

Forest Policies and Indigenous Peoples' Traditional Knowledge and Practices on Sustainable Forest Management:

*Fiji, Cambodia
and Thailand*



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Acronyms

ABS	Access and Benefit Sharing
ADB	Asian Development Bank
BCC	Biodiversity Conservation Corridor
CBD	Convention on Biological Diversity
CEDT	Community Empowerment and Development Team
CF	Community Forestry
COP	Conference of Parties
CPA	Community Protected Area
CLT	Communal Land Title
DND	Department of National Parks, Wildlife, and Plant Conservation
EAP	East Asia and the Pacific
EIA	Environmental Impact Assessment
ELC	Economic Land Concession
ER-P	Emissions Reduction Program
ER-PD	Emissions Reduction Program Document
FAB	Fijian Affairs Board
FCPF	Forest Carbon Partnership Facility
FFP	Fiji First Party
FGD	Focus Group Discussion
FLMMA	Fiji Locally Managed Marine Areas
FPIC	Free, Prior and Informed Consent
GCC	Great Council of Chiefs
ICH	Intangible Cultural Heritage
ICLT	Indigenous Communal Land Title
ILO	International Labor Organization
IPs	Indigenous Peoples
IPF	Indigenous Peoples' Foundation for Education and Environment
JoMPA	Joint Management in Protected Areas

KII	Key Informant Interview
KSWS	Keo Seima Wildlife Sanctuary
LMMA	Locally Managed Marine Areas
LOU	Land Owning Units
LUU	Land Use Unit
MAFF	Ministry of Agriculture, Forestry and Fisheries
MLMUPC	Ministry of Land Management, Urban Planning, and Construction
MNR	Ministry of Natural Resources and Environment
MOE	Ministry of Environment
NBSAP	National Biodiversity Strategic Action Plan
NDF	Northern Development Foundation
NDP	National Development Plan
NGO	Non-Government Organization
NGOF	Non-Governmental Organization Forum on Cambodia
NRM	Natural Resource Management
NTF	National Trust of Fiji
NTFP	Non-Timber Forest Product
NTROC	National iTaukei Resource Owners Committee
PA	Protected Areas
PASD	Pgakenyaw Association for Sustainable Development
PDAFF	Provincial Department of Agriculture, Forestry and Fisheries
PDOCF	Provincial Department of Culture and Fine Arts
PDOE	Provincial Department of Environment
PF	Production Forest
REDD+	Reduce emissions from deforestation and forest degradation and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries
REL	Reference Emission Level
RFD	Royal Forestry Department
RGC	Royal Government of Cambodia
R-PP	Readiness-Preparation Proposal
SAR	South Asia Region
SIA	Social Impact Assessment
SODELPA	Social Democratic Liberal Party
SPC	Pacific Community
TAO	Tambon Administrative Organization
TEK	Traditional Ecological Knowledge
TLTB	iTaukei Land Trust Board
UNDP	United Nations Development Program
UNDRIP	United Nations Declaration on the Rights of Indigenous Peoples
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	The United Nations Framework Convention on Climate Change
UN	United Nations
WB	World Bank
WCS	Wildlife Conservation Society

Synthesis

By Leah Enkiwe-Abayao

Indigenous peoples and forests are mutually constitutive. Certain natural forests have been developed as part of indigenous peoples' territories. Previous studies show evidence of a long history of forest resource management by indigenous peoples globally (de Chavez, 2013; Poffenberger, 2000; Davis and Wali, 1994). Forests are essential for indigenous peoples' survival as these pave the way toward food security and sustainable livelihoods (FAO, 2019). Forest affinity is strongly illustrated in how indigenous peoples customarily conserved forests for many years. They have used forests in many ways without putting at risk the same resource for future generations. These traditional conservation practices used distinct forest traditions that form an Indigenous Knowledge System. With this body of knowledge, indigenous peoples have learned to plot the future as they continuously navigate the forests. Indigenous forests have built up over years of being managed and developed according to customary laws.

Traditional forest management practices are increasingly recognized in formal forestry regimes. But in some developing countries, the laws are either silent or oppose them. Three country case studies (Cambodia, Thailand, and Fiji) have been commissioned by Tebtebba Foundation (Indigenous Peoples' International Centre for Policy Research and Education) to look into policies on forests and indigenous

peoples' traditional knowledge and practices on sustainable forest management. This regional research is part of the Forest Carbon Partnership Facility (FCPF) Capacity Building Program on REDD+ for Forest Dependent Indigenous Peoples in East Asia and the Pacific and South Asia Region Project.

The research project had the following objectives: 1) Conduct in-depth study of distinct and existing traditional knowledge and practices on forest and forest management of indigenous peoples and the customary laws and institutions that govern these taking into account gender differentiated roles, access to resources, land, benefits and decision making; 2) Study government policies and programs that reinforce and/or hinder/weaken the practice and transfer of traditional forest management of indigenous peoples; and 3) Generate policy recommendations towards the strengthening of indigenous knowledge systems and traditional forest management practices in REDD+ implementation.

The scope of work involved: 1) distinct practice/s of indigenous peoples, including women, in a particular forest ecosystem which contributes to reduced emissions from deforestation and forest degradation, sustainable forest management, forest conservation, enhancement of carbon stocks, promotion of cultural diversity and biodiversity illustrating indigenous peoples' holistic view and multifunctional use of forest

The country studies were conducted in view of the need for policies that support traditional forest practices, and with a goal of ensuring that social justice and equity will work for indigenous peoples as rights holders. Tebtebba desires that policies are built on evidence-based studies that pursue Indigenous Peoples' Sustainable, Self-Determined Development, a framework that allows indigenous peoples to freely exercise their rights, and that governments ensure these rights are respected, protected, and fulfilled. The studies employed a rights-based perspective in analyzing indigenous peoples' traditional forest management. Indigenous peoples have inherent rights derived from their identities which they have sought to protect, and the ancestral links they have developed with their lands, territories and resources over centuries. The recognition of indigenous peoples necessitates respect for their ancestral domains and all the knowledge and practices they have developed.

Study Sites, Methods and Sources

The Fiji country study covered the provinces of Bua (Tiliva village, Bua district) and Cakaudrove (Saqadi village, Saqadi district and Nakarabo, Korotesere and Vaturamulo villages, Vaturova district) in Vanua Levu Island; and Ra (Naiserelagi and Rokoroko villages, Saivou district) and Nadroga-Navosa (Sila and Nayevuyevu villages, Cuvu district) in Viti Levu Island. These sites are located within the three accounting areas identified in Fiji's Emission Reduction Program Document (ER-PD).

Traditional Forest Management and Conservation

The three studies show that indigenous peoples view forests as an entity that forms part of their existence. This thinking is an important consideration in how we assess and interpret the use of forests. Descriptions about forest composition and function show the inherent connected-

ness of forests and indigenous peoples. The use of forest is guided by customary principles and traditions that build up as peoples learn to live with and in the forest. In many countries however the forest practices of indigenous peoples are often undervalued or downplayed on the assumption that recent technical knowledge offers the most accessible solution. The REDD+ mechanism will have to start by understanding this situation of Indigenous Forest Knowledge to make way for effective participation of indigenous peoples.

Many policies need to be reconfigured or updated as these have very limited conceptualizations of forests as shown in the cases from the three country studies.

Indigenous Conceptualizations of Forests

Indigenous peoples have multifaceted conceptualization of forests. To the Karen people of Thailand, the types of forest show a functional characterization and reverence for forest. Trakansuphakon's (2019) study finds that the Karen have four types of forest: a) *Keu Neu Mue* (*K' ne muj*, Female Forest) found at high elevation mountains, grown with trees and with high moisture; b) *Keu Neu Pha* (*K' ne hpa*, Male Forest) located just below the Kew Neu Mue, grown with diverse plants such as wild chestnuts, pine trees, bamboo; c) *Keu Neu Kho Thi* (*K' ne hkauf hliv*) with both evergreen trees and dipterocarp species; and d) *Koh Be* (*Kauj bgei*), equivalent to deciduous forest and the lowest part where various kinds of mushroom and insects can be found.

This indigenous conceptualization informs us that the lowest parts of the forest are areas that can be used for subsistence livelihoods. It is important to note however that this subsistence use is well regulated customarily. Trakansuphakon (2019) reports that the Karen's rotational farming has a fallow period of up to 10 years.

Forest conceptualizations are informed by peoples' lifelong experiences that shape a pragmatic thinking of forest use and care. Fiji's iTaukei view the forest as a learning space.

Tarabe's (2019) study conveys the notion that forest guides people towards traditional values and knowledge on how to live, to know which plants can be eaten and are medicinal, and which ones are good for firewood and for houses. Moreover, the iTaukei's knowledge structure of *kila ka raraba* or open knowledge and *kila ka vuni* or closed knowledge illustrates an intrinsic conservation framework wherein the regulated use of forest is fused into their system of belief and practices. This knowledge system further holds the view that everything occurs in a cycle rather than a linear progression in the western perspective where everything has a beginning and an end (Tarabe, 2019).

Forests are often permeated with views of sacredness that have defined people's temperament for their consumption and general outlook for care. Indigenous peoples often look at forest as populated by supernatural beings. In Cambodia, Lic's (2019) study illustrates the Bunong people's thinking that powerful spirits live in the forests, thus the term "Spirit Forest" is coined to refer to certain places that are customarily guarded from disturbing human activities. Spirit forest areas are also strategically marked. Lic (2019) discloses that spirit forests are located in areas with a waterfall or rapids, a small hillock or a giant tree (normally *ficus sp.* or the tallest tree with large foliage). There are two important forests that remain intact primarily because of the Bunong peoples' forest practice: Keo Seima and Nam Lyr Wildlife Sanctuaries located in the eastern part of Monduliri province. Lic (2019) argues that these sanctuaries have been conserved compared to their surrounding forest areas that have been converted to agro-industrial development such as cassava, rubber, and cashew plantations.

The practice of spirit forest is culturally rooted that the indigenous peoples have a term in their language to refer to it: *Prey Taom* for the Bunong, *Prey Neak Ta* for the Kroeng and *Prey Areak* for the Thmon and Kuy. The spirit forest is used as prayer site, a source of water and seedlings, and wildlife nests. This type of forest utilization is important for indigenous peoples because it serves current needs sustainably. In contemporary times, some spirit forests are

being supported under Cambodia's Community Forest Program.

Similarly, the Karen of Thailand look up symbolically to the banyan tree as their ancestor, thus the forest conceptualization of "*Mue Kha Khleu*" to mean "the goddess of the great grandmother banyan tree" that is believed to be "merciful woman" (Trakansuphakon, 2019). The Karen people in one of the study sites refer to their own village as "*Doi Ja Kho*" or elephant mountain.

These forest conceptualizations are reflective of a deep-seated relation to forest as a natural resource. This thinking among indigenous peoples exists to the present. These concepts greatly contrast the statist view of forest as uninhabited and inactive, as illustrated in Thailand's Forestry Act of 1941 and Forest Reserve Act of 1964.

Indigenous peoples have significantly contributed to reducing emissions from deforestation and forest degradation. This is an integral outcome of their traditional forest management. REDD+ has to start from their conceptualizations of the forest in order to allow for their effective participation.

Creating Relations with Forests

Indigenous peoples build natural forests as part of their ancestral domain. They use and manage the forest following certain customs and in consideration of their needs in particular time periods. In the process, they created relations with the forest by developing it from its state as a natural resource into an area that forms part of their ancestral domain. Forest practices evolve and the parameters for its use, management and protection are established. Practices vary across cultures.

Among Fiji's iTaukei, Tarabe (2019) illustrates three practices for building relations with the forest: a) *Sevu*, the offering of the first fruit of the land which includes the offering of the first fruits of the forest; b) building relations with the forest at birth in which umbilical cords are buried on a spot where a tree is planted; c) continued practice of preserving totem trees that define their identities.

Similarly, Thailand's Karen people practice what they call *Dei Pau Htoof* (umbilical cord tree). This tree is forbidden to be cut for it is where the umbilical cord of a new born baby placed in a bamboo container is hung (Trakansuphakon, 2019). This practice creates people's relation with the forest, binding it under a system called "Taboo forest." The trees form part of the forest that are regarded as sacred and should not be disturbed by humans. Taboo forests include the following: graveyard forest, forest for performing rituals for the sick, forest where two streams converge, area with a mound surrounded by water, spring forest, narrow pass between two hills, lagoon without inlet or outlet, or an abandoned temple. In general, taboo forest is treated with much respect by the Karen people because it is believed to be the abode of spirits.

The cultural practice of placing umbilical cords in trees and forests is done in Fiji and Thailand. It is a very symbolic practice that ties children to the territories, as the reports suggest. Parents desire that their children form symbolic attachments to their ancestral domains and thereby find their cultural roots. The forest therefore is a material foundation of cultural domains.

In Cambodia, certain parts of the forest are established as "Burial Sites" which creates relations between peoples, their ancestors and the forest. Lic (2019) reports that spirit forests are named after any of the following: an old respected elder, an important tree species, a permanent stream, a mountain, or big rock. The spirit forest, Tu R'Nor, is named after a permanent stream. He notes that at present each burial site could be as large as up to 400 meters by 800 meters which is spacious compared to usual sites of cemeteries. The spirit forests are further important in the Cambodian agro-ecological landscape as they maintain atmospheric temperature, rainfall, humidity, serve as a windbreak in agricultural areas and act as the "natural forest seed sources" for forest management (Lic, 2019).

Forests are also important to the Bunong people of Cambodia because they depend on them for non-timber forest products to subsidize their livelihoods. Lic (2019) reveals that the Bunong collect forest vegetables, wild fruit

and honey as well as bamboo or rattan for house construction and liquid tree resin which they sell to traders in the provincial town, Sen Monorom.

These practices in creating relations with the forest continue to the present. They form part of the indigenous forest management practices that eventually contribute to reducing emissions from deforestation and forest degradation. It is of interest to note what Trakansuphakon (2019) captured in an interview with a Karen woman who said in retrospection, "...there has been an increase in the number of wild animals, including squirrels that enter our houses." This view shows a monitoring mechanism of indigenous peoples about how healthy or biologically diverse their forest habitats are.

Beyond Material Use of Forest

To the outside world, forests are simply protected. But to indigenous peoples, their forests remain in limited contact with humans. In other words, indigenous forests are being used even when they seem not to be. Indigenous thinking goes beyond "forest use" that is often associated with immediate benefits. Unlike material properties that can be personalized and owned, forests are bequeathed and follow a collective management and conservation system. This is because forests are not considered properties to be owned privately.

Forests are regarded as an abode of ancestors. Fiji's iTaukei shows the case of a customary practice that ancestors become eternal guardians of the Fijian forests. Certain parts of the forest can be *tabu* or forbidden because it is a *koro makawa* (old village) or the *sautabu* (sacred burial ground) where chiefs are buried and are usually left undisturbed because this is where the ancestors live, a *vanua tawa* (occupied place). Tarabe's study elaborates on cases told by indigenous women in Vaturamulo in Vatuva that forests are burial grounds and one has to ask permission to use them or to do any alteration of their forms. Indigenous forests are thus charged with spiritual beings and have the need for respectful management and use.

Among the Bunong of Cambodia, Lic (2019) argues that a healthy forest is essential to peoples' survival and thus maintain a general slogan that "the forest is owned by all of us in the villages. Everyone has no claim of individual land tenure but agrees and feels collectively connected to the forest."

Management and Conservation Practices

Indigenous peoples practice a fallow period in farming certain parts of the forests. In Cambodia, the traditional practice ranges from 5 to 9 years (Lic, 2019). While it has been reduced to five years, the principle that forest ecosystems needs to regrow remains. Harvesting forest products such as bamboo shoots and mushroom has also been reduced to cope with decreasing forest products. This practice forms part of the indigenous peoples' adaptation measures in response to demographic changes including increasing population in indigenous communities.

Cambodia's case also presents what Lic (2019) refers to as "Untouched Forest sites," a type of spirit forest that is "intentionally allocated for beliefs, customary, and traditional forest management, established on extraordinary forest ecosystems such as dense and tall tree forests with permanent water source or spirit plants, e.g., Kroeng's spirit plant, the wild taro." Such areas are treated with much respect and reverence in that people pray for safety, healing from illness, spiritual treatment of sickness, and when collecting water from the site. Lic (2019) further reveals that in the village of Krangteh, about 1 kilometer by 1.5 kilometers of forest are protected for the Untouched Forest, and that forests like this show a well kept forestland compared to surrounding areas where the forests have been converted to cassava, rubber, and cashew plantations.

In Fiji, Tarabe (2019) accounts for the importance of feasts that need to be performed when one wants to start a new place in the forest. The feast called *va`atakiriri* is about asking permission from ancestors who live in the forest. The feast will allow ancestors to hear noise, talks and shouting which is reflective of a living community.

Forest taboos or prohibition practices are important traditional conservation practices. Trakansuphakon (2019) notes that taboo principles are captured in the Karen proverb “*Pga du ta ne, pga ha ta phlae* (*Pgaz duf taj neif, pgaz hav taj hplaiv*)” or “the one who upholds customary law is the one free from harm,” which means that humans should avoid interfering with forest spirits to keep safe. This principle upholds conservation and calls on humans to respect spiritual beings as part of their ecosystem. Thus, all areas known as *Pa Tà Due* (Taboo forest) are prohibited from human activities such as cultivation, fishing, hunting, uttering vulgarity, and shouting. Children are specifically cautioned from uttering anything bad in the forests to avoid punishments from forest spirits. These are done by telling children of bad experiences that happened in the past.

Indigenous forest conservation involves caring for certain trees. Among the Karen, trees that grow near streams are prohibited for use in housing. They also believe that the banyan tree must not be domesticated in the village. It must grow on its own because it is considered a sacred tree. These beliefs are transmitted as they are practiced in the community.

Similarly, among the Kroeng of Cambodia, one practice of protecting their forests is maintaining two particular plants in their forests, the wild taro or Khmauch and the pumpkin. The wild taro is believed to be “protected by a Spirit and will condemn anybody who would collect and bring it into their village” (Lic, 2019). The pumpkin too is strictly prohibited from being domesticated in the villages and is therefore called *changray* meaning unlucky (Lic, 2019).

Forest conservation involves certain rituals that regulate and sustain peoples' relationship with the forests. In the case of the Karen people, Trakansuphakon's (2019) study demonstrates elaborate rituals on the forest as follows: a) *Lue Pa* or forest worship in order to return the forest back to the spirits. This has been renewed in the Buad Pa or Forest Ordination where a yellow robe (monk attire) is tied around a tree; it is akin

to the tree getting ordained as part of Buddhist ordination. Such practice prohibits the tree from being cut; b) *Lue Me Tò* or asking for pardon from the fire spirit, a ritual performed by owners of rotational fields to ask forgiveness from spirits after the clearing period of rotational farming. The ritual whose intent is to ask for protection from the fire spirit is performed in an area where big trees are. This practice evolved and has now been applied to clearing of firebreaks around the boundary of the community; c) *Luj Hli* or sacrificing water spirit, a ritual performed to promote fish sanctuary. The forest is also used as a venue for rituals to heal people or to promote welfare including how land will be taken care of and how livelihoods shall be properly accomplished to fulfill a goal.

The forest is a site for traditional hunting of animals. Among the Karen of Thailand, the forest is a source for animal protein. Men collectively hunt wild boar and barking deer which is shared to all members of the community (Trakansuphakon, 2019). Hunting is regulated by customary law and as such certain animals such as the gibbon and hornbill are forbidden from being hunted. Certain observances also still prevail, such as prohibition of hunting when someone dies in the community. Women collectively gather fish, crabs, shrimps along streams in the forests. In terms of harvesting, indigenous peoples are guided by the principle that forest products are to be harvested when these are mature.

Trakansuphakon (2019) asserts that the Karen peoples' rotational farming practice forms part of indigenous forest management because it respects the ecosystem which includes the forest. This farming livelihood also builds on interrelationships that allow for multiple sources of livelihoods over a span of a year or a cycle. More so, this farming method creates minimum disruptions because: a) it strictly operates the fallow period which allows for bee production and soil regeneration; b) it uses organic technology thus building a self-reliant thinking in livelihoods; c) it uses a mixed cropping system.

Indigenous Forest Governance

Indigenous forest governance is guided by customary laws. In the case of Thailand, it rests on the *Oh deu bloh deu jo* (*Of de Blauf de co*) or Bloh in short, a cultural center. Trakansuphakon (2019) explains that this traditional social institution functions as a place for decision making at the community level and place to teach certain traditions or lifeways. This cultural center has *Bloh Kho* (*Blauf Hkof*), a head/leader who holds the highest position among the people and who makes decisions. This leader works together with the *Pa Mee Pa Pa* (*Pgaz mi pgaz pgaj*) or the elders' group. The head leader position is prestigious and hereditary. Trakansuphakon (2019) remarks that many Karen communities have not been successful in sustaining the governance line for the head leader. In fact, many communities no longer have a traditional head leader.

In the absence of head leaders, what evolved is the group of Karen elders that deliberate on issues and makes decisions. Additionally, a village headman has been appointed by the Thai District Officer to work with the group of elders. However, Trakansuphakon (2019) contends that the Karen community members are not united with this current governance system and remain strong in taking care of their forests. This is a case where the Karen seem to draw strength from within and continue to build forest governance that can work with new conditions in the community and the external challenges they face. These communities also maintain good relations with their youth who continue to receive mentoring and advice from their elders.

Cambodia's case shows a collective governance system. Lic (2019) maintains that "forests are owned by everyone in the village" and that the village's ability to manage determines the size of the forestlands they will own, an average of 314 km² in the study site. It is also a practice that newly married couples may clear a portion of the village forestland for agriculture by obtaining permission from the village clan chief (or group of chiefs) who acts on any violations on traditional forest governance system (Lic, 2019). The clan chief, male or female selected by the indigenous peoples in the village, makes the

final decision following customs. The chief also makes decisions on illness concerns over spirit forest site, e.g., due to collecting prohibited forest products.

For Fiji, Tarabe (2019) points out that the "retributive nature of customary law" is important in traditional forest management and that the indigenous peoples know the terms for this. Accordingly, violations of customary laws have consequences that manifest in the form of "sickness, death or natural disaster." Thus *matigsalu*, the traditional means of reconciling cultural and spiritual imbalance, and *veisorosorovi*, asking forgiveness for violating forest boundaries, are important principles to observe in maintaining environmental balance.

Tarabe (2019) also identified the following practices that are done to restore balance: a) women of Saqani are actively involved in a project where each clan is responsible for the replanting of mangroves as well as the yaleyale creeper to stop shore line erosion and planting of dilo, their totem tree along the coast line; b) another clan is involved in the planting of sweet potatoes and such tubers that can be stocked when natural disasters occur; c) another clan is replanting their indigenous forest which they lost to logging companies in the 90s; d) another clan has conserved their forest. The vitality of such project is enhanced by using the existing clan structures of the village. The clan is patrilineal and led by a headman.

Transmission of Indigenous Forest Knowledge and Practices

Indigenous peoples have oral traditions that function effectively in the transmission of forest management practices. Among the Karen of Thailand, proverbs have been used to instill in the minds of peoples the principles of forest conservation. Trakansuphakon (2019) gives the following examples that illustrate the importance of having animals live in the forests, thus the Karen proverbs, "*Tho koh see teu be, seu yue khleu nui thoo* (one hornbill bird dies, seven banyan trees are lonely)," and "*Koh yoo pa see teu due, seu yue khleu nui pa* (one gibbon dies, seven forests are in sorrow)."

Karen proverbs hold several teachings of forest care, conservation and protection. Trakansuphakon (2019) writes that the proverb, “Drink from water, take care of water. Eat from land, take care of land” reveals much about the Karen concept of “*K’lauz*” (Kataw) which means “to care” and “to preserve/maintain” and this applies to forests.

Transmission of forest knowledge and practices is also done with the performance of rituals. The Karen practice several rituals during the months of *La Khu Poo* (*La hkoov pooz*), approximately August, “to worship” farming spirits, specifically in rotational farming. The ritual *Boh Ku* (*Bgau Quv*) is illustrative of how a community collectively renew their relation with their natural resource by paying spiritual respect. Trakansuphakon (2019) informs us that the ritual is led by a traditional leader by performing it in his own field, followed by households repeating the same ritual performance in their farms. The ritual involves animal sacrifice and offering of drink.

The use of forests is also regulated with ritual performances. The Karen practice certain rituals after fire clearing and in use of forest lands. Trakansuphakon (2019) writes that they traditionally sacrifice chickens in the performance of the *Ta Lue Me* (*Taj Luj Meif*) that seeks favor of cooling down after fire clearing and therefore allows regrowth of plants, the *Ta Sae* (*Taj Saiv*) that drives out destructive insects and diseases, *Kae* (*Taj Hkav Kaiv*) that calls for protection from misfortune including lightning strikes.

Trakansuphakon (2019) reports that the Karen have set up a Community Learning Center called *Jo Malo Lue La (Co maz loz luv laj)* for their children to learn about the importance of shredded rice grains through storytelling and practical farming techniques.

Indigenous Women and Forests

Women have distinct roles in indigenous forest management. Such roles are governed by customary principles that guide sustainable use of forest products. Among Fiji's Itaukei, Tarabe (2019) writes that women forage wild vegetables,

gather firewood and medicines, and men dig for yams and cut trees to build houses.

Among the Karen people in Thailand, women are known to be experts in gathering nontimber forest products and knowledge holders of seeds, plants and food (Trakansuphakon, 2019). Additionally, women lead the work in the management of fire breaks that ensure an effective protection of forests from fires.

Policies, Programs and Indigenous Peoples' Forests

National policies generally recognize indigenous forest management practices as part of local practices or pre-modern practices. The three studies however show the need for a full recognition of these forest practices.

The absence of a full and functional state recognition of indigenous peoples and their traditional forest management is common in the three countries studied. Problematic issues arise as a result of this because government instrumentalities implement the laws without knowledge of indigenous peoples' customary forests. The case studies show that government authorities have continuously threatened indigenous peoples as they practice forest conservation and have deprived them of their customary forest rights. The most recent Community Forest Act of Thailand, for instance, requires a minimum number of indigenous persons to apply for permission to establish a community forest. This is the result of non-recognition at the national level and a faulty move for forest conservation.

Policies may have improved especially after the adoption in 2007 of the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP). In the case of Thailand, Trakansuphakon (2019) identified two policies that promoted indigenous peoples' participation in natural resource management and rotational farming: Cabinet Resolution of 3 August 2010 (Revival of Karen Livelihood) and Thailand Climate Change Master Plan for 2011-2050.

However, these policies are not synchronized with other existing official programs that go against indigenous peoples' practices. For instance, Thailand's natural resource development plans appear to thwart such recognition, such as the 2014 Master Plan for Problem Solving on Forest Destruction, Encroachment of State Land, and Sustainable Natural Resource Management and the Master Plan for Integrated National Park for 2017-2021. Trakansuphakon (2019) also noted that the Cabinet Resolution of 30 June 1998 does not recognize the fallow system of shifting cultivation.

In Fiji, national policies appear to favor recognition and participation of indigenous peoples in forest conservation. Tarabe (2019) finds potential involvement for them in Fiji's 2007 Forest Policy as it recognizes the involvement of land resource owners in promoting sustainable forest management, conservation and rehabilitation of forestland. A similar case she cites is Fiji's Forest Decree in 1992 under which initial attempts were made to include social, economic, environmental, cultural and political developments in the practices of the forestry sector.

Fiji's recognition of indigenous peoples is articulated in its 2011 REDD+ Policy which, Tarabe (2019) reports, recognizes the importance of indigenous intellectual property rights and "will develop legislation and guidelines for bio-prospecting and economic use of genetic material and products which incorporate fair provision for traditional knowledge and ownership." Also, Fiji's 2010 Harvesting Code of Practice provides guidelines for implementing sustainable forest management and best practice in the sector to promote reduced impact logging.

In Thailand, the Constitution of the Kingdom of Thailand recognizes the rights of communities and ethnic groups but makes clear these are subject to state norms, procedures and standards. Such view is stipulated in articles 43 and 70s:

Article 43: A person and a community shall have the right to a) Preserve, revive or promote wisdom, arts, culture, tradition and good customs at both local and national levels, and b) Manage, maintain

and utilize natural resources, environment and biodiversity in a balanced and sustainable manner, *in accordance with the procedures as provided by law.*

Article 70: The State should promote and *provide protection for different ethnic groups* to have the right to live in the society according to the traditional culture, custom, and ways of life on a voluntary basis, peacefully and without interference, insofar as it *is not contrary to public order or good morals or does not endanger the security of the State, health or sanitation.* (italics by this writer)

Three official decisions appear supportive of the Karen peoples and their forest practices, but, as this paper later shows, there are issues regarding these. These decisions are: 1) Cabinet Resolution dated 3 August 2010 that promotes people's participation in natural resource management allowing for the revival of Karen rotational farming as a livelihood (Trakansuphakon 2019); 2) Thailand Climate Change Master Plan 2011-2050 which encourages partnerships between stakeholders including indigenous peoples; and 3) National Park Act of 2019 (which amends National Park Act of 1961) which increases the penalty for those who break the law and recognizes communities in Protected Areas.

The broader situation in Thailand appears to be problematic as indigenous peoples and their traditional forest knowledge and practices are not fully recognized. The 2019 Community Forestry Act demonstrates this unchanged situation for indigenous peoples. It reiterates the State's view on forest and non-recognition of indigenous and customary practices. Trakansuphakon (2019) notes that indigenous peoples' organizations in Thailand have questioned the following definitions as they undermine indigenous peoples' customary forest tenure and sustainable practices in forest conservation.

Community forests are defined as "forests outside conservation forest areas that are granted permission to set up as community forests where communities in cooperation with the State can conserve, rehabilitate, manage, and maintain,

including utilize the natural resources, environment, and biological diversity in the community forests in a balanced and sustainable manner following this bill.” *Conservation forest areas* are “the areas of National Park following the National Park Act, as well as Wildlife Reserve, and No Hunting Zone following the Preservation and Protection of Wildlife Act, or any other areas equipped with natural values, or other kinds of values worth preserving or maintaining the environmental quality as stipulated in the Ministerial Regulations” (Art.4).

The Thailand State’s full recognition may be absent but government officials recognize the rights of indigenous peoples to their customary forests. Trakansuphakon (2019) reports that King Rama IX in a royal speech given by the Organizing Committee of Raphee on June 17, 1973 said:

“In the reserve forest that has been demarcated by the authority as reserve or classified forest, but when we drew demarcation line people have already been there....because the people who live in the forest have been there before. They have their rights as human beings. It means the authority encroaches the people, not the people encroach the State.” (*Royal Speech given to the Organizing Committee of Raphee Day, 17 June 1973*)

As for Cambodia, several policies recognize indigenous peoples’ rights to their forest and customary forest practices. Lic (2019) states that “the policies aim to promote the livelihoods of indigenous peoples and to improve their quality of life” and that the “indigenous peoples have used these policies to claim their Communal Land Titling registrations.” These are the Forest Law (RGC 1, 2002: Recognized community forestry, support livelihoods, management rights for 15-year renewable period; Land Law (RGC 2, 200, Recognition of traditional authorities; ownership of properties by indigenous peoples); Sub-Decree on Community Forestry Management (RGC 2, 2003, Establishing community forestry and allocation of natural forestlands); and Protected Area Law (RGC 3, 2008, Guarantee

rights of indigenous peoples and their participation in decision making processes). Specifically, the Forest Law prohibits the collection of timber and NTFPs for commercial purposes (Article 29) but provides the rights to indigenous peoples to utilize resin trees by means of traditional resin tapping (Lic, 2019).

Overall, the situation needs to be improved for indigenous peoples’ traditional forest management. Many forestry laws have been created many years ago by states that hold the colonial notion of “uncivilized natives.” The cited laws are reflective of this old notion about native peoples. This view has changed owing to many scientific studies conducted over the years (Toledo, et al., 2003; Chao, 2012; Clay, 2000) that articulated indigenous peoples’ notions of forests and the nature of their conservation practices. The problem is many governments have not amended their laws to reflect these research findings and the new situations that show the conditions in indigenous communities. And for some that were amended, the sections that refer to or affect indigenous peoples remain restrained, vague or missing. The table shows policies that recognize and those that impede indigenous peoples’ forest management.

Some policies have mixed articulations in regard to indigenous peoples. In Cambodia, for example, Lic (2019) cites the case of the Forest Law of 2002 that clearly states the rights of original ethnic minorities, indigenous peoples and local communities (articles 33, 37, 40, 44, and 46 of RGC 3, 2002) but at the same time prohibits certain activities including collection of timber and non-timber forest products. Another policy referred to is the Sub-Decree on Economic Land Concession (ELC) of 2005 under which the government allows ELCs in forestlands, including those of indigenous peoples. Lic (2019) reports that all spirit forests surveyed have been encroached by ELC operations.

The Cambodian Forest Law (RGC 3, 2002) officially recognizes community forests, and 414 sites (337,084 ha of forestlands) have already been granted (FA, 2017 cited in Lic, 2019). Community forests entitles indigenous peoples to apply for management rights following guide-

Policies and Plans on Indigenous Peoples' Traditional Forest Management (based on three country studies commissioned by Tebtebba)

Country	Policies & Plans that recognize and reinforce indigenous peoples' forest resource management practices	Policies & Plans that do not recognize indigenous peoples' forest resource management practices
Thailand	• Cabinet Resolution of 3 August 2010 (Revival of Karen Livelihood) • Climate Change Master Plan for 2011-2050	• Community Forestry Act of 2019 • National Park Act of 2019 (amended from 1961) • National Forest Reserve Act of 2016 (amended from 1964) • Wildlife Preservation and Protection Act of 1992 • Forestry Act of 1941 • Cabinet Resolution: Watershed Classification (27 July 1982) • Cabinet Resolution: Excludes Rotational Farming (30 June 1998) • Master Plan on Problem Solving of Forest Resource Destruction, Encroachment on State Land, and Sustainable Natural Resource Management, 2014
Fiji	• Forest Policy (2007) • REDD+ Policy (2011)	• Forest Decree in 1992 • Harvesting Code of Practice (2010)
Cambodia	• Forest Law (2002) • Land Law (2001) • Protected Area Law (2008) • Sub-Decree on Community Forestry Management (2003)	• Forest Law (2002) • Sub-Decree on Economic Land Concession (ELC) (2005)

lines that confer use and management rights to forests for 15-year renewable period, e.g., indigenous peoples to use their forests for livelihood such as in collection of NTFPs and timber at subsistence level (Lic, 2019).

Thailand's case shows vague policy moves on indigenous forest management. Trakansuphakon (2019) notes that the government released Cabinet Resolution on 30 June 1997 which excludes indigenous peoples from forest conservation programs and later Cabinet Resolution on 3 August 2010 which encourages the practice of rotational farming and natural resource management by Karen communities. It is also important to note that some forest policies threaten indigenous peoples' forest tenure, among these Thailand's "Hunting Ground" policy. Trakansuphakon (2019) recounts cases of involuntary relocation and destruction of properties of the Karen people in 1996, 2010, and 2011.

Common to the three case studies is weak (or even absence of) implementation of good forest policies that respect indigenous peoples' rights and practices. There also appear to be competing interpretation of forest policies that affect indigenous forest management practices. For Cambodia, Lic (2019) argues that government officials lack the capacity to understand the laws and implement them. He also observed some resistance to enforce them especially if the case favors indigenous peoples. For Fiji, Tarabe (2019) argues that implementation of the "Harvesting Code of Practice" with regard to the interest of the iTaukei people needs to be tightened.

Indigenous forests are governed by customs that are still practiced up to now. Forest governance is integral to the overall customary resource management systems. Among indigenous peoples in Thailand, Trakansuphakon (2019) informs us that the village headman and his associates and the traditional leader hold

key roles in forest management such as in the performance of rituals and ceremonies for the forests.

As to REDD+ implementation, Tarabe (2019) reports that Fiji's emission reduction program (ER-P) targets the iTaukei because "90% of the land in the ER-P falls under iTaukei land" and because the existing traditional knowledge and forest management practices can be a lot cheaper than a government program. Tarabe (2019) further notes that "Traditional forest management practices predate REDD+ and other western models of forest protection."

Threats and Obstacles Constraining Indigenous Forest Knowledge and Practices



Common to the findings of the three country studies are problems and issues on the *implementation* of forest policies that recognize indigenous forest management. While policies were passed by governments, it appears they are also unable to fully implement them. This puts indigenous peoples in an appalling situation where they cannot enjoy the services they deserve and more importantly are deprived of their basic human rights.

Inadequate Implementation of Forest Policies that Recognize Indigenous Forest Management

While the rights of indigenous peoples are explicitly recognized in Land and Forest Laws, their implementation seems to be inadequate. Tangible outcomes need to illustrate the fulfillment of these official commitments. In Cambodia, Lic (2019) claims that only a few Communal Land Titles have been processed and registered in fulfillment of Cambodia's recognition of indigenous peoples' rights to their resources.

In the case of Thailand, Trakansuphakon (2019) asserts that prejudice continues to prevail against Karen indigenous rotation farming and natural resource management including of forests. There have been cases where forest officials accused the Karen of violating forest laws and regulations such as the "No hunting Zone." Trakansuphakon's (2019) study provides various instances where Karen families were questioned for traditional activities in the forests. He also cites recent cases where forest officials took away the farmlands of Karen families who and their forebears had settled and developed the area for 200 years. Trakansuphakon further observed an apparent bias against Karen coffee farms and paddy fields in comparison to Thai lowland settlers who developed longan plantations.

Problematic and Contradictory Forest Policies

Thailand's natural resources development plans appear to go against the State's recognition of people's participation in natural resource management allowing for the revival of Karen rotational farming as a livelihood (Cabinet Resolution dated 3 August 2010). Trakansuphakon (2019) cites as examples the 2014 Master Plan for Problem Solving on Forest Destruction, Encroachment of State Land, and Sustainable Natural Resource Management and the Master Plan for Integrated National Park for 2017-2021. He also noted that Cabinet Resolution of 30 June 1998 does not recognize the forest fallow system of shifting cultivation.

Trakansuphakon's study further discloses several conflicting provisions of Cabinet Resolutions, e.g., Cabinet Resolution (30 June 1998) which aims to exclude people from conservation forest areas and Cabinet Resolution (3 August 2010) which encourages the practice of rotational farming and natural resource management by Karen communities. He further explains that this farming practice is not recognized by the Ministry of Natural Resources because it was apparently proposed by the

Ministry of Culture, thus the apparent conflicting interests among government agencies within the state structures.

The National Park Act of 2019 acknowledges communities in Protected Areas but prohibits indigenous forest practices, e.g., a) any activities that change the feature of the forest, b) gathering of NTFPs and other natural resources, and c) hunting and causing harm to wildlife. The prohibitions illustrate that the recognition of indigenous peoples, their forests and practices is valid when it does not go against the State. This means indigenous peoples' rights to their forests are limited due to state regulations. It also means the rights of Karen communities to their ancestral domains prior to this Act are not recognized.

In Thailand, the problematic policies resulted in cases of involuntary relocation of some Karen families (Trakansuphakon, 2019). A similar case can be observed for Cambodia where development programs such as economic land concessions (ELC) have often intruded into spirit forests of indigenous communities (Lic, 2019).

Another serious threat in Cambodia involves internal dynamics in indigenous communities. A recent assessment has identified the following challenges to customary and traditional knowledge on forest management: a) Limitation of forestlands for swidden agricultural system due to increased indigenous population and ELC investment; b) Unrestricted immigrants into indigenous villages; c) Maldevelopment and booming government policies on land utilization of former indigenous peoples' forestlands; d) New cultural preference of indigenous youth, e.g., seeing prestige in non-indigenous peoples and culture (CEDT, 2018 cited in Lic, 2019).

Fiji's case is complicated. The government through its iTaukei Land Trust Board (TLTB) is custodian of native lands. In her analysis, Tarabe (2019) remarks that this Board, not the iTaukei people, controls dealings involving iTaukei lands as its function is "to secure, protect and manage land ownership rights assigned to the iTaukei landowners and to facilitate the commercial transactions that revolve around its use." The

2010 Land Use Decree provides powers to the Land Use Unit (LUU) to facilitate the leasing of customary land on a longer term, 99 years. Tarabe (2019) explains that the current leasing system allows the Director of Lands the freedom to lease the land and therefore does not necessarily need the consent of the TLTB. More so, it is alarming to note that the LUU removes any legal right from land owners to use the land in the 99 years of designation.

With the 2010 Land Use Decree, several forest conservation areas are under 99-year lease. Tarabe (2010) provides the following illustrative examples: a) the Fiji government has its REDD+ pilot project in Emalu on a 99-year lease where the conservation of 4,120 hectares of forest as a carbon credit project is valued in terms of economic benefits for the people; b) the National Trust of Fiji (NTF) holds a 99-year lease over 16,304 hectares of tropical lowland rainforest in the Sovi Basin; and c) the 402 hectares of Kilaka Forest Conservation Area is also under a 99-year lease. This lease system may also facilitate the loss of forest knowledge system as it does not provide a platform for transmission of indigenous forest knowledge for the next generation.

Hunters Intrude Into Indigenous Forests

In Thailand, the Karen take care of their forests including wildlife, but lowland hunters come to the area to hunt at night with high voltage equipment. Such hunting is prohibited and the equipment is intrusive to wildlife.

Commercial Agroforestry Programs Encroach Customary Forests and Weaken Indigenous Forest Management

The Cambodian government's allocation of forestland for economic land concessions has significantly threatened spirit forests. In Pichreada district, spirit forests of the indigenous communities were converted into ELCs. All of the approximately 600 households of the Bunong were affected by the ELC program. Lic (2019) writes that the ELC has lured the people for

fast income including some indigenous families (at least 35% of the 600 households especially young couples) who have converted their swidden farms into family-scale agro-industrial plantations. The ELCs grow rubber, cashew, and cassava.

Lic (2019) reports the following problems and issues resulting from ELC operations: a) customary forests of indigenous peoples were forcibly used for ELCs; b) free, prior and informed consent of indigenous peoples was violated when companies encroached on their forests and cut down trees that they have protected; c) lowland migrants continue to move into and settle in ELC areas, resulting in cases of either cheap and forced purchases of land or land grabs.

Conversions of forest to economic concessions have led to diminishing cultural practices including loss of subsistence livelihoods including traditional hunting and fishing and increasing engagement in commercial lifeways, especially for young people who see *no* security of tenure of their ancestral lands and resources.

Protected Areas Do Not Allow Full Practice of Indigenous Forest Knowledge

In Thailand, Trakansuphakon (2019) reports that government instrumentalities were not interested in indigenous natural resource management such as rotational farming. The situation is aggravated by the operations of Protected Areas which prohibit indigenous peoples to settle or use forests. The government has included indigenous peoples' forests in declared protected areas. In the case of Cambodia, Lic (2019) reports that the Keo Seima Wildlife Sanctuary (292,690 ha.) and the Phnom Nam Lyr Wildlife Sanctuary (47,500 ha) are among 23 declared Protected Areas, and these sanctuaries overlap indigenous forests.

Forest Authorities Have Little Knowledge on Indigenous Forest Management

As the three country studies show, there are government authorities and personnel directly involved in forest policy and management who have little knowledge and develop a prejudiced attitude towards indigenous forest conservation. This gap needs to be addressed to allow for a good platform for engagement between the government and indigenous peoples. In Thailand, Trakansuphakon (2019) notes that some government authorities look at traditional shifting cultivation as “backward and has to be replaced.”

The country cases reveal a need to look at the aggregate form of traditional livelihoods and locate forest livelihoods in that broader picture. It appears that forest livelihoods are part of an aggregate system that exist at present. Indigenous peoples have also adopted other sources of livelihood.

Weakened Indigenous Forest Governance System

The case of the Karen in Thailand is illustrative of a traditional governance system that has weakened over the past years. This appears to be a serious threat that needs to be addressed institutionally to allow for revival or growth of a governance system that will work in the current time.

Education and Christianity have promoted western thinking and deprived indigenous peoples of a learning system that enables knowledge development and transmission. This contributed to the weakening of indigenous forest management systems. The colonial influence has also left a bad legacy on mindsets of indigenous peoples. Tarabe (2019) describes the case of Fiji where “indigenous Fijians have believed the colonizers and missionaries that their way of life is evil, demonic and backward,” which resulted in demonizing views of Fijian ancestors that paved way for clearing forests to chase demons away.

Uncertain Transmission of Indigenous Forest Knowledge and Practices

Tarabe's (2019) study captured an informant's fear that the greatest threat to indigenous forest knowledge and practices is its uncertain transmission. This remark is set in a larger perspective about forest and the increasing lure of modernity that makes people preoccupied with urban jobs that increasingly alter their views of life.

Insufficient Information on REDD+ Among Communities and Local Authorities

For Cambodia and Thailand, the studies observed that indigenous communities do not know REDD+ and this means they cannot fully engage in it effectively. Additionally, only a few indigenous community leaders have participated in national level climate change talks. Local authorities, including district officers, do not know REDD+.

Community Strategies to Strengthen Indigenous Forest Knowledge and Practices

Indigenous peoples use various modes to strengthen their indigenous forest knowledge and practices. In Cambodia, they are using some existing policies, particularly the government's Community Forestry Program and Communal Land Titling, to their advantage to secure land tenure and to protect their forests. Lic (2019) reports at least two community forestry sites in the study areas, Phum Pukreng and Phum Puradet, and the use by 20 indigenous villages of the Communal Land Registration process to manage their forests through regular patrolling.

In addition, Lic (2019) claims that the indigenous peoples who have engaged in the REDD+ program show some good models that used traditional ecological knowledge in

REDD+ projects. They benefited from trainings on REDD+ benefit sharing and used this to reinforce longterm sustainable forest management consistent with their customary and traditional forest governance. Citing 20 villages which include the study areas Pu Kong and O Char, the program incorporated swidden agricultural practices in projects on integrated and intensified production, which allowed the villagers to cope with the scarcity of agricultural lands and eventually improve their livelihoods (Lic, 2019). Trainings on other uses of traditional NTFP collection have also provided additional livelihoods of 400 men and women in the 20 villages. More importantly, Lic reveals that the people obtained seven Communal Land Titles in 2019 through their participation in the REDD+ program in Keo Seima Wildlife Sanctuary, and these CLTs provide them land tenure security as they are recognized by the provincial authority and Ministry of Land Management.

In Thailand, Karen communities developed community learning centers and have been undertaking practical activities to teach children various aspects of indigenous resource management including forests. Proverbs on forest conservation are also used and transmitted using various mechanisms at the community level

For Fiji, the value of forest extends to the production of indigenous arts. Tarabe (2019) contends that the forest supplies the base material for iTaukei arts as illustrated in the masi cloth and the iTaukei *tanoa* drum. Masi plant is harvested to weave an important item of women's wealth that is needed in traditional ceremonies. The hardwood vesi and buabua provide the material for carving the tanoa serving bowl and the traditional drum. People depend on the availability of forest material to produce arts that sustain their cultural identity. Such use of forest materials in traditional art is an inherent mechanism that strengthens indigenous forest knowledge and practices.

Tarabe (2019) cites the case of the Fiji government initiatives such as REDD+ or the ER-P program that provided useful tools in enhancing the conservation of indigenous forests. People in the village of Tiliva in Bua were encouraged by the support of the Bua Provincial Council,

Wildlife Conservation Society and the Fiji Locally Managed Marine Area in finding alternative livelihood through the planting of vegetables and root crops on the village outskirts.

Conclusion

The three country studies have shown that indigenous peoples have traditional forest management practices that exist to the present. These practices are sustainable and have served the needs of people over time. For many years, indigenous peoples have fought to protect their forests for survival. The studies illustrate that forests are an intrinsic component of indigenous territories and have remained as such till today.

Indigenous peoples continue to build up their customary forest practices to keep with the times. Certain practices have evolved and have been responsive to current needs as shown in the case of Thailand's forest worship and Fiji's indigenous totem trees. However, certain policies and programs continue to pose threats to indigenous forests, as the three studies show.

There is an apparent need for official full recognition of indigenous peoples' forest tenure and forest management systems. This recognition should be clearly affirmed in environmental laws, policies and programs. Forest laws and policies need to be amended and updated not only for affirmation and coherence but to be consistent with the United Nations Declaration on the Rights of Indigenous Peoples and to keep step with the state of indigenous knowledge systems. Forest programs also have to be developed that promote customary forest management systems. Most governments have affirmed local and indigenous cultural practices.

The studies also showed cases of competing claims on forests between government conservation program implementers and indigenous communities. Situations show that the indigenous peoples are at a disadvantage especially when governments implement state policies that often favor national political and economic goals at their expense. Such forest issues underscore

the need to secure forest rights of indigenous peoples; these have also sparked the concern to save the remaining forests using indigenous customary practices.

Indigenous peoples' struggles over their forests are sometimes downplayed due to wrong notions about the indigenous peoples. Such problem is framed in an unequal rights platform that discredits indigenous knowledge and practices. Nonetheless, indigenous peoples persist in defending their forests and practicing their forest management systems. They continue their relations with their forests which they view as a necessity for human survival. The country studies have shown that indigenous perspectives and forest management practices are the best ways to conserve forest for everyone's benefit.

Recommendations

The following recommendations are drawn from the results of the three country case studies. These are generally shared except where it is specified. This list is structured towards a developmental approach.

1. *Laws and policies should specifically recognize indigenous forest knowledge a knowledge system.*

Policy and program documents for forest conservation should contain recognition and affirmation of indigenous forest knowledge systems.

2. *Secure the customary forest rights of indigenous peoples.*

A full recognition of indigenous peoples' forest rights and tenure is a prerequisite to the continuity of traditional forest conservation practices. Communal and other appropriate forms of recognition need to be fully implemented.

Specifically for Fiji, Tarabe (2019) proposes that the government should review its land laws with reference to the power given to the Director of Lands in

which she/he does not need the consent of the land owning units to grant lease. She further suggests that the iTaukei people must be included in every step of the leasing process and that their rights to challenge the government in court should be stipulated because with the 99-year lease mechanism, it gives exclusive rights to the lessee which seriously severs any cultural or customary connection a person has to his/her vanua.

3. *Enforce forest tenure and customary governance.*

Customary forest tenure should be fully recognized and enforced. Since customary forest governance system worked for forest conservation over the years, it is but practical to revive, strengthen and allow it to work on forests that are owned traditionally by indigenous peoples. This can be an effective community governance system for REDD+ and it has to establish its foothold at the community level. Forest governance should be implemented on the ground and not just on paper. Respecting customary forest tenure rights is necessary for an effective governance system because this involves indigenous peoples as resource owners. Governments may allocate program funds for indigenous peoples as implementers of customary forest governance aimed at forest conservation and penalize those that violate traditional forest management.

4. *Implement international commitments that promote indigenous forest conservation.*

Countries that ratified treaties such as the Convention on Biodiversity should implement their commitments to promote traditional forest management. A formal enactment of intellectual property and indigenous forest knowledge should be legislated. Governments should also develop policy on Access and Benefit Sharing (ABS) to protect indigenous knowledge systems and genetic material as well as the need to put in

place legislation that covers intellectual property rights.

5. *Legislated protection for indigenous forest knowledge should be in the Emission Reduction Program Document.*

6. *Strengthen forest policies and programs.*

Forest policies and programs should be strengthened with appropriate use of terms such as indigenous peoples or terms used by indigenous peoples in respective countries. A specific legislation on indigenous forest knowledge should be included in the Emission Reduction Program Document.

Employ indigenous peoples and revive lost traditional leadership systems for forest governance. The government should provide support for community initiatives and programs on forest management.

7. *Improve cooperation between indigenous peoples' communities and forest stakeholders including governments, international organizations and scientists by creating clear rules for ownership of genetic resources and benefit sharing management relating to forests.*

8. *Provide a continuing program for strengthening indigenous forest knowledge and practices.*

In order to strengthen indigenous forest knowledge and practices, a continuing learning program should be implemented with indigenous peoples. This includes trainings that address the knowledge transmission system and indigenous leadership training for indigenous peoples and for government forest administrators and policy makers.

The governments may facilitate the development of a curricular program for schools to institutionalize the revival and transmission of indigenous forest beliefs and practices to indigenous children.

International organizations may develop a continuing indigenous Participatory

Action Research (iPAR) program with indigenous peoples to continuously monitor and provide policy and program support in strengthening indigenous forest management systems. This should employ indigenous frameworks and approaches.

It is also important that governments recognize indigenous knowledge system as an important system in forest conservation and issue a directive to state agencies to learn and promote this. It should also be taught in schools and campaigned among the public.

9. *Provide indigenous forest rights training to government authorities.*

Provide a continuing education program for government authorities, especially

implementers of forests and related environmental protection activities. The program can be framed within indigenous forest rights and designed using a tool that captures the training needs of officials at various levels. Existing practices such as Thailand's Joint-Management in Protected Areas (JoMPA) could be continued and enhanced for better implementation.

10. *Strengthen traditional forest livelihoods.*

Appropriate and culture-based traditional forest livelihood programs for indigenous peoples should be included in development plans and their implementation supported. The design should also include financial literacy.

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FIJI

Inseparable: Indigenous Knowledge System and Forest



by Akanisi Sobusobu Tarabe

MAP OF RESEARCH SITES



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

0 10 20 30 Kilometers

Introduction

Traditional forest management practices play a vital but often undermined, underestimated, undervalued and unappreciated role in contemporary forest management practices. Those of *iTaukei*, the indigenous people of Fiji, relate to the concept of *vanua* which is guided by various *vanua* values.¹ *Vanua* is a sacred concept that means land as well as the relationships between people and to the land, forest, river, sea, sky, ancestors and their future generations. In contemporary times, *vanua* also means people's relationship to the Christian God. It is from the *vanua* that indigenous Fijians draw their strength, spirituality and identity.

The *iTaukei*'s close connection and dependence on the *vanua* as their natural and cultural environments extend from sustaining their everyday livelihood to deeply rooted cultural practices involving the use of the forest and its products for ceremonies and rituals. Their traditional knowledge of the forest is extensive, with slight variations from place to place according to the local culture. However, common traditional knowledge of the forest such as the use of plants for medicine, food, indications of changing weather patterns underscore the importance of traditional knowledge in forest conservation. Much of this is still used by indigenous Fijians today. Furthermore, the traditional calendar that is guided by the seasonal changes in plants in the forest and the products of the sea indicates the biological connectedness of the land and marine environments which for thousands of years have been known all along by the indigenous Fijian people.

It is therefore important that traditional practices and management in forest conservation are strengthened in the Fiji government's policies, considering much of the forest areas in Fiji is owned by *iTaukei*. Successful sustainable forest conservation will consider that more than half of Fiji's population are indigenous Fijians who live out this knowledge system. Fiji's attempt to find solutions to climate change is articulated in Fiji's National Development Plan (NDP) 2017-2036. The Plan provides a vision to transform Fiji to

realize its full potential recognizing the need for inclusive socio-economic development based on multisectoral collaboration to find solutions to climate change, environment protection and green growth. The forest sector translates this need to a 20-year vision for sustainable development and management of Fiji's forest towards reducing deforestation and forest degradation, promoting sustainable forest management, conservation, and afforestation and reforestation.² To realize the full potential of the forest sector, it is imperative that indigenous Fijians' knowledge system and customary forest management practices are included in the Fiji government's emission reduction program as part of sustainable forest management and conservation.

In its Emissions Reduction Program (ER-P), the Fiji government targets the *iTaukei* because "90% of the land in the ER-P falls under *iTaukei* land."³ More so, embracing existing traditional knowledge and forest management practices can be a lot cheaper than what the government is currently planning on spending in its emissions reduction program which is estimated at USD40.04 million for 2020-2024.⁴ Consider the retributive nature of customary practices, for example, where the observance of protocol is very important such as in presenting *sevusevu* and the belief that if the forest is cleared without this important protocol there is likely to be punishment from the ancestors through various misfortunes. These deeply ingrained beliefs render unnecessary the employment of fulltime law enforcers in forest management practices.

At the international level Fiji has made some commitments that can be linked to the protection of indigenous Fijians' traditions and customary laws. For example, as a result of the Convention on Biological Diversity (CBD) in Rio De Janeiro in 1992 to which Fiji signed its support, the National Biodiversity Strategic Action Plan (NBSAP) was formulated and passed in Cabinet in 2003. The social element of the CBD as stated under Article 10c was of particular importance to Fiji to "protect and encourage customary use of biological resources in accordance with traditional practices that are compatible with conservation or sustainable use requirements as stipulated under Article 10c of the CBD (IUCN, 1994)."⁵

However, some recent development activities question the strength and credibility of guidelines and policies put in by government to honor such an important agreement. In 2012, for instance, Energy Fiji Limited began work to raise the Wainasavulevu Weir without making proper environmental impact assessment. The Wainasavulevu area in the Nadrau Plateau is identified as one of Fiji's biodiversity areas, a Site of National Significance.⁶ The Nadrau Plateau is an area of mountains and forest, home to the indigenous people of Nadrau. Although the concern from environmentalists is for the loss of endemic species of fauna and flora, more concern should be directed towards the indigenous people who are part of that biodiversity and who stand to lose the forest, along with it their knowledge system, which defines who they are.x

Such development activities underscore the importance of certain UN commitments such as the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP).⁷ Fiji has not ratified UNDRIP but is committed to the International Labor Organization's convention⁸ which includes the protection of indigenous people's culture, traditional practices and customary laws. Nevertheless, Fiji's non-commitment to UNDRIP could have many implications such as in development activities as noted earlier and on wordings of policies and legislations where the term indigenous can be removed and in its stead the phrases local communities or traditional may be used—generalizations that sound like they mean the indigenous people of Fiji but can be interpreted otherwise.

International commitments by Fiji as in CBD make significant impacts to its forest conservation policies. The Forest Decree in 1992, which simplified the preceding legislation of the Forest Act of 1990, made an initial attempt to address several decades of changing and broadening requirements of the forestry sector to include social, economic, environmental, cultural and political developments. The forest policy, for example, was approved and endorsed by the Fiji government in 2007⁹ recognizing the involvement of land resource owners in promoting sustainable forest management, conservation and rehabilitation of forestland and the use of forests

as carbon sinks. Indigenous Fijians have used the Forest Policy to their advantage in several ways. In 2012, for instance, members of Emalu tribe in the village of Draubuta after a series of consultation meetings, confirmed their land as a REDD+ pilot site. Another example is the establishment of the National iTaukei Resource Owners Committee (NTROC) assisted by the government's Ministry of iTaukei Affairs in 2014 “to protect the interest of local communities and indigenous groups in the management of their resources...” and “...to promote the capacity development of the iTaukei, to make informed decision making processes that affect their resources.”¹⁰

Since the endorsement of the forest policy in 2007, Fiji started developing its national REDD+ program in 2009 with the support of the Pacific Community (SPC) and GIZ project on “Coping with Climate Change in the Pacific Island Region.” More than 20 national level REDD+ stakeholder consultations, awareness raising workshops and seminars were conducted which included indigenous landowners, participants from different ministries, local government, NGOs, private sector and regional agencies. This program led to the development of a national REDD+ policy in 2010.¹¹

In 2011 Fiji launched its REDD+ policy,¹² which is the main guiding policy document together with the Readiness Preparation Proposal (R-PP) for REDD+ in Fiji. The Fiji REDD+ policy aligns and complements the Fiji Forest Policy of 2007¹³ which recognizes the importance of indigenous intellectual property rights and “will develop legislation and guidelines for bio-prospecting and economic use of genetic material and products which incorporate fair provision for traditional knowledge and ownership....” Even though Fiji drafted an Access and Benefit Sharing (ABS) policy in 1997, to date it still has not formally enacted the policy.¹⁴ The National Biodiversity Strategy and Action Plan for Fiji 2017-2024 (NBSP), the national policy document under the Environment Act 2005, notes that the main reason Fiji has not enacted the policy is the need to improve Fiji people's knowledge and understanding of the potential value of genetic resources and associated tradi-

tional knowledge that are essential if ABS is to be successfully implemented.

However, there has been no serious attempt to protect the bodies of Fijian knowledge of genetic materials especially from bio-prospectors by the Fiji government or a conscious policy direction to preserve Fijian traditional knowledge and genetic material. Legislation on intellectual property rights cover music and arts copyrights only because bio-prospecting was deemed too complex and time consuming by those who were involved in drafting copyright legislation.¹⁵ The protection of landownership by iTaukei Land Trust Board (TLTB) does not cover the protection of intellectual property rights on customary knowledge system of the land. Therefore, in Fiji's emissions reduction program, the question of TLTB as a mechanism in benefit sharing needs to be seriously looked at so that proper legislation is put in place to truly protect indigenous ownership rights.

There is now more need than before to protect indigenous knowledge through legislation as more people all over the world seek alternative medicine influencing pharmaceutical companies to look towards tropical rainforest as source of medicine. This emphasizes the urgent need that not only must the forest be protected, the indigenous knowledge attached to it in terms of ownership of the knowledge being used must be respected and protected as well. In their study of ethnomedicinal knowledge in Fiji, Shah and Bhat note the importance of indigenous knowledge system of the forest and argue that "(P)hytochemicals are more easily identified and of greater commercial value when screened using the traditional knowledge of indigenous communities" in comparison to the low success rate of random screening of the same.¹⁶

In March 2019, Fiji's Emissions Reduction Program Document (ER-PD) was produced, providing directions the Fiji government will be undertaking to reduce emissions from deforestation and degradation. The document should include the protection by legislation of indigenous knowledge which is part of the forest ecosystem of the indigenous Fijians. Several other documents support the protection of forest areas and uncontrolled conversion, and

all should back up the commitment to formally enact ABS policy regarding genetic materials and indigenous knowledge. The Fiji Harvesting Code of Practice in 2010, for example, provides guidelines for implementing sustainable forest management and best practice in the sector to promote reduced impact logging. Discussions with participants at the research site indicate the need to tighten this policy in regard to the interest of the iTaukei:

Baleta ni o `ida saga me da maroroya, na matanitu kai verala `ina viro na `a `ida sasaga ti `o `ina, me kai rawa va `acava... Na gauna e a wele tuga na tau `ei ni dre `a sa la `o vei so viro na tamata, sa maka i rawa ni da kai walia `ina e dua na `a. Tau `ei ni dre `a a wele tu ga, a `idacala o `oya sa tu i `arai edua na `ai vanua tani sara... Dua na `ai Jaina se `ai Idia se, na system sa maka ni kai ro `ovi nai tau `ei dina ni dre `a (Turaga, Vaturova 30/07/19)

[Because we try to protect things but the government breaks down the things we try to do...how can we, the owners of the land, protect what we own when we are often taken by surprise because someone from a different land, from China or India, comes and uses our land. The system does not respect the owners of the land anymore. (Men, Vaturova 30/07/19)]

The Fiji government's ER-P document also identifies the need to "develop regulations to enforce the implementation of the Fiji Harvesting Code of Practice component of sustainable forest management."¹⁷ Fiji's National Biodiversity Strategic Action Plan 2017-2024 includes as one of its objectives to "Integrate traditional ecological knowledge, innovations and good practices of Fijian communities into conservation and sustainable use of biodiversity."¹⁸ One such initiative towards biodiversity conservation in Fiji is on protected areas (Terrestrial Protected Areas and Marine Protected Areas) which are documented in Fiji's Fifth National Report to

the CBD. A Protected Area as defined under this Strategy and Action Plan is “a geographically defined area, which is designated or regulated and managed to achieve specific conservation objectives.” This includes local communities managing their terrestrial and marine protected areas as mentioned elsewhere in this report.¹⁹

Indigenous Fijians and Land

The Republic of Fiji is a multicultural society with 87 percent of Fiji's land being owned by indigenous Fijians on inalienable customary title²⁰ and therefore its natural forest, but most of this land is neither arable nor accessible. They are also the largest ethnic group. On the other hand, more than 30 percent of the country's population are descendants of indentured laborers who came from India through the British colonial administration between 1879 and 1916.²¹ Since 2006 several huge changes have taken place in the indigenous Fijians' social setting. First was the removal by the government of the Great Council of Chiefs, a colonial construct that began as the Native Council set up to protect the interest of indigenous Fijians. Soon after, the term Fijians that used to be the ethnic identity of indigenous Fijians shifted to be the national identity of the people of Fiji, with the indigenous Fijians now known as iTaukei.²² It follows that in its 2017 census, Fiji did not make any ethnic distinctions in its demography. This can have major impacts on indigenous Fijians as owners of 90 percent of Fiji's forest.²³ For example, wordings of policies and important documents that concern indigenous Fijians can use generalizations such as “traditional” or “Fijian communities” which can mean anyone in Fiji's multicultural society and not necessarily iTaukei or the indigenous people of Fiji.

Indigenous Fijian society is patrilineal and much of the decision making is done by men as heads of households and clans. Through the codification of the land tenure system by the British colonial government, land ownership is passed through the male line where women are generally excluded from inheritance rights to customary land even though they are registered

as members of a *mataqali* (clan). Land is communally owned and each *tokatoka* (the extended family unit) is given a *kanakana*, (literally means eating place), which is a piece of land a clan gives a male member of the tokatoka for his food garden to plant for his own and his household's use. This is particularly important considering that the use of forest as a resource is based on traditional and distinct gender roles. For example, women forage the forest for wild vegetables such as *ota*, yams, catch prawns, gather firewood and traditional herbal medicine. Men dig for wild yams, cut trees to build houses, hunt for wild pigs or make new food gardens. These practices are governed by traditional forest practices that enhance the protection of forests such as in the knowledge of the abundance of seasonal fruits, nuts and yams. Such knowledge is well known to both women and men as they are guided by their traditional calendar²⁴ which is based on the maturity and harvest of both forest food products and harvest of the sea.

However, the greatest concern for the indigenous people of Fiji is the loss of their land to both local and foreign investors which would also mean the loss of their forest which holds their knowledge, belief system and cultural identity. This fear has been emphasized through years of using land as a political gimmick during elections such as in 2014 when “land issues were used by the two major parties, the Social Democratic Liberal Party (SODELPA) and Fiji First Party (FFP), as campaign tools to win prospective voters.”²⁵ However the fears are very real as indigenous people watch logging companies, mining companies and land developers exploit their forest and land. This is how men in Vaturova express it:

...e dua na meca levu a ti'o e na veiva`atoroca`eta`i. Oveiva`atoroca`eta`i `e bau tou ti`o o tou me tou nanuma ti`o na `a baleta na neitou i yau vata `ei na vei`a bula e tu saraga i ligai `eitou, vata `ei `eitou na `ena la`o na veiva`atoroca`eta`i. `Arai be`a... Edua na `oro ni lotu a ti`o i Savusavu, kai yaco na gauna o `ai Jaina sa biniya na nona benu i loma ni bai ni lotu. Kai tataro mai o lotu sa `aya o `ai

Jaina me ra taro ga i na government. Sa yaco saraga i `arai na veitalanoa (Turaga, Vaturova 31/07/19).

[...a big enemy present here is development. We think of the things we own, our wealth and the living things that are within our hands...development goes together with it. That is it...a place in Savusavu owned by the church became a rubbish dumping ground for a Chinese business man. The church tried to stop him and the Chinese man told them to talk to the government not him. That was where the conversation ended. (Men, Vaturova 31/07/19)]

Prasad and Tisdell, however, in their study of property rights and forest management practices, argue that “communal ownership of resources has not provided the best possibility for the conservation and management of resources under different circumstances in Fiji.”²⁶ This view is arguable since it does not indicate whom the best possibility is for. It looks at forest conservation management for the purpose of economic gain without acknowledging the relevance of belonging and kinship in communal ownership which sustains the cohesiveness of indigenous Fijian society. For indigenous Fijians the forest is who they are, it is beyond the dominant framings of science and economy; it is spiritual and ignoring their cultural connection to the land and forest is spiritual death for indigenous people.

Even though the government through its iTaukei Land Trust Board is custodian of native lands, doubts have crept in through its newest land management known as the Land Bank under the Land Use Unit (LUU). The TLTB is a statutory body that comes under the Ministry of iTaukei Affairs. It used to be known as the Native Land Trust Board set up in 1940 under the iTaukei Trust Act to administer all iTaukei land for the benefit of the iTaukei. The purpose of TLTB is to secure, protect and manage land ownership rights assigned to the iTaukei landowners and to facilitate the commercial

transactions that revolve around its use. In this sense the control of iTaukei land is actually with the TLTB rather than the iTaukei people as it controls any dealings involving iTaukei land.²⁷

The TLTB before 2010 was made up of 12 members consisting of the President of Fiji, the Minister for iTaukei Affairs, five Taukei members appointed by the Great Council of Chiefs (GCC), three appointed by the Fijian Affairs Board (FAB) and two members from any ethnicity appointed by the President. Since the abolition of the GCC by the government, the TLTB is now made up of the Minister for iTaukei Affairs and 10 other members that the minister appoints. These 10 members are from five Land Owning Units (LOU), three from nominees of provincial councils and two others. The LOUs now have some direct representation on the TLTB. However, concern has been raised by indigenous people over the Fiji government's latest addition in land management, the LUU.

The Land Use Decree was put in place and was passed into law in 2010. The LUU was then established to facilitate the leasing of customary land on a longer term. The LUU uses a process that begins with the designation of iTaukei land before lessees can apply for it, and at the prime minister's approval the land is placed in a register called the Land Bank. Once the land is designated the LOU have no say in how the land shall be used. The Director of Lands has the power to lease the land. The lease is for 99 years. This means that the Director of Lands does not need the consent of land owners nor TLTB which is the custodian of native lands to lease the land.

Furthermore, the Land Use Unit removes any legal right from members of Land Owning Units to use the land in the 99 years of designation nor can they challenge the government in court regarding their land.²⁸ This means that forests growing on customary land that have been placed under the LUU no longer have any direct cultural link to the customary owners for 99 years, creating a paradoxical status of the forest where it is lost while it still exists. In this sense, deforestation is not the only means by which indigenous Fijians lose their forest. In his assessment of the LUU, Dodd argues that

(A) 99 year lease allowed by regulation is a serious alienation: a child may be born and die an old man having never set foot on the land of his mataqali. Long leases grant rights of exclusive possession that preclude fulfillment of the customary objective of maintaining a close connection to the land and drawing cultural connection from it.²⁹

The government should seriously consider the cultural meaning and value the forest has for indigenous Fijians in moving forward in its emissions reduction program. It must review its laws regarding the power given to the Director of Lands where he/she does not need the approval of Land Owning Units to grant lease. The LOU must be included in every step of the process as well as include their right to challenge the government in court. The 99-year lease that gives exclusive rights to the lessee seriously severs any cultural or customary connection a person has to his/her vanua.

Several forest conservation areas are under 99-year lease. For example, the government has its REDD+ pilot project in Emalu on a 99-year lease where the conservation of 4,120 hectares of forest as a carbon credit project is valued in terms of economic benefits for the people. The National Trust of Fiji (NTF) holds a 99-year lease over 16,304 hectares of tropical lowland rainforest in the Sovi Basin. The landowners are members of 9 LOUs in 4 villages, but the lease is signed by NTF as lessee and the TLTB as lessor on behalf of the landowners. The 402 hectares of Kilaka Forest Conservation Area is also under a 99-year lease that emphasizes monetary return for the people.³⁰ However, it may also deny the people the continuity of an important knowledge system as well as a close cultural connection to their forest on which they may never be able to set foot for generations to come.

The loss of the forest is loss of traditional knowledge system more often to development and modern lifestyle. Traditional knowledge is passed to the next generation by word of mouth. The younger generation in the future may depend more and more on western forest management practices that are expensive and may

not be culturally appropriate because traditional knowledge is weakening as it is not passed on to the youth. One of the reasons is that forests are disappearing and related traditional knowledge is lost with it. In their study of ethnomedicine in Fiji, Shah and Bhat³¹ agree that the loss of traditional knowledge on medicinal plants is also due to the loss of forests, rural-urban migration and the lack of transmission of oral traditions from elders as youths move to towns for education and employment. Furthermore, in contemporary Fiji, association to these knowledge and practices is often regarded as backward as youths are more drawn to a life in the urban areas, as mentioned by the youth representative of Saivou:

Baleta vei keimami ike sa laurai ni sa tekivu yali sara tikoga yani va malua, vaka talega kina o ira na manumanu va viti keimami sa dau rogo talanoataka tuga mai vei ira na neimami qase...na veisau ga ni gauna sa vavuna jiko qo na kena tatao ni kena kilai na veika ogo. Tamata me ra qai tubu cake mai era sa bula tu ga valevu i tauni sa guilecava me ra kila na ka va vanua. Me ra sa lai tobo i tovo tiko mai tauni, koya saraga koya e dau mai vakavuna na leqa ni kena kilai na veika ogo (Iosefo Daveta-Mata ni Tabagone, Saivou 28/08/19)

[For us here, we see that things are beginning to disappear slowly, birds that are native to Fiji we only hear about from our elders...change of times is the stumbling block to knowing these things. People when growing up live mainly in towns; they forget to know the things of the vanua. When they go to the towns they acquire new behavior, that is the problem in not knowing these things. (Iosefo Daveta, youth representative, Saivou 28/08/19)]

Traditional Knowledge

Traditional knowledge is often referred to by westerners and scientists with suspicion as

non-scientific and lacks the weighting it needs for scientific validation.³² However, what needs to be understood is that traditional forest management practices predate REDD+ and other western models of forest protection and offer culturally appropriate responses to forest management. In addition, the worldview of indigenous Fijians considers the forest and the environment as who they are³³ underscoring the importance of these knowledge and practices. Sociologist Steven Ratuva argues that the key in understanding indigenous Fijian knowledge of the environment is to understand the cyclic process in which the environment functions with human beings living in the same cosmological world as plants and animals. This traditional knowledge system upholds everything as happening in a cycle rather than a linear progression as in western worldview where everything has a beginning and an end.

Furthermore, indigenous Fijian educationist Unaisi Nabobo-Baba³⁴ makes the distinction between western knowledge and indigenous Fijian knowledge saying the latter is rooted in “three related dimensions, *lagi* (the heavens), *vuravura* (the earth), and *bulu* (the underworld or spirit world).” In these worlds the spirit of the dead are still very much part of the cycle of life—they do not simply disappear. This is evident in the way the forest is respected because it is home to the ancestors. The burying of the umbilical cord of a baby ensures his/her productivity in the future as a member of the clan by becoming a *kena dau* (specialization in a certain activity). The act is not merely connecting the child to the land by the cord that once connected the mother to the child but a spiritual one as well that connects the child to the spirit world. A respondent in the research refers to the significance of burying the umbilical cord as the first worship where a blessing is invoked upon the child.

...`Ila nau na vuni`acu, dau dua na tradition dau `a, na noda vicovico... au sa qai `ila ni vicovico, dau teitei madaga o maqu `ina, qai la `o, dau `aya vei `edra i Saqani, qarauna va `asi `a na dre `a `ina, eni nodra vicovico na `ai Saqani for centuries `edra bulu tu `ina... Dau noda matai ni so `alou

saraga... Io, me dau teitei madaga, dau teitei madaga o vuaqu a la `i bulu sara na dua na vanua `arai se me dau qoli ura, a bulu ga i batiniwai ga `ina... Dau oti na va `asucu, dra dau tu tu, mai vei i eni a wara `i tu na vanua me na la `i bulu `ina. Au `ila ni matai ni nodra so `alou ta `i na noda `awa i tau `ei `arai, me so `alou, me sema i bulu... (Esekaia Rokoyamaca Daugunu-Turaga ni Yavusa, Saqani 29/07/19)

[...mother, we have a tradition involving the umbilical cord and trees. I came to know about it when my father was gardening, he told the people of Saqani, “be careful of the soil there, there are umbilical cords of the Saqani people who have been buried there for centuries.” It is our first worship really. Yes, may he be a gardener, may my grandchild be a gardener...his is buried there, or be a catcher of prawns and bury (his umbilical cord) near the river there. When a child is born, the umbilical cord is kept and awaits for a proper place to bury it. I know that is the first act of worship for our generations of owners, to worship, to connect to the underworld... (Esekaia Rokoyamaca Daugunu-Chief, Saqani 29/07/19)]

Other evidence in the connection of the three worlds is seen in ceremonial presentations such as the *sevusevu* where ancestral house foundations of the people present are acknowledged before mentioning the purpose of the ceremony. A *sevusevu* connects one to the ancestors, the spirit owners of the land so that no harm is done to any visitor to a foreign place for the duration of time they will be residing or working in the particular place.

However, western education and Christianity have diminished the importance of these connections by demonizing people’s connection to the three worlds and call it *na ka vakatevoro* (literally of the devil). Early Christian missionaries in the 1800s successfully discredited the traditional belief system of indigenous Fijians and upheld Christianity as *na lotu dina* (the

true belief system).³⁵ Education, in particular, promotes western ideas and empirical science so that anyone seen who believes in the connections of the three worlds is a *kai veikau* (literally a person from the bush), a degrading term for an uneducated and backward person.

Indigenous Fijian educationist Sereima Naisilisili argues that because of this influence, indigenous knowledge is not regarded as an important knowledge system that the school includes as part of the school curriculum³⁶ where it can be formally passed down to the next generation because it has relevance and meaning in their lives. While western empirical science sees human beings and the environment as separate entities, indigenous Fijian knowledge sees them as part of the same interaction being located within the same circle of life. To interrupt or remove one from this locking embrace is to cause an imbalance in the indigenous Fijian's life.

Other studies have been made to highlight the importance of traditional knowledge and customary laws to address climate change, bio-prospecting, marine and coastal management in Fiji.³⁷ For example, in their study of marine management in Fiji, Veitayaki and Sivo³⁸ argue that "traditional knowledge and wisdom has been tried and tested by people who have lived in these small and harsh island environments for thousands of years and can help prepare their contemporary societies to mitigate and adapt to climate change and the associated sea level rise."

In 2005, Fiji made a commitment to effectively protect 30 percent of its marine environment by 2020 during the Second Small Island Developing States Conference held in Mauritius. Since then much of this target has been met with the establishment of Locally Managed Marine Areas (LMMA) where coastal communities get to manage and protect their coastal reefs within their *iQoliqoli* (customary fishing ground). The LMMA system works through customary tenure and resource access and make use of existing community strengths in traditional knowledge and governance, combined with a local awareness on the need for action.

According to a 2013 report by the Fiji Locally Managed Marine Areas (FLMMA) network, Fiji now has 415 *tabu* (literally forbidden, in this case

protected areas) within its 143 *iQoliqoli*, covering about 965 km.² These community managed areas in Fiji have led to productivity in the coral reef ecosystems with an increased abundance of 100 coastal species which had either disappeared or diminished in stock over the past 50 years.³⁹ Such studies and activities are foundational to suggesting that indigenous knowledge can work in traditional forest management and practices.

This study addressed the gap in research and policy on traditional forest management practices, which it shows can be better sustained if customary laws and traditional practices are used to address emissions reduction from deforestation and degradation. It highlights the need for additional research to look into indigenous Fijian forest management practices and incorporate these into policies for sustainable forest management.

The study focused on the provinces of Bua, Cakaudrove, Ra and Nadroga located within the three accounting areas identified in the Fiji Government's emissions reduction program report.⁴⁰ Participants of the research were indigenous Fijians. The targeted sites were villages in the ER-P accounting areas Vanua Levu and Viti Levu islands, identified in the ER-P report as Potential Focal Area for Component 1: Strengthening Enabling conditions for ERP. This component aims to address the drivers and underlying causes of deforestation and forest degradation resulting from indiscriminate unplanned forest clearing for farms and infrastructure development.

Tiliva Village, Bua District, Bua Province, Vanua Levu Island. At the time of the research, the village had begun its re-afforestation program by planting indigenous trees such as *vesi*, *dakua*, *yaka* and *yasi* which had been lost to logging in the last 30 years and planting vegetables at a specific location at the outskirts of their village. This project, done collectively, is supported by the LMMA. Some pine trees were evident but much of the villagers' indigenous forest had been cut. Close to Tiliva are three sawmills that are responsible for the loss of their indigenous forest and pine plantation forest.

Nakarabo, Korotasere and Vaturamulo Villages, Vatuova District, Cakaudrove Province, Vanua Levu. These villages⁴¹ are located along the Natewa West Coast road which provides the link to the townships of Labasa and Savusavu. About 10 years ago, Korotasere and Vaturamulo experienced great flooding as logging was done in their forest. Of particular interest is Vaturamulo where the ammolite gemstone was found in their forest a month before the research. Great interest is centered around the stone.

Saqani Village, Saqani District, Cakaudrove Province, Vanua Levu. It is the center of government activities in the local area and had historical links to the colonial administration where the *buli* or district leader was stationed for the colonial government. The descendants of the *buli* hold the chiefly title of the tribe.⁴²

*Naiserelagi and Rokoroko Villages, Saivou District, Ra Province, Viti Levu Island.*⁴³ It is a district where the work of Conservation International is prominent. Much of the district has experienced deforestation. Fire on grassland areas is quite common.

Sila and Nayeveyevu Village, Cuvu District, Nadroga-Navosa Province, Viti Levu Island. It is situated along the Coral Coast, one of Fiji's popular tourist spots. Many of the people are employed in the hotel industry. Much of the landscape is grassland. However, of interest is the Fiji government's REDD+ pilot area, Emalu, which is located in the inland part of this province.

Existing Traditional Knowledge and Practices on Forest and Forest Management

Eso na vanua vei tou e..., na vei`acu`acu dau tovoli tu ni vanua tabu. Maka ni rawa ni la`i ta`ina na`acu`ida va`ataroga se cava a tabu`ina...ni la`i va`asausata`ina`arai a yaco`ina na mate. Da maka tu ni`ila na... Ni ra maqa ni`ereya. Nai tovo ni vanua e o Vatuova, ni dua na vanua vou mo la`i tauyavu ta`ina i`alaulau a tu na`ena`a va`a vanua. Matai ca`a edua na`ena magiti`arai na yacana na va`atakiri, vanua`arai sa tu`ina, ra moce bula be`a tu na`ena tau`ei, me sa kai la`i rogoca na takiri ni sele na rorogo barai-va`takiri, ni sa kai la`i tauyavuta`i e dua na vanua vou. Ca`a na`ena magiti, ni bera ni la`i ca`a na`ena magiti na la`i ca`a rawa na me`erei rawa me ra sa kai lai rogoca tu, i e na nodra va`abauta tu na gauna`arai. Ni dra moce bula tu o ira na nodra na vanua`arai, me dra sa na kai rogoca ti`o`arai na takiri, na vosavosa, na o`ole, na veia bau`arai. Na gauna viroga ma mai tauyavu`ina o Balawaviri`i i ena ma cere saraga i`e o Tui Vatuova, cere i`e o turaga ni matakali mai Taveta. Sa kai la`i ca`a na va`atakiri, va`atawa vaacegu mai Gasauva. Va`atakiri`arai bou me dra takoma`i o`idra na ti`o`i`arai. (Turaga-Korotasere, Vatuova 30/07/19)

[We have some places where the forest is said to be tabu, a forbidden place. One cannot cut trees there, we ask, why is it forbidden...when you disturb it death will happen. There is a custom in Vatuova called va`atakiri that is performed when you want to clear the forest for the first time. Va`atakiri is a feast that must be prepared by the owners of the forest for the people who will use the land because the ancestral owners are there sleeping, alive; they will be hearing the disturb-

ing sound of knives and those kinds of sounds—noise, talking, shouting for the first time. Before this, those who want to use the forest must go and ask for the forest from those who own the forest. This was what happened when Balawaviri`i was first cleared; the chief of Vaturova and the chief of Taveta performed the va`atakiri for the retired pastor from Gasauva who was going to clear the forest for his and his relatives' use. The purpose of performing the va`atakiri is to protect those who are going to clear the forest and use the land. (*Men, Korotasere, Vaturova 30/07/19*)

Ancestors and Forest Practices

The response above emphasizes the fact that customary forest management practices are regulated by traditional beliefs that are centered on the cosmos. As correctly pointed out by Ratuva “(D)iscussions on indigenous forest and forest management practices usually focus on their economic, ethical, political and legal implications without considering indigenous people’s traditional knowledge and cosmology, their connectedness to the environment”⁴⁴ and the meaning they derive from these things.

It further illustrates the interlocking embrace of indigenous Fijians and their environment where the spirituality of the land and forest are important parts of each other. In this embrace the ancestors do not simply disappear but are *moce bula* or still alive in their sleep as the men of Korotasere, Vaturova suggested. The implication of their involvement shows the holistic nature in which indigenous forest management practices are communal efforts rather than an individual effort where both the spiritual and physical worlds are engaged to bring about a desired goal.

Because of the existence of ancestors, they become eternal guardians of the forest, and in indigenous Fijian thinking their existence means the clan is present in the forest even though

their geographical location may be far away. For this reason, a certain part of the forest can be *tabu* or forbidden because it is a *koro makawa* (literally old village) or the *sautabu* (sacred burial ground) where chiefs are buried and is usually left undisturbed because this is where the ancestors live and is known as *vanua tawa* (occupied place). The following information came from the women’s focus group discussion in Vaturamulo in Vaturova:

*Dua na gauna o katapila ma, `amu na cu`icu`i ca`e i `e ma kai la`i, i sautabu saraga i ca`e `arai kai la`i stop tu `ina. Dua na sautabu, i neitou `oro va`agalala ga, dua neitou vale ni teitei ga tu i `arai i cewa ga va`akisi kai la`o o katapila `arai kai lai `a ca... Me cu`i salevu li `aidia, `aiviti to`a i loma. `Aiviti nona sa yaco o iya sa la`i tao tu o dru`a sa kai nanumi iya mai...o watiku. Me dua be`a viro se me dratou ma taroga baleta na peki ma ca`a kai ca`a donu saraga na vanua ma to`ara na sautabu. Sa kai lesu viro mai o dratou sa kai mai yadi viro o watiku ni sa buto. O iya a la`i vosa ga, `omu na vosa ga `arai a on viro na katapila a ca`aca`a viro. (*Marama-Vaturamulo-Vaturova 31/07/19*)*

[Once a caterpillar (excavator) dug up the sacred burial ground while making a road there, then it stopped mysteriously. The sacred burial ground is near our farming settlement where we have our farm house. A Fijian man and an Indian man were operating the caterpillar. When they could not move the machine, they remembered him, my husband. The Fijian man should have known this—at least one of them or they should at least ask for the peg that marked where the sacred burial ground was. They were back and they brought him, my husband over. It was dark, my husband spoke, and just at his word, the caterpillar machine was on again and started working. (*Women, Vaturamulo, Vaturova 31/07/19*)]

Proverbs such as “*sivi mada na veikau qai kalu*” (literally wait until you have passed the forest before whistling) validate the importance of not disturbing the forest. Traditional Fijian mortuary practices before Christianity came to Fiji included burying the body of the father of the household under their house foundations to ensure that his spirit remained with the family and can be readily consulted by family members. His spirit became the family’s household god. House foundations or *yavutu* are still part of indigenous Fijians’ lives and every clan has links to their ancestral house foundations. This is usually acknowledged in ceremonial speeches and engagements such as *sevusevu* which is the customary protocol of presenting *yaqona* to seek permission to enter and reside or work in a place where you are a visitor. This custom opens the door for dialogue and social engagement to take place. By practice no one can walk over house foundations for ancestors are sure to be still living there ensuring the wellbeing of their people. *Sevusevu* ensures that you are protected from harm should you by accident commit some cultural error.

The Forest is a Curriculum for Learning

...na drau ni `acu `ei na `uli ni `acu dau vagata `i me rewa ni so madaga na `amu sa lutu na drauni uluna a wali `ina a tubu va `adua... Eso na `acu dau va `ayagata `i ti `o mei u `uu `u.... Na vau dau toni qai ca `a bo e me `ani salusalu se `ani me `e barai...io `a dina me salusalu se `ani li `u... Na bu `a `eitou bu `a cau... Na vau... Iye na bu `a loaloa duadua `ina... Na doi, Na doi, na cau... Uwe a tabu na qogolou i sa `eya... Dau dua na `ena va `asama ni ba `u eso na vanua e tabu tu.. Io au sa la `i va `ati au sa la `i lesu sara mai da `uni ca `au, `e i da `uni ulunivanua `arai, dau tu basa i `arai e dua na yavu ni vale. Sa tu tuga na duru sa `adre tu `ina na `acu, `arai dei va `ariri `o to `a ba `u me se tu ga o ira na `ena i tau `ei...: Io `oya `arai `oya a yaga `ina me da `ua ni qolou. (Tabagone, Saqani 30/07/19)

[...leaves and bark of trees are mixed with oil and used for body ointment. Some even those whose hair is lost apply the ointment, it grows at once. Some plants are being used for decorations. The dried bark of the vau is soaked then it is used as strainer or to make garlands and things like that, yes, it is true for garland or skirt. The firewood we use is cau, the vau wood is very poor firewood. The best firewood is the doi, cau. We respect the forest, shouting is forbidden in the forest. There is the belief that a place can be forbidden. I have gone hunting and I come from the back of that mountain; opposite that is a house foundation, only the house posts are standing, trees are growing there now. Whenever I am there I am careful because it is scary like the owners are still there. That is why it is important for us not to shout in the forest. (FGD Youth, Saqani 30/08/19)]

This piece of conversation (*talanoa*)⁴⁵ with the youth of Saqani village tells us how the forest is a learning place for them and should be treated with care and be respected. As youths, they have learned how to interact with the forest. In this sense, the forest provides one with traditional values and the knowledge of how to live and which plants are medicinal, for food, firewood and houses. It emphasizes the fact that learning does not take place only in the formal classroom but the forest can be a place for learning as a youth in Saqani noted, “*Ani `a va `a vanua a maga na `ena `oronivuli*” (literally the customary things do not have a school).⁴⁶

Nabobo-Baba⁴⁷ emphasizes the importance of respecting the forest because the forest is “part of the curriculum” for an indigenous Fijian. Reflecting on her own learning experiences she argues that “the forests need to be entered, walked through, so that it knows and feels the owners.” Recall that the forest is a being like humans and not an entity or object that must be dominated and extracted for the purpose of personal gain. Every forest knows its owners and therefore every tree that makes up the forest has a purpose for its existence.

Indigenous Fijian worldview has two types of knowledge systems: *kila ka raraba* (open common knowledge) and *kila ka vuni* (closed knowledge). For example, the forest provides medicinal plants whose barks, leaves and roots are sought to heal people of their illness. *Kila ka raraba* on medicine could cure common colds which one could get from *tavola* (*Terminalia catappa*), *cago* (*curcuma longa*), *totodro* (*centella asiatica*), *rogo mi* (*rorippa sarmentosa*), *batimadramadra* (*bidens pilosa*) or *ceucevu* (*physalis angulata*). Most of these plants are herbs or shrubs. Cuts and wounds could be treated with the vine *wa bosucu* (*Mikania micrantha*) or *totodro* (*Centella asiatica*).

On the other hand, closed medicinal knowledge is possessed by those who are *kena dau* (literally specialists) and this knowledge is kept within the family and passed to the next generation. Because the knowledge could not be shared or it would lose its *mana* (magical potency or power to heal), this becomes a way of protecting the forest from abuse and overuse as it is only the medicinal men or women who can identify the plants for the particular illness. These men and women are known as *vuniwai* (literally source of medicine/source of water) and they are respected members of the community. Practicing closed medicinal knowledge is still recognized and practiced today such as with the Fiji Rugby Teams using *kena dau* to *bobo* (massage) during their trainings and tours.

Forest, First Fruits and Social Relationships

Na valavala ni sevū i Vaturōva, na yavusa o Vaturōva `ei na ti`ina o Vaturōva, e 5 na yavusa, i e e dua na yavusa e e tio ina e 7 na matakali. Na 6 na matakali sevū tio na vei ya dua na yaba`i... Na sevū ina lotu na sigatabu ni sevū, dau oli saraga `omu na sigatabu ni sevū dra sa dau cabe yadudua mai na matakali. Cabe mai dua na matakali, i e e vitu na matakali na yavusa o Vaturōva, cabe mai me dratou sevū mai magiti na `ena i lava, o tou i eni magiti `ei na `ena i lava... Me dratou tabeni... E dau ono tio na neitou tabe na veiyaba`i, ono na neitou va`araula`ina viroga me

ono na manumanu, io e vica na yaba`i sa oti ma dra la`o mai na yavusa, ma la`o mai na yavusa o Wacawaca, dua mai na `edra magiti dua viroga mai na `edra i lava tou tabeni `idra, dua viro na yabai mai muri lao mai na yavusa o Na`atu dratou sevū viro mai va`a vanua ti`o arai, dra kai dau la`o viroga mai na neitou tabe. `Arai tau-tauvata ma dua na yaba`i `arai ma walu va`adua na neitou i lava na neitou tabeni `idra `ina na dau mai sevū va`a vanua... Na valavala ni sevū e a tarava saraga nai yau, `ei na `ena i lava vata `ei na `ena magiti. Ia o iya e dua saraga nai tovo nai valavala na veikaravi va`a vanua saraga dau ca`a ti`o na veiyaba`i, maka ni bo me la`o ga mai va`araita`i, a maka, edua saraga nai valavala na veikaravi saraga va`a vanua... Veisolevuti, cau ni l`ao mai o dratou o tou soli `atu, tabeni lesu viro na veido`ado`ai va`a vanua be`a. Na `ena i valavala `arai sa maka ga ni sa leva, sa kai ca`a t`io e me rawa ni raca ti`o o mami e, raca ti`o o `idra na muri mai mami vulica tu `ina na `ena i valavala. Na leva mai dratou na matua e... O tou tou rita ni leva. (Tagane, Vaturōva 30/07/19)

[This is how we present our sevū or first fruits in Vaturōva. There are 7 clans in the tribe of Vaturōva. Six clans will be offering first fruits every year to the chief's clan which is the 7th clan. They will offer their first fruits, which are root crops and its accompaniment. The accompaniment will always be a pig or pigs. They will have to be reciprocated through the custom of itabe... As the chiefly clan, every year we prepare for six itabe or reciprocal items of root crops which means we have to prepare six pigs as well. A few years ago the big tribes came, the tribe of Wacawaca came. They brought root crops and pigs, we reciprocated them. Another year Na`atu came, this is customary first fruit offering, we also reciprocated. That is in one year we provided eight accompaniments, we reciprocated because this is the offering of the first fruit of the land.

The next thing in the offering is the presentation of traditional wealth plus its food crops plus its accompaniment. So this is customary, a ceremonial presentation that is done every year, not just coming to show the offering, no this is a ceremonial custom of the land. This is ceremonious; because they come, we give away, reciprocate the respectfulness of custom. This custom is not lost, it is being done so we see it. Those that will follow us learn its ways. These elders will be gone...we do not want it to be gone. (Men, Vaturova 30/07/19)]

Sevu is a way of respecting the forest where one learns the wise usage of food as well as its social meaning. Conserving and sustaining the forest guarantees that the desired life goal of *sautu*, which is good life, good health and quality of life, is reached.⁴⁸ It is the offering of the first fruit of the land including the offering of the first fruits of the forest. This is an age old custom that blesses the giver and the receiver of the harvest with *sautu*. *Sevu* is both a social and spiritual engagement—an act of worship that in turn brings blessings on the land where the harvest takes place. The first harvest does not belong to the harvester but is an offering to the one who gave the land. Nowadays, this has also come to mean the Christian God so the first fruits or *sevu* is offered in the church and to the chief.

Traditionally, the forest was a source of life as well as guarantor of kinship and social relationships. For example, in precolonial times those who lived by the seaside provided external food source to those that depended on the forest and through exchange or barter of their marine foods would in return receive food that came from the forest. So, not only was the forest important for the forest dweller but also an important food source to those that lived by the sea. The exchange provided a social engagement where relationship was affirmed and society was not disintegrated through famine.

In Vaturova, *sevu* is an important time where members of the clan present the first fruits of their land to the chief and the church.

This has been “part of our life from way back until today.”⁴⁹ In reciprocity, the chief and his family return the deed with his presentation of *itabe* which consists of yams and pigs. In iTaukei meals, the eating of root crops is an important part of a meal which must always be eaten with an accompaniment of fish, meat or vegetables. Yam is a root crop and the most esteemed of men’s crops and therefore must be presented with the most esteemed of accompaniment which is a pig. There are variations of this in different parts of Fiji. For each clan that offers the *sevu* or first fruits there is an acknowledgement through *itabe* (presentation of root crops and pigs) so that there is a social balance, poverty is alleviated and the value of belonging in their social relations is affirmed. In the traditional Fijian calendar, the month of presenting the *sevu* is known as *vula i sevu* which coincides with February. The first fruits are not only offered to the chief but also to the Christian God in the church on the Sunday of first fruit offering. This church offering is later redistributed. This is how it is done:

Ia na sevu va`alotu, sevu ga valelotu ni Siga Tabu, dau ena siga Moniti, o au na tuiara sa dei yaba `i 20 na tuiara tu ni valelotu e au yadia ga mai tuba dra wase na matua yalewa tauco`o, la`o na `ei talatala wase na `edra na matua yalewa tauco`o, na malumalumu. Dau o iya tu `arai na va`arau ni sevu i `e, malumalumu tauco`o, `e o lotu kavitu se o lotu ka walu a wase ga na gauna ni sevu ni mai sevu na vanua. (Tagane, Vaturova 30/07/19)

[But the Christian first fruit offering is done in the church on Sunday and the next day on Monday, it is redistributed. I have been church steward for about 20 years now in this church here. This is how it is done. I bring the offerings outside and share it to the old women, to the church minister, all the old women, the weak. That is how we conduct it here, all the weak, whether you are a seventh day or whatever Christian denomination, you will have a share because that is the first fruit customary offering of the land. (Men, Vaturova 30/07/19)]

There are consequences when this is not done because the cycle of life is disrupted triggering an imbalance and the unusual happens:

...na vuata ni sa dau vua mami sa `ila tu ni mami na yadia me sevu, ni mami maka ni yadia ena sa na maka vadua viro ni mami kai dau raca na vuana.... Io tauco `o `ina na yadi me sevu... Tauvata na wi... Io tauco `o, dau sevu tauco `o e maka ga nio sevu o na kai va `ila to `a ga o i `o. `Ania o vuwa `a se culacula na vua ni wi `omu dra vua ti `o Maka ni kai vua na memu wi... Va `alevu dau `ena i va `araita `i ga na vuwa `a ni `alaulau... Io a volea ga ni curu mai vale `uro (Tagane- Vaturova 30/07/19)

[...when trees bear fruit, we know that we will take the first fruit to the chief or the church; when we don't take it, we will not ever see the fruit again the following season. All the fruit will be taken as offering of first fruit like the wi...yes all, when you do not present it, you will continuously feel its effects such as pigs will eat your garden, the fruit of wi will spoil while they are still in the trees, no fruits for your wi... many signs, the wild pigs almost entering your kitchen to eat up your food. (Men, Vaturova 30/07/19)]

There is the sound of regret when it is not done because an important part of customary life is not passed on as the right thing that ought to be done:

Mami tea na hena magiti ei na hena i lava na dovū i valelevu... Ni gauna hai sa maqa viro tu ni caha... Sa da laho cae na vatutu ina bōse ni mami diva tio me rawa ni sautu tu hina na neimami vanua... Na noqu nanuma ena yaga me caha tioga me na diva tio ira na lao mai muri hai na ka ra dau cahava tu na qase mai mada... E qai maqa ni tovoli sa na leva, hai madaga o mami sa donumahina mai o ira i muri, o ira mada na luvei mami sa maqa ni qa de

na qai caha viro, dodonu me na caha me qai diva hina a ha dodonu me caha me diva hina... (Niumai Navikidi, Nasi ni Koro/Liuli ni Marama 01/08/19)

[We plant the root crops and its accompaniment which is big sugarcane to accompany it. Nowadays we do not do it anymore. We have mentioned this in our village meetings—to return the presentation of sevu because we want to keep on seeing the community's good health and well-being. My thoughts are we need to keep on doing it so that those that will follow will know about what the elders used to do. If we do not tell them, it will be lost. We have come across it, our children will not do something that needs to be done. It is the right thing to be done, to be seen... (Niumai Navikidi, Village Nurse/ Women's Leader, Tiliva 01/08/19)]

The Forest is a Marker of Where We Belong

The planting of trees is an important marker of life events such as birth, for it initiates a person to the continuous connection between himself/herself and the environment. When a baby is born, his/her umbilical cord after being cut is buried, and a tree is planted on the spot making the child a part of the land and the tree. Wherever the child may go later in life, he/she will always return to the land that is part of himself/herself rather than be a drifter in life having no place to take root or being swept and tossed by different currents in life. The tree becomes a symbol of his/her life, strength and stability that he/she will always respect the land where he/she belongs. This sense of belonging to the land is emphasized in the saying “*na vanua e bulu kina na noqu vicovico*” (the land that holds my umbilical cord).

Belonging is a value that emphasizes kinship and relational connections.⁵⁰ The umbilical cord is part of life and not an end or useless part of someone; in iTaukei thinking the cord is part of life and should be accorded burial. There is



Community consultation in Saqani, Cakaudrove, Vanua Levu. (Photo: Akanisi Sobusobu Tarabe)

spirituality in the performance where it is regarded as our first worship.

The close connection between people and their forest is evident in the way they link themselves to totems: trees, birds and fish. The complex ways in which the indigenous people of Fiji have constructed their group identities over many years includes their tribal totem trees. Totem trees define their belongingness. It is their pride for their totem is who they are—equal to their worth. Because of this, people do not cut down their totem trees nor kill birds which are their totems nor eat the fish of their tribal totem. In these ways conserving the forest and maintaining the balance in the environment was achieved. Indigenous peoples' forest management practices over thousands of years prove that they are the ones who have contrib-

uted significantly to reducing emissions from deforestation and forest degradation rather than contributors to it.

Time and Environment Connections

Each period of time has significance to traditional practices that govern peoples' lives. The space of time between two events such as in the harvesting of yams is not linear but a full cycle where both human life and the environment "are locked into a single cosmological embrace."⁵¹ This connection provides us with empirical evidence where the traditional Fijian calendar is marked by the cyclic growth of fish and plants. For example, the abundance of *nuqa* (spinefoot and rabbit fish) coincides with January so the period of time is known as *vula*

i nuqa or the month of spinefoot and/or rabbit fish. In addition, around July and August, the traditional Fijian beach trumpet tree (*Cordia subcordata*) turns yellow, as indication of the time of octopus mating and spawning season, at which time a temporary ban on catching octopus is put in place.⁵² Vula i Sevu, the month of presenting first fruits to the chief and priest, coincides with February. The presentation of first fruits, as discussed elsewhere in this report, activates a series of social engagements that impact the spiritual as well as the land through reciprocity. In turn this affects the productivity of land and forest.

Gender and Practice of Indigenous Forest Management

At the village level much of the major decision making at the traditional village institutions is carried out by men even though the use of the forest is defined by traditional gender roles. As a patrilineal society, major decision making is done by men on who can access the forest resources. For example, when people need to use the forest and approach in the traditional way, the head of the clan usually seeks out and speaks to the men, thus the decision to use or not lies with the men of the village. This has to do with how men are owners of the land and its resources.

The same goes when the first fruit is harvested. Men decide on the crops to be harvested and the quantity of crops to be presented as first fruit to the chief. They also decide when to present the first fruits. Traditionally, the time of *sevu* is the time of yam harvest, and yam is men's crop. The *yabaki* or year depended on when yam mature. However, fruit trees such as *kavika*, *ivi*, *wi*, *tarawau* and *dawa* are presented as *sevu* when they are in season.

Women are also users of the forest but the decision to do so is based on their traditional gender roles such as collecting firewood, gathering wild yams, foraging for wild vegetables, or collecting leaves and barks for medicine or extraction of dye as hair color, to decorate *masi* the traditional cloth as well as to use on pandanus leaves. In this case they do not need the consent

of men unless they have to collect these things from another forest that is not for their *kanakana* or use.

Io, na nursery saraga qori era yadrava jiko na kena sui, na kena gauna me sui kina, na gauna me biu i tuba e nodra i tavi sara tikoga na marama. Keimami na tabagone kei ira na turaga qai neimami i tavi ga na tea i tuba, na kena caka na kena vale me maroroi jiko kina, bucini jiko kina na kau. Ira dau nodra i tavi na susugi ira jiko i loma me ra qai kaukauwa vinaka me ra qai kau mai tuba (Tabagone, Saivou 28/08/19).

[Yes, women look after the nursery which includes watering the seedlings, when to water them, when to put them outside, all are part of women's role. We, the youth and men, our role is to build the nursery, plant the seedlings outside, nurture the plants. The women's role is to nurture and raise them up inside so that they are strong enough to bring outside. (Youth Saivou 28/08/19)]

The above excerpt is an illustration of how the division of labor in re-forestation is along traditional gender roles. Men build the nursery and plant the seedlings when they are ready, equivalent to men's traditional role in building houses and planting food gardens. Women on the other hand are involved in the nurturing and raising of seedlings which is parallel to their role in raising and nurturing children in their homes.

Customs such as the *lewe ni tabenaga* in Emalu, the Fiji government's pilot REDD+ area, allow women user rights to the land including the forest for their use and for generations to come. In some places in Fiji, *lewe ni tabenaga* is known as *kovukovu*, and it is the gifting of land to a woman by her clan upon her marriage. It allows user rights for her and her descendants, and the land is never taken back by her clan. This custom affirms relationships that can be forgotten in generations to come.

This land gifting is both honorable and limiting. The gifting though done with good intent does not give those descendants the right to be registered to the mataqali of those who own land. As they use the land they use it with freedom but cannot let anyone else outside this relationship use it; neither can they lease it because legally the land does not belong to them.⁵³ In Fiji everyone is registered in the iTaukei Register also known as the *Vola ni Karua Bula*, but in this register women cannot own land.

Multifunctional Use of Forest

The forest is the indigenous Fijian's source of life, depending on it for food, medicine, firewood, house materials as well as for raw materials for cultural expressions. Some of these things find their way into the market to meet the family's financial needs. Particular trees are used for certain needs, and there are consequences to using the wrong trees. Trees are not cut down or ring barked to hasten the dying of a tree for firewood. People wait for the natural dying of tree branches before these are gathered for firewood:

Ni madu a madu va`asi`a `eimami sa qai la`i ca`ava `oya na firewood...o ira na neimami matuwa...la`i yaco sara i `arai na nodra gradeta`ina na `acu me bu`a. maqa ni `acu va`a veitalia. `Ena balebale `e dua na vuni`acu, ni `eimami sa va`anuinui mada `ina na wai ni bula, yawa na valenibula maqa na penisilini, maqa na tablets na cava soti, vata `ei na neimami vale. (Esekaia R Daugunu- Turaga ni Yavusa Saqani 29/07/19)

[When a tree dies it dies naturally, then we will bring it as firewood. Our elders grade trees for firewood, they do not cut any kind of tree anyhow. It means that we are careful with a tree where we have our hope for the water of life to provide us with healing; we are far from hospitals for our penicillin...no tablets for our families, our homes. (Esekaia R. Daugunu, Chief Saqani 29/07/19)]

Fiji's biggest industry is tourism, and promotion of ecotourism in forest parks boost forest conservation. The research sites were not involved in ecotourism. Some people who were employed in the tourist sector realize that their traditional forests are disappearing but they have knowledge of what trees are used for in the tourist industry. Women in Nayeuvyevu said:

Na yasi, na dakua, na vesi, o ira na kau go sa vaka ra levu na vanua go sa kawaboko tiko. Da saga me da maroroya na noda, o ira na noda qase ra dau vayagataka na bou ni noda vale va viti... Me vaka boi vinaka na perfume, na sovu, sa supply na vei otela da lako ga na rumu ni vei otela kece go sa ra tu kina na yasi... (Women Vunievu, Cuvu 30/08/19).

[There used to be many sandalwood trees, dakua trees and vesi trees in these places here but these trees have disappeared. Our elders used them for the rafter for our traditional houses. Sandalwood is used for perfume and soap; in hotels here rooms are supplied with sandalwood-scented soap. (Women, Nayeuvyevu, Cuvu 30/08/19)]

As nurturers women use the forest to find medicine for their families and as source of food.

Na kau e yaga valevu na kau me vakania ni kila `iko na marama, vabibi vei keda na marama na vayaga`akina na drauna me ra somia na luveda, keimami na qase go sa `iko na makubui keimami era somia na makubui keimami. Dau caka `alega me waiwai me rewa me ka vaya, ka so `alega e vaga`aki kina na wakadra na kau... E ra lako na `uraga ra lei keli uvi mai... Keimami sa va vudua... Vasasa vuaka...na kekele, qoli ura... (Marama, Saivou 28/08/19)

[As a woman you know that trees are useful, especially where we use the leaves as medicine for our children to drink. As older women we have grandchildren who drink them too.

We also use them for oil and things like that and sometimes the roots are used. Men go to the forest to dig up yams; with us women we hardly do those. We do not hunt for pigs, dig for wild yams, nor catch prawns... (*Women, Saivou 28/08/19*)

The drinking of leaves referred to here is the use of leaves as medicine where leaves are crushed or boiled and mixed with water to drink. Some of these are common knowledge.

In Saivou, an interesting reference to the use of forest was in the cultural dimension: how trees are remarkable markers of identity in the relationship of *tako/lavo*. This is a relationship that emphasizes the senior line and junior line of genealogy through a common ancestor where their totem is referred to as a *lewa* (a woman). In this relationship both man and woman are referred to as a woman of their tree totem.

Na keda i cavuti, me tukuni na noda i tutu, na noda kau... O au tau, o au dau tukuni vei au, tako lewa vesi... Na kedratou i cavuti... Na kai Natavia ga na vanua qo, ena vosa vava. Ke sa na sotavi au, au kilai tiko o au na tako, ena vaotiya sara va vinaka sa yadra tako lewawesi. Ena va mai ya, ke dua ga na noqu vei kilai tuga, yadra ana... Ya me kani veivamenemenei... Koto vata kei na vakarokoroko, e dua na veivewekani ya... (Marama Saivou 28/08/19)

[A certain tree is our totem and tells of our identity. My cultural friend, I am identified by the vesi tree so I am referred to as tako-lewa vesi. Only the people of Natavia are identified that way. If one meets me, my greeting begins with my identity and I say tako and she will perfectly complete the greeting by saying "hello tako-lewa-vesi." If I meet someone outside of this relationship, this type of greeting will not take place. It is about pampering each other like little children yet respectful. It is one type of relationship. (*Women, Saivou 27/08/19*)]

The above response suggests that women are trees. In iTaukei society women are nurturers of children, they look after the elderly, the sick and weak. These nurturing qualities are being highlighted in the *tako-lavo* relationship bringing into focus the role trees have in the nurturing of relationships in Saivou society. The duality of tako-lavo relationship is about balance and completeness, and at the center of this is the importance of trees. People's multifunctional use of the forest affirms people's customs and values.

At the same time these practices contribute to the reduction of emissions from deforestation and forest degradation, sustainable forest management, forest conservation, enhancement of carbon stocks and the promotion of cultural diversity and biodiversity. In certain parts of Fiji, ecotourism has brought about the conservation of forests. In this way logging is forbidden and the saving of indigenous plants is maintained. People are more vigilant of forest fires, illegal logging and the importance of intercropping and replanting of indigenous trees.

Vitality of Existing Tenorial and Customary Governance System

The presence of local and international organizations in Fiji encourages people to conserve or replant their forests. Government initiatives such as REDD+ or the emission reduction program are useful tools in enhancing the conservation of indigenous forests. People in the village of Tiliva in Bua, encouraged by the support of the Bua Provincial Council, Wildlife Conservation Society (WCS) and the Fiji Locally Managed Marine Area (FLMMA), have started finding alternative livelihood through the planting of vegetables and root crops on the village outskirts. New knowledge is gained by the village youths through the work of government and NGOs in the village:

Na gauna ra lao mai ina ratou na tabana ni vadidie me ra mai vadikeva ra sa qai mai vamacalatahina tu na kena yaga, hena balebale e maqa ni dua a hacu me tubu mai na vuravura hai me maqa na hena yaga. A tu taucoho a odra i tavi me ra cahava na vuravura hai... Na dogo o hea e dua a odra i sususu a qoli, a veidogo. A veidogo a vanua, matai madaga o hea e tavulona o hea a wai duka dau laho waga na vei uciwai. Veuciwai taucoo tautauvata me gauna e dau laho ina a dave, a veidogo saraga hana me dau lai tavulona o hea a wai duka hana me ra kua ni lai mate kina a veika bula era tiko mai cakau vata na vei baravi tauvata a qoli, eso na qoli lalai (Tabagone-Tiliva Bua 01/08/19)

[We gained new knowledge and insights that enhance our traditional conservation when researchers came and did their research here. They explained the usefulness of trees. We now know that every tree growing in this world has a useful purpose. Each tree has a duty to perform in this world. The mangrove forest is a place to breed fish; first it strains the dirty water that comes from these rivers. When there is a flood, the mangrove forest will strain the dirty water so that the living things in the reef and near the beaches and small fish do not die. (Youth, Tiliva, Bua 01/08/19)]

The *qoligoli* or traditional fishing ground for indigenous people in Fiji has always been part of their lives. Empirical evidence in the traditional calendar shows the connection between the land and the *qoligoli* where the calendar was marked by the harvest of the land and the harvest of the sea. *Vulai nuqa lailai* (month of December) marks the spawning of *nuqa* or spinefoot and rabbit fish, and January is *vula i nuqa levu* marking their abundance, which was also the time of the maturing of land crabs.⁵⁴ Considering that much of Fiji is covered by the sea with 300 islands that make up the archipelago, conserving the mangrove forest using traditional methods such

as *tabu* would work very well. Research work on traditional marine conservation in Fiji done by indigenous marine biologist Joeli Veitayaki and other works on mangrove conservation by Dick Watling⁵⁵ allow us an assessment of marine conservation methods that can contribute to our knowledge of traditional forest management practices.

In Ra, Conservation International helps people in afforestation. The work mentioned here illustrates benefits as well as the extent to which indigenous knowledge and forest management practices have been lost. It takes outside influence and motivation to replant the forest. It proves the point that losing a forest is losing indigenous knowledge.

Io, na kequ i sema vei ira na lewe ni vanua kei ira na lewe ni tikina makawa ko Saivou keimami veisemati veivolekati saraga. Au lakova na nodra bese va koro, au raica na nodra leqa kau vacurumi ira yani kina vei NGO's kei na veitabana va matanitu me ra soli vakasala vei ira me vaka na ka oni mai vosa kina ni kua, na kena mai maroroi na veikau. Tikina bibi ena tikina makawa o Saivou baleta ni keimami maroroya na veikau mai vanua yaco sara kina veidosgo vata kei na loma ni wasawasa. Koya ya e bibi jiko kina vei keitou na tikina makawa e Saivou na maroroi ni veikau kei na veika bula... Na tikina makawa o Saivou e dra-vudravua ena kau vaka Viti, na kau ni Viti. Ia qo keimami sa tekivu me keimami tea tale jiko na kau ni Viti. Sa qai tekivutaki tiko na kena nursery ena koro mai Rokoroko. Io na loma ni tikina tikoga ko Saivou, keimami na bucini kau kina na loma ni, na mua ni yabaki jikoga qo. (Apakuki Pita Toga Matani Tikina- Saivou 28/08/19)

[Yes, I have a close connection with the people of the old district of Saivou. I attend village councils and listen to their problems. I get in touch with NGOs and various government departments to come and give talks and help the people on how to protect their forest, like you did today. The protec-

tion of the forest, the land, the mangroves and the sea is very important to the people of Saivou—the protection of the forest and the living things. The old district of Saivou is poor in terms of growing indigenous trees, the trees of Fiji. But now we are beginning to plant indigenous trees beginning with a nursery at the village of Rokoroko and we will plant seedlings by the end of this year. (*Apakuki Pita Toga, District Representative, Saivou 28/08/19*)

Generally, indigenous people know that if a cultural boundary is violated there are consequences. The retributive nature of customary law is an important one in traditional forest management practices. In parts of the research sites the retributive consequence is known as *vele* and comes in the form of sickness, death or natural disaster and directly affects the person who has violated it or the community for their part in it. Machines that work to clear the forest have stopped mysteriously and in certain occasions death has occurred. The importance of traditional means of reconciling this cultural and spiritual imbalance in the form of *matanigasau* is important. It is an act of *veisorosorovi* (asking for forgiveness) for violating forest boundaries:

Mai Nayarabale, dratou varovaro tio na dre`a `arai na dre`a nei Le`utulevu. Ia dratou kai to`a tu me dratou boarder vata, dratou kai teitei na yasana nei Le`utulevu, dratou na `ai Nayarabale. Dratou kai varo`a na `acu, o `acu `ala tu. Sa bale o `acu kai va`ayagata`ina ti`o na chainsaw o dau ni varovaro kai vu`a mai na ucuni `acu kai vucu`a na vanua e. Kai vucua vata i vatu, o iya dromu ga i `arai mami sa kai tini veisorosorovi sa kai la`i matanigasau viro i Le`utulevu. Na tolu ga na yabai sa oti `arai... Eso na vanua vei tou e Kanisi, na vei`acu`acu dau tovoli tu ni vanua tabu. Maka ni rawa ni lai ta `ina na `acu `ida va`ataroga se cava a tabu `ina ni la`i va`asausata`ina `arai a yaco `ina na male (Turaga, Vaturova 30/07/19).

[Some people in Narayabale were felling trees that grew on Le`utulevu soil in order to clear the land for their farms. Le`utulevu and Narayabale have the same border and because of this the Narayabale people casually crossed the border and planted on Le`utulevu soil. Using chainsaws they felled trees. After sawing through a particular tree, the log flew towards the man cutting the tree and hit his side. Behind him was a big rock and when the tree hit the man it punched him against the rock and the man died on the spot. Then we went to do the *matanigasau* to the people of Le`utulevu and traditionally asked for their forgiveness. That was three years ago. Some of our places Kanisi are tabu, forbidden and when you disturb it, it ends in death. (*Men, Vaturova 30/07/19*)

Other practices of restoring balance in the environment is done in the research sites. For example, women of Saqani are actively involved in a project where each clan is responsible for a certain conservation activity. A clan is involved in the replanting of mangroves as well as the *yaleyale* creeper to stop shore line erosion, and the planting of *dilo*, their totem tree, along the coast line. Another clan is involved in the planting of sweet potatoes which can be stocked when natural disasters occur while yet another clan is involved in replanting their indigenous forest which they lost to logging companies in the 1990s. Another clan has conserved their forest. The vitality of such project is enhanced by using the existing social structures of the village and traditional knowledge.

Strategies to Strengthen Traditional Knowledge, Practices and Governance System

Forest and Culture

Forest resources still link closely to indigenous people and their culture. These provide important raw materials for cultural art that both men and women access. The masi plant, for example, provides masi cloth which is an important item of women's wealth in traditional ceremonies. The use of forest materials in their traditional art is one of the ways in which traditional knowledge and practices can be strengthened. A woman in Saqani has this to say:

Dua na `a dau sarava, gauna e kai dau tovoli `atu na va`alala`ai, sa veleti kai ubi tu na drau ni uto. Dau mosi na yaloku, me ta na drau ni niu, mai covi lega me tali na bolabola me lala`ai ia e ti`o dina na i lala`ai me ta`iva`i `ina na va`a lala`ai amu dau taba tio na noda pepa rogo levu nai tau`ei. Nai lalakai, a taba tio i koni pepa `arai nai lalakai, i `arai saraga `ina nai tabe ni magiti. I `arai `omu, o tou madaga i `e au solia tu na noku gauna meu veiva `avulici `ina, so na kiti ko moce `oya i e, dratou laini to`a e... (Marama Saqani 30/07/19)

[I observe that when there is a community function and we have to contribute cooked food through the traditional food gifting of va`alala`ai, there is no longer care and respect involved. Plates of food are casually covered with breadfruit leaves. It pains me to see how women cut coconut leaves and make any kind of baskets and not the proper coconut leaf trays or lala`ai that should be used on such occasions to present the gift of cooked food. I am giving my time to teach this to the women but they seem uninterested. (Women, Saqani 30/07/19)]



Masi Plants. (Photo: Akanisi Sobusobu Tarabe)

The continuous use of forest materials in cultural art sustains the culture and identity. These women from Saqani know which material is for their cultural identity.

The traditional cloth is decorated with motifs where the dye of mangrove sap and other trees is used to decorate it. The cloth motif is imbued with power and mana and finds its place in the highest ranking of women's wealth.⁵⁶ Pandanus is grown as raw materials for mat making.

Mats and masi cloth form the bulk of women's wealth in traditional ceremonies and are important items as well in homes as carpets or sleeping mats.

Carving is a traditional art for men from certain islands in Fiji. The carved items include the *tanoa* which is used to serve the traditional drink *yagona* in ceremonies or in important village discussions. The traditional wooden drum called *lali* is carved from hardwood and used to summon people to church, a far cry from pre-Christian times when the sound of the wooden



Masi cloth. (Source: naturefiji.org)



Pandanus plants. (Photo: Akanisi Sobusobu Tarabe)



A pandanus mat. (Photo: Akanisi Sobusobu Tarabe)

drums was an ominous sound linked to eminent dangers and death. It announced approaching enemies or the start of a cannibal feast. All these items are carved from indigenous hardwood such as *vesi* and *buabua*. The items are still important cultural items in indigenous Fijian communities. They have also found their way into the tourist market as souvenirs.

Threats and Obstacles to Practice and Transfer of Knowledge

Na threat ga kevaka eda sega ni vakadewataka nai tukutuku me ra vakavulici.... Na kena vakadewataki e vago, o keimami na turaga ni koro, na mata ni tikina, kemuni mai na NGO's, na matanitu ki vei keimami, keimami kina veikorokoro, vei korokoro sa na i tavi nei tubutubu saraga me vakadewataka sobu ki vei ira na luveda. Na threat duadua ya kevaka e da sega ni vakadewataka...kevaka e sega ni vakadewataki ya, ira na sega ni kila. Era na leca i ka, era na vakaveitaliataka ga na ka e baleta na noda veikau... O au mai raica na noqu lako mai na cakacaka au suka mai au raica ni era leca i ka na gone. Baleta niu taroga yani na gauna ni bese va koro era leca i ka, au sa qai tukuna vei ira, qo na nodatou i tavi, vata kei ratou na roko. (Apakuki Pita Toga, Mata ni Tikina Saivou 28/08/19)

[There is the threat of losing all these knowledge when we do not transmit the message or teach indigenous knowledge to our children. The process of transmitting knowledge or this information must begin at the village level with the village headman, the district representative, people from NGOs, the government advising us, the village should be responsible to the parents so that our children will know. If this is not done then the children will

be ignorant and then they will abuse the forest. That is what I see after retiring from my job and I came to live in the village, many young people are ignorant. During village council meetings, I tell the people and the provincial roko too "this is our responsibility to inform our children." (Apakuki Pita Toga, District Representative 28/08/19)]

The research participants were aware that there are threats and obstacles that impede the practices of traditional forest resource management practices. As mentioned in the response above, if adults fail to tell the children and youths, the knowledge will fade and the forest will be misused. The misuse of the forest can also mean the planting of marijuana, a drug that is illegal in Fiji and is a growing problem in the small republic. A participant in Saivou noted how pigs have become a real problem to farmers when people start planting marijuana in their forest.

Kevaka e dua na duka e `iko, vaka vanua, se dua na kila o keda eso na veiyalayala `i me da vacala, va vanua. Eso na i yalayala, au rakicia e dau kana ga kina na vuaka, ni dua na ka vabibi walega... Io me u na veiyalayala `i , se veiyalayala `i ni vanua, va vanua e so na yalayala, e rakacia e dau kana ga kina na vuaka. Kei na `eivaki ni waigaga, na mariwana, o koya ena kana ga e vanua ya. Au sa vadinadina `akina, koya ya e vakilakila... Io o koya ni, kevaka o `ekia na nomu `ei`ei o koya na `akosova ga, na wai `akosova mai ia na lai kana ga na vanua `ei u kina na mariwana e kana ga kina a vuaka... Io kevaka me sa beci na lewa ni vanua, ka ya dau kena va `akilakila vei keimami mada. (Turaga ni Koro Rokoroko, 28/08/19)

[If there is a cultural error, if someone knows about some agreement made or a promise done but was not kept, then bad consequences will happen. I have seen how pigs have destroyed gardens when these cultural agreements have

not been honored. This is serious when someone plants marijuana after the vanua has spoken forbidding this as the law says. When this happens pigs will eat and destroy crops in that place. You may be planting alongside someone who is planting marijuana, when the pigs come, they will leave your garden alone but will cross over to the garden that has marijuana planted in it and destroy the crops because a customary law has not been respected, that is obeying the vanua council. (Vilimone Batinavanalau, Village Headman, Rokoroko, Saivou 28/08/19)

Modernization and Economic Development

The theory of modernization itself sees traditional societies as a threat to progress. In Fiji agricultural development is the takeoff point for economic progress, questioning the usefulness of communal resource ownership⁵⁷ which is linked to traditional forest management practices. The clearing of large forest areas for the purpose of planting one particular crop for the market is a threat to indigenous Fijians' customary forest management practices. The demand for modern living styles increases peoples' need for money. Now we hear sounds of regret when realizing too late that everything is gone including the forest that was part of their cultural identity and pride:

A kaku hai a yasi ni dau caka a bose va turaga ni dau caka a bose qai dau lai ta mai a yasi i hari a dau vica a vuna lelevu sa dau sivi tu mai ra dau cola mai me dau mai caka me dau gavi na gauna ni soqo vaka vanua...gauna sara me tarai keimami a koya a voli yasi levu ma sa qai mai cakava a kai jaina na 1993, 93 se 91 ko kea a voli yasi levu a caka hei o koya a vakadravudravua, a voli sara tuga na 3 a dola dua a kilo ni sa donuya hana... Io ni sa donuya hana a yanaraki vakadua a weimami veikau levu hei, au madaga a

donuya saraga a gauna ni varovaro a kaku hai a yasi a kaku ni neimami vanua. A yasi tekivu saraga veidogodogo hai ka kauta cake i ulunivanua... Sa maqa, sa leva na i yau ni vanua dau gauna ni vamau dau vagataki kina dau caka hena hai me yaca qai dau caka i ulu hai sa maqa ni qai divi. Qai caka vamau ni kua, i mada dau divi a yasi ni caka tu i uludra a tagane vata na yalewa ni vamau. Me dau caka a soqo vaturaga me dau caka mai bau dau caka mai somosomo, hana me kau kina ni kau ni kaku hana e kaku saraga ni vanua ko Bua, Cakaunitabua. (Sitiveni Solei, Turaga ni Koro- Tiliva 02/08/19)

[Sandalwood was the cultural wealth of this place, it would be presented at the council of chiefs meetings. They would cut a few big trees, the bark would be shaved off and they would carry it to be displayed during the ceremonies. The height of sandalwood trading hit us when Chinese businessmen came in 1993 or 1991. That was a big trading of sandalwood, and it made us poor; it was only Fj\$3.00 a kg... I witnessed that. The big forest was cleared, the sandalwood tree was sawn, this tree of our land. The sandalwood trees used to grow from the shore line and went right up to the mountains, now there is no more, the wealth of our land is gone. We would use sandalwood dust to decorate the hair of the bride and groom. At other times when there was a cultural function in Bau or Somosomo, we proudly presented logs of sandalwood as the cultural wealth of Bua, Cakaunitabua. Now that is no more. (Sitiveni Solei, Village Headman, Tiliva 02/08/19)]

Working people turn to the land to farm while they keep their jobs in urban areas. People are paid as farmhands. Intercropping was a traditional way of farming but this was discarded for the *yagona* plants and *dalo*. Dried *yagona* roots have a local price of Fj\$100-\$150. There are



Young yaqona plants. (Photos: Sepesa Curuki)



Dried yaqona roots (top) and plants (inset). (Photos: Akanisi Sobusobu Tarabe (top), Green North Kava - Valovoni, Saqani, Cakaudrove, Fiji (FB Image) (inset))

even “dream statements” such as “yaqona plants will get you millions” which motivate many rural people to clear their forest.

Colonial Influence

Long before yaqona fetched attractive prices, indigenous Fijians’ minds were already transformed by the way colonizers had influenced their thinking and passed this colonial way down the line. For too long, indigenous Fijians have believed the colonizers and missionaries that their way of life is evil, demonic and backward. One of this was in demonizing their ancestors and the need to move from the forest where they live. For decades, people have been clearing big trees and forests as part of the means of chasing demons away. In certain parts, trees that lined the shores and protected seashore erosion were removed to make way for fresh air and remove mosquitoes, so they were told.

Dau rogoca ga na gauna i mada dau la `o mai o Ratu Su `una sa dau maqa ni `uneci o Saqani, `arai tovola tu na dilo ma tu tu i `e, ra ma yatuni i `e na dilo. O Saqani, na nona `acu na dilo, nona manumanu na lulu dau va `asusu e na tamo ni dilo, `ena qoli na `ita dau va `aruru i na ru`u ni vuni dilo ni uwa levu. Qai lao mai na gauna ni cooperative na gauna ni subsidy qai `aya o `edra na `ai valagi me ta tani na `acu, na va `avuna eso na `a bau namu, me la `o mai na cagi bulabula...sa leva na dilo, leva na lulu, na `ita...sa mosi ni leva na ti`i ni noda `ilai va `avanua. (Esekaia Daugunu Turaga ni Yavusa- Saqani 28/07/19)

[During Ratu Sukuna’s⁵⁸ time, when he visited Saqani, he could not see the village from the sea because of the huge dilo trees that guarded the shoreline. Dilo is our totem tree and the owl that nested in the hollows of the dilo trunk

is our totem bird. Our totem fish is the octopus which used to rest under the shade of the dilo branches during high tide. Then, cooperative stores were introduced by the white men and the white men told our people to cut away the dilo trees because the hollows on the trunk bred mosquitoes and the leaves were blocking the fresh air from the sea. So they cut down the trees to let the healthy air come. Now all the dilo trees are gone and the owls too and the octopus. It is a painful loss of cultural identity. (*Esekaia Daugunu Chief, Saqani*)

In later years as developers came for mining and logging many indigenous Fijians were already receptive to the idea of removing the forest. The classroom became the tool and continues to be the tool that advances western ideas; traditional beliefs including forest management practices are not part of the curriculum. For some women the threat is very real, and the church community is just as important as the classroom in transmitting traditional knowledge and practices of conserving the forest. The urgency in passing this knowledge is imminent such as described by Vilimaina Kuta of Nakarabo:

Sa va`avulici cau ti`o na so na veivale, vei tou madaga `e sa va`avulici tio vei `idra na yakiti. Ka o au na veisiga tabu dau tarai `idra tio na yakiti sa dau va`avulici dratou ga na yakiti lotu wesele, ka o `idra i sau `arai a maka ni macala dra maka le tu ni `ila. Io sa dua nai dre kaukauwa a ti`o mai vei `idra i tuba na `amu maka ni bau va`avulici mai nodra vale. I`i ni dra lai to`a va`a i lala ni dra kai raca e dua na `a dra sa a saraga. Ia ni so na gauna dra ca`ava dra rere tio baleta dra `ila ti`o o `idra ni ma sa va`avulici ti`o vei `idra. (Vilimaina Dikuta, Mata ni Marama, Nakarabo 30/07/19)

[Our traditional knowledge and values are being taught in some homes. We are teaching our children. But for me, every Sunday I teach the children. I only teach the Methodist children,

but for those at the edge there I do not know, they may not know. Yes, there is a strong influence from people outside if children are not taught at home. When young people are in a group, they dare to try things out and some of these things may not be good for them. Sometimes when they do things they are afraid because they know the traditional values they have been taught. (*Vilimaina Dikuta, Women's Representative, Nakarabo 30/07/19*)

Urbanization and Diminishing Knowledge

Another threat is urbanization and the move to seek employment. For the people along the tourist areas many people find employment in the tourist sector so their knowledge and understanding of forests is very small. An old man found this a threat and says,

...koya na jikina qo baleta sa vaka ra sa valeqai tu na gone na gauna qo baleta na otela. O ira talega na nodra i tubutubu esa valeqai ira valevu talega ena vuku ni caka-caka na otela. E sa sega ni dua tale na ka me ra rawa ni lako kina na nodra vakasama me vadewataki vei ira na luvedra. Io o au madaga au sa vadewataka jikoga nai tukutuku vei ratou na gone na kena, na ka madaga va vanua. Baleta ke na dravuisiga ga na vanua sega na kau, ena dravuisiga talega na noda i tovo na noda valavala. Au lai nanuma sara na ka levu sa leqa, o ratu sakiusa makutu o koya a tukuna na dua na gauna keimami a lei bose ni tikina qai tukuna o koya ni kua ni vamusuka na kau. Laiva tu na kau me ra, e na qai yaco ga mai na gauna, tukuna o koya na kena yaga e tiko ga. (Sairusi Narama, Turagani Koro, Sila 30/08/19)

[...young people are trapped nowadays in the hotel. Their parents too are trapped in hotel employment. They do not think about anything else such as in transmitting traditional knowledge and values to their children. Yes, for me

I am telling the children the customary things. Because if the land is barren and there are no trees, our customary ways and traditions are also barren. I now remember the Big Chief, Ratu Sakiusa Makutu who has since passed away; he said in one district meeting, “do not cut the trees, leave them alone, the time will come when they will be useful.” (*Sairusi Narama, Village Headman, Sila 30/08/19*)

The lack of knowledge about trees and their importance was evident in the way a few young men asked this researcher to explain to them what REDD+ is and what that means for them because they have hilly grasslands. They added that they do not have any knowledge of conserving the forest because all they know is their jobs in the hotels.

The continuity of knowledge and its transmission can be threatened by new threats that were not there before until recently such as biosecurity threats. This has stopped certain cultural functions taking place where exchange of first fruit harvest that requires transfer of produce from one island to another used to be the norm. However, the continuity of traditional ways and knowledge can be done; if it is lost there can be a new beginning. In the words of the chief of Saqani,

Ni leva na lulu, vei au mada sa rarama na gauna eni sa tovola ti`o vei au ni dua na `ere veivosoti me `eimami na ca`ava. `Ere veivosoti na dela ni dre`a, vei `edra na lulu ena, o `edra na vuvu ni vanua, e levu na `a `eimami mai va`acala`a ta`ina... Da `ere veivosoti saraga, yaco saraga ina dolou, na cyle ni pollination taucoo bau `arai. Yaco ina neimami qoligoli, na wavu e ma la`o ga mai na caterpillar, `eimami ma sa va`adonuya me mai tu na wavu. Ia ma maqa ti`o ni `ila dratou na matua ni ca`a ni wavu na mai qemi na lase, na `a tauco`o... O `edra na `ita qiqisi, na qoli dra qai la`i sau ribariba tuga i `arai. Maqa ni bau mosi, cau ni nodra tagi mai na qoli o ira maqa ni bau rogo tu, dina ni

qai mai ca`a na compensation ia sa maqa ga ni tautau vata `ei na `ena sa leva e dua na ti`i ni neimami bula va`avanua va`ayalo. (Esekaia Rokoyamaca Daugunu, Turaga ni Yavusa – Saqani 29/07/19)

[I now have a very clear understanding of what has happened and what must be done. When the owl, our totem bird, is gone it is telling me that there is a need for us to ask for forgiveness. Ask for forgiveness from the top of the soil, from the owls, from the ancestors—everything. We have done many things wrong. We need to ask for forgiveness from the earthworms, the cycle of pollination, all things like that. When the jetty was built we allowed the excavator to dig up everything to make way for the jetty to be built. Our elders did not know at that time that in building the jetty, the coral will be dug up and our customary fishing area will be destroyed—the small octopus, the fish, they were battering and shivering there... the cry of the fish cannot be heard but the result is devastating. Even though compensation was given, it is nothing in comparison to our cultural and spiritual loss. (*Esekaia Rokoyamaca Daugunu, Chief, Saqani 29/07/19*)]

His words define the depth of pain an indigenous person goes through when there is disruption in the cycle of life.

Conclusions

The evidence presented in the research suggests that iTaukei's traditional knowledge and forest management practices are valuable, workable and relevant in the Republic of Fiji and should be acknowledged, recognized and utilized by the government in its efforts to reduce emissions from deforestation and forest degradation. Indigenous Fijians have been practicing forest conservation long before REDD+ and western

initiatives on forest conservation such as biodiversity came into the picture. Participants in the study were indigenous Fijians who are owners of traditional knowledge and are practicing forest conservation guided by their customary laws.

Secondly, the retributive nature of customary laws renders unnecessary the use of certain practices such as law enforcement to guard the management of forest resources. This will reduce the huge budget that the government is putting forth in its emissions reduction program. Since 90 percent of the forest is owned by indigenous Fijians, it makes sense then to use their customary ways to engage in forest management and conservation.

Some government policies on forest protection and conservation recognize the importance of the interest of local communities, but they do not directly spell out the importance of indigenous customary laws and which ones could be utilized in Fiji's forest management practices.

This study highlights that traditional management practices are important and should be included in the policies of the Fiji government on forest conservation and REDD+ policy.

Recommendations

In light of these findings the following recommendations are put forward to strengthen indigenous knowledge systems and traditional forest management practices in the implementation of the Emissions Reduction Program and REDD+:

1. Recognize that the forest and indigenous knowledge system are inseparable.

As the forest is conserved so the indigenous knowledge system that supports it must be respected in the policy documents of forest conservation.

2. Enact the draft policy on Access and Benefit Sharing.

The ABS policy will protect indigenous knowledge system and genetic material

and put in place legislation that covers intellectual property rights regarding bioprospecting to protect resource owners.

3. Recognize indigenous Fijians' knowledge system as important knowledge system to sustain forest conservation and management practices. It should be:
 - Promoted and taught in schools;
 - Promoted through public awareness.
4. Review government policy and law regarding the power given to the Director of Lands where he/she does not need the approval of landowning units to grant lease:
 - Restore the legal rights of landowning units in every process regarding the lease of their land under the Land Use Unit;
 - Allow them the right to challenge the government in court anytime during the leasing of their land for 99 years.
5. Strengthen policies that relate to indigenous Fijian forest management practices with the use of words such as 'iTaukei' or "indigenous Fijians" instead of "traditional" or "communities."
6. Strengthen customary forest laws, iTaukei leadership and governance as important systems to promote forest sustainability:
 - Give positions in government concerning customary land ownership to indigenous Fijians because this is about their knowledge and spirituality on customary practices regarding forest and land;
 - Restore the Great Council of Chiefs as the ultimate institution that governs customary land for the purpose of accountability of use and protection of forest.
7. Recognize and strengthen pre-existing systems on forest practices and management at the same time incorporate relevant communal strategies to adapt to

contemporary situations.

8. Provide government support for village or community forest management including fostering community forest conservation initiatives that are based on traditional knowledge and practices of indigenous Fijians as well as negotiations and the design of regulatory systems.
9. Improve cooperation between iTaukei communities, other ethnic Fijian communities, government, NGOs and scientists

by creating clear rules for national and iTaukei ownership of genetic resources and benefit sharing management as well as associated traditional knowledge through such activities as research permits and regulatory approaches.

10. Create greater awareness among donors, governments, NGOs and regional organizations about the value and importance of supporting traditional knowledge and governance systems in indigenous Fijian forest management practices.

Endnotes

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⁴¹ These villages were also chosen as they had relational cultural links to the researcher.

⁴² They are also the relatives of this researcher and using this link made my research easier in terms of where to lodge and identifying people and groups for interviews. Being my close relatives, it was also important that I present my *yate bulubulu* to the chief, a protocol which involved the presentation of a *tabua* (whale's tooth), the most esteemed of men's wealth in iTaukei society, as my expression of grief over my relatives who have died but whose funerals I was not able to attend. In this way I had no cultural debt that would hinder my presence or research in the village.

⁴³ People of Ra have cultural/tribal links to the researcher and this relational link is a playful/joking one that makes contact and *talanoa* easier.

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⁴⁸ For more discussions on *sautu* see Nabobo-Baba 2006; Tarabe 2015.

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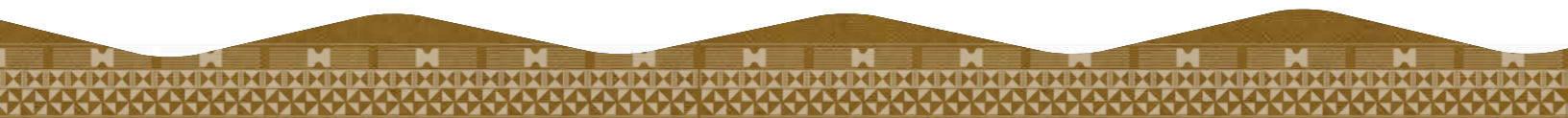
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⁵⁸ Ratu Sukuna was an Oxford educated indigenous Fijian chief in the British colonial administration and was a key figure in the codification of the land system in Fiji.

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CAMBODIA

Spirit Forests: Enhancing Natural Forest Protection in Cambodia



by Vuthy Lic

Introduction

Cambodia's natural forests with around 45 percent (8.1 million ha) forest cover in 2016 (MOE, 2018) have been managed by the State since the early 1970s (Lic, 2010). Approximately 7.5 million hectares (41.6%) are classified as Protected Areas (PA) and the rest as Production Forests (PF).

Approximately 7.5 million hectares (41.6%) are classified as Protected Areas (PA) under the responsibility of the Ministry of Environment (MOE) and the rest as Production Forests (PF) under the Ministry of Agriculture, Forestry and Fisheries (MAFF). All other land use types are the charge of the Ministry of Land Management, Urban Planning, and Construction (MLMUPC).

The Cambodian population is 16.3 million, of which about 90 percent are Khmer (NIS, 2017). The remaining 10 percent are ethnic minorities, such as Muslim Cham, Chinese and Vietnamese, and 17 ethnic groups or indigenous peoples (IPs). The majority of the indigenous groups reside in the remote areas of Northeastern and Northern Cambodia where forest cover consists of about 75 percent of the local lands, especially in the provinces of Monduliri and Ratanakiri. Almost all the indigenous peoples have been living in what are now classified as PA or PF for thousands of years, even before the establishment of the Khmer Empire of Angkor Wat in the 9th century. This great amount of time signifies they must have exceptional traditional knowledge and governance skills in natural resource management (NRM), conservation, and protection.

This indigenous knowledge and governance in forest management has also contributed significantly in national programs, among these the REDD+ program in Cambodia managed by the United Nations Development Program in partnership with MOE and MAFF (RGC 1, 2017) and the development and management of Community Forestry (CF) and Community Protected Area (CPA). Three laws—Land Law (2001), Forest Law (2002), and Protect Area Law (2008) recognize land use rights of all peoples.

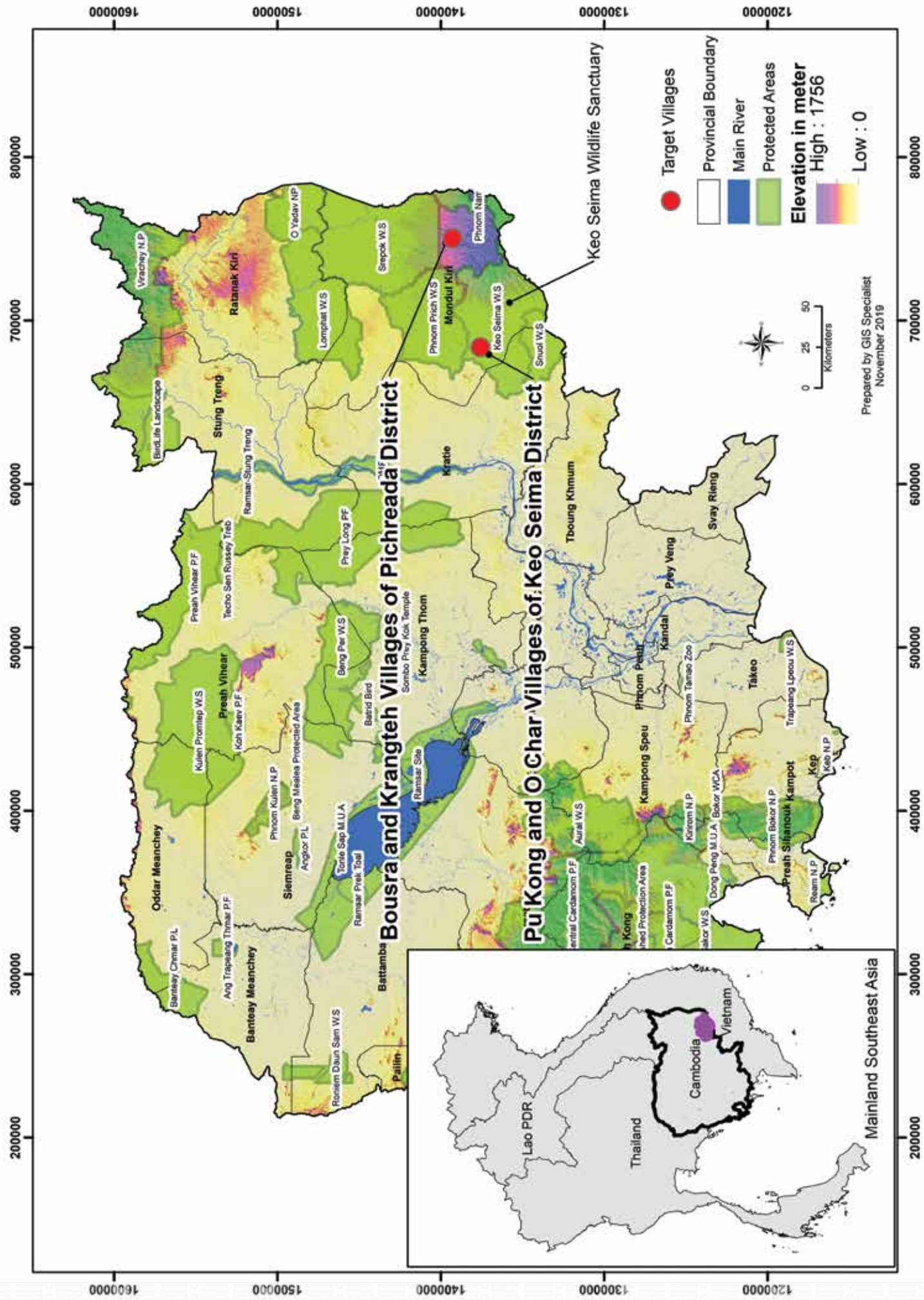
With these state historical management

approaches and the emerging involvement of indigenous peoples in the national REDD+ program, this study looked into the types of contributions to build knowledge on the existing traditional forest management practices of forest dependent indigenous groups. The study was done in indigenous communities in two districts in Monduliri province: Bousra and Krangteh in Pichreada district and Pu Kong and O Char in Keo Seima district (Map 1). One district is located in northeastern and the other in southern Sen Monorom, Monduliri's main provincial town.

Although the indigenous peoples in the study areas do not have formal education or basic literacy in the state language Khmer, they have been playing a vital role in establishing community forestry and community protected areas with their traditional knowledge in long-term utilization of natural resources—soils, forests, and fishes—and with the support of international and local nongovernment organizations. Customary forest management practices are increasingly recognized in formal forestry regimes. For instance, the Forest Law (RGC 2, 2002) clearly states that, among others, indigenous peoples are encouraged to participate in sustainable forest management through traditional uses of forest and active engagement in developing community forestry.

This impetus needs to be supported by policies to ensure that social justice and equity will work for indigenous peoples as rights holders. Policies should be built on evidence-based studies that are directed towards a developmental thrust—indigenous peoples self-determined development, a framework which allows them to freely exercise their rights—and ensure that governments respect, protect and fulfill these rights (Poffenberger, 2006).

The indigenous peoples need to actively and effectively participate in talks and programs on forests, e.g., REDD+, at various levels in order to secure their rights. As articulated by Tebtebba Foundation (Indigenous Peoples' International Centre for Policy Research and Education) in its work on REDD+, "...the last remaining tropical forests in developing countries are those controlled or owned by indigenous peoples.



These forests have been managed, protected and conserved mainly because forest-dwelling and forest-dependent indigenous peoples have fought against deforesters, policies and programs of governments to displace them from their territories. Their actions, rooted historically and persisting to the present, have contributed significantly in reducing emissions from deforestation and forest degradation, even before talks on REDD+ came into the picture.” Reinforcing the customary institutions and sustainable forest and other resource management practices of the indigenous peoples can only further enhance forest conservation and carbon stocks.

Indigenous Peoples in Cambodia

The National Policy on the Development of Indigenous Peoples defines indigenous peoples



in Cambodia as people of distinct groups living in Cambodia who have their own languages, cultures, traditions, and customs that are distinguishable from those of the Khmer, the dominant group (RGC 3, 2009).

The number of indigenous groups, who are also called “Khmer Leu” or “hill tribes” and are ethnically non-Khmer, have been updated from 17 in 2006 (NGO Forum, 2006) to 24 in 2019 (MAFF, 2019). The 17 ethnic groups have their own languages while the others speak a mixture of other languages including Khmer. Belonging to two distinct linguistic families, the main groups are the Austronesian speaking Jarao and those speaking Mon-Khmer which include the Prov, Kroeng, Tumpuon, Bunong, Stieng, Kuy and Por (MAFF, 2019). They reside in 13 provinces (Table 1 and Map 2).

The 24 indigenous groups are estimated to number around 199,692 constituting about 1.2 percent of the Cambodian population. Ranging from 15 to 41,281 members, these groups have been living in different communities (Table 1). Over half of them are found in the northeastern provinces of Ratanakiri and Mondulakiri forming the main population in both provinces. The indigenous groups constitute 42 percent and 15 percent of the population of Ratanakiri and Mondulakiri respectively (MAFF, 2019). Population and location data of some indigenous groups (included in Table 1) are unavailable due to the lack of detailed census on the indigenous population.

All indigenous peoples have been using the forests for their daily subsistence for hundreds, if not thousands, of years. It is estimated that around 80 percent of Cambodia’s population resides in rural areas where they mainly rely on rainfed agriculture (MAFF, 2019). Forest resources such as timber and nontimber forest products (NTFPs) provide an important safety net for rural communities as they offer supplemental or alternative sources of income. Deforestation and forest degradation thus adversely affect not only the country’s biodiversity, ecosystems, and carbon sequestration capacities in the modern world but also the livelihoods of these rural people who are highly dependent on forests for subsistence and income. The loss

Table 1. Number of Ethnic Groups and Population of Indigenous Peoples in each province in Cambodia

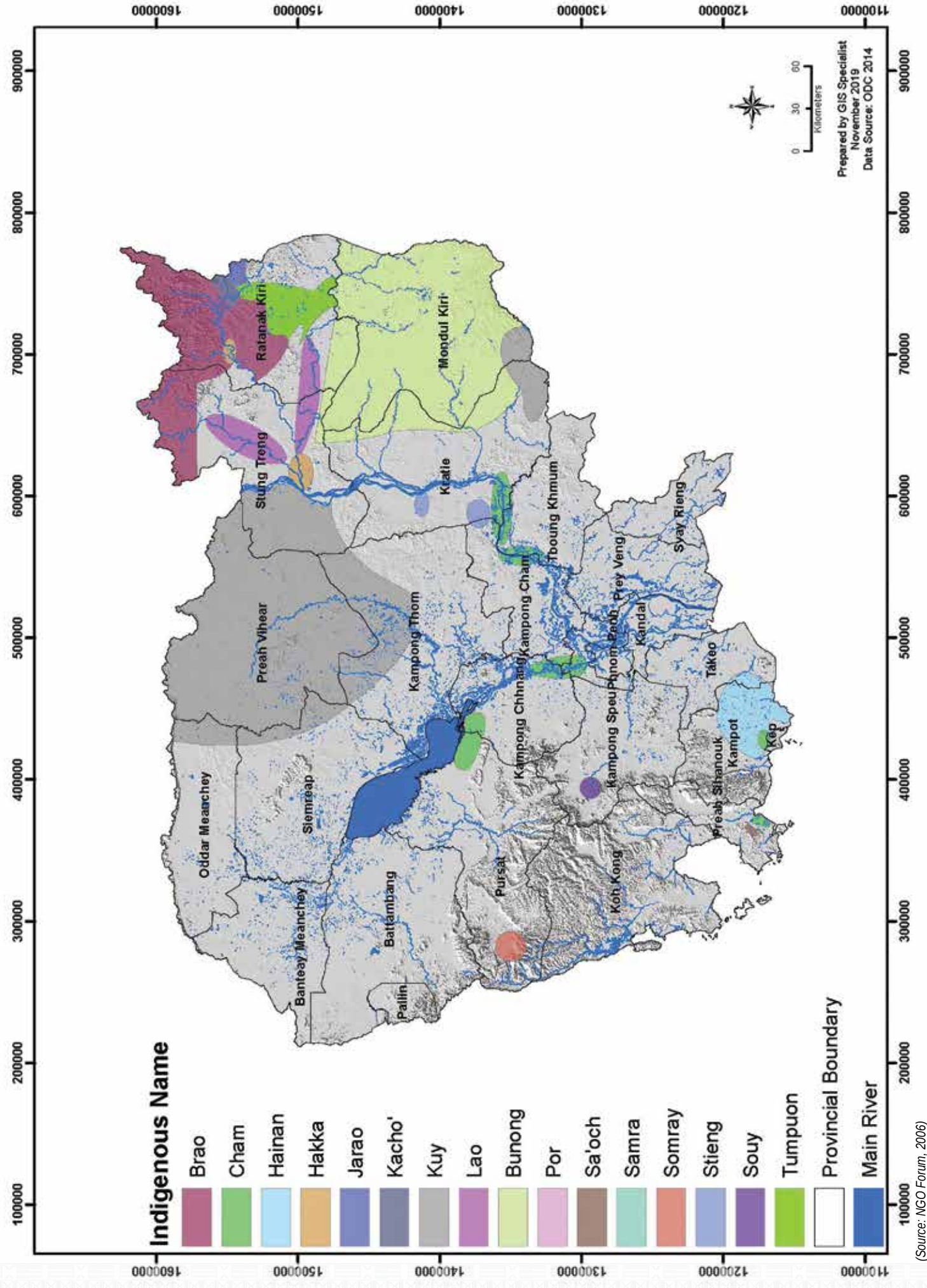
No	Indigenous Group	Province and Number of Indigenous Peoples													Total
		RTK	MDK	KT	PVH	KGT	ST	OM	KGC	PS	KGS	BMC	BTB	SV	
		1	2	3	4	5	6	7	8	9	10	11	12	13	
1	Kuy			5939	16731	13044	1644	2203				1712	8		41281
2	Bunong	267	26866	12454	24		430	699					3		40743
3	Tumpuon	31088	388		5		4	281					16		31782
4	Jarao	20170	84				12	158					14		20438
5	Kroeng	18442	57				278	124							18901
6	Stieng		648	10593				27	2564						13832
7	Brao	7968					444								8412
8	Kavet	2379					2710	18							5107
9	Kroul		659	3411				29							4099
10	Meul			3172											3172
11	Kacho'	2887					1	52							2940
12	Por				1329					1207					2536
13	Khornh			1529									433		1982
14	Chorng									774					774
15	Souy										1833				1833
16	Thmon		148	448				5							601
17	Lorn	289					251								540
18	Sa' Och													106	106
19	Roder	2						16							18
20	Khek							15							15
21	R'ong		600												600
22	Skung	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0
23	La En	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0
24	Samra	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0
	Total	83492	29450	37546	18089	13044	5774	3627	2564	1981	1833	1712	474	106	199,692

NA – Not Available

Abbreviation of names of provinces: Ratanakiri (RKR), Monduliri (MDK), Kratie (KT), PreahVihear (PVH), Kampong Thom (KGT), Stung Treng (ST), Oddar Meanchey (OM), Kampong Cham (KGC), Pursat (PS), Kampong Speu (KGS), Banteay Meanchey (BMC), Battambang (BTB), Sihanouk Ville (SV).

Source: MAFF, 2019

Map 2. Location of indigenous peoples in Cambodia.



of forest resources is particularly significant for women, indigenous peoples, and poor households.

Customary Knowledge and Practices in Sustainable Forest Management

The biggest indigenous group in Monduliri province are the Bunong followed by the Tumpuon, Jarao, Kroeng, Stieng, Kroul, Thmon, and R'ong. All these groups have been practicing traditional forest utilization and governance for generations, with the forests being their only source of livelihood. They have about the same customary knowledge in forest management and governance such as swidden agriculture and collection of forest products for family subsistence and housing. They also have similar spiritual beliefs, such as the Spirit Forest, the site no one can touch, either cutting a tree or hunting wild animals or birds. However, they have small differences in specific prohibitions and in how they name the spirit forest. For instance, the Bunong call it "Prey Taom"; the Kroeng, "Prey Neak Ta"; and the Thmon and Kuy, "Prey Areak."

The Bunong are subsistence farmers living in small village communities in the forests of Monduliri. Each village normally consists of up to 10 households/families. Most Bunong, like other hill tribe communities in the region, practice animism, the belief in natural spirits combined with ancestor worship. Traditionally everything the Bunong needed to survive came from the forest and their modest farms located in about 2-hectare areas within the forest. The farm size, small or big, is greatly dependent on their needs and their capacity to do swidden farming. All families practice this form of agriculture which involves clearing and burning a forest area to establish agricultural land, which is then cultivated with hill rice and intercropped with a wide variety of vegetables. Their swidden agriculture can be divided into two types:

upland which includes crop plantation on the moist areas; and lowland which is crop plantation, mainly rice, on inundated areas (MAFF, 2019).

Up until 2004, new forest was cleared and the previously farmed fields were left to fallow until the forest cover and the soil regained fertility and the plots could be used again. The recovery of natural ecosystems on the former agricultural farmed fields may need about 15 years fallow, but in the past the Bunong would return to the same site in the next 20 to 25 years cycle (Cheam Mony, 2002). In addition to products from swidden cultivation and animal husbandry, they collect nontimber forest products such as rattan and vines, resin, wild vegetables and honey.

Today the Bunong no longer clear new forest to make small farms because of limited forestland near their villages. Almost every household is aware that it is forbidden to cut new forest under Cambodian law. The indigenous groups also face other challenges with rising population and increasing illegal encroachment into forestlands by non-indigenous immigrants. To cope, they either reduce the amount of products they collect or increase the number of wild products in their domestic plantations such as bamboo (for bamboo shoots) and mushrooms. In addition, more indigenous families have been practicing horticultural plantation and vegetable production.

Spirit Forests

Chon cheat Bunong mean ka yaul kheunh ruom khnea tha prey chea robok ruom ney phum yeung. Khmean nor na moneak ah ang chea m'chas kamaseth te.

[The Bunong have kept their traditional system of forest management under the principle that the forest is owned by all of us in the villages. Everyone has no claim of individual land tenure but agrees and feels collectively connected to the forest." (KII)]

Bunong men in focus group discussion in Bousra village, Pichreada District.



Women, men and youth of Krangteh village, Pichreada District.



Pu Kong villagers, Keo Seima District.





Swidden farms: forest clearance (left) and one-year peanut and other crop species cultivation. (Photo credit: Cheam Mony, 2002)

The Bunong know that a healthy forest is essential to their cultural survival. It is part of their identity and part of Cambodia's spiritual and natural heritage. In this regard, the customary and traditional practices are to keep the forests untouched and protected from other human disturbance.

Among these practices is the establishment of spirit forests. Natural forests are allocated for them. Once an area is designated as a spirit forest, it becomes a place where all indigenous peoples in the villages can pray facilitated by their elders. The information that it has become such is spread around especially to nearby villages who then respect the area. Upon recognition of the site, every indigenous person considers it as occupied and owned by the spirit and it becomes an untouchable forest.

The indigenous peoples believe that some actions in the forest are governed by traditional rules that keep man and nature in balance, avoiding widespread habitat destruction. To them, nature is populated by spirits, both good and bad, and that these must be obeyed and appeased. No spirits are more powerful than those of the spirit forests, which are usually stretches of very dense evergreen forest. A waterfall, a small hillock or a giant tree (normally *ficus sp.* or the tallest tree with large foliage) often signifies the location of such area. The indigenous peoples in the study areas have worked with relevant local and national institutions to allocate forestlands for their spirit forests. The communities,

especially the elders, mobilize effort and time to protect these forestlands for their daily praying practices.

Specific beliefs are respected by each indigenous group. The Kroeng for instance do not collect and bring the wild taro *Khmauch* from the forest (from wild area) into their villages, since they believe it is protected by their spirit who will condemn anyone who does so. The condemnation could make the person very sick or die, unless given a pay-off prayer with a water buffalo, two chickens or a pig. In the same vein, the pumpkin called *Changray*, meaning unlucky, is not allowed to grow in their agricultural areas, and in very strict villages not even to be brought inside the village.

Certain circumstances call for the establishment of spirit forests: 1) the site had already been respected by their ancestors; and 2) occurrence of abnormal sicknesses of one or more villagers. For example, a villager falling sick abruptly after getting forest products (timber or nontimber) from the forest or after clearing a part of it could be a reason to have the forest site as untouched forest. Normally the characteristics of untouched forest sites are water bodies like waterfall or rapids, huge stone, and many tall trees in the area. Anger of the spirits could be in the form of fires to destroy the rice in the paddy (during rice ripped season), rice paddy inundation (during the growing season), or many villagers get sick at the same time.

There are two distinct types of spirit forest: Burial Forest and Untouched Forest. The burial forest is the site where the community bury their dead. It reflects how the indigenous belief in the close symbiosis between man and nature extends to other forest areas as well. Burial grounds, for example, are not to be logged or otherwise exploited. The Bunong belief system is in itself a locally adapted code of behavior, an efficient form of responsible resource management refined by hundreds of years of firsthand experience. As the Bunong say, “*Kroup Prey Taom Traov Te Mean Prey; Beu Khmean Prey Min Hao Tha Prey Taom Te*. (All types of burial and untouched forest sites must have forests; without forest, the areas should not be considered as spirit forest.)”

At present, each burial forest site could be as large as 400 meters by 800 meters. Up to three sites could be established for a village depending on the villagers' needs. The burial forest sites are divided into three categories: for the dead due to natural causes like sickness and old age; due to accidents caused by traffic, falling trees or falling tree branches; and for children or of very young age. The Bunong believe and accept the final decision of village elders or in consultation with the village committee where to bury their dead relatives. It is worth noting that unlike the Khmer or Chinese who bury their dead in open areas, the indigenous peoples believe their dead must be buried in forest areas. All trees remain just a few centimeters surrounding the graves. The taller the surrounding trees the better, whereas the Khmer people believe the opposite.

The indigenous groups in the study sites name their spirit forest sites after an old respected elder, important tree species, permanent stream, mountain, or big rock. For instance, Tu R'Nor Spirit Forest (Burial Forest Site) was named after a permanent stream with big foliage trees occupying the area for more than a hundred years.

The untouched forest sites, on the other hand, are forestlands intentionally allocated for beliefs, customary and traditional forest management. These are normally established on extraordinary forest ecosystems such as dense and tall tree forests with permanent water source or spirit plants (e.g., Kroeng's spirit plant is wild

taro). Villagers and outsiders are not allowed to destroy the areas, but rather pray to ask the spirits for safety and spiritual treatment of sickness. Praying must be practiced at all times prior to having any important request such as collection of water. This has happened in Krangteh village where about 1 kilometer by 1.5 kilometer is protected as untouched forest. The forestland is noticeably intact while the surrounding forest areas have been converted to agro-industrial development such as cassava, rubber and cashew plantations.

One village could have more than one untouched forest site depending on the villagers' belief and adequate distance from a village. In the past although the village was traditionally moved to new locations, the untouched forests could remain the same. Since 2004 however indigenous peoples' villages have not been moved due to two reasons: the local authority and the decision of indigenous peoples themselves, especially elders with a modern mindset (FGD). They have realized that moving the village is a waste of a lot of things including labor, houses, fruit trees, and to some extent, water wells.

This study reinforces previous studies on the beneficial aspects of customary knowledge in forest management. Megan English (2017) emphasized that traditional knowledge could be used for sustainable forest management because indigenous peoples have been using the forests as capital items for their historical life. For instance, spirit forests prohibit any activity including timber cutting, animal hunting, or slash and burn for cropping areas. The indigenous peoples use them as prayer site, source of water and seedlings, and for wildlife nests and habitats. English further contends that their beliefs could help revive biodiversity conservation (e.g., maintaining the Asian Elephant in the areas). “The sacred nature of a mountain, called Ru Nyung, amongst people in the village is what has kept that area off-limits and well forested.” Therefore, the traditional knowledge, practices and customary governance system of indigenous peoples on forests could be used for developing policies on sustainable forest management.

Lisa Arensen (2018 a) similarly underscored the wisdom embedded in traditional ecological



knowledge (TEK) as the most important method for sustainable forest management. She noted that the Bunong's belief and practices surrounding sacred forests were found to have similar biodiversity conservation goals, including low levels of human visitation, selective resource use, and egalitarian access and use of the forest, with the last being similarly affirmed by the key informants.

...the forest is owned by everyone. They lay no claim of individual land tenure but feel collectively connected to the forest. The Bunong indigenous peoples truly believe that the forest belongs to the spirits, and that everyone should have access to it. They do not consider land as commodity. Use, management and transfer rights are only defined for individual resources and products. Access to the resource—the forest—is obtained through sacrifices to spirits. This egalitarian attitude makes them vulnerable to land grabbing, a common problem in Cambodia.



Elderly woman informant in Krangteh Village.

A story that has been repeatedly told since indigenous peoples became more visible in Khmer society, also cited by Arensen (2018), reflects Bunong belief in spirits and sacred sites.

In the past, when I was young, I cut a tree down and burned the area for an agricultural plot with some friends. That night, my father had a dream. In his dream a spirit who was the father to the spirit in the tree I had felled came to him in a dream. The father spirit told him that your son has killed my son, so I will kill your son. Then my friends and I all got sick. My family sacrificed a water buffalo to ask for forgiveness. I got better, but one of my friends died and another became paralyzed. The doctor told us that we had malaria.

Strong beliefs are further expressed in assertions of their culture passed on from one generation to another:



Elderly key informant in Bousra Village.

We have indigenous blood.
 (our parents and grandparents were
 indigenous)
 We live communally.
 We use land and forests communally.
 We respect spirits and have ceremonies
 for the village spirit every year.
 We call (pray) for help and have
 ceremonies
 to compensate when spirits help.
 We have ceremonies to call on areaks
 (spirits sought to find out why someone
 is sick)
 We practice or have a history of
 practicing
 rotational agriculture.
 We hold sacrifices when we farm.
 We have village leaders (chahsrok [vil-
 lage elder])
 We have burial forests.
 (NGO Forum, 2006)

Tenurial and Customary Governance Systems

The National Policy on the Development of Indigenous Peoples (RGC 3, 2009) states that all traditional practices of all indigenous peoples in the country are respected. The policy further emphasizes that the indigenous peoples have official support to develop their customary rights and beliefs. The existing forest governance systems of indigenous peoples are tenurial governance, hierarchical customary governance, and spiritual forest beliefs.

Tenurial Governance

All forest areas are owned by everyone in the village. According to the people in the study areas, the traditional size of a village's forestlands depends on the people's ability to manage. They measure forestlands based on a 1-day roundtrip walk around their village to collect forest prod-

ucts which they estimate at about 10 kilometers from the middle of the village. On average, each village may own about 314 square kilometers of forestlands depending on availability. The forestlands, excluding households' swidden agricultural lands, are owned, used and managed communally by the people in the village.

Newly married couples could clear a portion of the village forestland for agriculture by obtaining permission from the village clan chief. The chief could be one person or several. Prior to the Land Law of 2001, village forestlands were bordered by agreed rivers, mountain ranges, and paths which are respected and obeyed. Any violation is resolved verbally by village chiefs based on previous information passed to them. Through the tenurial governance system, they help each other to sustain and manage their forest for generations.

Hierarchical Customary Governance

The village clan chief is the final decision maker in the village. Conflicts are fairly decided.

The elder clan chief, male or female, is selected by the indigenous people in a village. He/she should be able to help the villagers and protect the benefits of the village.

Spirit Forest Belief-based Governance

The indigenous peoples also practice the spirit forest belief-based customary governance system. This system covers abnormal events beyond human capacity. As cited earlier, occurrence of abnormal events such as many villagers falling ill after collecting forest products in an area could lead to establishing of a spirit forest. The handing down of an "unacceptable decision" on villagers' conflicts is another instance. The final decision is made after taking an oath (beyond human capacity), and the chief and conflicting parties agree to choose a spirit forest site to be the central judgement and where they pray for a specific event to happen, commonly through a dream. For this reason, the spirit forests are managed by all villagers and passed on to the next generation.

These tenurial and customary forest governance systems have been continually practiced through many generations by the indigenous peoples in Mondulkiri, resulting in the remaining pockets of forestlands throughout the province. As key informants emphasized, their governance systems have been vital and viable in protecting and conserving these natural resources including forest biodiversity. They claimed that their spirit forests are the result of their strong protection of these areas *from* economic land concessions (ELC). Within the spirit forest sites are small mammals like barking deer, key bird species like the hornbill, and spiritual tree species, some of them valuable timber trees such as Beng (*Afzelia xylocarpa* (Kurz) Craib., *Leguminosae*).

Strong tenurial and customary governance systems also validate the government's selection and approval of forestlands and sites for natural resource conservation and protection. For instance, the Forest Law (2002), Article 41, declares, "The Minister of Ministry of Agriculture, Forestry and Fisheries has the authority to allocate any part of the Permanent Forest Reserve to a community, including indigenous peoples, living inside or near a forest area in the form of a Community Forest."

These systems contribute to sustainable forest management. Government laws recognize local and indigenous communities in cases of overlapping indigenous forestlands and agro-industrial development and consider them prior to any approval of economic land concessions. Because the Sub-Decree on Economic Land Concessions must comply with the Land Law (2001), the indigenous peoples are to be consulted as long as there are spirit forest sites where ELCs are proposed. Article 23 of the Land Law states: "Prior to their legal status being determined under a law on communities, the IP groups actually existing at present shall continue to manage their community and immovable property according to their traditional customs and shall be subject to the provisions of this law."

The two aspects, strong tenurial and customary governance systems and strongly enforced government policies, complement each other for sustainable forest management. Individuals and

families are accountable to the community, the community in turn to its members, maintaining a balanced relationship with neighboring communities. Tenure conflicts are to be avoided, first through continuing efforts of members to avoid offending others, and then through mediation at increasing levels of authority.

In mid-2000s, however, various developments occurred that adversely affected the indigenous peoples' forestlands and customary forest governance systems. Among these were improved road access to provincial areas specifically forestlands, government economic development policies such as allocating forestlands for agro-industrial development through ELCs, and lowland migration into indigenous areas for such economic opportunities.

Government Policies and REDD+ Program

Cambodia's forest cover has decreased from 60 percent of total land area in 2010 (FA, 2010) to 45 percent or 8.1 million hectares in 2016. The natural forest cover is categorized as Production Forest and Protected Area. Protected areas cover 7.5 million hectares corresponding to 41.6 percent of the total forest cover. The forest cover is classified by forest type as shown in Table 2.

The core of forest management is under the jurisdiction of the Ministry of Agriculture, Forestry and Fisheries and the Ministry of Environment. The MOE has jurisdiction over protected areas while the remaining forest areas are under the jurisdiction of MAFF including timber harvest and monitoring of timber transporting and timber export.

The Permanent Forest Reserve is a state forest located on lands bearing no private ownership rights which are further classified into production forests and protected areas. Production forests (on state public land) have sustainable production of forest products and byproducts as their first function. Their protection function is secondary. Production forests

Table 2. Forest Cover and Forest Type.

Forest Type	Area (%)
Evergreen forests	15.76
Semi-evergreen forests	5.00
Deciduous forests	18.37
Mangrove forests	0.17
Bamboo forests	0.96
Non-classified forests (swamp, riverine forest, and inundation forest)	4.74
Total	45

(Source: MOE, 2018)

include forest areas under Community Forestry that are granted under agreement between the Forestry Administration of MAFF and a local community or organized group of people (CF members) living within or near the forest area. The CF members have the rights to manage the forests for subsistence and traditional uses in a sustainable manner. The CF site could be one of the sources of timber but to date CF sites designated as far back as 2006 do not have much timber as almost all are located on degraded forestlands; the CF concept was brought to the country in early 1990s. Timber should be available in CF sites at least 15 years or so following the starting date.

The protected areas (on state public land) have protection of the forest and its ecosystem as their priority. Permits are not issued for harvesting forest products or byproducts, but the local communities have customary use rights to collect these so long as the impact is minor. However, the Law on Protected Areas states that Sustainable Use Zone could be granted as economic land concession for sustainable development.

In this regard, almost all ELC sites in the protected areas have served as main sources of timber. Following the Primer Sub-Decree No. 69 (Sub-decree ANK/BK No. 69 issued 28 May 2016), forestland management was reorganized, such that MOE became responsible for all protected area management, and MAFF for production forests and investments such as ELCs. The MAFF continues to oversee ELCs it has issued as well as ELCs located inside protected areas which the MOE had previously overseen.

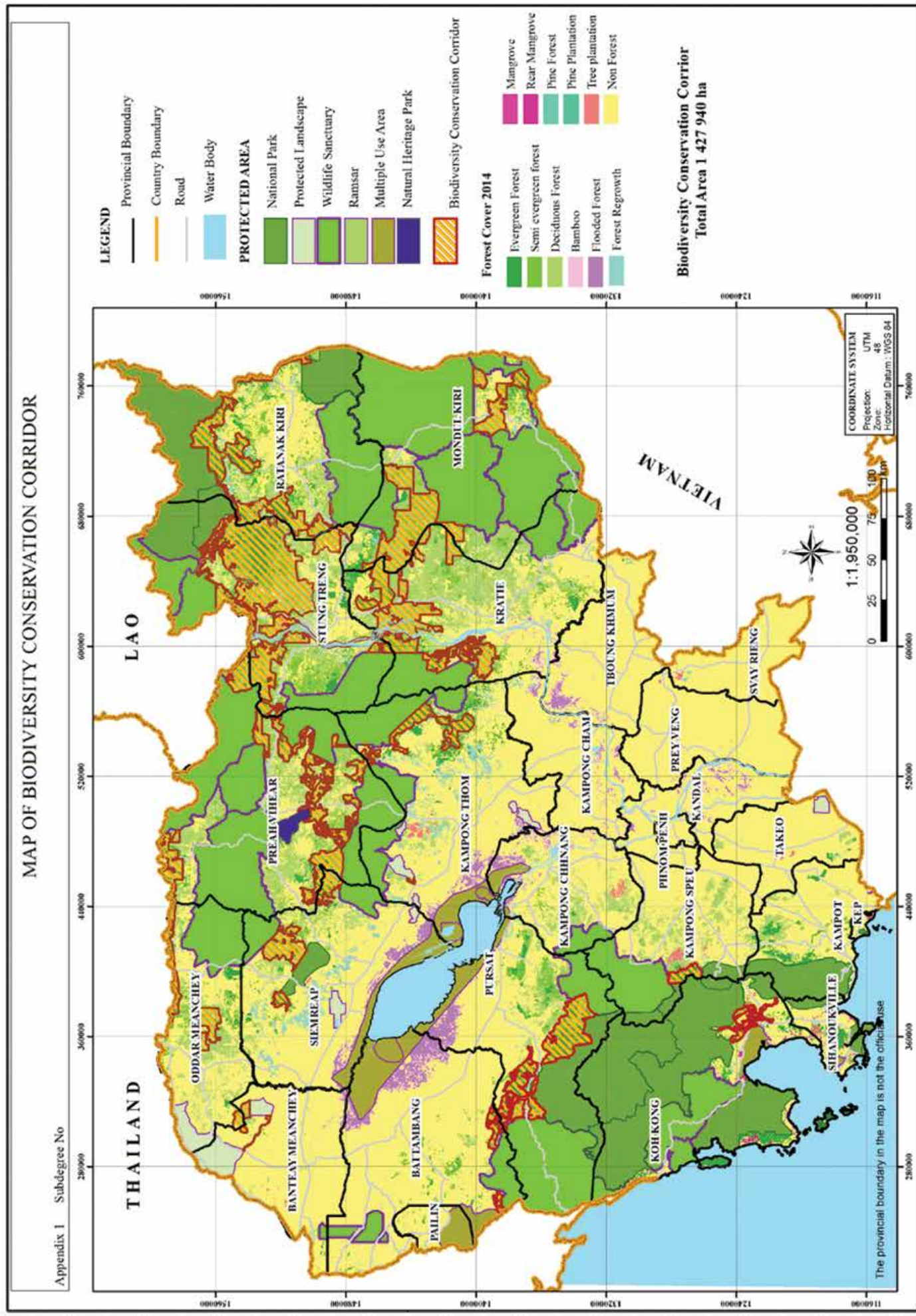
The Ministry of Environment is also responsible for areas designated as Biodiversity Conservation Corridors (BCCs). The BCCs are newly proposed areas on either existing production forests or on degraded forests suitable for corridors to allow wildlife crossing from one protected area to another. The program has been financially supported by government's soft loan and grant from the Asia Development Bank (ADB) since 2012 and potentially to be continued till 2023.

Policies on Forest Management

Government policies on natural resources and forest management have largely been driven by the thrust and financial support of international donor agencies within the United Nations over the last three decades. For instance, policies on development of protected areas flowed during the early 1990s, those on rural people's participation in forest management under the Community Forestry and Community Protected Area modality during the 2000s, and when REDD+ emerged in international discussions, more policies and regulations were made on REDD+ as one of the main forest management schemes. The REDD+ site in the Keo Seima Wildlife Sanctuary (KWS) is one of many which generally started in late 2000s.

The Cambodian Constitution (1993) states that all Cambodians are guaranteed the same rights regardless of race, color, language and religious belief. Article 31 states:

Map 3. Protected Areas of Cambodia



The Kingdom of Cambodia shall recognize and respect human rights as stipulated in the United Nations Charter, the Universal Declaration of Human Rights, the covenants and conventions related to human rights, women's and children's rights. Every Cambodian citizen shall be equal before the law, enjoying the same rights, freedoms and fulfilling the same obligations regardless of race, color, sex, language, religious belief, political tendency, birth origin, social status, wealth or other status.

All related laws and government policies and programs are aligned with the Constitution.

Cambodia is a signatory to a number of international instruments that protect the rights of indigenous peoples, such as the Convention on Biological Diversity (1992) that recognizes the role of indigenous peoples in the protection of biodiversity. Following these international instruments, the Project on Rights Based Approach to Indigenous Peoples Development in Cambodia was launched by the International Labor Organization (ILO) in May 2005. The project helped Cambodia learn from international experiences reflected in the principles of ILO Convention 169 (NGO Forum, 2006).

The legislative framework on forest governance includes the Forest Law (2002), Protected Area Law (2008), Sub-Decree on Community Forestry Management (2003) and Guidelines on Community Forestry (2006). Similarly, the National Policy on Development of Indigenous People (2009), Policy on the Registration and Rights to Use of Land of Indigenous Communities and Sub-Decree on the Procedure of Registration of Land of Indigenous Communities (2009) are equally relevant to the daily life of the indigenous peoples (ODC, 2019).

These policies are seen as a complement to the laws and other relevant policies on land, forest, environment and international instruments. They concentrate on development sectors including culture, education and vocational training, health, environment, land, agriculture and water resources, infrastructure, justice, tourism and industry, mining and energy.

Also, these policies aim to promote the livelihoods of indigenous peoples and to improve their quality of life. More importantly, they claim to equitably distribute natural resources management according to the development of programs and projects of the government while collaborating with development partners, national and international organizations and private investment companies. Indigenous peoples have used these policies to claim Communal Land Title (CLT), as this study shows. However, the policies have not been actively implemented by relevant government ministries due to lack of financial resources, technical support and political will.

Forest Law

Having recognized that Cambodian forests support the livelihoods of many rural communities including indigenous peoples, the Forest Law (RGC 2, 2002) provides for community forestry. Community forestry offers indigenous and non-indigenous communities an opportunity to obtain use and management rights to forests in 15-year renewable intervals. Some 414 CF sites (337,084 ha of forestlands) have been granted under these policies, and two, 678 ha-Phum Pukreng and 1,323 ha-Phum Puradet, are located in the study sites (FA, 2017).

Under the 2001 Land Law, certain forest areas are also included in the collective immovable property of indigenous communities, thus the State grants stronger rights to indigenous communities. The indigenous and local communities can thus benefit from timber and nontimber forest products for family subsistence from these forestlands for now and the next 15 years of forest management. It is worth noting that several laws and regulations invariably use the terms ethnic minority, indigenous minority, ethnic community, forest-dependent or forest-dweller, but all refer to the indigenous peoples.

The Forest Law (2002) states the indigenous peoples' rights on utilization and management of forests. Articles 33, 37, 40, 44, and 46 legally guarantee their rights and timber and NTFP collection activities for family subsistence within

production forest areas but prohibit NTFP collection for commercial purposes (Article 29). Article 29 further protects their rights to utilize their traditional trees like resin trees using their resin tapping practices. The Forest Law promotes and protects the indigenous peoples in the context of the application of the REDD+ strategy (RGC 2, 2017).

The constraints to implementation of this law are again the capacity of public officials, government's willingness to implement the law and additionally indigenous peoples' knowledge of and ability to use the law to defend their customary and traditional knowledge and governance on forest management.

Protected Area Law

Because indigenous peoples have been living in PA forestlands for generations, the Protected Area Law (RGC 5, 2008) takes the indigenous peoples and their rights into consideration. For instance, Article 4 states: "...The management of the protected area shall have to guarantee the rights of the local communities, indigenous ethnic minorities and the public to participate in the decision-making on the sustainable management and conservation of biodiversity."

In addition, Article 11 guarantees the rights to secure improvement of the livelihoods of those who have been living in the areas for long, whenever the areas are allocated for development such as for economic development. At best, consultations should be held for the benefit of the indigenous peoples. The Article declares,

"Sustainable use zone: where the management area of high economic values for national economic development and management, and conservation of the protected area itself thus contributing to the local community, and indigenous ethnic minority livelihood improvement. After consulting with relevant ministries and institutions, local authorities, and local communities in accordance with relevant laws and procedures, the Royal Government of Cambodia may

permit development and investment activities in this zone in accordance with the request from the Ministry of Environment."

Article 18 recognizes the important roles of indigenous peoples in protected areas in developing the Protected Area Management Plan. It states that "The process of development of the Protected Area Management Plans shall involve coordination and consultations with authority, local community, indigenous ethnic minorities' community and stakeholders." Articles 21 and 22 also emphasize their vital roles, but at the same time Articles 26, 27, and 31 contain some restrictions and tasks to commit to the State. Article 31 mandates the Ministry of Environment to rehabilitate degraded areas within protected areas in consultation with local and indigenous communities and national and international organizations.

The Forest Law (Article 43) and Protected Area Law (Article 44) include specific provisions for local authorities and peoples in forest decision making processes and protect the right to free prior informed consent in accordance with the relevant legal obligations.

Land Law

The 2001 Land Law (RGC6, 2001) recognizes the role of traditional authorities, mechanisms and customary knowledge in decision making processes. Article 26 declares,

"Ownership of the immovable properties is granted by the State to the indigenous communities as collective ownership. This collective ownership includes all of the rights and protections of ownership as are enjoyed by private owners. But the community does not have the rights to dispose of any collective ownership that is State public property to any person or group. The exercise of all ownership rights related to immovable properties of a community and the specific conditions of the land use shall be subject to the responsibility of the traditional au-

thorities and mechanisms for decision-making of the community, according to their customs, and shall be subject to the laws of general enforcement related to immovable properties, such as the law on environmental protection. The provisions of this Article are not an obstacle to the undertaking of works done by the State that are required by the national interests or a national emergency need.”

The Land Law guarantees indigenous members freedom of choice with regard to collective ownership:

For the purposes of facilitating the cultural, economic and social evolution of members of indigenous communities and in order to allow such members to freely leave the group or to be relieved from its constraints, the right of individual ownership of an adequate share of land used by the community may be transferred to them. Immovable property that is subject to such private individual ownership cannot fall under the general definition of public properties of the State. (Article 27)

In practice, the Land Law, Protected Area Law and Forest Law are taken and implemented together in conflicts and resolutions related to natural resources. In addition, the National Policy on the Development of Indigenous People encourages establishment of community committees by indigenous peoples as a mechanism for land dispute resolution within the community. If another community is involved in the dispute, the legal procedures in the Sub-Decree on Sporadic Land Registration are followed. If a dispute cannot be reconciled by the community committee, the committee is required to forward it to another dispute resolution mechanism or to the court. The Policy also provides for the relevant institution to furnish translation services if a dispute is submitted from the community committee and a party to the dispute cannot speak Khmer. In general, for disputes arising within indigenous communities the parties generally are able to seek full resolution within the tradi-

tional village leadership and dispute resolution mechanisms.

Aside from the laws and regulations described above, important programs such as REDD+, National Forest Program and Forest Community Programs (Community Forestry and Community Protected Area) have been implemented that encourage active participation of indigenous peoples.

Sub-Decree on Community Forestry Management

The Sub-Decree on Community Forestry Management (RGC 4, 2003) aims to make sure that some of the natural forestlands are allocated to forest dependent people, including indigenous peoples, for them to manage the forests for their own benefit and at the same time keep the country's forest cover as much as possible. In addition to this Sub-Decree is the Community Forestry Management Guidelines which describes the step-by-step procedure and the documents required in the registration of any proposed forestland for CF management areas. The time the Guidelines were developed (2006) and implemented from the promulgation of the Sub-Decree in 2003 should be noted.

With active participation of members of CF sites, natural forestlands could be guaranteed as the Sub-Decree aims to provide a legal framework to assist people in rural areas in establishing Community Forestry Communities to contribute in the sustainable management of forest resources. For instance, the two CF sites, Phum Pukreng and Phum Puradet, in the study areas are secured in terms of forestlands and forest management for local community benefits. The Sub-Decree is also important in court cases if any conflicts arise on land management between the communities and economic development such as ELC.

On the ground however the enforcement of the abovementioned laws and regulations meets with severe resistance from government authorities who are attempting to minimize the amount of forests that could be claimed for indigenous Community Forestry, Community Protected

Area, and Community Land Titles. The government has been reluctant in helping indigenous peoples process the paperwork needed to claim certificates of CF registration. As the focus group discussions revealed, the majority of current CF sites, such as Phum Pukreng and Phum Puradet, were developed through the strong commitment of the indigenous peoples themselves with the assistance of NGOs such as RECOFTC, WWF and WCS and donors' financial support over two decades, from 1990s-2000s.

In addition, field officials lack capacity in law enforcement and knowledge on indigenous peoples. For instance, field officials interpret the phrase "traditional use of timber and NTFPs" differently from community people. Indigenous and local communities claim traditional uses of timber and NTFPs include direct utilization and selling of these to purchase household items, while field officials claim that sale of products is prohibited. This has been a problem since the start of implementation of the Forest Law in 2002 (prior to this law forests were managed under the Sub-Decree issued in 1985).

Past studies, e.g., Mark Poffenberger (2006), have also pointed out little advantage for indigenous peoples from government policies on natural resources. Similar to his findings, national laws and policies contrary to their assertions have shown little regard for the rights, knowledge and practices in sustainable forest management of the indigenous peoples in Monduliri. The government issued ELC permits on swidden agricultural fields near the Tu R'Nor burial forest that villagers in Bousra and Pu Char had used for generations; the areas were converted to rubber plantations. Indigenous forest management practices, such as long rotation swidden agriculture, agroforestry, hunting and gathering regimes, found little or no recognition in the study villages. Rather, indigenous peoples practicing these were accused of illegal activities.

This study reinforces Poffenberger's study (2006) that the laws and regulations were based on European concepts of land ownership, reflecting very different modes of production and legal traditions (p.2 of 9). He notes that throughout Southeast Asia, a discourse of state

forestry was established drawing on constitutions, laws, and other legislations that largely rejected local claims to forest resources. This was based on a growing body of decrees, regulations, codes, and other government declarations that reinforced the *de jure* rights of the state vested through national constitutions and agrarian laws. In many cases, the indigenous peoples and communities continued to be the *de facto* users and managers of forest, until the state or other entities authorized by the government, usually state forest enterprises or private sector leases, began exploiting the resources.

REDD+ Program

The National REDD+ Program is directly under the supervision of the Prime Minister of the Kingdom of Cambodia with two key sectoral ministries: Ministry of Environment and Ministry of Agriculture, Forestry and Fisheries. The National REDD+ Strategy (2017-2026) developed in 2017 (RGC1, 2017) has as one of its three main goals the "engagement of important stakeholders including indigenous peoples of the local sites."

A statement by the Prime Minister declares:

The RGC is committed to reducing greenhouse gas emissions to contribute to global efforts on climate change. Cambodia with its high percentage of forest cover in Southeast Asia has long recognized that deforestation and forest degradation are significant sources of emissions. As an active Party to the UNFCCC, Cambodia has provided consistent support to decisions and actions related to climate change mitigation, through improving the sustainable management of its natural resources, forestland and biodiversity conservation (RGC 1, 2017).

The Cambodia government considers the REDD+ program as an effective global initiative that will contribute to mitigating impacts of climate change in agriculture, forestry and related

sectors (RGC 1, 2017). Furthermore, it envisions REDD+ as the national mechanism to support the MAFF, MOE and relevant stakeholders, including local communities and indigenous peoples, in the effort to sustainably manage forest resources in the country. Among the social and environmental safeguards under REDD+ is the right of indigenous peoples to participate fully and meaningfully in its related processes and protection of their collective rights in relation to their lands and territories during its design and implementation (RGC 1, 2017).

The mission of the National REDD+ Strategy is to strengthen the functioning and capacity of national and sub-national institutions for effective implementation of policies, laws and regulations to enhance management of natural resources, forestlands, and biodiversity conservation. The goal is to reduce deforestation and forest degradation while promoting sustainable management, conservation of natural resources and poverty alleviation (RGC 1, 2017).

The REDD+ program has five project sites jointly implemented by the REDD+ National Program (MOE/MAFF) with financial and technical support from donors (e.g., UNDP/FCPF) and NGOs (e.g., WCS and CEDT) (Yeang, 2019). The Keo Seima Wildlife Sanctuary, considered the best example of the five REDD+ projects, is located in Monduliri province.

The KSWS covers 292,690 hectares of forestlands in eastern Cambodia, mainly in Monduliri province with a small area extending into Kratie province (Map 1). The REDD+ Project area covers 166,983 hectares of forestlands in the KSWS Core Protection Area. Established by a Prime Minister Sub-Decree in late 2009, the REDD+ program site was started immediately in 2010. The site is part of the ancestral homeland of a large number of Bunong people, for whom the forests are key source of income and central to their spiritual beliefs. The area is also a meeting place for two important ecoregions—the Annamite Mountains (notable for high levels of local endemism among evergreen forest species) and the lower Mekong Dry Forests (which are crucial for the survival of many species typical of lowland deciduous forests).

According to Donal Yeang (2019), there are 41 globally threatened vertebrate species recorded in the KSWS (including 4 critically endangered and 14 endangered species). Many of these species occur in globally or regionally outstanding populations, including Asian Elephants, primates, wild cattle, several carnivorous species and birds such as the Giant Ibis (*Pseudibis gigantea*) and Green Peafowl (*Pavo muticus*).

Based on studies (e.g., Yeang 2019) and key informants, the process of free prior and informed consent was well implemented among the ethnic people in the project sites, particularly among the Bunong in the KSWS area. The informants claimed that the FPIC exercise was significant, being the first in Cambodia across all sectors and project types. Yeang's study further emphasized that the KSWS project was important in light of current international efforts to ensure that social and environmental safeguards are in place for all REDD+ projects, both in Cambodia and globally. The KSWS experience therefore provides valuable lessons for practitioners, governments, donors and indigenous communities.

Yeang suggested that in the Cambodian context the implementation of FPIC provides a leading example of transparency and fairness that could apply to other projects currently being considered or implemented in the forestry, agricultural and mining sectors by both private and state actors. One of the key findings is that full implementation of FPIC can be a lengthy and costly process, especially in areas like the KSWS where populations are dispersed, living in remote villages, and have limited Khmer language literacy skills. The social and geographical context of the KSWS made awareness raising and consultation processes time consuming, both logistically and technically.

While REDD+ project implementation is a long and costly process, the indigenous peoples who have engaged with it obtained trainings on REDD+ benefit sharing and longterm sustainable forest management aligned with their customary knowledge and governance on forest management. Twenty villages, includ-

ing Pu Kong and O Char, and local communal authorities of Keo Seima district took part in the REDD+ capacity building programs including gender and biodiversity conservation. Their swidden agricultural practices have been incorporated in programs on integrated and intensified production. In Pu Kong and O Char, training in agricultural diversification in swidden areas has helped the villagers to cope with scarcity of agricultural land and to improve their livelihoods (FGDs, KIIs). This is one of the best models engaging traditional ecological knowledge in REDD+.

Another model is the allocation of parts of KSWs to improve indigenous peoples' livelihood through Traditional Forest Uses. This REDD+ program scheme has benefited up to 400 indigenous persons in the 20 villages on sustainable NTFP collection. These villages have improved their agricultural production and water management through knowledge and skills trainings. The community members were aided to increase their agricultural products within the same agricultural areas to enhance their livelihoods, and sanitation and water supplies were made available in their villages.

These villagers could also benefit from community-based ecotourism, such as bird watching, forest and waterfall trekking, and primate viewing which are available in the REDD+ program site. The majority of the male villagers obtained training in eco-tourism and have provided services as an additional job to their main agricultural plantation work. The women were trained in using nontimber forest products for handicrafts also for additional income. Both women and men are actively involved in community development activities such as improved crop production programs and patrolling in KSWs. They have access to microcredit and community self-help groups in the villages.

The indigenous peoples in these villages obtained seven Communal Land Titles in 2019 through their participation in the REDD+ program in KSWs. The CLTs, recognized by the provincial authority and the Ministry of Land Management, secure their land tenure.

Threats and Obstacles to Customary Forest Management

The indigenous peoples have faced tremendous challenges throughout the different political regimes to keep their customary rights and systems in natural resource management and governance, particularly of forests and lands for traditional uses (Arensen 2018). During the time of the Khmer Rouge (1975-1979), they were forcibly evicted from widely dispersed villages to live together in larger common villages although forestlands then were vast and abundant. This situation of living in common villages in Mondulkiri province continued through several regimes from 1980s to 2001 (Lic, 2010) when the Land Law (2001) was ratified and entered into force in 2001. Since then along with national policies allocating forestlands to agricultural and agro-industrial development, the indigenous peoples' forestlands and traditional uses have increasingly constricted.

The government's allocation of forestlands for 23 protected areas in 1993 and for biodiversity conservation and protection programs further occupied more forests and swidden areas of indigenous communities. Two of these protected areas are located in the study sites: the 292,690-ha Keo Seima Wildlife Sanctuary and 47,500-ha Nam Lyr Wildlife Sanctuary where the indigenous peoples have been living for hundreds and maybe even thousands of years (MOE, 2018). As the nongovernment Community Empowerment and Development Team (2018) has assessed, the KSWs overlaps several indigenous villages, reducing their lands even as their population is increasing.

The following threats to customary forest governance and management are similar in the study sites of Pichreada (Bousra and Krangteh villages) and Keo Seima (Pu Kong and O Char villages) districts, although the latter district has less concerns of land grabbing and economic land concessions because of the availability of protected area maps in concerned government ministries and provincial offices.

Maldeveloped Policies on Socio-economic Development

In the effort to improve the country's economy, food security, and people's livelihoods, the government decided to open forestlands to economic land concessions (RGC 7, 2005). From 2005 to 2012 about 1.2 to 2 million hectares of forestlands were allocated for ELCs. The ELCs were good for economic development but adversely impacted forest dependent dwellers, specifically the indigenous peoples. The ELC policy led to land grabbing, conflicts between indigenous communities and newcomers on land utilization, and degradation of indigenous culture, customary and traditional knowledge on forest management and governance.

The forests of Pichreada and Keo Seima districts were rich in timber, nontimber forest products and biodiversity till late 2004 (Kreung Tola, KII). Since the start of 2008 the forestlands of Bousra and Krangteh, which are among Pichreada's main remote villages, have been turned into ELCs, with all forests being chopped down for agro-industrial plantations without land use plans. Swidden lands of the villagers were confiscated, mostly by force and threats by ELC investors who were usually rich and powerful people from outside the districts. All of the approximately 600 households (The Bunong of Mondulkiri, 2019) in the district of Pichreada are affected by forest conversion.

The development of ELCs was facilitated by road improvement in 2005 that reached the forestlands of indigenous peoples where they had swidden farms and collected nontimber forest products (NGO Forum, 2006 and PIC, 2015). More than 14 investment companies entered the province for ELCs located in the natural forestlands, some of them inside the forestlands of indigenous peoples (PIC, 2015). Regardless of the communities' free, prior and informed consent, the companies chopped down their underutilized tapping trees to clear land for their land concessions, mostly for rubber, cashew and cassava plantations. As a result, the indigenous peoples lost their sustainable traditional forest areas and uses including traditional hunting and fishing grounds.

The economic land concessions have caused widespread land disputes across Mondulkiri between indigenous peoples and investors. According to the Parliament Institute of Cambodia, 12 out of 15 land dispute cases in the province stemmed from ELCs (PIC, 2015, p. 11). Indigenous farmers were the victims in such conflicts, even if court cases were appealed. Without secure land tenure rights and without any provision of land titling, some families sold their swidden agricultural lands after the anarchic land grabbing in their areas. After selling, most became workers for the economic concessionaires, ad hoc workers for family agricultural farms, or even motorbike drivers in provincial towns. Policies on indigenous rights, land tenure and land titling emerged later.

As ELCs became widespread in the province as an alternative for fast income generation, some indigenous families themselves (at least 35% of the 600 households in Pichreada district, particularly young couples) turned their swidden farmlands into family agro-industrial plantations. "We had no choice but just do it, to convert some of our swidden agricultural areas into agro-industrial plantation, even though small, for fast cash income," said Ms. Beuk Rich of Krangteh village.

Previous studies in nearby Stung Treng and Ratanakiri provinces also found that indigenous communities were denied access to their land or wholly displaced as ELC concessionaires exploited or developed lands and waterways (NGO Forum, 2015). For instance, lands traditionally used by the Tumpuon, Jarao, Kachak and Kroeng in Ratanakiri were grabbed for ELC by a rubber company (ODC 2, 2019). The allocation of forestlands for ELCs was made without respecting their customary and traditional knowledge on forest management and governance.

The unpleasant situations that caused formerly wide forestlands of the indigenous peoples to narrow down to small, isolated woodlands have repeatedly happened in the study sites. All the surveyed spirit forest sites have been affected by ELCs and agro-industrial development either through encroachment or other disturbing manner.

A Minority Rights Group International study (2008) raised the lack of stronger commitment in national policies for respect of indigenous rights especially to land. “Ironically, the establishment of a more democratic Kingdom of Cambodia after 1993, despite the stronger commitment to human rights generally in the country's new constitution, did not necessarily entail a greater specific commitment towards respecting the rights of the indigenous peoples.” The international NGO pointed out that the extent of land loss through intimidation, forestland conversions without proper consultation processes, and other forms of alienation, particularly for indigenous peoples in northeastern Cambodia, had reached disastrous proportions and that ELCs have destroyed the livelihoods of rural communities. If drastic steps are not taken soon, the study noted, the indigenous peoples would hardly have any land left as most of it would already have been lost.

Unrestricted Migration into Indigenous Villages

The main reason for migrants moving into Monduliri is the State policy to increase population along the Cambodia-Vietnam border areas that started in 1996 (Cheam Mony, 2002). According to the informants, about 10 percent of the total population of Pichreada district are migrants, among whom are district police officials' relatives. The migrants usually work with large-scale agricultural plantations or as retailers of agricultural products.

Improved road access to the district's villages also motivated migrants to settle in the villages. Since the paving of the road in 2008 from the provincial town of Sen Monorom to the border of Vietnam that goes through Bousra and Krangteh villages, more people from lowland provinces settled and grabbed forestlands, cleared them and set up large-scale agricultural plantations. The focus group discussions affirmed that the easy entry of non-indigenous people into the districts without local authority restriction led to land grabbing. Some migrants illegally took over forestlands while others purchased them at

cheap prices for as low as USD500 per hectare in 2008 from either indigenous or non-indigenous persons who had settled earlier.

Cultural Perception Changes

In Monduliri province as elsewhere in the country, a culture shift has occurred in indigenous communities due to the introduction of new perceptions and economic developments. The terms “Khmer Kroam” and “Khmer Leu” distinguish Cambodians living in the lowlands and uplands respectively. Historically the Khmer Kroam have been in power and ruled the country, and the Khmer Leu are subordinate. Having this historical perception, the Khmer Leu including indigenous peoples seem prouder if they have a connection to the Khmer Kroam or become fluent in their language, even if indigenous peoples want to keep their indigenous identity. They feel more prestige if they have been trained or engaged with Khmer Kroam academic institutions and return to their provincial hometowns as government officials. Such positions help them broaden their social networks.

The indigenous peoples including the youth also want to make use of any opportunities available for engagement with powerful Khmer Kroam networks. In addition, with emerging modern goods such as phones, motorbikes, and, to some extent, cars the youth have quickly accepted non-indigenous cultures, particularly Khmer (Arensen, 2018 b).

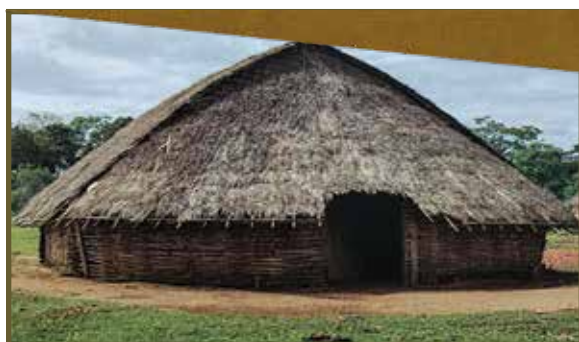
This cultural shift however has brought about untenable forest practices among the indigenous youth. “Young indigenous persons have been increasingly engaged in unsustainable forest management, especially during the period of 2004-2015 when huge areas of forestlands were allocated for economic land concessions and converted into agro-industrial plantations... Since then, young indigenous peoples and their colleagues have continued to collect nontimber forest products, in some cases in an unsustainable manner, for prestigious possessions such as new phone, new motorbike, and/or new housing. Fortunately they have not yet violated the Spirit

Forests of the province,” said Mrs. Thach Vang of Bousra village. Aside from modern trappings, the young have adopted a modern housing style that looks like that of the Khmer Kroam.

A recent study, “A (un) Sustainable History: How the Bunong way of life has changed in the last century” (Arensen, 2018 b) found that the adoption of modernization, either willingly or not, by indigenous communities through various political regimes increasingly led to unsustainable practices. “Now everybody is growing cash crops, because people want more income so they can buy material assets. People are making money so now they can buy things that they could not in the past,” said 67-year-old Chief of O Char village in Keo Seima district, as cited by Arensen. The study also found that some indigenous families preferred household private land titles over Indigenous Communal Land Titles which provide access to natural resources. The preference for the former was found to be linked to the commodification of lands, use of lands as collateral for loans and integration of indigenous communities into the broader market economy (microfinancing) which necessitated access to cash (Arensen, 2018 c)

Other drivers of change among the Bunong are commercial development, government policies, and increasing in-migration by Khmer Kroam into Bunong villages. A result of interactions with Khmer Kroam are exposure of indigenous youth (Kuy and Bunong) to outside cultures that influence how they develop their identity and their increasing outmigration to expand their livelihood opportunities (Arensen 2018 d). The indigenous communities in Mondulkiri and nearby province of Ratanakiri perceive outside culture as modern and their own culture as “of the past” so they value outside cultures more, leading them to see less importance of village traditions. Generally indigenous youth are embracing outside values such as individualism and materialism. Many want to have or already have modern goods such as motorbikes.

Arensen’s study also found that “indigenous youth are focusing more on getting friends from outside the village rather than cultivating relationships with their friends and family inside the village.” They are also listening less to their elders while cultivating new mindsets. “We like the old people, but we ignore stuff they say. It is not possible to respect the forest in the present time because we are incentivized to cut it; if we



Traditional (left, photo from CEDT, 2018) and modern, usually one-storey, houses of indigenous peoples, with latter being similar to those of the Khmer Kroam.



don't, others will. People from the outside take from the forest. They degrade Bunong culture too... If we keep the old mindset, we cannot have income," said young indigenous loggers as quoted by Arensen (2018 d, p. 18). However the youth continue to respect the elders' role in resolving conflicts, implementing customary laws, and maintaining their culture. They acknowledged that without the elders the village would be full of conflicts, natural resources would be significantly depleted, and the indigenous community would be lost.

Cultural change is even worse in Ratanakiri where it has been quick and out of control. A study by NGO Forum (2015) found that traditional and cultural practices considered to be sacred have begun to fade and deteriorate after the arrival of outsiders. For example, traditionally when a stranger intrudes into a village during a traditional ceremony, he or she should pay one cow or one buffalo, according to the internal rules of each village. This intrusion is thought to disrupt the traditional ceremony aimed at paying respect to the spirits and thus prevent bad luck or disease among the members. The villagers believe that the spirits always protected and preserved the forest and brought happiness and safety. Now they believe that the logging industry and the people, the strangers, who moved to the area have driven the spirits out of the forests, which were protected areas with mostly rosewood trees and spiritual forests that were sacred areas. "Indigenous leaders claim they were cheated by the company and were lured to pray to the gods to ask permission to log there. Communities' sacred sites have been targeted and heavily logged" (NGO Forum, 2015, p. 20).

Weak Law Enforcement

National laws and regulations covering the rights of indigenous peoples on traditional and customary forest governance are quite comprehensive, such as the Forest, Protected Area and Land Laws, Sub-decree on Community Forestry Management and National Policy on Development of Indigenous Peoples. The gov-

ernment regulation on Community Forestry, aligned with the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), is also important for keeping the traditional and customary governance on forests.

In practice, however, these laws, national policies, conventions, and regulations have been weakly enforced, resulting in land grabbing, loss of swidden areas, and violation of timber harvesting of tapping trees and spirit forest rules of the indigenous peoples. The Land Law and Forest Law recognize swidden cultivation as part of the traditional land management system of indigenous communities, but prejudice against shifting cultivation practices is widespread in the country, particularly in Mondulakiri province. For instance, the policy of living in common villages, as mentioned earlier, was aimed at reducing traditional swidden agricultural practices.

In general, there is little recognition of specific rights of indigenous peoples in Cambodian legislation, although the Land and Forest Laws acknowledge collective land rights and traditional use rights of forests, such as Communal Land Titles. The CLT, which ensures land security and spirit forest management, covers all types of indigenous peoples' lands including villages, spirit forests, and agricultural areas. It is an official land registration document which includes a map of the land as required by the Land Law to officially recognize a specific commune.

Some groups have also underlined that the communal land title is worth acquiring for land dispute settlement. In 2015 a Bunong community in Mondulakiri successfully used its Communal Land Title to defend its land in court (NGO Forum, 2015). Approval of CLT applications however has been slow, threatening indigenous peoples' land security. Of an overall 71 CLT applications, according to NGO Forum, only 21 have been officially registered by the Ministry of Interior. In Pichreada district, only three CLT had been issued up to the time of this study (July 2019). Because of the weak implementation of laws relating to forestlands and land tenure, the indigenous peoples in Pichreada district say their current main task is to work towards obtaining Indigenous Communal Land Titles as soon as possible and from there continue to

transfer their customary knowledge and practices on forest management and governance to the youth.

Poor law enforcement and unclear tenure status of indigenous peoples have led to lowlanders' flooding of forested watersheds in their search for agricultural lands. They often bring with them more commercially oriented, monoculture farming systems and practices that have degraded soil fertility and generated high levels of erosion especially in areas with steep slopes and poor soils.

More indigenous villagers especially the young have also gone into logging for quick incomes. Rarely able to lift themselves out of poverty with shifting cultivation or hunting as a main livelihood and exposed to migrant cultures and lifestyles, many villagers have changed their attitudes from being dedicated to conserving the forest to exploiting the trees to make money. Ethnic leaders and village chiefs themselves have been lured by the prospect of prosperity from logging after interacting with new groups coming into their villages. Some commune leaders take the view that logging and earning money from it was better than watching the trees being taken from them. They reportedly remarked, "If we did not log, how can we feed our families when the commune is flooded completely? And if we don't cut, the company still cuts. Logging for money is better than losing everything." (KII)

In Ratanakiri and Stung Treng provinces which have a similar situation of feeble law enforcement, the indigenous peoples have shown mixed responses. Some villagers including commune chiefs cut down trees and sold timber, enabling them to buy motorbikes, cars and gold jewelry and to send their children to school for a number of years. But once the forest was cleared and the loggers moved to new areas, the villagers were left without any source of income. Other community leaders tried to protect the forests by filing complaints at all levels of government but they received no positive response and in some instances were warned by corrupt powerful people to stop appealing the complaints (NGO Forum, 2015).

Strategies for Strengthening Traditional Knowledge and Customary Governance Systems

Using and strongly enforcing all relevant laws, regulations, and international conventions, efforts should be made to maintain the indigenous peoples' excellent traditional knowledge, practices and customary governance systems in sustainable forest management. International conventions should be incorporated in national policies, especially the United Nations Declaration on the Rights of Indigenous Peoples which is rooted in the rights enshrined in the Universal Declaration of Human Rights and guaranteed in the international human rights treaties that Cambodia has adopted. These treaties are incorporated in the 1993 Constitution and are part of national laws.

The UNDRIP sets out the individual and collective rights of indigenous peoples, as well as their rights to culture, identity, language, employment, health, education among others. *It emphasizes the rights of indigenous peoples to maintain and strengthen their own institutions, cultures and traditions and to pursue their development in keeping with their own needs and aspirations.* It also prohibits discrimination against them and promotes their full and effective participation in all matters that concern them, and their right to remain distinct and to pursue their own visions of economic and social development.

National laws recognize the rights of indigenous peoples to utilization of natural resources. The indigenous peoples in the study sites identify spirit forest management as a way to strengthen traditional knowledge and customary governance systems. They realize that claiming the forests for their villages as their right through spirit forests has been a very powerful strategy. Local and subnational authorities have supported their claims because they see that the forest sites are used and benefit all villagers, and similarly the Ministry of Agriculture, Forestry and Fisheries and Ministry of Environment recognize these support and maintain the country's forest cover. There are two main spirit forests in

the study areas in Pichreada district and if these fall within the areas claimed under communal land title, applying for official registration is likely.

Communal land title registration is another strong strategy for the indigenous peoples to take advantage of, being recognized by the Ministry of Land Management and supported by the Land Law. A good initiative of the Bunong in keeping customary and traditional forest management is not only their fight to protect their spirit forests; they have also pursued their collective rights under communal land title with support from nongovernment organizations. The coverage of each CLT varies depending on the number of households in the village. According to a CEDT study (2018), the appropriate size should be 7.6 hectares per household.

To further reinforce traditional knowledge, practices and customary governance systems which have positive impacts in protecting natural forestlands from forest conversions for government's socioeconomic development, this study found the following strategies are needed at the village level:

Transmission of Knowledge

Future efforts should include training of knowledgeable key indigenous persons in the village as community trainers and integration of traditional ecological knowledge in academic curricula. These could be implemented by government ministries, NGOs and civil society with possible financial support from bilateral or multilateral donor agencies. A priority is raising awareness on the importance of traditional knowledge and customary governance of the indigenous peoples. As previous studies have shown (such as English, 2017), traditional knowledge and customary governance on forest management have vitally contributed to sustainable forest management. The awareness raising could be done through posters, leaflets, and school programs.

Securing Indigenous Peoples' Land Use Rights and Land Tenure Registration

The land use rights of indigenous peoples, e.g., Communal Land Title including over spirit forests should be secured, and land use planning within CLT areas improved. To date, of 71 CLT applications throughout the country submitted to the Ministry of Interior, 10 CLTs (of 21 CLTs) are registered in Mondulhiri province—seven in Keo Seima district and three in Pichreada district. These achievements are the results of strong commitment of the indigenous peoples to protect their lands/forests and related knowledge, practices and governance systems.

Improvement of Agricultural Techniques

As the responsible agencies, the MAFF and its line department, Provincial Department of Agriculture, Forestry and Fisheries (PDAFF), should introduce agroforestry systems in existing swidden agricultural areas to increase crop production.

Literacy Improvement

Future support, such as the Forest Carbon Partnership Facility on the REDD+ program, should pay more attention to capacity building in literacy improvement for indigenous peoples to enable them to interact with relevant stakeholders and understand the implementation of relevant laws, especially on benefit sharing from REDD+ programs in their areas.

Conclusion and Recommendations

The study concludes that the country's current forest cover definitely benefited from the indigenous peoples' customary and traditional knowledge in forest management and governance, although most of the "island forestlands" which are their spirit forests are now widely dispersed within their former forest

areas. Indigenous peoples in general and all the respondents claim that the existing spirit forests are vitally important for their villages. Technically these serve important roles in agro-ecological landscapes maintaining atmospheric temperature, rainfall, humidity, and windbreak suitable for agricultural production of the areas. For instance, the majority of community forestry sites have been developed on existing spirit forest areas of the study province. Those in Pichreada district—Phum Pukreng and Phum Puradet—were developed on dense evergreen forestlands where the indigenous peoples have traditionally managed customary water sources of their streams.

The study found that the youth's perceptions and practices of spiritual beliefs play a significant role in their relationship to forest resources. It suggests that better understanding and collaboration between state policies and laws and indigenous peoples' cultural practices would allow for more sustainable and culturally empowering efforts to combat unsustainable forest management such as illegal logging and forestland grabbing. More active development of community forestry, community protected areas, and speeding up indigenous peoples' community land title registration are immediate tasks that government and involved stakeholders should take.

The indigenous peoples require more accessible education services that would allow the youth to pursue alternative livelihoods to illegal logging and unsustainable utilization of natural resources. Along with the customary beliefs regarding forest management, land allocation policy should be more representative of their beliefs and livelihoods while strengthening related natural resource law enforcement for the benefit and similar value of their customary and traditional knowledge.

Considering these, the following recommendations are forwarded:

1. Speed up the process of Communal Land Title registration compared to the

current registration status in order to help maintain the indigenous peoples' traditional and customary knowledge on forest management and governance against ELC development and illegal forestland grabbing.

2. Strengthen law enforcement of forest- and forest-related natural resource laws, specifically Articles 41 and 43 of the Forest Law and 23 and 24 of the Land Law, and aligning with the indigenous peoples' customary, traditional knowledge management and governance on forests should be the right and important approach to protect and conserve the natural forests and indigenous communities. Law enforcement could be strengthened by national and subnational levels of responsible ministries such as the Ministry of Agriculture, Forestry and Fisheries, Ministry of Environment, and local authorities.
3. Build the capacity of indigenous peoples, particularly focusing on young people and rural communities, on literacy, livelihood and sustainable forest management by improving agricultural practices, such as agroforestry and crop diversification on their existing lands. The Ministry of Rural Development which is responsible for their culture, traditional development and management should work with the Ministry of Education, Youth and Sport, and Ministry of Agriculture, Forestry and Fisheries and their line departments to develop awareness raising materials on the importance of the indigenous peoples' customary and traditional knowledge and governance on forest management. Concepts of climate change and REDD+ should also be disseminated for the understanding and effective engagement of indigenous peoples.

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THAILAND

Pgaz K'Nyau
Way of Life
Sustains
Forests and
Biodiversity



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Introduction

Indigenous peoples' traditional knowledge and practices on natural resources management are increasingly being recognized and understood by the world community. International treaties, namely the Convention on Biological Diversity (CBD) and the United Nations Framework Convention on Climate Change (UNFCCC), emphasize the traditional knowledge of indigenous and local communities that embody traditional lifestyles relevant for the conservation and sustainable use of biological diversity. At the same time a paradigm shift has occurred in forestry management from state monopoly to multistakeholder engagement, a trend that has been on the rise since the Earth Summit in Rio in 1992 (Gilmour, et al., 1992).¹

Among traditional knowledge and practices is the forest fallow system of shifting cultivation, which is a way of life of many indigenous groups in many countries. In Thailand among the indigenous groups practicing it are the Karen, among whom are the *Pgaz K'Nyau*, a Karen subgroup, who inherit both the knowledge and practices from their ancestors. Even outsiders agree that rotational farming, which encompasses natural resource management, is part of the Karen identity (Prasert, 1997; Luangaramsri, 2000; Anan, et al., 2004; IKAP, 2006).

This form of agriculture has been proven many times by foreign and local studies to sustain the ecosystem and biological diversity, including of indigenous seeds. Paul Zinke's 1967-1968 research in a Lua community of Ban Pa Pae in Mae Hong Son province revealed that with rotational farming, regrowth of forest occurs, and ultimately fertility sufficient to restore the soil is contained in the vegetation. Karen rotational farming follows the same pattern as the Lua, differing only in ceremonies accompanying cultivation.

A 2016 SwedBio-supported research by Pgakenyaw Association for Sustainable Development (PASD) in cooperation with Ban Hin Lad Nai community similarly concluded that rotational farming not only demonstrates interconnectedness in nature but also promotes

soil enrichment by a certain type of tree, *P'Dav* or *Macaranga denticulata*, in the fallow fields and honey bee migration to the area creating more benefits of pollination of wild plants both in the forest and farmland as well as income for the community (PASD 2016).

With the global concern on climate change, Karen community forest management is also proving to be an effective way of managing and utilizing the forest. A 2008 case study by the Northern Development Foundation (NDF) in cooperation with Huay Hin Lad community showed the Karen in this village had a very low carbon footprint. Both their forest (19,498 *rai* or 3,119.68 ha) and agricultural lands (3,548 *rai* or 567.68 ha) had the capacity to store as much as 720,627 tons of carbon (PASD, *ibid.*, 24), while their farming activities caused little carbon emission: only 476 tons of carbon from shifting cultivation fields, 68 tons of carbon from corn production, about 0.8 ton of methane from paddy fields, and 0.1 ton of nitrous oxide from using chemical fertilizers in corn farms (*ibid.*).

The Karen's knowledge and practices on resource management reflect not only a conservation mindset but sustain their livelihood and ecosystem. These illustrate a complex interrelationship of various aspects involving the knowledge of seasonal cycle, multiple seeds and cultivation techniques, tools and indigenous technology, environmental context and soil types, birds and bees, and human and supernatural interaction. All the stages of cultivation in one season have been recorded in detail with rituals and prayers at each stage from selection of the field, clearing, fire clearing, second fire clearing, rice planting, weeding, spirit offerings in August, eating of pounded young rice, eating head of rice, harvesting and threshing, calling the bird of rice spirit back to heaven, and seed collecting to end the seasonal process (Prasert and Thaworn. N.D. 23-53). Two studies have reported the total number of crop varieties in a rotational farm range from 58-78 (Prasert and Thaworn. 2006. *op. cit.* 53; Prasert and Thaworn. N.D. 120-122).

A negative attitude, however, prevails among the public against rotational farming, and this is due to the government's claim that it is the

major cause of forest destruction.² Shifting cultivation has been translated officially into Thai as “*rai lu'an loy*” meaning “drifting swidden fields” which has a pejorative connotation. Pinkaew Laungaramsri pointed out that swidden agriculture only began to become problematic during the mid-20th century when the logging industry was extensively expanding, and this local form of agriculture was seen as competing with the state’s monopoly on timber extraction.

Shifting cultivation throughout the world is closely linked to colonial practices of forestry which saw it as an “irrational,” “destructive,” and “backward” means of forest use that destroyed commercially valuable trees for unproductive crops (Jarosz 1996; Guha and Gadgil 1992; Peluso and Vandergeest 1999; Dove 1985 cited in Laungaramsri 2000, 239-243). When Thailand entered the “development era” with the aim to boost its “national economy,” *rai lu'an loy* was regarded a major obstacle to development intention. Thus, swidden agriculture became an unwanted form of forest use and an impediment to economic exploitation of the forest (Laungaramsri *ibid.*, 243-245).

Current government policies and plans on natural resources, such as the Master Plan for Problem Solving on Forest Destruction, Encroachment of State Land and Sustainable Natural Resource Management and Master Plan for Integrated National Park 2017-2021, mostly do not recognize this agricultural system. Only a few policies view the Karen’s traditional way of life in a favorable light. Cabinet Resolution dated 3 August 2010 encourages the revival of Karen livelihood promoting rotational farming and forest management.

At present, Karen communities in many parts of Thailand are trying to cope in their own way with adverse government laws and policies on rotational farming. Agricultural practices among Karen communities who have made adjustments could be classified into three groups (Anan Ganjanapun et al. 2004. 11-12):

1. Forest fallow system of shifting cultivation remains intact with long fallow that allows for natural soil regeneration within the positive feature of ecosystem.

2. Rotational farming has reduced its fallow cycle but traditional institutions can take control of the whole system with additional cash crops.
3. Traditional practices of agriculture have been transformed completely into sedentary farming and market dependency.

It is thus worthwhile to look closer at Karen communities to better understand the idea and philosophy underlying their traditional practices that reflect the interrelationship of humans and nature. This study focused on the Karen worldview, knowledge, and practices on forest management and rotational farming including cultural transmission to younger generations as well as the institutional condition of natural resources particularly forest at national and local levels.

The two villages selected for this study still practice the Karen traditional way of life: 1) Ban Mae Lan Kham (Mae La Khee in Karen) and the neighboring village of Huay Hia in Samoeng Tai subdistrict, Samoeng district in Chiang Mai province. Ban Mae Lan Kham is the key of five villages that include Huay Hia; together they have 45 households and a total population of 179; 2) Ban Pa Pae in Pa Phloo subdistrict, Ban Hong district in Lamphun province. Ban Pa Pae has 74 households with a population of 270.

Ban Mae Lan Kham

The village of Ban Mae Lan Kham has been settled for around 300-350 years, according to elderly people; their ancestors moved in from another village not too far from their present location. Traces of abandoned Lua villages that can be dated back to probably more than 800 years can be sighted in the area. In the beginning there were only three Karen households, but later some Lue (a subgroup of Thai people who originally migrated from the southern part of China to Myanmar and Thailand) migrants came and extended their boundary that compelled the Karen to move to their present location.

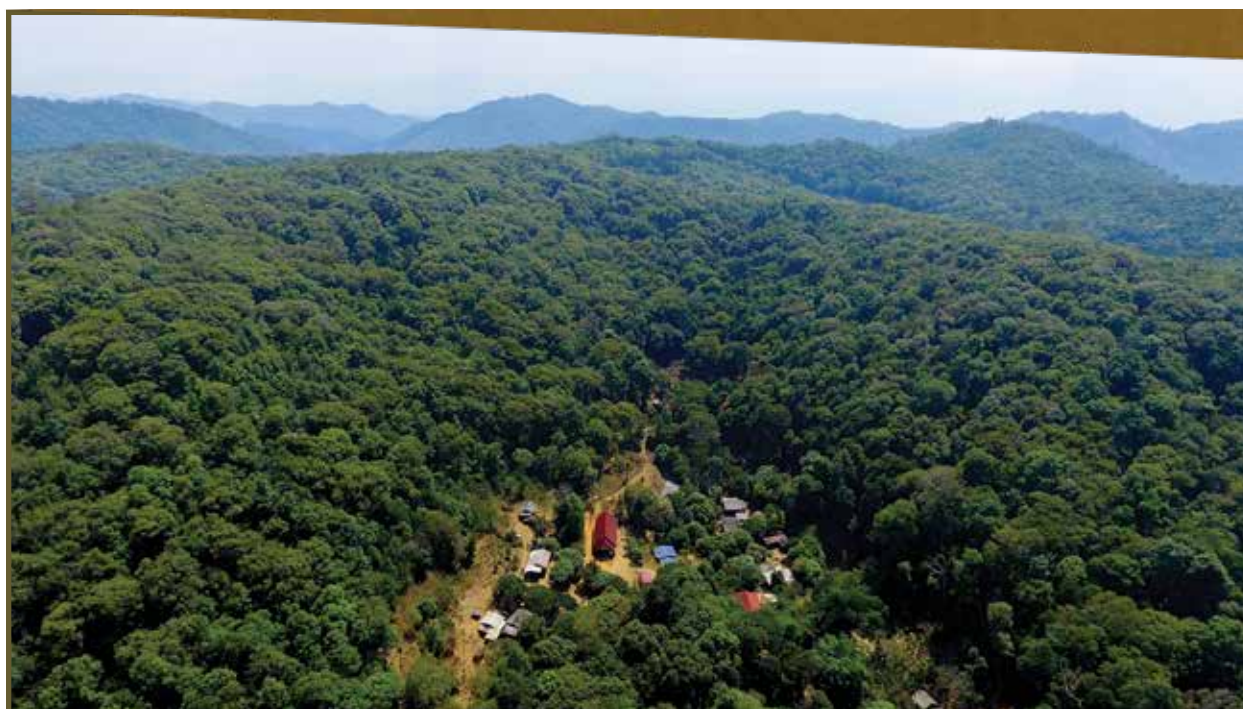
Situated at an elevation of around 680-800 meters above sea level, Ban Mae Lan Kham is surrounded by evergreen forest in the west and deciduous forest in the east. Because the forest is in good condition, from February-April every year honey bees migrate to the area, giving the villagers a good harvest of natural honey. The community members all belong to the Karen subgroup Pgaz K'Nyau.

A *Hif Hkof* or traditional spiritual/community leader still functions in Ban Mae Lan Kham; he oversees the performance of rituals and ceremonies in the community. A village headman elected by the community and officially appointed by the district officer with two assistants and a village committee represent the official village administrative structure. They take charge of community administration and development work. Other community social institutions are a women's group, a youth group, and a number of community funds supported by government agencies. Although the majority of the community people practice the traditional belief system, they have also adopted Buddhism, and a Buddhist monk shelter is located next to the community. Only seven households are Christian.

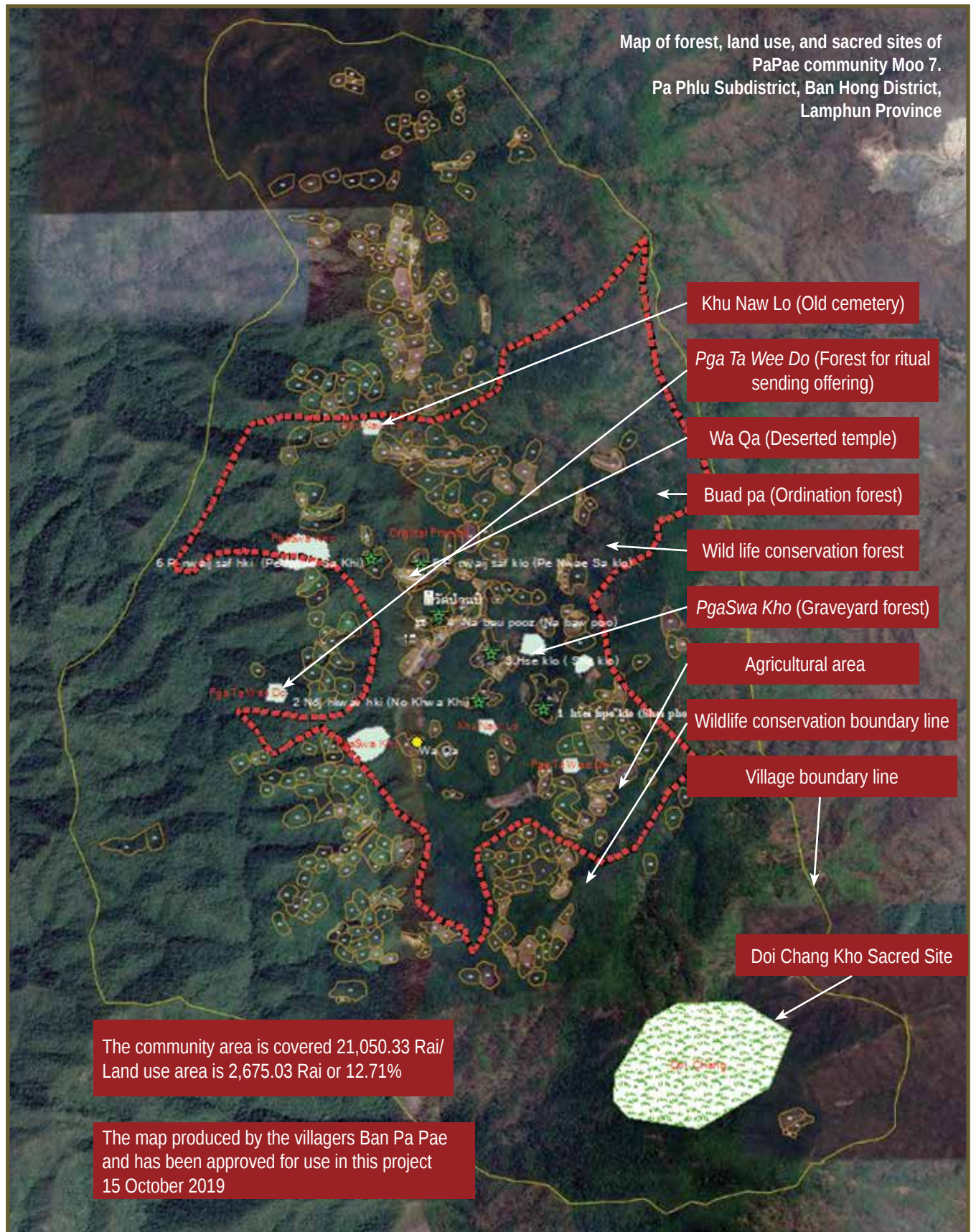
Almost all the households in Ban Mae Lan Kham engage in rotational farming with 7-10 years fallow cycle. The majority of households owns paddy fields, and pigs and chickens are raised mainly for household consumption while cattle raising provides another source of income. Backyard gardens can be found in all houses. Cash income mainly comes from selling of honey, *Makhwaen* (*Zanthoxylumlimonella* Alston), a perennial bearing aromatic and spicy seeds for food seasoning, and paid labor.

Ban Pa Pae

Ban Pa Pae, on the other hand, has been existing for more than 200 years. The name Pa Pae was given by the local authority, but the Karen villagers refer to their own village as *Doy Chang* in Thai and *Doy Jakho* in Karen meaning "head of elephant mountain." The community's ancestors came from different places: Ban Mae Rid Pa Kae in Mae Sariang district, Mae Hong Son province; Ban Nong Poon in Doi Tao district; and Ban Mae Yui in Hod district, Chiang Mai province. Traces of Lua communities in the village may indicate that Lua people had aban-



Pa Pae Community in the middle of natural forest.



doned their communities there more than 300 years ago. The village was once reached by the Hill Tribe Development and Welfare Unit of the Hill Tribe Development and Welfare Lamphun Provincial Center under the Department of Public Welfare.

At an altitude of about 1,200 meters above sea level, Ban Pa Pae is surrounded by dense evergreen forest. At present the community is located within a Wildlife Reserve and Protection Zone. In 2016 the forest authority declared it a “No Hunting Zone” under the Wildlife Reserve and Protection Act of 1992. Notwithstanding the law, the community has been taking care of about 40,000 rai (6,400 ha) of the forest, protecting it with about 30 kilometers long of firebreak around the village and farmlands.

The villagers of Ban Pa Pae are all Pgaz K’Nyau. Ban Pa Pae has the same formal administrative structure as Ban Mae Lan Kham. The village headman works with the Hif Hkof in matters related to customary practices. Also functioning in the community are women’s and

youth groups and a coffee producers’ group. The majority practice Buddhism together with the traditional belief system, while a few households adhere to Christian beliefs.

Almost all households practice traditional rotational farming with 5-7 years fallow cycle. Few families own paddy fields. A special practice in the community is the development by paddy field owners of small pools next to each field as water reserve for the dry season. Selling coffee beans is the main source of income supplemented by sale of nontimber forest products.

Karen People



The Karen people comprise the majority of ethnic highlanders in Thailand. In 2002 they comprised 438,450³ out of 914,755 from nine indigenous groups referred to as “hill tribes” by the government. At present the Karen communities are located in 15 provinces from the



Planting rice exchange labor, Pa Pae.



Aw shwae (Auf Hswai) festival, story telling season, Mae Lan Kham.

north to the west of the country. Unfortunately bureaucratic restructuring in 2002 shut down government agencies in charge of hill tribe affairs, and neither census nor compilation of highland population data has been done since.

The Karen traditional social structure is matrilineal, with women playing important roles at the family and lineage level. However, men and women have distinct roles in a number of socio-economic and environmental functions. Men take responsibility in community affairs, such as settling disputes among community members or performing rituals and ceremonies in the family and the community. According to traditional norms, only men can be Hif Hkof or head of the village through family inheritance.

Women, on the other hand, are generally

in charge of household work, such as to prepare family meals and to fetch water for family consumption. It is also possible for women to perform certain ceremonies in the family, and they are the knowledge holders in child delivery and child care, including the knowledge of lying by the fire after childbirth. Although there is formally no function of midwife, some women possess and provide this skill. However, in the past women and girls were prohibited from entering the *Blauf* or community cultural center which no longer exists. The only time when they could was when they celebrated the eating of pounded young rice while listening to storytelling by elderly women. Women are popular at storytelling, especially at the time of *Auf Hswai* or eating crispy pounded young rice grains in October.



Shwae processing by elder and youth, Mae Lan Kham.



Rice harvest season after shredding rice grain season by youth, Mae Lan Kham.

In traditional marriage, the bride's family has to prepare the dowry, and after the wedding ceremony the groom is expected to stay with the bride's family. Once the couple decide to leave the parents' household to set up their own nuclear family, it is the man who acts as breadwinner for his family but together with his spouse and grown-up children.

In family decision making, women have the final word. Traditionally the youngest daughter inherits the house and household spirits from her deceased parents, but other properties can be distributed among all children when the biggest portion goes to the one who has attended to their aged parents. In addition, knowledge about the lineage system and *Bgaw* or lineage ceremony is a heritage passed on through women. In case there is no daughter, the property is passed on to the youngest son. Interestingly "upland fields" belong to women, that is why flowers are planted in these fields. On the other hand, "paddy fields" belong to men, and no flowers are planted there.

Despite the government's effort to introduce cash cropping and sedentary farming among highland communities, many Karen people in different provinces still maintain their practice of fallow system of rotational farming.

Traditional Knowledge and Practices in Forest Management

The Karen perceive the forest in a holistic manner. The forest encompasses not only uncultivated land, but also flora and fauna or living things, sources of water, and spiritual entities. The Karen term for forest is *Pgaj*. Surprisingly, they have no terminology for "natural resources." It is obvious that when a Karen person refers to *Pgaj*, his meaning has expanded to include "natural resources." Thus, the terms forest and natural resources are used interchangeably in this study, only the term "natural resources" is used in a wider and more complex connotation.

Concept of Forest

The following statements reflect how Karen in the study communities view and understand the forest. "Forest is the area where big and small trees grow in great number and where sources of water are located." "Forest is the area beyond cultivated land full of flora and fauna and spiritual entities." "Forest is a food source for humans and animals."

The women of Ban Pa Pae relate the forest to land use and wildlife; it provides cool weather, moisture, and breezy atmosphere. One woman associates it with goodness and happiness as a source of medicine, good food like mushrooms and banana flowers, and shelter for animals. To another, wild animals have increased and even squirrels get into their houses because the villagers have conserved the forest. Others expressed a concern that underscored the forest's importance in their lives: how would the Karen people survive if the forest disappeared.

It is interesting to compare these concepts with the definition of forest in the country's forestry laws:

- Forestry Act of 1941, article 4: "Forest" means land unoccupied by anyone under the Land Law;
- Forest Reserve Act of 1964, article 4: "Forest" means land including mountain, creek, swamp, canal, lagoon, area near canal, stream, lake, island, and coastal area not occupied by anyone under the land law.

It is clear that the State views the forest as physical features of unoccupied land by land law. In comparison the Karen see and understand the forest holistically as an area encompassing different aspects of nature and from which various benefits can be drawn; it is endowed with flora and fauna, water sources and spiritual beings, and more importantly it is the source of food for humans and animals. Thus, forest in this regard is full of lives and interrelationships among them.

Ownership of Natural Resources

The Karen people have an old saying: “Everything has its owner.” That is why permission has to be granted before using and pardon is needed after use. The Karen believe that *Taj Hti Taj Tau* is the Supreme Being overseeing the world and universe, and in their relationship with the Supreme Being and other spirits, people have to follow certain rituals and ceremonies. For example, in the rotational farming system a number of ritual activities are required at different stages throughout the cropping season. In their rotational farm and paddy field, the Karen perform certain rituals either to ask for permission, pardon, blessing or protection from the spirits.

According to the community in Ban Pa Pae, as *Taj Hti Taj Tau* oversees everything, people do not own the forest, they only take care and make use of it. Thus, when they enter the forest, they have to make an offering to the guardian spirits or *Hti K' caj Kauj K' Caj*. If they want to fell a tree, they need to ask permission from the spirit. They cited a case where people who wanted to cut a banyan tree failed in every way and only succeeded when they prayed to the spirit.

Classification of Forest

The Karen perception of the forest is considerably intricate as reflected in their varying ways of forest classification. They categorize the forest based on geobiological features, utilization and sacredness.

Geobiological features

This classification considers biophysical criteria such as soil, elevation, plant types, and density of forest as well as cultural male and female characteristics:

- *K' ne muj*, (Female Forest) is equivalent to “hill evergreen forest” where big and small trees except bamboo grow densely,

with moisture and in certain areas sunlight can hardly penetrate the ground. These are located mostly at the highest level of the mountain and therefore become sources of water.

- *K' ne hpa*, (Male Forest) is also evergreen forest located below the *K'ne muj*. It is supposed to hold the most biological diversity where wild chestnuts, pine trees and bamboo thickets can be found.
- *K' ne hkauf htiv* is the forest in between *K'ne hpa* and *Kauj bgei* where both evergreen trees and dipterocarp species can be found.
- *Kauj bgei* is equivalent to the deciduous forest located on the lowest part of the mountain. In the dry season all leaves fall off from the trees and new leaves sprout at the beginning of the rainy season. In the *Kauj bgei* various kinds of mushrooms and insects can be found.

Utilization

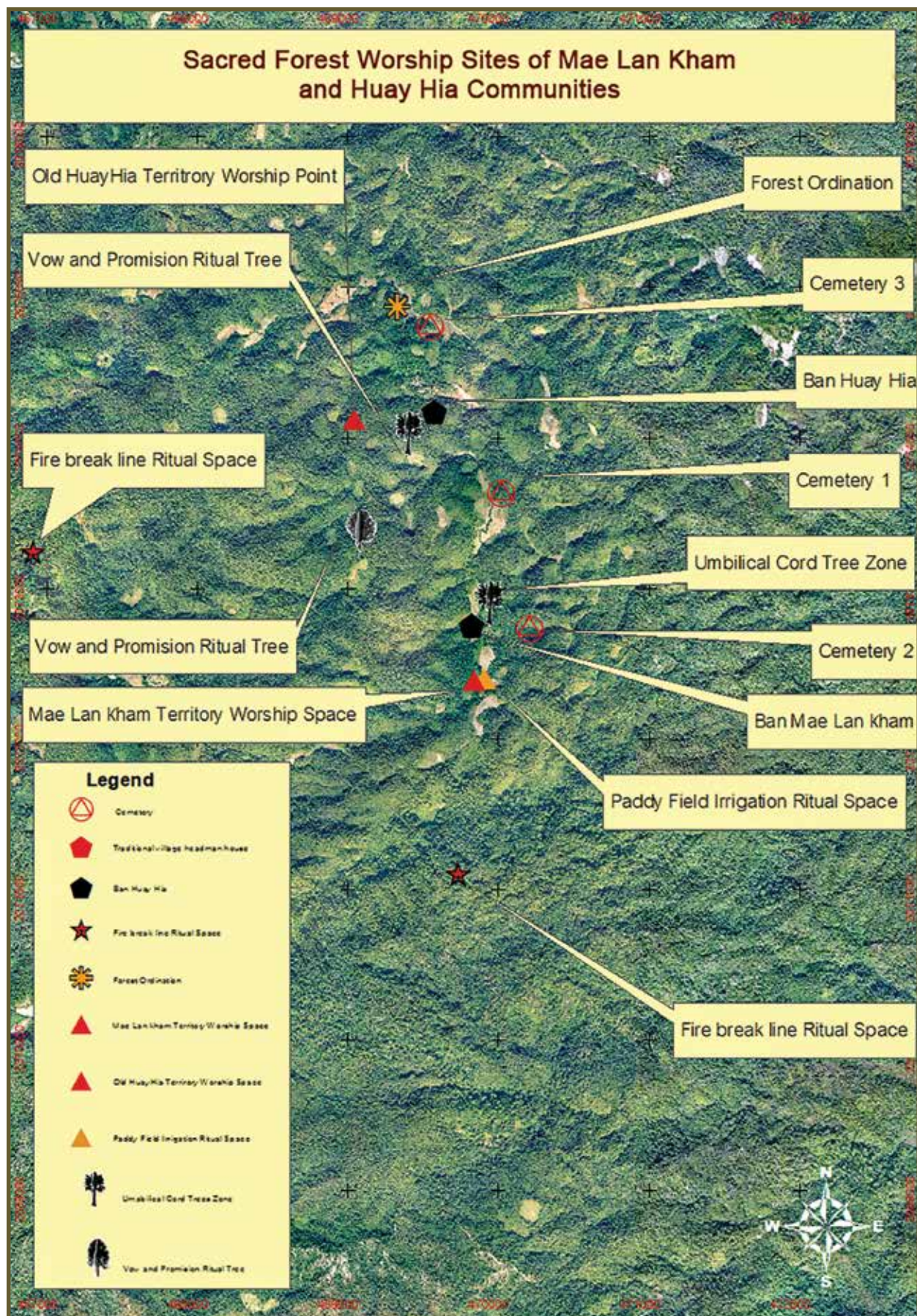
- *Gauz k'lauj* or forest around the community hosts big and small trees. The healthy big trees can be chosen as *Dei Pau Htoof* or umbilical cord tree on which a new born baby's umbilical cord placed in a bamboo container could be hung. It is believed that the baby's soul is attached to the tree and thus people are not allowed to cut that tree anymore. Traditionally every Karen village had its own “umbilical cord forest” located not too far away from the community. Such practice can be regarded as a form of natural conservation.
- The smaller trees can be used for fencing, firewood and some are good for house repair. Thus, the area has a mixture of trees that can be used and those that are prohibited from being felled.
- *Pgaj Doo Lax* is part of a 7-10 year fallow cycle of shifting cultivation. Fallowed for at least seven years, the area looks like a

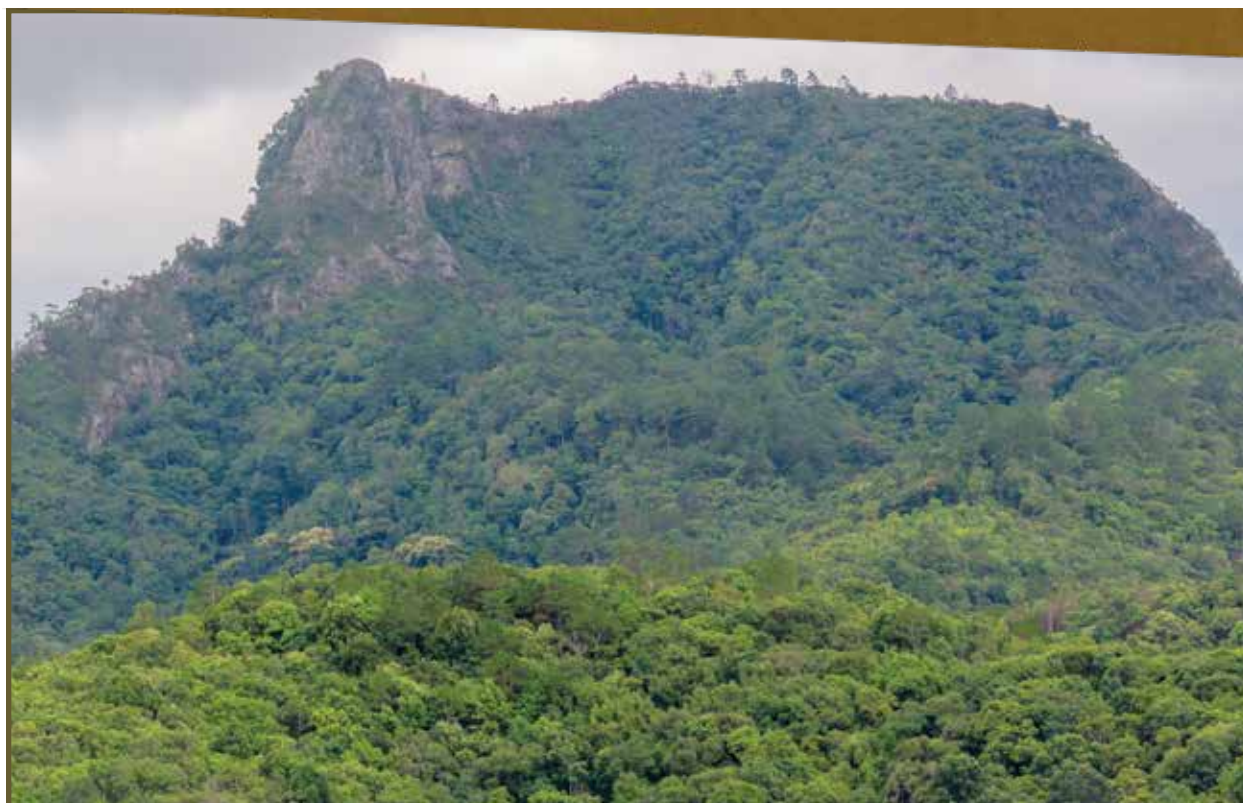
natural secondary forest that is expected to start a new round of rotational farming. Traditionally it is the duty of the *Hif Hkof*/traditional leader to determine whether the long fallowed land is ready to be cultivated again; this stage is referred to as *Doo Lax*.

- *Quv* is part of a rotational farm with full regrowth from 7-10 years fallow that is considered at the stage of *Doo La* or the land is ready to be cultivated again. During the year of cultivation that piece of land is referred to as *Quv*. Customarily rotational fields are considered communal assets; only the paddy fields and fruit orchards belong to individual owners.
- *Hsgif* is another stage of the rotational farm fallow system. After harvest the plot of land is left to fallow for many years, with the fallow period generally called *Hsgif*. The fallow land bears different names in the different stages of a 7-10 year fallow cycle of shifting cultivation: *hsgif wa*, *hsgif bauf*, and *hsgif yawv ploj*.
- *Hsiv* is the paddy field. Once the forest mostly located in the valley is converted into paddy field with small irrigation channels, the plot belongs to its individual owner. Paddy field is developed as terraced paddy field along the slope area and is considered permanent farm land. The study communities have rotational farm lands and paddy fields.
- *Taj Ro Pooz* is the backyard garden grown with kitchen plants and some fruit trees. Normally every household has its own *Taj Ro* next to the house.
- *Pgaj Soo Auf* or forest for utilization is the forest located lower than the headwater where tree products can be used to build or repair houses, hut in the paddy field, to fence off animals or to make farm tools. In this forest bamboo shoots and different kinds of mushrooms can also be found.

Sacredness

- The *Pgaj Taj Duf* or Taboo Forest is regarded as sacred area that should not be encroached by any human activity.
- *Pgaz Swaf hkof* or graveyard forest is the area where the dead are buried. People normally avoid entering the *Pgaz Swaf Hkof* unless necessary because it is believed that souls of the dead are still roaming around.
- *Pgaj Taj Wij Dof* or forest for sending offerings is the area where relatives of a sick person make offerings to certain spirits. Sickness can occur from physical causes or spiritual causes/punishments.
- *Hti Hpav Taj* or stream convergence is where two streams connect implying spirits of different streams come to meet. People seek to stay away and use this area.
- *Deif Muj Be* or hatching giant frog is like a mound surrounded by water symbolizing a giant frog hatching. Because the place is believed to be where spirits reside, farmers avoid cultivation there.
- *Pgaj Hti Pej Htauf* or spring forest is where springs and small fountains can be found and are the origins of waterways flowing downhill. Cultivation is also prohibited because this area provides water supply for the spirits.
- *Pgaj Taj Dei Dof* or gorge or narrow pass between two hills is regarded as passageway of the spirits. Cultivation must be avoided for it may obstruct passage of the spirits.
- *Hti maix k' la* or spirit reflection water is a permanent stagnant lagoon without water inlet and outlet. It is believed that the water is exclusively used by the spirits. People are not allowed to encroach the area.
- *Taj hkof klej* or mountain shoulder is the area that symbolizes a hat covering the top of a head. Without a hat that





Doi Chang Kho Sacred Mountain, Papae village territory.

provides some shade the area may not be breezy. Birds and small animals have their shelter in the area. Farmers may not feel happy to farm there as it would cause difficulty to small animals.

- *Wav Qav* or abandoned temple is the area with traces of abandoned temple. This area may lie under the protection of guardian spirits. People avoid using it for cultivation.
- *Dwaif Gauv* or piercing bottom of grasshopper is the area where three streams converge as can be seen in the west of Ban Mae Lan Kham. The place of convergence looks like the tail of a grasshopper and is believed to be the home of very powerful spirits that no cultivation is expected.
- *Pgaj Doo Tax* or prohibited forest is generally located in the area of the headwater where no cultivation or wood cutting can be done. It is also believed to be inhabited by very strong spirits.

The above detailed description of forest classification in Ban Pa Pae is similar to the accounts in Ban Mae Lan Kham. The only difference is topography, with no K' ne muj or Female Forest in Ban Pa Pae. The villagers simply refer to their evergreen forest as K' ne muj.

It is interesting to note that the hill evergreen forest is called K' ne muj or female forest which normally sits higher up the mountain. When asked about female and male forests, the Karen villagers could only describe the characteristics of the two forests, most of them taking the two terms for granted. The elder *Jorni Odochao*, generally acknowledged in many Pgaz K'Nyau communities as a Pgaz K'Nyau philosopher, reflected that female and male forests symbolized the Karen social structure. Traditionally the Pgaz K'Nyau followed the matrilineal system where women inherit the ancestor spirits as well as their houses. In parallel the female forest sits higher than the male forest, it is cold with moisture most of the time and is the source of the headwaters. The male forest on the other hand exhibits considerable dynamism with different

kinds of plant species, with animals in the wild in greater number than in the female forest. In this regard the female forest is more static and the male forest more dynamic.

A community member of Ban Pa Pae who visited another village found that a watershed with mountain frogs, water crabs and dwarf snakehead fish implies an abundance of water in the area.

Forest Taboos

All types of Pa Ta Due or Taboo Forest are prohibited from human activities. Taboo forests are considered to have a very strong presence of different types of spirits, and the best way for humans' safety is to avoid interfering with those spirits. According to a Pgaz K'Nyau proverb, *Pgaz duf taj neif, pgaz hav taj hplav* or "The one who upholds customary law is the one free from harm." Human activities include cultivation, fishing, hunting, uttering vulgarity and shouting out loud; all these must be avoided in taboo forests. Other instances for prohibition are the following:

1. On special occasions related to spiritual performances such as string tying to the wrist, one must refrain from weeding, gathering forest products, or hunting. The special occasion can be when someone dies or when a woman is pregnant. A Pgaz K'Nyau proverb says "*Pgaz t' gaz pgaz duf auz se blau, duf taj blei, duf htauw hkof blei, dauw duf nak' krauv*" or "A person will be treated in relation to prohibition at least three times in life: when that person is born, gets married, and dies."
2. On the day a baby is born, gathering forest products, hunting, and working the field are forbidden. This restriction is also applied on the occasion of a wedding and burying of the dead. This is part of customary law implying that on special days such as child delivery, wedding, and burying the dead, good fortune or an omen is expected and thus people should stop working to avoid accidents.

3. When bamboo poles are taken from a particular thicket to use as a stretcher to carry the dead, it is prohibited to use any pole from the same bamboo thicket again. That particular bamboo thicket should no longer be used to have good omens in the future. In the Pgaz K'Nyau belief system, the worlds of the living and the dead have been separated completely. Any material related to the dead is believed to belong to the world of the dead. Thus, the living should avoid using such material.

4. Banyan trees must not be planted in the village. According to a Pgaz K'Nyau legend, a banyan tree was the Great Grandmother of the Pgaz K'Nyau people. The banyan is regarded as a sacred tree, thus it must grow on its own and not be planted.

The Karen people refer to their ancestor "*Muf Qa hklej*" or the goddess of the great grandmother banyan tree. This reflects the important social status of matriarchal family members and equality among women and men in Karen society. Muf Qa Hklej is the symbol of "Merciful Woman." When the Pgaz K'Nyau talk about her, they always mention that "*Muf Qa Hklej av maix hti lauz*" meaning, "The tears of Muf Qa Hklej are falling." On seeing someone behave badly, people always cry out "*Muf Qa Hklej av maix hti lauz*." Because of this belief, the Pgaz K'Nyau try to prevent other people from doing bad things to others.

5. Certain types of trees are to be avoided as housing material. To be avoided for example are a Y-shaped tree, a tree with its reflection on the water, and one standing very near a stream.

In Ban Pa Pae, children are told not to say bad things in the forest because they can be punished by the guardian spirits of the forest. A story goes of a man going into the forest who upon seeing a green frog said something disagreeable; soon after he got lost in the forest. Another teaching

is that when eating in the forest with a honey bee flying around, one needs to say after the meal, “I am full now, do not follow me anymore.” This implies that the bee could be a spirit, and saying this would prevent any mishap in the future.

It is also believed that one should be careful when eating animals from the wild: for example, not to eat a crab with tiny eggs or bee larva or to hunt wild fowl with her chicks around. Another kind of prohibition comes from hearsay, for instance, a family must not eat peacock together otherwise they become a broken family; one should not build a house on an anthill, otherwise the dwellers will not be happy; or better pluck the termite mushroom when it is young because if you pluck an old one it will disappear forever.

One can see that all types of taboo can be related to the Pgaz K'Nyau belief system, legends, or experiences in the past that reflect forms of conservation and protection that have been passed on through generations. Unfortunately, an increasing number of the younger generation may not understand the reasons behind these taboos for they have less chance to learn from parents and grandparents.

Rituals and Ceremonies in Forest Management

Seeing the interconnectedness of living and non-living things, indigenous peoples established a relationship with everything in their environment in consultation with the spirits. The Pgaz K'Nyau people believe they do not own the natural resources, whether forest, land or water, thus they need to connect with the spirits. When a baby is born, when young people get married, when a family member gets sick, when someone dies, when a farmer starts the new season's cultivation, or when a group of hunters is about to go hunting, they have to communicate with the supernatural power, and they do these through rituals and ceremonies. Interaction with supernatural power reminds the people to respect nature and to take good care of it.

Rituals in relation to forest:

Htof kauv si t'beif, s'yuj hklej nwi htoof
[One hornbill dies, seven banyan trees are lonely.]

Kauz yoo pgaj si t'du, y'yuj pgaj nwi pgaj
[One gibbon dies, seven forests are in sorrow.]

These proverbs reflect clearly the deep rooted interrelationship between wildlife and the forest, a knowledge the Pgaz K'Nyau people have transmitted down the generations. The Pgaz K'Nyau have been constrained through prohibition not to kill a gibbon or a hornbill. Their livelihood greatly depends on the existence of the forest. In other words, metaphorically the forest to the Pgaz K'Nyau is like a gibbon or a hornbill. It is overwhelmed with spiritual power and through time the Karen forefathers developed rituals to engage with it.

1. *Htauf K'Caj* or forest worship: Traditionally this ritual was performed by the Hif Hkof or traditional leader in order to return the forest back to the spirits, and cultivation was not allowed in the area. At present *Luj Pgaj* has been revived in conjunction with Buddhism and Christianity. Both Ban Mae Lan Kham and Ban Pa Pae perform this ceremony but this time it is referred to as *Luj Pgaj* or forest ordination following the Buddhist process of monkhood ordination. Once the yellow robe or monk attire is tied around a tree, big or small, it implies that the tree has been ordained and no one adhering to Buddhism would dare to cut it. To cut the tree wearing a yellow robe is akin to killing a Buddhist monk.

Forest ordination has been used strategically for the protection of remaining forests in many places. In 2014 Ban Pa Pae decided to organize community forest ordination and invited guests from dif-

ferent places including Buddhist and Catholic monks to participate. The ceremony began with performance of an elderly man under a healthy tree. In Ban Mae Lan Kham this is performed by the Hif Hkof who offers a pair of chickens, a bottle of whiskey, cooked rice and two candles to the forest and mountain guardian spirits. In his prayer, the elderly man or Hif Hkof asks for the protection and guardianship of the spirits. The prayer is followed by the Buddhist monks and Catholic priests in their own way. Only male members are allowed to participate in the ceremony while women and girls observe outside the performance area. All participants are then invited to tie the yellow robes around the trees. Forest ordination in Ban Pa Pae has occurred every year since 2014.

2. *Luj Meif To* or asking for pardon from fire spirit: Previously Lue Me To was practiced by owners of rotational fields to ask for pardon from the fire spirit after fire clearing of farm plots, which continues to be practiced in both study villages. Recently this ceremony has been applied to the clearing of firebreaks around the boundary of the village. The intention of Lue Me To is to ask for protection from the fire spirit. The performance is held by the Hif Hkof in the area of big trees and women and girls have to observe outside the performance area.
3. *Luj Hti* or sacrificing for water spirit: This ritual promotes fish sanctuaries. Performed by the Hif Hkof, it is an adaptation of the worshipping ceremony of the check dam spirit overseeing irrigation for paddy fields. Normally it is performed under a healthy tree, and women and girls have to observe outside the performance area.
4. *P'Cauj taj* or offering to land and forest guardian spirits: When an incident difficult to understand takes place such as a buffalo gets lost without any trace, the owner would perform an offering

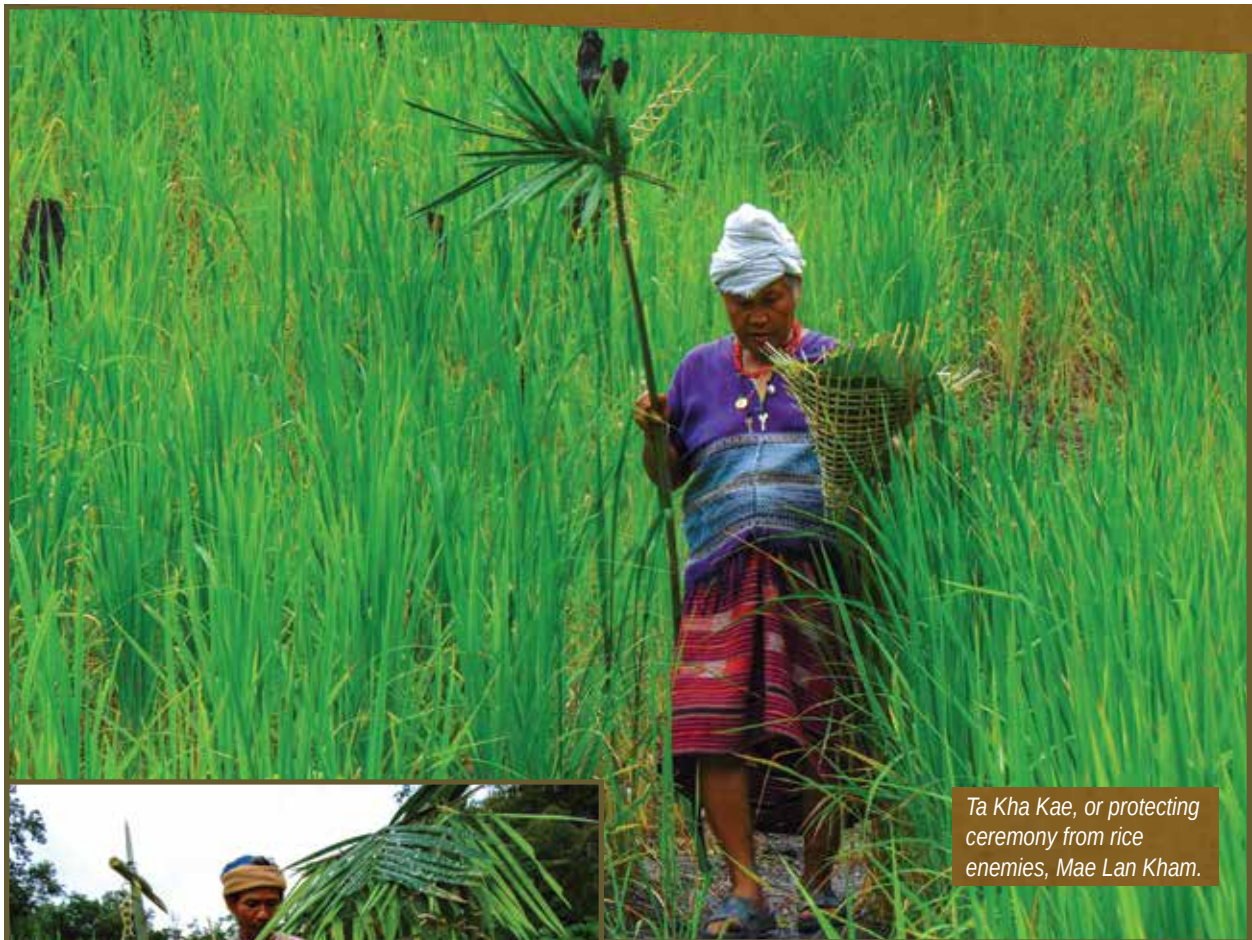
to the guardian spirits of the land to ask for help with the hope that the animal will come back. This can also apply to a person who goes into the forest and does not come back. It is the duty of the Hif Hkof to perform this ritual and participants are family members involved.

5. *Taj Wij Dof* or great dispelling: Taj Wif Dof refers to one type of the forest and is also the name of a ritual that has to be performed in this forest. As the forest, Taj Wif Dof is believed to host very fierce spirits that pregnant women, children, and people with weak mentality are prohibited from entering it. As a ritual, Taj Wif Dof is used to dispel malevolent spirits from a family and the ritual has to be organized by the Hif Hkof in the forest. The Ta Wee Do ritual is executed by the Hif Hkof and/or *S'raf ya pgaz* or sorcerer who has magic power.

Rituals in relation to land

In the Pgaz K'Nyau proverb, "Drink from water, take care of water. Eat from land, take care of land," the Karen word "*K'tauz*" encompasses the meaning "to care" and "to preserve/maintain." Thus, "take care of land" in Karen also covers the meanings "preserve the land" and "maintain the land." This reflects the close relationship of the Pgaz K'Nyau people and the land they live on. The Pgaz K'Nyau have a number of rituals relating to the land. In the month of *La hkoov pooz*, approximately August, the *Bgau Quv* or worshipping the spirits concerning rotational farming is led by the ritual *Taj luj htoof*. Several rituals are held on the same day:

1. *Taj Luj Htoof* or worshipping the spirits: Traditionally, this ritual can only be performed by the Hif Hkof on his own farm. A pair of chickens and a bottle of whiskey are offered to the spirits of the sky, land, water, and mountain for overseeing their rotational farming. After the *Taj luj htoof* is done, other households can perform spiritual worship on their own. The people in the two study villages



Ta Kha Kae, or protecting ceremony from rice enemies, Mae Lan Kham.



Lu me (Fire spirit) ceremony, in Mae Lan Kham.



Ta Sae (Taj saiv), or expel bad spirit ceremony, Mae Lan Kham.



Ta Te Maw (Taj T_mauv), mother of rice ceremony, Mae Lan Kham.



Traditional Lue Pga (Forest worship), Pa Pae.



Forest ordination with Buddhist monks and Catholic priests.

still perform this ritual; except for Ban Pa Pae where there is no Hif Hkof or spiritual leader, all households including non-Christian maintain this ritual.

2. *Taj T'mauw* or worshipping the god of rice: All rotational farmers are expected to perform this ritual on their own farms. They prepare and offer a young female chicken to the god of rice in thanksgiving for a good yield, sufficient enough to feed not only the family members but also their guests.
3. *Taj Luj Meif* or worshipping god of fire: Two red male chickens are used as an offering to the god of fire in order to cool down the area from fire clearing in the fields and at the same time ask for pardon for killing small insects in the fields. However, fire clearing in rotational farm allows for the regrowth of many plants.
4. *Taj Saiv* or expelling bad things: This ritual in which a male chicken is offered expels all bad things from the field: insects, worms, and plant diseases. The performance of *Taj Saiv* will render healthy crops and yield.
5. *Taj Hkav Kaiv* or protecting the field from bad things: Each farm owner prepares miniatures of arrow, crossbow, rope, handcuff, among others, all made of bamboo, and places them at the entrance of the field together with the Solomon's Seal, also of bamboo, which he/she sticks on the ground. All these items are expected to destroy or capture malevolent creatures as well as spirits.

Ban Pa Pae shares the same rituals with Ban Mae Lan Kham. But additionally for Ban Pa Pae is the ritual performed when lightning strikes the farm land. In this ritual, an offering is made at the tree/area that has been hit for three consecutive years. In a past incident, lightning struck twice on a man's field and soon after the fireplace in his house. Like the legend of a mother elephant and her baby, a rock on a mountain above Ban Pa Pae forms the shape of

a mother elephant that draws tourists but which women have been prohibited from going near. It is told that in the past lightning struck the area at midday when a female tourist sat on the head of the mother elephant. Another name of the village is *Doy Chang* or Elephant Mountain.

Gender Roles in Forest and Biodiversity Management

Men generally take care of hard or perilous work, such as cutting higher branches on trees in the rice field, fire clearing in the rotational field, fixing farm tools and basketry or hunting in a group. Women take good care of domestic animals and backyard gardens or prepare clothing for family members. In the rotational farm and paddy field, except for difficult and risky work, there is no clear labor division between men and women; they can help each other when more labor is required.

Gathering nontimber forest products

As the norm, Karen women are knowledge holders of seeds, plants and food preparation. In addition, gathering of nontimber forest products, especially food and firewood, is their expertise; fetching water is also their task. They gather firewood from trees like *T' hkoov hauf* or bungor, *Sei* or wild chestnut, *P'Dav* or Siamese pom-pom tree; wild vegetables (e.g., *Ploj Plai dauw*) or edible fern, *hauf toj ploj* or *Lasia spinosa*; fruits such as *Saf muv cuj* or rambai fruit, *Saf maiv hkwav* or wild mangosteen, *Seif Hsif Saf*, common name for unknown nuts, *Sei hpo priv* or small wild chestnut, *Sei Kloz* or big wild chestnut; mushrooms such as *Kuz blef* or termite mushroom, *Kuz Hsoof wa* or oyster mushroom, *Kuz yaiv naj* or Jew's ear mushroom; and bamboo shoots like *Bauf waf kleif*/*Gigantochloa albociliata*, *Bauf waf Kluf*/*Bambusa nutans*.

Gathering non-timber forest products are normally accompanied by a conservation ethic. For example, when cutting bamboo shoots the people leave a third of the young sprouts intact



Group interview with women, Mae Lan Kham.



Interview of women group, Pa Pae.



Group interview with men.

within the bamboo thicket or when digging wild potatoes, some are left uncut for them to grow again. Women know well the seasons for such products, when and where they should look for the wild ones and how to preserve food for longterm consumption.

Hunting

Hunting is men's task. After a big wild animal such as wild boar, deer, or barking deer is hunted, the hunting group heads back to the village and divide and share it with all families in the community. Certain kinds of animals are prohibited from being hunted down such as the gibbon and hornbill. Hunting is forbidden on certain occasions, such as when someone dies in the community, and several kinds of wild animals are not to be killed during the performance and blessing of the ceremony for tying a string to the wrist.

Searching and gathering of honey is similarly men's work. Women take part in group fishing; they walk together along a stream with hand nets and fishing coops. The catch could be small fish, crabs, shrimps, and sometimes tadpoles.

Handicrafts

In handicraft work, gender differentiated roles are quite clear. Although women are not prohibited to do basketry, this activity is mainly the men's. Different kinds of basketry of both bamboo and rattan are made by men. Work on textiles on the other hand is exclusively the women's domain, from planting and harvesting of cotton to spinning, dyeing, weaving, making clothes and embroidering. A daughter starts to learn how to weave from her mother and grandmother when she turns six or older.

Both study communities have developed positive means of income. In Ban Mae Lan Kham the villagers earn additional income from selling of natural honey and Ban Pa Pae earns good reputation for its natural, organic coffee production.

Firebreak management

Women play the leading role in firebreak management and in forest fire watch. Aside from firebreak management, more women also participate in other communal activities than men, such as in firebreak clearing, preparing food for community members and guests on special community events and cleaning day of the village. The building of check dams is jointly managed by men and women.

Laws and Policies on Forests and Forest Management



Thailand's laws and policies on natural resources not only adversely impact the Karen people's traditional livelihood, these do not recognize that countless generations of them have continuously lived for hundreds of years within the country's forests and national parks.

Roots of Nonrecognition

Deforestation in Thailand can be traced back to the reign of King Rama IV (1851-1868) when the royal court enjoyed increasing income from rice exports and the farmers were encouraged to produce more rice. Later when King Rama V (1868-1910) introduced the railway, first to the Northeast and then to the North, farmers converted forest land into farm land concentrating on paddy field cultivation. Also, when King Rama V abolished slavery (starting from 1874), he encouraged the freed people to clear more forested land for cultivation.

Logging has also played a part in deforestation since the 19th century. Over a hundred years ago, a number of foreign companies began investing in timber enterprises in many parts of the country and by the 1850s timber export was big business. It was estimated that during the year 1858-1859 the export of teak from the port of Moulmein in Burma to Europe was worth about £400,000 sterling. Almost 95 percent

of the timber sold came from the Chiang Mai area (Anan, 1984: 50; cited from Ramsay, 1971: 60). Before the nationwide closure of all timber concessions in 1989, there were reportedly 274 timber companies.⁴

In 1896, the Royal Forestry Department (RFD) was established for the first time with three foreign Director Generals,⁵ all British, from 1896-1923.⁶ Since then, levy taxes on local feudal lords has been transferred to the central royal court in Bangkok. The establishment of RFD with foreign administrators implies the intention of State control and facilitation of the timber industry from the beginning and also explains why this law does not recognize the co-existence of indigenous and local communities who have been living in the forest since time immemorial. The enactment of all related forestry laws in later years overlooked the existence of farming communities in the forest.

Natural Resource Laws and Policies

In 2017 the Constitution of the Kingdom of Thailand recognized the rights of communities and ethnic groups:

Article 43: A person and a community shall have the right to (1) Preserve, revive or promote wisdom, arts, culture, tradition and good customs at both local and national levels; (2) Manage, maintain and utilize natural resources, environment and biodiversity in a balanced and sustainable manner, in accordance with the procedures as provided by law;

Article 70: The State should promote and provide protection for different ethnic groups to have the right to live in the society according to the traditional culture, custom, and ways of life on a voluntary basis, peacefully and without interference, insofar as it is not contrary to public order or good morals or does not endanger the security of the State, health or sanitation.

The previous Constitution of 2007 also recognized the rights of persons as well as community in relation to natural resources as follows:

Article 66: Persons assembling as a community, local community or traditional local community shall have the right to preserve or restore their customs, local wisdom, arts or good culture of their community and of the nation and participate in the management, maintenance and exploitation of natural resources, the environment and biological diversity in a balanced and sustainable fashion.

However, even with the Constitution's recognition of community rights on natural resource management, since 2007 rotational farmers have been arrested and/or taken to court with reference to forestry related laws.⁷ This implies that all the forest-related organic laws had not been revised in accordance with the Constitution.

The new National Park Act of 2019, which amended the National Park Act of 1961, simply raises the penalty for those who break the law. Although this new law recognizes the community in protected areas, it does not provide a guarantee to the rights of communities located in these areas before the enactment of such law nor the rights to ancestor domain nor cultural heritage. Thus it seems communities within national parks are totally subject to government authority's discretion. This is affirmed in the lengthy Article 19 of the National Park Act 2019 which in summary prohibits (1) human activities to change the feature of the forest, (2) gathering of NTFPs and other natural resources, and (3) hunting and causing harm to wildlife.

The new Community Forest Act of 2019 allows local residents living in forests to work with the State to manage and use natural resources in a way that sustains the environment. However, Article 4 defines "community forests" as "forests outside conservation forest areas, that are granted permission to set up as community forests where communities in cooperation with the State can conserve, rehabilitate, manage, and maintain, including utilize the natural resources, environment, and biological diversity in



Village regulation for forest management.

the community forests in a balanced and sustainable manner following this bill.”

The same Article defines “conservation forest areas” as “the areas of National Park following the National Park Act, as well as Wildlife Reserve, and No Hunting Zone following the Preservation and Protection of Wildlife Act, or any other areas equipped with natural values, or other kinds of values worth preserving or maintaining the environmental quality as stipulated in the Ministerial Regulations.” It is a well known fact that there are unknown numbers of indigenous and local communities settled on lands inherited from their ancestors situated in National Parks, Wildlife Reserves and No Hunting Zones even long before these laws’ commencement. But the definition of the terms has already blocked these communities from their involvement in their own community forests.

In addition, the Community Forestry Act 2019 requires a group of at least 50 people in a community to apply for permission from the authority to set up a community forest. This means the existing community forests that have been set up by various communities are not recognized as de facto practices of community forests. Several questions must be raised on such provisions of the Community Forest Act:

- When shall the State recognize and respect ancestor land rights?
- As the party to the Convention on Biological Diversity, how would the Government of Thailand apply the principles of “joint management in protected areas” and “equal access and benefit sharing” with indigenous and local communities in real terms?

The amended National Forest Reserve Act of 2016 stipulates in Article 12 that anyone claiming the right to use (the land in) the Reserve Forest before the enforcement of the law has to submit a formal request to the authority before the deadline for submission. Article 13 indicates that if an investigation on the claim proves ineffective the petitioner shall be given compensation. Moreover, Article 13/1 states that when Government's use of the land overlays the land utilized by an individual, his/her usufruct right will be terminated after 360 days of announcement for the land the Government will use.

Obviously all the natural resources and forestry related laws do not recognize the existing communities with their lands, resources, and territories inherited from their ancestors. Moreover, all these laws, both old and new, do not acknowledge their good practices of natural resource management, such as traditional rotational farming, longtime community forest management, and inter-community firebreak cooperation. Based on this official stance, all the following Cabinet Resolutions, Ministerial Regulations, and Master Plans/Strategic Plans concerning natural resources and forestry mostly reflect a negative attitude towards indigenous and local communities. For example:

- Cabinet Resolution dated 27 July 1982, following the study done by Kasetsart University, announced its watershed classification into five major categories with the first category divided into class 1A and class 1B. The classification was devised based on measurements of six physical factors: 1) topography; 2) slope aspect; 3) altitude above sea level; 4) geological feature; 5) pedology; and 6) present forest condition. Based on this, it was determined that classes 1A, 1B, and 2 should be preserved as natural forest as well as headwaters. The socio-cultural factor was not taken into consideration. If this Cabinet Resolution is enforced in real terms, a great number of indigenous communities would be removed from the 1A, 1B, and 2 classified areas.
- Cabinet Resolution dated 30 June 1998 endorsed the measures and guidelines

for problem solving on land in the forest and mandated the Royal Forestry Department to launch a survey of all the occupied lands and to register landholders in the forests at the same time; this survey would be cross-checked with one map from aerial photography. Following this Cabinet Resolution, there are three steps to be taken by the authorities: surveying, verifying, and approving of all the farmlands in protected areas that have been cultivated continuously. Such plan could overlook the sites of rotational fallow fields.⁸

However the implementation of these Cabinet Resolutions varies from place to place. For example, the forced relocation of Karen communities in Kang Krajan National Park in 2010 (discussed in later section) was done with reference to Cabinet Resolution dated 30 June 1998, but in most other areas the park authorities are doing community survey to identify the number and location of farmlands to be reclaimed from the farmers. The reason this resolution threatens the rotational farm fallow system is that the one-map reference identifies only one particular year, such that the 5-year and older fallowed fields are seen as natural forest and are likely to be confiscated from the farmers. Moreover, in rotational farming each plot of land is not used continuously every year.⁹

The Master Plan on Problem Solving of Forest Resource Destruction, Encroachment on State Land, and Sustainable Natural Resource Management 2014 also threatens rotational farmers. The operational chart begins with, *"To stop deforestation and to reclaim the forested land back"* and the last stage of operation is *"To achieve 40% of forested areas in the whole country"* (Internal Security Operations Command and Ministry of Natural Resources and Environment 2014).

Information gathered from government authorities however illustrates that those who have responsibility for policy implementation have different opinions and attitudes towards indigenous people, forestry laws and rotational farming. The execution of government policy thus largely depends on individual decisions and

viewpoints of officers, as shown by the following differing opinions of local authorities.

The Mae Chaem district office head noted that the knowledge and practice of rotational farming is not well understood by many people so he tries to explain this farming system to others when time allows him to do so. He considers community and natural resources mapping using Global Positioning System (GPS) very useful and a good source of data-based system and suggests participatory mapping should be promoted and expanded to other areas. He also expressed appreciation for NGOs who support communities by focusing on rotational farming and community mapping. He welcomes NGOs to his district to work with more than 30 villages practicing rotational farming.

To the Chief of Local Administration Organization in Pa Phloo Subdistrict, rotational farming is a backward form of agriculture that should be stopped and replaced with sedentary farming of fruit trees, coffee or rubber plantations for commercial purpose because this offers better family income. While he supports the communities opposing the enforcement of “No Hunting Zone” that overlaps traditional farmlands, he also encourages those affected to send petitions to the Tambon Administrative Organization (TAO).

The head of the Ban Hong District Office says his district recognizes and appreciates rotational farming and the making of firebreaks by the Ban Pa Pae community. He hopes the villagers follow the No Hunting Zone law because he believes it will bring more benefit to the communities, and if they are impacted negatively, they can still discuss and negotiate with the responsible agency. Following the attempt by a neighboring lowland village, Ban Tan, to stop the Karen people of Ban Pa Pae from practicing traditional rotational farming, he enjoins the Karen community to become a member community of the National Land Use Committee. The Ban Pa Pae community however has declined his suggestion, fearful of being controlled and losing their resilience. While the district head has a positive attitude toward Karen communities, he asserts that people have to follow the rules.

REDD+ in Thailand

Thailand ratified the Kyoto Protocol in 2002 and the United Nations Framework on Climate Change Convention in 2016. The national master plan on climate change highlights forest as one of the sectors with specific projects under Strategy 2 to promote REDD+ activities.

In 2011 the Thailand Government received an initial grant of USD200,000 from the Forest Carbon Partnership Facility of the World Bank to develop the REDD+ strategy of the country.¹⁰ According to World Bank Country Director for Southeast Asia Ulrich Zachau, the grant:

[W]ill provide Thailand an opportunity to manage and protect the forests for a long period of time. When forests are restored and trees are taken care of, the Thais will benefit not only from the clean air, but also protect them from landslides and floods, improve the livelihoods of the communities near and around the forested areas, and even help preserve cultures and traditions of ethnic peoples. (ibid.)

The REDD+ Project in Thailand aims to understand the causes of deforestation and forest degradation and to formulate safeguard measures from their impact on society and the environment. The project is still in the first phase which entails the preparation stage and formulation of a National REDD+ Strategic Plan. A foreign expert has been hired to prepare the Strategic Plan along with safeguard measures. The project so far has accomplished the identification of the Reference Emission Level, development of Readiness-Preparation Proposal (R-PP), and staff community leaders' capacity building in pilot project areas.¹¹

Civil society and indigenous peoples raised concern on the REDD+ Readiness-Preparation Proposal made and submitted by the Department of National Parks, Wildlife, and Plant Conservation (DNP) to the FCPF in 2013 (DNP 2013) and its eventual implementation. The Coalition of Civil Society Organizations has recommended a peoples' independent coordination center for REDD+, participation of

indigenous peoples, civil society and NGOs in establishing this center, and use of free prior and informed consent in the entire REDD+ process.

The center is proposed to have the following mandates: to undertake both environmental and social impact assessments, guarantee assurance of no involuntary relocation, oversee human rights violations or reduction of livelihood activities, respect human prestige through good governance, and ensure gender equality and justice. The Coalition's recommendations go even further to cover State recognition of the rights of longstanding communities located in national parks and respect for traditional land tenure and customary self-subsistent use of forest resources, including revision of existing laws that cause conflict between communities and National Park authorities.

The Readiness-Preparation Proposal is to be funded partly from the Government budget and later from WB financial support that the Government can use to expand the project to cover more pilot communities in all regions of Thailand from mountain to sea. But civil society has no confidence in the way the Department of National Parks, Wildlife, and Plant Conservation may handle the project due to its past failure of scaling projects. The DNP implemented the Project on Joint Management in Protected Areas (JoMPA) in 2004-2008 funded by DANIDA, Denmark. An objective of the project was 'To establish a joint management of protected area model which can be replicated into other protected areas,' but when the project terminated the DNP did not expand the model to other protected areas. Many people doubted whether the DNP was sincere in its intention to undertake the JoMPA project or was merely lured by the funding support. For the REDD+ project, civil society wants to see whether the DNP opens it for peoples' full participation; some form of people's protest could otherwise ensue.¹²

Impact of REDD+ on indigenous communities

According to the Director of the Indigenous Peoples' Foundation for Education and Environment (IPF), indigenous peoples in

Thailand have followed up and participated in the REDD+ project from the start in cooperation with the Royal Forestry Department. They provided recommendations for the Readiness-Preparation Proposal including the earlier cited people's REDD+ coordination mechanism through which they could give advice on project implementation but which the government seems not interested in. The IPF Director noted that in formulating the REDD+ Strategic Plan, community and civil society representatives should be involved in the fact finding mission and planning process in order to have more reliable and comprehensive information. This effort would also ensure that the REDD+ Strategic Plan, which focuses on finding the root causes of deforestation and forest degradation, would not produce a negative impact on the livelihood of indigenous and local communities in the forests.¹³

The IPF sees two scenarios in terms of REDD+'s impact on indigenous communities: 1) If the project follows the framework and mechanism designed by World Bank/Forest Carbon Partnership Facility especially on peoples' participation, recognition of land rights, and benefit sharing with communities, the project would bring much benefit to communities; 2) if it does not, it is likely the whole operation would make reference to existing laws, policy, and conventional measures with no or limited peoples' participation, and thus impact negatively on communities, such as non-recognition of rotational farming and gathering of nontimber forest products.¹⁴

Knowledge on REDD+

Awareness on REDD+ in communities where its impact will be felt is almost nil. Members of Ban Mae Lan Kham and Ban Pa Pae know virtually nothing about REDD+. They have some information about climate change and global warming, such as the incidence of climate change and the loss of forest areas at the global level, but are not too familiar with greenhouse gas emissions. The terminology and definitions of carbon sink, carbon permits, carbon credit, among others, are very new to them. The staff

of the local authority Tambon Administrative Organization have the same level of knowledge. Thus, at the local level the villagers as well as TAO staff could not share their opinion about REDD+. Some community leaders said they would like to learn more about climate change before engaging in REDD+.

Indigenous and local communities have a right to all information regarding climate change and related issues and in a language they fully understand. It is the Government's duty to provide the information on REDD+ they need. It is also the duty of the Government to ensure their full participation in planning, implementing, monitoring, and evaluating REDD+ in all stages in accordance with the United Nations Declaration on the Rights of Indigenous Peoples and FPIC requirements.

Indigenous Knowledge Transfer

Knowledge transfer from one generation to another generally follows ritual performance, traditional festival, oral tradition via storytelling, songs, and proverbs. For practical skill, the children learn mostly from their parents and grandparents by following them to the field or the forest. At present, an increasing number of young people are moving to town either to work off-farm, or to pursue their higher education; the implication of these phenomena is that they are losing time to learn their traditional way of life from their parents.

In the past, the Pgaz K'Nyau had the community institution, *Of de Blauf de co*, that served to carry on cultural transmission from one generation to another. It was a cultural center that functioned both as a place for decision making for community governance and as a place or *Blauf* to teach the cultural way of life, including *Hta* or songs and stories. Members of the younger generation were trained by the elderly/knowledgeable people. *Blauf Hkof*/head/leader of the *Blauf* was the highest position among the people who made decisions. The *Blauf Hkof* worked together with the *Pgaz mi pgaz pgaj* or the elder group who served as his assistants.

Hif Hkof

In most cases the *Blauf* has disappeared. In Ban Mae Lan Kham, it ceased in the generation of *Hpu* or grandfather of the present Hif Hkof¹⁵ or traditional leader. The current Hif Hkof of Mae Lan Kham Klo hamlet is *Hpatij Iv Laix*¹⁶ while that in Klauv Kleif Klo hamlet is *Hpatij Kham Daeng*. Traditionally the person who first settled in the hamlet became the Hif Hkof. Thus, the two hamlets of Ban Mae Lan Kham have their own traditional leader with the help of an elderly group to take care of community governance based on traditional culture, customary law and practices at the hamlet level.

For Ban Pa Pae, the *Blauf* and *Blauf Hkof* have also long disappeared. According to *Hpu Yoo*, an elder of Ban Pa Pae, the last Hif Hkof could not hand over the position to a male descendant because he had no son to continue the leadership from him. He also encountered health problems and later decided not to transfer his position to anyone. No one had the courage to become the new traditional leader. The villagers however consulted with a medium to identify a person who could be the next one, and the man chosen was *Hpatij Hsiv Muj Bau* who shared the bloodline with a *Blauf Hkof* in the past. He started to build a *blauf* but the villagers did not support him because they were afraid of misfortune; even his son left him. He then decided to stop building it and moved out of the community.

Since then, people are said to live like "*Of lauz htof qiv lauz hsau mi* (settling as wild peasant or wild chicken)." With no highest decision-maker in the village, no one can do proper rituals and oversee customary laws and practices in daily life, and for this reason they live their lives as "wild animals." Ban Pa Pae now practically depends on the elders' group in the community to perform the role of Hif Hkof. Fortunately, the village headman and the elders group can work together smoothly. However, the villagers are not united as they were in the past. But with or without the Hif Hkof, the strength of the community depends on the level of internal cohesiveness as other indigenous communities have demonstrated.

Strengthening Cultural Transmission

Today, in Ban Pa Pae the youth generally learn their culture through hands-on activities both in the field and in the community. But the village so far has no systematic way of transferring cultural knowledge. Children still follow their parents to the fields but they tire easily. It is fortunate though that they participate in burial ceremonies in the community where they learn to sing funeral songs. Activities requiring the whole family, such as *Nif sau La hkoov* or string tying to the wrist, *Auf Bgav* or Offer to Ancestor Spirit ceremony, or traditional religious feast, are also not fully attended when some members are far away from home because of work. Unfortunately schools do not participate in cultural transmission in any way in both studied villages.

There is a general concern among the elderly and traditional and formal leaders in Ban Mae Lan Kham and Ban Pa Pae on transmitting their cultural heritage to the next generation. Several efforts however are being made to address the problem. Being revived in Ban Mae Lan Kham is the old tradition called “Eating pounded young rice and listening to storytelling.” In the past when rice was growing to a milky stage in the paddy or upland rice field, farmers with the help of children collected and brought young rice grains to the community. These young unhusked rice grains were roast-dried in a wok, pounded and the skin winnowed away. The still warm and crispy flattened rice grains were then brought by the children to the house of a storyteller. Usually a well known storyteller was an old lady who was generous with good hospitality. The children sat around her in the evening and listened to her story while chewing the crispy rice.¹⁷

This tradition was again held in Ban Mae Lan Kham in October 2018. The community in cooperation with several NGOs hosted three days of “eating young crispy rice and listening to storytelling.” The children from Ban Mae Lan Kham were joined by children from neighboring

villages including a group from the town center accompanied by teachers and staff of the NGO, Pencil Box. The elderly sang welcome songs in the community temple followed by a blessing from the monk. The children learned not only how to produce crispy rice but also the knowledge of rotational farming, different products on the farm and the value of each story being told. An added benefit is the new relationship fostered by children in the villages with friends from the town.

Another project in Ban Mae Lan Kham, “Learning on Buddhist Holidays,” started in July 2018. The learning took place in the community temple and the headman’s house. Twenty young participants, both children and youth (16 boys and 4 girls) gathered together on every Buddhist holiday. Five men and five women served as community resource persons who took turns to organize the class each time. Learning took place both in the shelter and in the field. The learning revolves around rotational farming, including the cycle of rotational farming accompanied by farm calendar, varieties of vegetables from the field and how to prepare indigenous food from farm products and herbal plants, firebreak preparation, and songs and proverbs.

Ban Sob Lan which is in the same village cluster as Ban Mae Lan Kham has set up a community learning center with the Karen name *Co maz loz luv laj*/Community Learning Center to teach the Karen cultural ways of life to the children.

Ban Pa Pae has continued to hold “forest ordinations” in creative ways. In April 2019 the community organized a 3-day workshop on the sixth “forest ordination,” with invitations sent via social media. They held field visits and forums on different topics such as coffee enterprise related to Pa Pae coffee production, rotational farming, Karen textile and ended the event with the forest ordination.

Another endeavor is the Training of Trainers on Developing Intangible Cultural Heritage



Children as part of preparing fire break control, summer time, Mae Lan Kham.

Rotational farming product collection by children in Mae Lan Kham.



Young boy practicing basketry, Mae Lan Kham.



Girls involved in dyeing process by preparing the leaves, barks of trees for dyeing practice, Mae Lan Kham.

(ICH) Safeguarding Plan organized in Chiang Mai by UNESCO Thailand on 17-23 June 2019 where rotational farming was selected as one of four case studies for the trainees' exercises. Ban Mae Lan Kham was chosen for fieldwork practicum where a group of trainees had a chance to interview knowledgeable persons. UNESCO has allocated a small research grant to support the collection of information, emphasizing community participation, to fit in the UNESCO format of ICH nomination (Songphonsak 2019).

Challenges to Traditional Forest Management



Inimical Laws

This case study shows that the study villages have been settled for hundreds of years, with key informants in both sites roughly estimating their communities to be 200-300 years old. Relevant laws in comparison are relatively new. The oldest forestry law passed in 1941 is only 78 years old; the National Park Act in 1961, 58 years old; and the Forest Reserve Act in 1964, 55 years old. Furthermore, the declaration of a National Park came much later than 1964. The question is thus raised, who occupied the land first: the indigenous/local communities or the National Park?

In principle the ethical aspect of enforcement of a law is not to affect any event that took place before its enactment. In this case, indigenous communities have been situated in the forest through ancestors' inheritance long before the enactment of all forestry related laws. How can the declaration of a national park penalize the communities located within its boundary? On this issue, King Rama IX once stated that:

In the reserve forest that has been demarcated by the authority as reserve or classified forest, when we drew the demarcation line people have already been there. They (the authority) want to enforce the Forest Reserve Law on the people with the forest reserve that has just been announced later by drawing the line on a paper. It sounds peculiar. But the problem arises when the demarcation line has been drawn, people who are in there become law breakers. With legal consideration, it is breaking of law, because the law has been enacted with righteousness; but naturally, who commits this is unlawful. It's the line drawer. Because the people who live in the forest have been there before. They have their rights as human beings. It means the authority encroaches the people, not the people encroach the State.¹⁸

It should be noted that government agencies normally make reference to Royal Speeches of His Majesty the King but not this one. The crucial challenge in Thailand is that there is no respect for "ancestor domain" at the state level. The worst case occurred in 1996 when 57 Karen families (391 people) were forced to leave their homes in two villages in Kaeng Krajan National Park in Phetchaburi province. In 2010 Karen houses and barns were burnt and destroyed. The next year in May, houses and 98 rice storage sheds were burnt by National Park authorities and Thai military. One month later in June, the same authorities again torched houses and 21 rice storage sheds. In July the Chief of the Kaeng Krajan National Park ordered the burning of more houses and rice storage sheds. The involuntarily relocated Karen people and their ancestors had lived in the area for over 100 years (Prasert 2011, 1-2).

All of the country's existing forestry laws: Forestry Act of 1941, National Park Act of 1961, Forest Reserve Act of 1964, and Wildlife Preservation and Protection Act of 1992 do not recognize the indigenous and local communities who have lived all their life in the forest, perhaps since time immemorial. Government's disregard



Conflicts with national park force people to stop the rotational farming, May 2019, Pa Pae.

of this historical fact when formulating forest laws and policies victimizes the people. These laws' adverse effect of marginalization also interrupts the traditional knowledge and livelihood of these communities. In addition as cited earlier, the new Community Forest Act passed in May 2019 which defines community forest as "forest outside the conservation forests or other areas of the State outside the conservation forests..." (Article 4) ignores the fact that a great number of indigenous and local communities are located in government declared protected areas, and thus would not be granted official permission to take care of their own community forest. These laws neither take into account nor respect these peoples' management of their community forest that has been carried on for many generations.

Several Cabinet Resolutions are in conflict with one another. For example, Cabinet Resolution on 30 June 1997 aims to exclude people from conservation forest. Cabinet

Resolution on 3 August 2010 on the other encourages the practice of rotational farming and natural resource management by Karen communities but it has been disregarded by the Ministry of Natural Resources and Environment (MNR) because it was proposed by the Ministry of Culture. These conflicting interests among government agencies have occurred with no attempt to resolve them.

The Karen people assert their rights to their farmland and rotational farming practices. They cannot and do not want to change their traditional rotational farming system as it has been promoted by the government in a move to adopt an intensive land use system. Moreover, although the forestry laws all prohibit human settlement in protected areas, in reality the government cannot move thousands of families out of these protected areas, not to mention the rights of these communities to ancestor lands. What government authorities have done was



Negotiation meeting between Pa Pae villagers and national Park Officers.

to quietly relocate one or two communities at a time. Even with this tactic, protests by the people get stronger against involuntary relocation.

Thailand has ratified the Convention on Biological Diversity (in 2004) and the United Nations Framework Convention on Climate Change. Both international conventions recognize traditional knowledge of indigenous and local communities. The CBD Conference of Parties (COPs) in various meetings stated their support as well as encouragement for Parties to implement joint management of protected areas, equal access and benefit sharing, and FPIC (Free, Prior and Informed Consent) to name a few. Unfortunately none of these good intentions has been implemented in Thailand except

for the DANIDA-funded DNP Project on Joint Management in Protected Areas which was not replicated as originally intended. In addition, while the UNFCCC has agreed on a paradigm shift in forest management from State monopoly to multilateral management of forest, it seems Thailand is still working within the confines of the old forestry paradigm of State monopoly.¹⁹

Local Bias and Conflicts

Prejudice against indigenous communities and rotational farming by authorities and lowlanders has resulted in conflicts. The villagers of Ban Pa Pae have been accused of forest

destruction and chemical use by both local government foresters and lowlanders without reliable evidence. The accusers do not take into consideration the rotational pattern of land use. The community people also never expanded their farmlands while neighboring lowland villagers have developed plantations with extensive chemical use.

Conflict has occurred several times between the Ban Pa Pae community and government foresters starting in 1995 when a villager was accused of cutting a tree even if this was on his own farm. He was ordered not to trim branches of the tree on his land. From time to time, government foresters arrived without initially contacting community leaders contrary to usual procedures. Villagers later learned they came to gather information following the proclamation of the “No Hunting Zone” which was done without the free prior and informed consent of the communities. This has created fear of possible relocation in the whole Ban Pa Pae community.

In 2015 foresters again went to Ban Pa Pae on receiving a complaint that the people were encroaching into the forest and adopting commercial corn farming, which was untrue. However, the foresters later returned with 200 lowland villagers to survey the land use in the village. The authorities ordered the community members to photocopy and sign their identification cards without any explanation, causing them anxiety about their future.

In the latest incident on 13 May 2019, in what again seems to be a case of bias by local officers and lowlanders, foresters from the No Hunting Zone office with 80 men from another subdistrict took away farmland from four families in Ban Pa Pae. This was done without earlier contact with the village headman who, on hearing this, went to negotiate with the foresters. Surprisingly the local officers seemed not to know that Ban Pa Pae has been settled for more than 200 years while lowland villagers came much later, setting up longan plantations using heavy chemicals. In comparison, farmers in Ban Pa Pae have been developing their farms sustainably, building small ponds by their paddy fields to use when rain is scarce and maintain-

ing chemical-free coffee farms, for which Pa Pae coffee is now known for. In addition, while they have taken care of the forest that has increased wildlife, lowlanders come to the area with high voltage spotlight to hunt at night. The community members worry that the number of animals in the wild would again decline.

Conclusion



The Karen, the largest indigenous group in Thailand, perceive the forest as part of their traditional livelihood. Their traditional knowledge and practices in forest management and rotational farming have been transmitted through an unknown number of generations. This knowledge system expounds on a profound interrelationship between human beings as knowledge holders and practitioners, natural resources as fundamental source of survival and life of both humans and animals, and spiritual entities believed to be custodians of the forest, land and water that people have to ask for permission, protection, blessing, and pardon through rituals and ceremonies when they want to make use of these resources, including flora and fauna.

Thailand's existing laws, policies and programs on natural resources largely have a negative impact on the traditional way of life of the indigenous peoples. With the declaration of national parks, traditional farmlands were also proclaimed as part of these parks, and the communities located within their boundaries, schools, health stations, electric cables, access roads were disallowed. Indigenous communities have since been relocated involuntarily from time to time. However, Cabinet Resolution on 3 August 2010 calls for the revival of the Karen livelihood promoting rotational farming, natural resource management, and the setting up of a “special cultural zone.” Unfortunately, it is in conflict with other previous Cabinet Resolutions concerning natural resources.

Information on REDD+ hardly reaches communities in remote areas. It is not only vil-



lagers but also local authorities including district officers who have never heard of REDD+. Very few community members who have participated in national activities have heard about climate change but their knowledge of it is still low. It is interesting to note that Ban Pa Pae villagers have chosen to invest in coffee farming in their community forest, succeeding in producing organic coffee that is growing in popularity.

Recommendations

The following recommendations are made to provide a better foundation for the implementation of the REDD+ program. The Government should:

1. Consider inclusion of rotational farming and its contribution to sustainable development in its policy on natural resource management that would require a scrutiny and revision of policies and programs that prohibit its practice.

Previous researches and testimonies of the study communities confirm that rotational farming is an efficient form of agriculture in the highlands' slope lands that emphasizes conservation techniques and sustainable utilization of natural resources. The rotational farming of the Karen people has already been registered with the name *Kue-Shuey* as one of the elements of national intangible cultural heritage.

Further, Thailand has ratified important international treaties in relation to natural resources and climate change, such as CBD and UNFCCC, which underscore the promotion and respect of traditional knowledge of indigenous and local communities in natural resource management. Decisions from Conference of Parties have expressed time and again a positive attitude and good intention toward indigenous and local communities, such as joint management in protected areas and use of the FPIC

process in matters affecting them, access and equitable benefit sharing in NTFP collection. None of these have been followed sincerely by the authorities, and this can be regarded as an attempt to break or violate the international laws Thailand has ratified.

2. Establish an independent multi-stakeholder mechanism at national level with a mandate to monitor the policy and implementation of natural resource management in accordance with all of the country's international obligations that will not only benefit indigenous and local communities but also the entire nation. This mechanism will further function as a grievance mechanism.
3. Formulate a policy to promote and support good practices in natural resource management and sustainable land use and farming by rewarding all practitioners, such as granting land titles and budget allocation and to penalize negative or destructive practices that adversely affect human health and the environment, such as through an environment tax and fees on negative/destructive land use.
4. Allocate financial support for short-and-long term research and experiments on natural resource management and appropriate forms of agriculture, emphasizing participatory action research.
5. Encourage projects based on participatory approach for natural resource management.

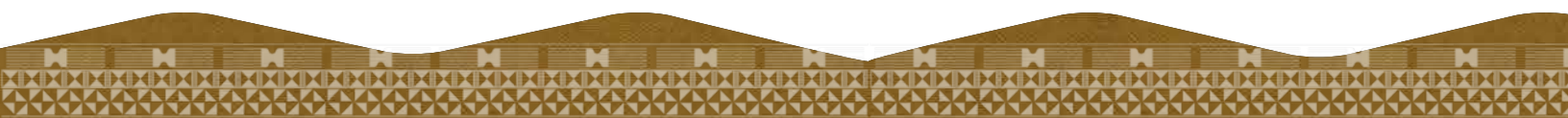
The past experience of the Joint-Management in Protected Areas project

shows that such collaboration creates better understanding between park authorities and indigenous and local communities as well as favorable attitude toward indigenous knowledge.

6. Promote, through appropriate agencies such as the Ministry of Education and the Ministry of Culture, revival of certain indigenous traditions and transmission of knowledge and practices of rotational farming to children and youth to instill customary values and to foster closer ties between highland and lowland children. Public schools located in indigenous community should receive necessary support to develop the local curriculum to include cultural ways of life and to invite indigenous resource persons in the community to organize learning activities in and outside of the school.

7. For a better foundation for the implementation of the REDD+ program, establish a multi-stakeholder engagement as well as an independent joint committee to oversee the program to ensure that the ideas of equal access and benefit sharing, joint management, and FPIC will be implemented.

Information sharing with indigenous and local communities, in particular, must be treated as a priority. Considering their good practices in natural resource management and sustainable farming system using traditional knowledge, if indigenous and local communities are well informed about climate change and are given the opportunity to participate fully and equally in the REDD+ process, they will work and make decisions beneficial to people and the environment on their own with no need of prescriptive recommendations.



Endnotes

- ¹ <http://www.fao.org/3/ai390e02.htm>.
- ² Internal Security Operations Command and Ministry of Natural Resources and Environment 2014.
- ³ Tribal Research Institute, Chiang Mai: 2002.
- ⁴ [www.http://seub.or.th/seub/บทความ/สัมมนาป่าไม้-บทเรียน](http://seub.or.th/seub/บทความ/สัมมนาป่าไม้-บทเรียน).
- ⁵ Mr. H. Slade, Mr. Tottenham, and Mr. W.F. Lloyd.
- ⁶ [www.http://forest.go.th/about/history/](http://forest.go.th/about/history/).
- ⁷ For more detail please refer to <https://prachatai.com/journal/2010/03/28053>; <https://news.thaipbs.or.th/content/567>; <https://transbordernews.in.th/home/?p=12069>; and <https://www.khaosod.co.th> › ทุกทิศทั่วไทย on 10 October 2019.
- ⁸ <http://www.dnp.go.th/watershed/gov2.htm#6>.
- ⁹ <https://prachatai.com/journal/2008/05/16865>.
- ¹⁰ <https://www.worldbank.org/th/news/press-release/2016/09/14/thailand-to-reduce-harmful-emissions-from-deforestation>.
- ¹¹ Interview with Mr. Kittisak Rattanachangsri, Director of Indigenous Peoples' Foundation for Education and Environment (IPF), Chiang Mai, 15 September 2019.
- ¹² Recommendations from civil society organizations to R-PP Project for Thailand, 15 March 2013.
- ¹³ Interview with Mr. Kittisak Rattanachangsri, Director of Indigenous Peoples' Foundation for Education and Environment (IPF), Chiang Mai, 15 September 2019.
- ¹⁴ Ibid.
- ¹⁵ At the time when Karen villages had the *Blauf*, *Blauf Hkof* (Chief of *Blauf*) was the most important person in charge of the *blauf* and community religious activities; there was yet no *Hif Hkof* (village chief). When the *blauf* disappeared, an offspring of the *Blauf Hkof* usually became *Hif Hkof*; it is an inherited position.
- ¹⁶ *Hpatij Iv Laix* means Uncle *Iv Laix*.
- ¹⁷ Testimony of woman storyteller.
- ¹⁸ Royal Speech given to the Organizing Committee of *Raphee Day*, 27 June 1973 at Chitrada Rahothan Palace.. *Raphee Day* commemorates the day Prince *Raphee Phatthanasak* (recognized as the Father of Thailand Modern Legal System) passed away on August 7, 1920. This commemoration is supposed to be organized on 7 August of every year.
- ¹⁹ <http://www.fao.org/3/ai390e02.htm>.

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