection of innovations, knowledge and practices of indigenous and local communities, and to report the results to the Conference of the Parties at its eighth meeting.
6. In annex I to decision VII/30, the Conference of the Parties adopted a suite of indicators for assessing progress towards the 2010 biodiversity target (see annex I) comprising indicators for immediate testing and possible indicators for development. **With regards to traditional knowledge, an indicator on the status and trends in linguistic diversity and speakers of indigenous languages was included as an indicator for immediate testing**.

A summary of the progress made on the language indicator

7. In decision VII/30, paragraph 27, the Conference of Parties adopted the status and trends of linguistic diversity and numbers of speakers of indigenous languages as an indicator for immediate testing, for the status of traditional knowledge, innovations and practices and requested that further indicators be identified by the Working Group on Article 8(j) and related provisions.
8. In its conclusions prepared for the tenth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA), the Ad Hoc Technical Expert Group on Indicators, which met in Montreal from 19 to 22 October 2004, noted that data on the status of linguistic diversity and numbers of speakers of indigenous languages are available, inter alia, through the Ethnologue database (UNEP/CBD/SBSTTA/10/INF/7).
9. The Group observed, however, that a methodology for the extraction of meaningful trends information from these data is yet to be developed. An index of the number of indigenous languages losing speakers versus indigenous languages gaining speakers might be feasible and could be a more sensitive indicator of the actual status of indigenous languages rather than a simple count of languages in each category of numbers of speakers (see UNEP/CBD/SBSTTA/10/INF/21). The data from the Ethnologue database might be suitable to applying the calculation used in developing the Red List Index (see UNEP/CBD/SBSTTA/10/INF/13). To test this, it is important to identify indigenous languages for which the numbers of speakers have been assessed at least twice, using a comparable methodology. In its recommendation X/5, SBSTTA identified UNESCO, in collaboration with UNEP-WCMC, to coordinate work on this indicator. They are currently researching this issue to report back to the Working Group on Article 8(j) and Related Provisions and the eighth meeting of the Conference of the Parties.
10. The Executive Secretary has commissioned UNESCO to prepare, on the basis of various sources of information, including the Ethnologue database, the UNESCO Atlas on Endangered Languages and other published information, a database of those indigenous languages for which the numbers of speakers have been assessed at different dates using a comparable methodology and the same definition for the specific language. Where available, an endangerment category will be assigned to the language, which is based on the number of speakers as well as other criteria identified by the UNESCO Ad Hoc Expert Group on Endangered Languages. Based on this information UNESCO will make recommendations on the calculation of trends. The results of this analysis are expected to be available by the end of 2008.
11. UNESCO is continuing this work in partnership with the Convention on Biological diversity with funding from the Global Environmental Facility through the World Conservation Monitoring Centre (WCMC), which is the biodiversity information and assessment arm of the United Nations Environment Programme (UNEP).
12. As part of this effort, UNESCO's Intangible Heritage Section is developing the Indicator on the **Status and Trends of Linguistic Diversity and Numbers of Speakers of Indigenous Languages for the eventual consideration of the Parties to the Convention on Biological Diversity**.

Methodology

13. In considering the before-mentioned possible indicators for traditional knowledge, it is important to recall that, in accordance with the principles for choosing indicators identified by the Expert Group on Indicators of Biological Diversity, which met in Montreal in February 2003, (UNEP/CBD/SBSTTA/9/10), any additionally proposed indicators must include reliable and comparable data over standardized periods of time, to allow for measurement and the establishment of trends. Having noted that, the Working group on Article 8(j) concluded at its fourth meeting that it is most likely that an accurate picture of the state of traditional knowledge will only be achieved through a bundle of indicators and that a group of such indicators may need to be both quantitative and qualitative in nature.
14. By deciding that an indicator on "linguistic diversity and vitality" will inform on the Focal Area related to the "traditional knowledge, innovations and practices", the international community recognized that the preservation of traditional knowledge related to biodiversity depends to a large degree on the safeguarding of the languages that are vehicles of that knowledge. Two methodological approaches are used in parallel in developing the Indicator:

A. Data collection and collation from sources such as:

- various editions of the Ethnologue and the newly published "Routledge Encyclopedia of the World's Endangered Languages",
- information used in preparing UNESCO's Atlas of Languages in Danger of Disappearing,
- data solicited from renowned linguistic institutions and linguists and
- census data.

B. Development of a standardized data collection tool to be tested in the form of a questionnaire sent out to as many field linguists as possible, and validated by UNESCO's Ad Hoc Expert Group. The tool uses two sets of criteria:

- the Language Vitality and Endangerment framework for assessing the vitality of indigenous languages;
- a new set of criteria for assessing internal and external linguistic diversity of those languages.

15. Statistical analysis will be used to calculate inter-rater reliability and to investigate which factors are most significant in influencing the overall scores. Based upon the testing phase and feedback from testers, the tool will be revised and finalized. After revision, the tool will be disseminated widely for large-scale data collection. It is anticipated that an International conference will be organized in due course, to review the validity and comparability of data and, in case of positive appraisal, identify the methodology to be used for the calculation of trends.

Indicators to complement to language indicator

16. Since languages may serve as a useful proxy but are not a direct or singular measure of traditional knowledge, the AHTEG on indicators noted that additional indicators that relate more specifically to indigenous knowledge, innovations and practices need to be developed to provide a more accurate picture of the status and trends in traditional knowledge.

17. To further consider additional indicators to supplement the possible use of a language indicators for traditional knowledge, in decision VIII/5 G the Conference of the Parties considered that a more structured technical process was required to guide further work on the further development of indicators and welcomed an initiative of the International Indigenous Forum on Biodiversity Working Group on Indicators to organize an international expert seminar on indicators relevant to indigenous and local communities. The expert seminar had been assisted by extensive regional consultations and in particular the report of the Latin American consultation, which was before the fifth meeting of the Working Group, as an information document. The outcome of the international expert seminar was contained in the note by the Executive Secretary and the full report of the meeting could be found in the information document both made available to the fifth meeting of the working group on Article 8(j).

18. As recently as October 2007, the 5th meeting of the Working Group on Article 8(j) and related provisions discussed the report of the international expert seminar on indicators relevant to indigenous and local communities and considered draft recommendations to send to the ninth meeting of the Conference of the Parties. In summarizing the discussion, the Co-Chair of the Working Group on Article 8(j) and related provisions, said that while there had been a general feeling that the international expert seminar on indicators relevant for indigenous peoples had yielded very valuable results, some speakers had felt that more attention should be paid to what the Working Group was being invited to do by the Conference of the Parties in its decision VIII/5 G. Many had expressed the view that the number of proposed indicators was too large and should be reduced, and that it was important to gain experience in using existing indicators. Based on the discussion, a draft recommendation for the consideration for adoption and transmission to the ninth meeting of the Conference of the Parties was adopted. That draft decision is attached as Annex I and will be considered by the COP in May 2008.

Annex I

Draft recommendations of the fifth meeting of the Working group on Article 8(j) and related provisions to the ninth meeting of the Conference of the Parties

The 5th meeting of the Working Group on Article 8(j)

5/7. Indicators for assessing progress towards the 2010 biodiversity target: status of traditional knowledge, innovations and practices

The Ad Hoc Working Group on Article 8(j) and Related Provisions recommends that the Conference of the Parties at its ninth meeting adopt a decision along the following lines:

The Conference of the Parties,

Recognizing that the status and trends of linguistic diversity and numbers of speakers of indigenous languages is one useful indicator for the retention and use of traditional knowledge, if used along with other indicators, and there is a need for additional indicators more specific for indigenous and local communities, traditional knowledge, and biological diversity,

C*onsidering* the framework provided by decision VIII/15 for the monitoring of implementation of the achievement of the 2010 target and integration of targets into the thematic programmes of work,

1. *Notes* the importance of both qualitative and quantitative indicators to provide a broad picture of the status and trends of traditional knowledge and capture indigenous and local community realities within the framework of the Strategic Plan and the 2010 biodiversity target;
2. *Welcomes* the work carried out under the auspices of the Ad Hoc Open-ended Working Group on Article 8(j) and Related Provisions, and in particular the regional and international expert workshops organized by the Working Group on Indicators of the International Indigenous Forum on Biodiversity, to identify a limited number of meaningful, practical and measurable indicators on the status of traditional knowledge, innovations and practices, to assess progress towards achieving the Convention's Strategic Plan and the 2010 biodiversity target;
3. *Recommends* that a maximum of two additional indicators on the status of traditional knowledge, innovations and practices are selected for inclusion into the framework by the Ad Hoc Working Group on Article 8(j) and Related Provisions at its sixth meeting;
4. *Warmly thanks* the Governments of Norway, Spain, and Sweden for the generous financial support for this initiative;
5. *Takes note* of the proposed indicators contained in annex I of the report of the International Experts Seminar on Indicators Relevant for Indigenous Peoples, the Convention on Biological Diversity and the Millennium Development Goals, organized by the International Indigenous Forum on Biodiversity (IIFB) in Banaue, Philippines, from 5 to 9 March 2007 (UNEP/CBD/WG-8J/5/8);

6. *Invites* Parties, Governments and relevant organizations, in consultation with, and, as requested, active participation of, indigenous and local communities, to design and, as appropriate, test, indicators at the national level for status and trends of traditional knowledge, innovations and practices, in order to assess progress towards the 2010 biodiversity target, as well as to assess progress in the implementation of the Strategic Plan, *noting* that the annex referred to in paragraph 5 above could provide useful information for consideration in this work;

7. *Also invites* Parties, Governments and relevant organizations, in consultation with indigenous and local communities, to submit information on experiences and lessons learned in designing and, as appropriate, testing, national indicators for status and trends of traditional knowledge, innovations and practices, in order to assess progress towards the 2010 biodiversity target, as well as to assess progress in the implementation of the Strategic Plan, to the Executive Secretary, and *also invites* Parties, in consultation with indigenous and local communities, to report thereon in the fourth national reports;

8. *Requests* the Executive Secretary to compile and assess data availability the information received, and to transmit the compilation and analysis to the sixth meeting of the Ad Hoc Open-ended Inter-Sessional Working Group on Article 8(j) and Related Provisions, as basis for further work;

9. *Requests* the Ad Hoc Open-ended Inter-Sessional Working Group on Article 8(j) and Related Provisions at its sixth meeting to continue its work on the identification of a limited number of meaningful, practical and measurable indicators on the status of traditional knowledge, innovations and practices, for assessing progress towards achieving the Convention's Strategic Plan and the 2010 biodiversity target.

10. *Requests* the Executive Secretary to maintain coordination with the United Nations Permanent Forum on Indigenous Issues and the Inter-Agency Support Group on related work on indicators relevant for indigenous peoples, the Convention on Biological Diversity and the Millennium Development Goals.

Endnote

[1] The ad hoc open-ended intercessional Working Group on Article 8(j) and related provisions.

Chapter 4

Part 3

Official list of MDG indicators after the 2007 revision

All indicators should be disaggregated by sex and urban/rural as far as possible.

Effective 15 January 2008

Source: United Nations Statistics Division website http://mdgs.un.org/unsd/mdg/

Millennium Development Goals (MDGs)	
Goals and Targets (from the Millennium Declaration)	**Indicators for monitoring progress**
Goal 1: Eradicate extreme poverty and hunger	
Target 1.A: Halve, between 1990 and 2015, the proportion of people whose income is less than one dollar a day	1.1 Proportion of population below $1 (PPP) per day[i] 1.2 Poverty gap ratio 1.3 Share of poorest quintile in national consumption
Target 1.B: Achieve full and productive employment and decent work for all, including women and young people	1.4 Growth rate of GDP per person employed 1.5 Employment-to-population ratio 1.6 Proportion of employed people living below $1 (PPP) per day 1.7 Proportion of own-account and contributing family workers in total employment
Target 1.C: Halve, between 1990 and 2015, the proportion of people who suffer from hunger	1.8 Prevalence of underweight children under-five years of age 1.9 Proportion of population below minimum level of dietary energy consumption
Goal 2: Achieve universal primary education	
Target 2.A: Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling	2.1 Net enrolment ratio in primary education 2.2 Proportion of pupils starting grade 1 who reach last grade of primary 2.3 Literacy rate of 15-24 year-olds, women and men

Goal 3: Promote gender equality and empower women	
Target 3.A: Eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels of education no later than 2015	3.1 Ratios of girls to boys in primary, secondary and tertiary education 3.2 Share of women in wage employment in the 3 non-agricultural sector 3.3 Proportion of seats held by women in national parliament
Goal 4: Reduce child mortality	
Target 4.A: Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate	4.1 Under-five mortality rate 4.2 Infant mortality rate 4.3 Proportion of 1 year-old children immunised against measles
Goal 5: Improve maternal health	
Target 5.A: Reduce by three quarters, between 1990 and 2015, the maternal mortality ratio	5.1 Maternal mortality ratio 5.2 Proportion of births attended by skilled health personnel
Target 5.B: Achieve, by 2015, universal access to reproductive health	5.3 Contraceptive prevalence rate 5.4 Adolescent birth rate 5.5 Antenatal care coverage (at least one visit and at least four visits) 5.6 Unmet need for family planning
Goal 6: Combat HIV/AIDS, malaria and other diseases	
Target 6.A: Have halted by 2015 and begun to reverse the spread of HIV/AIDS	6.1 HIV prevalence among population aged 15-24 years 6.2 Condom use at last high-risk sex 6.3 Proportion of population aged 15-24 years with comprehensive correct knowledge of HIV/AIDS 6.4 Ratio of school attendance of orphans to school attendance of non-orphans aged 10-14 years
Target 6.B: Achieve, by 2010, universal access to treatment for HIV/AIDS for all those who need it	6.5 Proportion of population with advanced HIV infection with access to antiretroviral drugs
Target 6.C: Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases	6.6 Incidence and death rates associated with malaria 6.7 Proportion of children under 5 sleeping under insecticide-treated bednets and Proportion of children under 5 with fever who are treated with appropriate anti-malarial drugs 6.8 Incidence, prevalence and death rates associated with tuberculosis 6.9 Proportion of tuberculosis cases detected and cured under directly observed treatment short course

Goal 7: Ensure environmental sustainability	
Target 7.A: Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources	7.1Proportion of land area covered by forest 7.2 CO2 emissions, total, per capita and per $1 GDP (PPP), and consumption of ozone-depleting substances 7.3 Proportion of fish stocks within safe biological limits 7.4 Proportion of total water resources used
Target 7.B: Reduce biodiversity loss, achieving, by 2010, a significant reduction in the rate of loss	7.5 Proportion of terrestrial and marine areas protected 7.6 Proportion of species threatened with extinction
Target 7.C: Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation	7.7 Proportion of population using an improved drinking water source 7.8 Proportion of population using an improved sanitation facility
Target 7.D: By 2020, to have achieved a significant improvement in the lives of at least 100 million slum dwellers	7.9 Proportion of urban population living in slums[ii]
Goal 8: Develop a global partnership for development	
Target 8.A: Develop further an open, rule-based, predictable, non-discriminatory trading and financial system Includes a commitment to good governance, development and poverty reduction – both nationally and internationally Target 8.B: Address the special needs of the least developed countries Includes: tariff and quota free access for the least developed countries' exports; enhanced programme of debt relief for heavily indebted poor countries (HIPC) and cancellation of official bilateral debt; and more generous ODA for countries committed to poverty reduction Target 8.C: Address the special needs of landlocked developing countries and small island developing States (through the Programme of Action for the Sustainable Development of Small Island Developing States and the outcome of the twenty-second special session of the General Assembly)	*Some of the indicators listed below are monitored separately for the least developed countries (LDCs), Africa, landlocked developing countries and small island developing States.* **Official development assistance (ODA)** 8.1 Net ODA, total and to the least developed countries, as percentage of OECD/DAC donors' gross national income 8.2 Proportion of total bilateral, sector-allocable ODA of OECD/DAC donors to basic social services (basic education, primary health care, nutrition, safe water and sanitation) 8.3 Proportion of bilateral official development assistance of OECD/DAC donors that is untied 8.4 ODA received in landlocked developing countries as a proportion of their gross national incomes 8.5 ODA received in small island developing States as a proportion of their gross national incomes **Market access** 8.6 Proportion of total developed country imports (by value and excluding arms) from developing countries and least developed countries, admitted free of duty 8.7 Average tariffs imposed by developed countries on agricultural products and textiles and clothing from developing countries

Target 8.D: Deal comprehensively with the debt problems of developing countries through national and international measures in order to make debt sustainable in the long term	8.8 Agricultural support estimate for OECD countries as a percentage of their gross domestic product 8.9 Proportion of ODA provided to help build trade capacity **Debt sustainability** 8.10 Total number of countries that have reached their HIPC decision points and number that have reached their HIPC completion points (cumulative) 8.11 Debt relief committed under HIPC and MDRI Initiatives 8.12 Debt service as a percentage of exports of goods and services
Target 8.E: In cooperation with pharmaceutical companies, provide access to affordable essential drugs in developing countries	8.13 Proportion of population with access to affordable essential drugs on a sustainable basis
Target 8.F: In cooperation with the private sector, make available the benefits of new technologies, especially information and communications	8.14 Telephone lines per 100 population 8.15 Cellular subscribers per 100 population 8.16 Internet users per 100 population

Endnotes

[i] For monitoring country poverty trends, indicators based on national poverty lines should be used, where available.

[ii] The actual proportion of people living in slums is measured by a proxy, represented by the urban population living in households with at least one of the four characteristics: (a) lack of access to improved water supply; (b) lack of access to improved sanitation; (c) overcrowding (3 or more persons per room); and (d) dwellings made of non-durable material.

Chapter 5

Part 3

Commission on Sustainable Development Indicators of Sustainable Development – 3rd edition

UN Department of Economic and Social Affairs
Division for Sustainable Development

The United Nations Division for Sustainable Development (DSD) released the third, revised set of indicators of sustainable development, prepared for the United Nations Commission on Sustainable Development (CSD), in 2007.

Source: UN Commission for Sustainable Development website: www.un.org/esa/sustdev/natlinfo/indicators/isd.htm

Background

The CSD Indicators of Sustainable Development serve as a reference for countries to develop or revise national indicators of sustainable development.

The previous two editions of the CSD indicators were published in 1996 and 2001.

They have been intensively tested and applied by many countries around the world.

New features

- A new set of 50 core indicators has been created.
- Core indicators are part of larger set of 96 indicators of sustainable development.

- The larger indicator set allows for a more comprehensive and differentiated assessment of sustainable development by countries.
- Due to creation of a core set, CSD indicators remain manageable.
- Core indicators fulfill three criteria:
  - o They cover issues that are relevant for sustainable development in most countries.
  - o They provide critical information not available from other core indicators.
  - o They can be calculated by most countries with data that is readily available or could be made available within reasonable time and costs.
- CSD indicators continue to be placed in a framework of themes and sub-themes.
- The framework contains 14 themes, which are slightly modified from the previous edition:

• Poverty	• Natural hazards	• Economic development
• Governance	• Atmosphere	• Global economic partnership
• Health	• Land	• Consumption and production patterns
• Education		• Oceans, seas and coasts
• Demographics		• Freshwater
• Biodiversity		

- Indicators are no longer explicitly categorized into four pillars of sustainable development.
- Coherence with Millennium Development Goal (MDG) indicators and major sectoral indicator initiatives has been increased.

Review process

- DSD decided in 2005 to review the CSD indicators with three main purposes:
  - o to incorporate new thinking on the role of indicators in sustainable development;
  - o to reflect country experiences over the past decade;
  - o to exploit synergies with the MDG indicators and other major sectoral indicator initiatives.
- As part of the review, the DSD organized two expert group meetings with participants from countries across the world and from international organizations.
- DSD also conducted internal and commissioned external studies and held extensive consultations.

Next steps

- Countries are invited to consider the new CSD indicators when revising existing or developing new national indicators of sustainable development.
- CSD indicators will be used by international agencies for capacity-building activities on indicators of sustainable development and related areas.
- Continuous work on the CSD indicators will reflect country experiences made in applying and adopting the new indicator set.
- Inter-agency collaboration will ensure coherence of CSD indicators with other indicator processes such as the MDG indicators, the 2010 Biodiversity Indicators Partnership, and the Hyogo Framework for Action on disaster reduction.

Further information

"Indicators of Sustainable Development: Guidelines and Methodologies" was published in 2007 and is currently available on the internet (www.un.org/esa/sustdev/natlinfo/indicators/isd.htm). The publication includes guidance on how to use and adapt the CSD indicators to national conditions. Detailed methodology sheets are published electronically and will be regularly updated online.

CSD Indicators of Sustainable Development

Theme	Sub-theme	Core indicator	Other indicator
Poverty	Income poverty	Proportion of population living below national poverty line	Proportion of population below $ 1 a day
	Income inequality	Ratio of share in national income of highest to lowest quintile	
	Sanitation	Proportion of population using an improved sanitation facility	
	Drinking water	Proportion of population using an improved water source	
	Access to energy	Share of households without electricity or other modern energy services	Percentage of population using solid fuels for cooking
	Living conditions	Proportion of urban population living in slums	
Governance	Corruption	Percentage of population having paid bribes	
	Crime	Number of intentional homicides per 100,000 population	
Health	Mortality	Under-five mortality rate	
		Life expectancy at birth	Healthy life expectancy at birth
	Health care delivery	Percent of population with access to primary health care facilities	Contraceptive prevalence rate
		Immunization against infectious childhood diseases	
	Nutritional status	Nutritional status of children	
	Health status and risks	Morbidity of major diseases such as HIV/AIDS, malaria, tuberculosis	Prevalence of tobacco use
			Suicide rate
Education	Education level	Gross intake ratio to last grade of primary education	Life long learning
		Net enrolment rate in primary education	
		Adult secondary (tertiary) schooling attainment level	
	Literacy	Adult literacy rate	

Demographics	Population	Population growth rate	Total fertility rate
		Dependency ratio	
	Tourism		Ratio of local residents to tourists in major tourist regions and destinations
Natural hazards	Vulnerability to natural hazards	Percentage of population living in hazard prone areas	
	Disaster preparedness and response		Human and economic loss due to natural disasters
Atmosphere	Climate change	Carbon dioxide emissions	Emissions of greenhouse gases
	Ozone layer depletion	Consumption of ozone depleting substances	
	Air quality	Ambient concentration of air pollutants in urban areas	
Land	Land use and status		Land use change
			Land degradation
	Desertification		Land affected by desertification
	Agriculture	Arable and permanent cropland area	Fertilizer use efficiency
			Use of agricultural pesticides
			Area under organic farming
	Forests	Proportion of land area covered by forests	Percent of forest trees damaged by defoliation
			Area of forest under sustainable forest management
Oceans, seas and coasts	Coastal zone	Percentage of total population living in coastal areas	Bathing water quality
	Fisheries	Proportion of fish stocks within safe biological limits	
	Marine environment	Proportion of marine area protected	Marine trophic index
			Area of coral reef ecosystems and percentage live cover

Freshwater	Water quantity	Proportion of total water resources used	
		Water use intensity by economic activity	
	Water quality	Presence of faecal coliforms in freshwater	Biochemical oxygen demand in water bodies
			Wastewater treatment
Biodiversity	Ecosystem	Proportion of terrestrial area protected, total and by ecological region	Management effectiveness of protected areas
			Area of selected key ecosystems
			Fragmentation of habitats
	Species	Change in threat status of species	Abundance of selected key species
			Abundance of invasive alien species
Economic development	Macroeconomic performance	Gross domestic product (GDP) per capita	Gross saving
		Investment share in GDP	Adjusted net savings as percentage of gross national income (GNI)
			Inflation rate
	Sustainable public finance	Debt to GNI ratio	
	Employment	Employment-population ratio	Vulnerable employment
		Labor productivity and unit labor costs	
		Share of women in wage employment in the non-agricultural sector	
	Information and communication technologies	Internet users per 100 population	Fixed telephone lines per 100 population
			Mobile cellular telephone subscribers per 100 population
	Research and development	Gross domestic expenditure on R&D as a percent of GDP	
	Tourism	Tourism contribution to GDP	

Global economic partnership	Trade	Current account deficit as percentage of GDP	Share of imports from developing countries and from LDCs
			Average tariff barriers imposed on exports from developing countries and LDCs
	External financing	Net Official Development Assistance (ODA) given or received as a percentage of GNI	Foreign direct investment (FDI) net inflows and net outflows as percentage of GDP
			Remittances as percentage of GNI
Consumption and production patterns	Material consumption	Material intensity of the economy	Domestic material consumption
	Energy use	Annual energy consumption, total and by main user category	Share of renewable energy sources in total energy use
		Intensity of energy use, total and by economic activity	
	Waste generation and management	Generation of hazardous waste	Generation of waste
		Waste treatment and disposal	Management of radioactive waste
	Transportation	Modal split of passenger transportation	Modal split of freight transport