



Stock Taking Report on FPIC, Biodiversity, and SESA under REDD+ Himalaya

Developing and Using Experience in Implementing REDD+ in the Himalaya, Myanmar

# Stock Taking Report on FPIC, Biodiversity, and SESA under REDD+ Himalaya

Developing and Using Experience in Implementing REDD+ in the Himalaya, Myanmar

Editors

Thein Saung, Mu Mu Aung, Aung Zaw Moe, Win Win Nwe, Tin Tin Mu, Thaung Naing Oo

This report reviews the current status of the REDD+ readiness process of Myanmar and policies, legislation, programmes, and plans linking to REDD+. Free Prior Informed Consent (FPIC), Biodiversity, and Strategic Environmental and Social Assessment linking to REDD+ were also reviewed and all necessary information compiled which would contribute to the development of REDD+ Readiness of Myanmar.

#### Copyright © 2018

Forest Research Institute, Forest Department, Ministry of Natural Resources and Environmental Conservation, Myanmar

**Published by** Forest Research Institute, Myanmar

#### **Production team**

Bill Wolfe (Consultant editor) Rachana Chettri (Editor) Dharma R Maharjan (Graphic designer)

Photos: Alex Treadway

#### Printed and bound in Nepal by

Jagadamba Press (P) Ltd., Kathmandu, Nepal

#### Reproduction

This publication may be produced in whole or in part and in any form for educational or non-profit purposes without special permission from the copyright holder, provided acknowledgement of the source is made.

This publication is available in electronic form at www.icimod.org/himaldoc

**Citation:** Saung, T., Aung, M. M., Moe, A.Z., Nwe, W.W., Mu. T. T., Oo, T.N. (eds) (2018). *Stock taking report on FPIC, biodiversity, and SESA under REDD+ Himalaya.* Forest Research Institute, Ministry of Natural Resources and Environmental Conservation. Myanmar.

## Contents

Acknowledg	gements	iv
Introductio	on	1
Free Prior	Informed Consent (FPIC)	1
What do	es FPIC mean to forest peoples?	1
Why is f	PIC important for companies and the appernment?	2
Recogniz	zing FPIC as an important safeguard in Myanmar	2
Supporti	ng policies and legislation for FPIC	3
Knowled	ge materials related to FPIC in Myanmar	4
Biodiversi	ty in Myanmar	5
Biodiver	sity richness	5
Nationa	Biodiversity Strategy and Action Plan	6
Strategie	es and national targets	6
Constrai	nts and threats	8
Habitat I	Habitat Restoration Plan for the Protected Areas	
Ongoing	biodiversity conservation projects	10
Strategic I	Environmental and Social Assessment	13
Conclusio	ı	15
Reference	S	16
List of Tab	les	
Table 1:	Myanmar's national targets and priority regarding FPIC, according to NBSAP	3
Table 2:	Biodiversity richness in Myanmar.	5
Table 3:	Number of endemic species of flora and fauna of Myanmar	6
Table 4:	Strategic Goals of the Strategic Plan for Biodiversity 2011-2020	6
Table 5:	National targets and priority actions for Aichi Target 15	7
Table 6:	Myanmar's commitment to some biodiversity conservation-related Agreements/ C	Conventions/
	Protocols	7
Table 7:	Major threats faced by the PAs in Myanmar.	8
Table 8:	The recommended Strategic Directions and Investment Priorities	-
<b>-</b>	in Myanmar	9
lable 9:	Ongoing projects collaborating with international organizations	11

## Acknowledgements

I take this opportunity to express my deepest gratitude to Dr Nyi Nyi Kyaw, Director General of the Forest Department, Ministry of Natural Resources and Environmental Conservation, Myanmar, for his guidance, encouragement, and useful critique of this report.

Thanks are also extended to all those who contributed to the publication of the report. I would like to thank to ICIMOD and GIZ for their financial and technical support.

Thaung Naing Oo, Ph.D. Project Manager Director – Forest Research Institute, Myanmar

## Introduction

Myanmar became a signatory to the United Nations Framework Convention on Climate Change (UNFCCC) on 11 June 1992 and ratified the convention on 25 November 1994. Similarly, Myanmar signed the Kyoto Protocol in 2003 as a non-Annex I Party. Since then, Myanmar has become fully aware of the cause and potential impacts of climate change. Myanmar considers climate change to be a major challenge to its socioeconomic development and is therefore working toward mitigating global climate change while adapting to its effects (Ministry of Environment Conservation and Forestry, 2015). Therefore, to address climate change, Myanmar is actively engaged in designing and implementing the required policies, governance, financial, and programming instruments. In September 2015, Myanmar submitted the Intended Nationally Determined Contributions (INDC) to the UNFCCC. Myanmar also signed the Paris Climate Change Agreement on 22 April 2016. This shows Myanmar's commitment to climate change mitigation by pursuing the correct balance between socioeconomic development and environmental sustainability. Myanmar has identified mitigation actions and policies in the primary areas of forestry and energy, complemented by supporting policies in other sectors (Ministry of Environment Conservation and Forestry, 2015). These actions will not only deliver a reduction in GHGs but will significantly develop co-benefits. For instance, actions in the forestry sector will not only lock GHG sinks but will also prevent soil erosion and reduce the risk of floods and landslides (Ministry of Environment Conservation and Forestry, 2015).

While undertaking political reform and striving for economic development, Myanmar is determined to reduce its GHG emissions. The government of Myanmar has recognised the potential of the REDD+ initiative to contribute to green development by protecting global environmental resources (forest carbon stocks, but also biodiversity), helping to reverse land degradation, helping to improve the livelihoods of the rural poor, and aiding adaptation to climate change (REDD+ Myanmar, n.d.).

Although a least developing country, Myanmar is rapidly opening up to foreign investments in the energy, mining, and agricultural sector. Unless astutely managed, economic growth may have negative impacts on the environment and the natural resource base. In addition, climate change threatens to reverse socioeconomic advances. Recognizing these interrelated challenges, the Government increasingly views the forestry sector as a key component and driver of sustainable and climate-resilient economic growth and rural development. Myanmar has significant potential to reduce its forest carbon emissions and enhance and sustainably manage its forest carbon stocks by implementing REDD+ activities.

The Forest Department (FD) of the Ministry of Natural Resources and Environmental Conservation (MONREC) and the International Centre for Integrated Mountain Development (ICIMOD) signed a Letter of Agreement (LoA) on 29 March 2016 for the project entitled "REDD+ Himalayas: Developing and using experience in implementing REDD+ in the Himalaya Myanmar project". The overall objective of the project is to ensure that forest policy and institutional frameworks for socially and environmentally sound REDD+ readiness are improved in at least three of the four participating Himalayan states. The main idea is to support the preparation of REDD+ Readiness of Myanmar.

The stock taking exercise is one of the components of the project with the goal of collecting all available information about the current status of the REDD+ readiness process, particularly Free Prior Informed Consent (FPIC), Social and Environmental Safeguard Assessment (SESA), and Biodiversity. This report has been prepared as one of the outcomes of the project.

## Free Prior Informed Consent (FPIC)

"Free prior and informed consent" (FPIC) is the principle that a community has the right to give or withhold its consent to proposed projects that may affect the lands they customarily own, occupy, or otherwise use (Forest Peoples Programme, n.d.). Advanced from FPP, FPIC is a key principle in international law and jurisprudence related to indigenous peoples.

## What does FPIC mean to forest peoples?

FPIC implies informed, non-coercive negotiations between investors, organizations, or governments and

indigenous peoples prior to the development and establishment of oil palm estates, timber plantations, or different organizations on their customary lands. This principle means that the indigenous people desiring to use the customary lands ought to enter into negotiations with them. The ultimate right is with the communities to determine whether they will agree to the project or not once they have a full and accurate grasp of the implications of the project on them and their customary land. As usually interpreted, the right to FPIC is supposed to permit indigenous people to reach consensus and make decisions according to their customary systems of decision making.

## Why is FPIC important for companies and governments?

The right of FPIC is important to confirm a symmetrical tier between communities and the government or corporations and, where it leads to negotiated agreements, provides corporations with greater security and fewer risky investments. FPIC endorses Corporate Social Responsibility (CSR) policies of personal corporations operating in sectors like dam building, extractive industries, forestry, plantations, conservation, bio-prospecting, and environmental impact assessment (Forest Peoples Programme, n.d.).

The United Nations Declaration on the Rights of Indigenous Peoples requires that the Free, Prior, and Informed Consent of Indigenous Peoples be obtained in matters of fundamental importance for their rights, survival, dignity, and well-being. As written in Article 19, "States shall consult and cooperate in good faith with the Indigenous Peoples concerned through their own representative institutions in order to obtain their free, prior and informed consent before adopting and implementing legislative or administrative measures that may affect them" (United Nations, General Assembly, 2007, p.7).

The objective of consultations is to obtain Free, Prior, and Informed Consent. Every day we hear about cases where corporations say they consulted Indigenous Peoples by holding a single meeting (sometimes not in their own language) and informing them of what is being planned. But a PowerPoint presentation with a Q&A is not the same as obtaining FPIC.

#### Recognizing FPIC as an important safeguard in Myanmar

Free, Prior, and Informed Consent (FPIC) is the principle that a community has the right to give or withhold its consent to proposed projects that may affect the lands they customarily own, occupy, or otherwise use. It is a key principle in international law and jurisprudence related to indigenous peoples; however, in Myanmar, as with other UN-REDD countries, FPIC would be applied broadly to all affected local communities (Peterson, 2013).

The right to FPIC encompasses not only the right to be fully informed and consulted before activities are implemented, but also to withhold consent from these activities altogether. This does not imply that forest-dependent people hold a veto over all aspects of a national REDD+ programme. As suggested by the UN-REDD Draft Guidelines on FPIC, topics which will trigger local-level FPIC will include without being restricted to:

- Activities or decisions involving relocation or eviction;
- Activities or decisions involving occupation or damage of forest land;
- Decisions on location and design of pilot REDD+ activities;
- Decisions on access to forest lands and enforcement of such regulations.

This list comprises activities for which withholding of consent must be considered binding on all stakeholders. While there is commitment in Myanmar to the application of FPIC, the implementation of this in practice remains limited. In Myanmar's National Biodiversity Strategy and Action Plan (NBSAP), regarding FPIC, national targets and priorities are set and described in the following table (Table 1).

A key point raised during the Roadmap development process has been that of timing and the exact sequence of FPIC within the REDD+ project cycle. Concerns were raised that should FPIC be conducted too early in the process, communities would lack sufficient capacity to make informed decisions and, similarly, REDD+ project proponents would not have the complete information to be provided to communities (UN-REDD, Myanmar, 2013). The Stakeholder Consultation and Safeguards Technical Working Group (TWG) has determined that the most appropriate point in the project cycle to undertake FPIC is after project proponents have completed an initial

Target 18.2	By 2020, FPIC principles are institutionalized in government, the private sector, and donor programmes	
Action 18.2.1	Prepare guidelines on FPIC for government use, including guidelines on consultation process	MONREC
Action 18.2.2	Ministries overseeing sectors, particularly extractive industries, with significant potential impact on indigenous peoples and local communities affirm FPIC principles	MONREC
Action 18.2.3	Produce and disseminate guidelines for FPIC and grievance mechanisms to government and private sector	MONREC
Action 18.2.4	Train relevant government staff on FPIC principles and consultation methods to increase awareness and capacity	MONREC

#### Table 1: Myanmar's national targets and priority regarding FPIC, according to NBSAP

feasibility study and it is determined that local communities have sufficient capacity and awareness of REDD+. Capacity building is to be triggered in the event that the communities do not.

Although there is as yet no internationally agreed upon process that would ensure that the principles of FPIC are upheld, a number of detailed guidelines for conducting FPIC exist. These include guidelines developed by UN-REDD, RECOFTC, AIPP, and OXFAM.

Along with the REDD+ initiative, the free prior informed consent (FPIC) process was started for the active participation of the local communities. The project entitled "Capacity Building for Developing REDD+ Activities in the Context of Sustainable Forest Management", jointly implemented by the Forest Department and the International Tropical Timber Organization (ITTO), and published a manual of FPIC Guidelines in Burmese. Under this project, capacity building for local communities related to Safeguards and FPIC was included. Some Training of Trainers (ToT) were organized for field staff and officials of the Forest Department and local communities in the project area in order to improve their capacity in relation to FPIC.

The project also developed a book entitled "Criteria and Indicators (C&I) for Social and Environmental Safeguards for REDD+". Seven basic Principles and C&I have been developed through a series of stakeholder consultation meetings and workshops. It covers the many aspects of FPIC and will be very helpful for the development of FPIC and social and environmental safeguards for REDD+ Projects of Myanmar.

## Supporting Policies and Legislation for FPIC

For several decades, the Myanmar Forest Act (1902) acknowledged the rights and privileges of local people whenever forest reservation was made. The Myanmar Forest Policy (1995) stated six policy imperatives (Myanmar Forest Policy , 1995), of which Imperatives 5 and 6, which are directly related to FPIC, state as follows:

**People's participation:** Enlisting people's participation in forestry, wildlife, and National Park activities so that the community becomes actively involved in appropriate ways in national and local efforts towards forest conservation and development, and in raising trees for meeting their needs and increasing non-farm incomes through adoption of community forestry/agroforestry practices.

**Public Awareness:** Educating the community generally and more particularly the politicians, decision makers and other molders of public opinion about the vital role of trees and woody vegetation, wildlife, and National Parks in national socioeconomic development and the importance of forests in conservation of the biological capital of soil and water which constitute the life supporting system on this planet earth.

There are many constraints which have a direct bearing on the above-mentioned imperatives and the development of the forestry sector and its contribution to national development. According to the Myanmar Forest Policy (1995), major constraints are inadequate information and planning, adhocism in land use and low productivity, shifting cultivation, inefficient wood processing and utilization of the resource, inappropriate pricing policy, inconsistent policies and policy conflicts, inadequate budgetary resources and inadequate institutional framework (p. a).

The Land Use Policy issued in January 2016 is the first ever such policy in Myanmar. It was developed through a series of regional and national consultations with the participation of multi-stakeholders. The policy also provided guidance related to land and land issues and the concept of FPIC. For example:

#### Part 4 of the Policy: Grants and Leases of Land at the Disposal of Government

- This part highlighted to provide prior notice, receive stakeholders' feedbacks, and conduct ESIA
- Described that one or more pilots need to be tested to enable implementation of social and environmental safeguards.

#### Part 8 of the Policy: Land Use Rights of the Ethnic Nationalities

- This part mentioned that customary land use tenure system shall be recognized and supports shall be made available to improve the tenure system.
- For ethnic nationalities who lost their land resources due to civil war, land grabbing, and disasters, adequate land use rights and housing rights shall be systematically provided.

#### Part 9 of the Policy: Equal Rights of Men and Women

• This part stated that the new land law shall provide that men and women have equal rights related to land tenure and management.

From the perspective of legislation, Myanmar Forest Law (1992) also states in section 6 (b) as follows:

"The Minister shall in respect of constituting a reserved forest appoint a forest Settlement Officer to inquire into and determine in the manner prescribed the affected rights of the public on the relevant land and to carry out demarcation of the reserved forest." (p. 625)

In line with this legal stipulation, the Settlement Officer must issue prior notice on the establishment of Reserved Forest (RF) and Protected Public Forest (PPF) so that local communities and indigenous peoples can assert their rights and privileges if affected. They can put forward their claims to the Settlement Officer through the respective Township Forest Office. The Local Supply Working Circles in Forest Management Plans at the Forest Management Unit level were also formed with the aim of providing the basic needs of forest products to local communities and indigenous peoples.

Community Forestry Instruction CFI (1995) and revised CFI (2016) opened a new front for local communities to fully participate in planning and implementing forest activities. According to the CFI, local communities are permitted to establish community forests for 30 years and with an extension on performance basis. They must develop a management plan on their own, with the technical support of the Forest Department, and manage the forest themselves until harvesting their products and benefit sharing. Now, Community Forests (CF) are merging throughout the country. About 397,897 acres of community forests have already been established and about 76,917 user members (2857 Forest User Group-FUG) were involved by August 2017. According to the 30-year Forestry Master Plan (2001-2030), 2.3 million acres of forest land is targeted to hand over to local communities under CFI by 2030. This essence of grass-root level involvement with a bottom-up approach, starting from drawing up plans for inception and management, through implementation of the activities, follows the mechanism of REDD+ requirement.

## Knowledge materials related to FPIC in Myanmar

As FPIC has yet to be applied in Myanmar, capacity in and familiarity with FPIC are scarce. Although the AIPP FPIC Guidelines have been translated by the SPECTRUM and some training conducted, Myanmar still needs a lot of effort in promoting FPIC.

The Forest Department and International Tropical Timber Organization (ITTO) jointly implemented a project entitled "Capacity building for developing REDD+ activities in the context of sustainable forest management" from November 2012 to July 2016. Under this project, Training for Trainers (ToT) for officials and staff of the Forest Department, as well as local communities, was also organized in the project areas using FPIC guidelines.

This will constitute the basis for the development of National REDD+ FPIC Guidelines, which will provide the triggers, roles, and responsibilities for FPIC. According to Myanmar REDD+ Roadmap (2013), the "Stakeholder Consultation and Safeguards TWG will be responsible for commissioning a study into traditional decision making

systems and the negotiation and communication mechanisms around them, to inform the development of these National FPIC Guidelines. The review and validation of the National FPIC Guidelines will be done through a National Consultation Process" (pp. 48-49).

However, awareness about FPIC and its application is still very limited in Myanmar. Many development projects, including REDD+, should be scaling up the FPIC practices and application in many areas of development projects.

The following literature would be helpful for the development of FPIC-related knowledge materials:

No.	Торіс	Organization
1	Gender Equality in REDD+	RECOFTC
2	Basic concept of REDD+	UNDP
3	Community-based REDD+	Spectrum
4	Free, Prior, and Informed Consent for REDD+	Forest Department and ITTO
5	FPIC for REDD+	RECOFTC, GIZ, Norad
6	FPIC in REDD+ implemented in Ethnic Peoples' Area: Trainer's Manual	AIPP, Spectrum, IWGIA
7	Manual for capacity development for negotiation	AIPP, IWGIA
8	Budget transparency for public prosperity	Spectrum
9	Farmer extension note on land tenure security	Myanmar Food Security Working Group

## **Biodiversity in Myanmar**

Conservation of biological resources, primarily wildlife, wild plants, and pristine forests, has traditionally been prioritized at the national level. Wildlife conservation in Myanmar dates back to 1860, when King Mindon set up a wildlife sanctuary of nearly 7100 ha. The Elephant Preservation Act (1879), the Wild Bird and Animals Protection Act (1912), and the Wildlife Protection Act (1936) were the earliest legal tools for biodiversity safeguards in Myanmar. The Wildlife Production Act (1936) was repealed by the Protection of Wildlife and Protected Areas Law on 8 June 1994.

The Myanmar Forest Policy (1995) stipulates the formation of a network of naturally protected areas making up 5% of the country's landmass and intended to grow up to 10% in the long run. As of August 2017, 40 Protected Areas have been designated and accounted for 5.79 % (3,918,034 ha) of the country's total area. Furthermore, there

are nine proposed Protected Areas, which constitute about 1.36% of country's total area. The richness of biodiversity in Myanmar is estimated at over 20,000 species. This magnitude of biodiversity assets will support biodiversity safeguards in the REDD+ mechanism.

## **Biodiversity richness**

Myanmar is one of the 25 biodiversity hotspots of the world (Myers et al. 2000), and about 43% of the country's total land is forested (Aung, n.d.) The Himalayan Mountains in the north, coral reefs and lowland forests in the south, and extensive river systems contribute to its complex network of ecosystems and high biodiversity. The varied forest types of Myanmar are home to several mammals, reptiles, avifauna, amphibians, fish, and plant species (Table 2). Myanmar, therefore, represents an important biodiversity reservoir in Asia. Furthermore, Myanmar possesses numerous endemic wild flora and fauna (Table 2).

#### Table 2: Biodiversity richness in Myanmar

Taxonomic group	Species	Number
Species of vascular plants of Gymnosperms and angiosperms		11,824
Mammals		252
Bird species		1,096
Reptiles	Snakes	153
	Lizards	87
	Turtles and tortoises	32
Amphibians	Frogs and toads	79
	Caecilians	2
	Salamander	1
Fresh water fish		310
Marine water fish		465
Corals		287
Medicinal plants		841
Bamboos		96
Rattans		37

As so far recorded, the number of endemic species of flora and fauna of Myanmar are described in Table 3.

### National Biodiversity Strategy and Action Plan (NBSAP)

The National Forest Master Plan for 30 years (2001-02 to 2030-31) emphasizes, in **Chapter 9**, the current status, objectives, and programs on biodiversity conservation in Myanmar.

In cooperation with UNEP/GEF, the Forest Department has formulated a National Biodiversity Strategy and Action Plan (NBSAP). The NBSAP has been adopted by the Government Meeting

#### Table 3: Number of endemic species of flora and fauna of Myanmar

Taxonomic group	No. endemic species
Mammals	1
Birds	6
Reptiles	21
Amphibians	3
Plants	8

No. 16/2012 on 3 May 2012. It was revised and published in October 2015 with the technical support of the International Union for Conservation of Nature (IUCN).

The primary goal of the Myanmar NBSAP is to provide a strategic planning framework for the effective and efficient conservation and management of biodiversity. The specific objectives of NBSAP (National Biodiversity Strategy and Action Plan, 2011) are i) to set the priority for conservation investment in biodiversity management, and ii) to develop the range of options for addressing the issue of biodiversity conservation. The development of NBSAP will facilitate the framework for the sustainable use of biological resources and Myanmar's obligations under the Convention on Biological Diversity.

The NBSAP is composed of five major chapters, which start with a general description of Myanmar's biodiversity and then extend to a strategy for the sustainability of biodiversity conservation.

**Chapter 1 provides** a general introduction to Myanmar, as well as the objectives and methodology of the NBSAP. **Chapter 2 presents** a detailed description of the diversity in ecosystems, habitats, and species in Myanmar, including whether a species' status is endemic, threatened, or invasive. **Chapter 3 discusses** the background of national policies, institutions, and legal frameworks applicable to biodiversity conservation in Myanmar. **Chapter 4** analyses and highlights conservation priorities and major threats to the conservation of biodiversity, as well as the important matter of sustainable and equitable use of biological resources in Myanmar. **Chapter 5 presents** the comprehensive national strategy and action plans for implementing biodiversity conservation in Myanmar within a five-year framework. These plans include: strengthening and expanding priority sites for conservation; supporting more active participation of NGOs and other institutions in society toward biodiversity conservation; implementing actions that promote biosafety and invasive species issues; strengthening the legislative process for environmental conservation; and enhancing awareness of biodiversity conservation. This chapter also mentions the sustainable management of natural resources and development of ecotourism.

## Strategies and National Targets

The Strategic Plan for Biodiversity 2011-2020 adopted by the CBD COP includes 20 targets for 2015 and 2020 (the Aichi Biodiversity Targets), organized under five strategic goals. Each of these strategic goals includes a number of global targets, such as halving or halting the loss of natural habitats or protecting 10% of terrestrial land area in a country. Five strategic goals and associated number of targets are described in Table 4.

#### Table 4: Strategic Goals of the Strategic Plan for Biodiversity (2011-2020)

Strategic Goals	Number of Targets
<b>Goal A:</b> Address the underlying biodiversity loss by mainstreaming biodiversity across government and society	Targets 1 to 4
Goal B: Reduce the direct pressures on biodiversity and promote sustainable use	Targets 5 to 10
Goal C: Improve the status of biodiversity by safeguarding ecosystems, species, and genetic diversity	Targets 11 to 13
Goal D: Enhance the benefits to all from biodiversity and ecosystem services	Targets 14 to 16
<b>Goal E:</b> Enhance implementation through participatory planning, knowledge management, and capacity building	Targets 17 to 20

The NBSAP provides a comprehensive framework for planning biodiversity conservation, management, and utilization in a sustainable manner, as well as ensuring the long-term survival of Myanmar's rich biodiversity.

NBSAP set up the targets and priority actions to achieve Aichi Targets. Among these targets, Aichi Target 15 is directly related to REDD+ and it will contribute substantially. National targets and priority actions for Aichi Target 15 are described in Table 5.

No.	Target and Action	Description	Lead Institution
1.	Target 15.1	By 2020, over 130,000 hectares of forest under community forestry (CF) are implemented.	Forest Department
2.	Action 15.1.1	Amend the Forest Law to strengthen the legal framework of CF and increase incentives for community management.	
3.	Action 15.1.2	Launch a major new initiative to significantly upscale community forestry, building on the lessons and experiences to date.	Forest Department
4.	Target 15.2	By 2018, the guideline for the national forest restoration programme that incorporates the best international practices will be formally adopted by the government and a pilot project initiated.	Forest Department
5.	Action 15.2.1	Draft and adopt a national forest restoration strategy.	Forest Department
6.	Action 15.2.2	Implement pilot forest restoration project	
7.	Action 15.2.3	Explore opportunities for sustainable funding of restoration through REDD+ and establishment of other payments for ecological services schemes	Forest Department
8.	Action 15.2.4	Prepare guidelines for national forest restoration programme, taking into consideration economic and ecological aspects (including the value of ecosystem services).	Forest Department
9.	Target 15.3	By 2020, the REDD+ Readiness Road Map is actively being implemented.	Forest Department
10.	Action 15.3.1	Continue to implement the REDD+ Readiness Road Map, especially development of safeguards and pilot project.	Forest Department and REDD+ Task Force

#### Table 5: National targets and priority actions for Aichi Target 15

Myanmar has signed 32 international agreements and some regional agreements concerning environmental conservation. Of those, seven international agreements and some regional agreements are related to biodiversity conservation (Table 6).

#### Table 6: Myanmar's commitment to some biodiversity conservation-related Agreements/ Conventions/ Protocols

Agreements/Conventions/Protocols	Status
Plant Protection Agreement for Southeast Asia and the Pacific Region	1959(R)
United Nations Framework Convention on Climate Change (UNFCCC)	1994 (R)
Convention on Biological Diversity (CBD)	1994 (R)
Convention for the Protection of World Culture and Heritage	1994 (R)
Convention on Wetlands (Ramsar Convention)	1995 (S)
International Tropical Timber Agreement (ITTA)	1996 (R)
Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)	1997 (R)
United Nations Convention to Combat Desertification (UNCCD)	1997 (R)
ASEAN Agreement on the Conservation of Nature and Natural Resources	1997 (S)
Cartegena Protocol on Biosafety	2001 (S)
ASEAN Agreement on Transboundary Haze and Pollution	2003 (R)
Declaration on ASEAN Heritage Parks (AHP)	2003 (S)
Convention on Wetlands of International Importance, Especially as Waterfowl Habitat, 1971	2004 (A)
International Treaty on Plant Genetic Resources for Food and Agriculture	2004 (R)
Global Tiger Forum	2004 (R)
ASEAN Centre for Biodiversity (ACB)	2009 (R)
	Agreements/Conventions/Protocols         Plant Protection Agreement for Southeast Asia and the Pacific Region         United Nations Framework Convention on Climate Change (UNFCCC)         Convention on Biological Diversity (CBD)         Convention for the Protection of World Culture and Heritage         Convention on Wetlands (Ramsar Convention)         International Tropical Timber Agreement (ITTA)         Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)         United Nations Convention to Combat Desertification (UNCCD)         ASEAN Agreement on the Conservation of Nature and Natural Resources         Cartegena Protocol on Biosafety         ASEAN Agreement on Transboundary Haze and Pollution         Declaration on Wetlands of International Importance, Especially as Waterfowl Habitat, 1971         International Treaty on Plant Genetic Resources for Food and Agriculture         Global Tiger Forum         ASEAN Centre for Biodiversity (ACB)

A: Accession/Acceptance; R: Ratification; S: Signature

## Constraints and threats

Though Myanmar has been doing its best to conserve the biodiversity richness, a loss of biodiversity and related habits have been reported from the protected areas that were established to conserve biodiversity and reduce forest depletion (Songer et al., 2009; Htun et al., 2010). Many constraints need to immediately address achieving meaningful biodiversity conservation in Myanmar. The major constraints are:

- lack of basic physical infrastructure;
- inadequate financial resources;
- insufficient on-site personnel;
- poor technical knowledge of staff;
- lack of site-based management plans;
- weak enforcement over the control of illegal trade of wildlife and their parts;
- lack of proper environmental impact assessment for development projects;
- lack of people participation in biodiversity conservation activities; and
- lack of a clearly defined land use policy.

In addition, PAs in Myanmar are faced with several threats that range from small-scale (Subsistence level) to largescale (Commercial level). The major threats which cause the degradation of the diverse flora and fauna of the country are mentioned in Table 7.

No.	Small-scale threats	No.	Large-scale threats
1	Hunting and wildlife trade for subsistence	1	Permanent human settlements and land reclamation
2	Fuel wood collection	2	Plantations
3	Extraction of non-wood forest products	3	Timber extraction
4	Grazing	4	Geological exploration by large companies
5	Fishing	5	Construction of dams and reservoirs
6	Shifting cultivation	6	Expansion of roads
7	Mining (gold panning)	7	Weakness of law enforcement
		8	Lack of awareness and conservation ethic
		9	Disposal of toxic chemicals into water bodies such as rivers, lakes, and seas

#### Table 7: Major threats faced by the PAs in Myanmar

Furthermore, the impacts of climate change on wild flora and fauna, the introduction of alien invasive species that cause harmful impacts on native biodiversity, and threats of genetically modified organisms (GMOs) need special attention in conserving biodiversity for a long term. In order to minimize the above-mentioned threats, close cooperation and collaboration from the outside agencies are needed.

To safeguard this national biodiversity asset, the Environment and Wildlife Division was formed under the Forest Department. To enhance the capacity and knowledge of the wildlife staff, in-house trainings, oversea trainings, on-the-job trainings (together with international experts in the field), and regional and international workshops and seminars have been arranged. Various plans and projects – including research programs, in-situ and ex-situ conservation programs, public awareness programs, law enforcement programs, and habitat restoration programs – are conducted not only with its own resources but also with regional and international collaboration.

The sustainable management and conservation of Myanmar's forests have been accorded a high priority by the Government. Efforts are being advanced to ensure that the flora and fauna are conserved for future generations.

Myanmar ratified the Convention on Biological Diversity in 1994, the United Nations Framework Convention on Climate Change in 1994, and the Kyoto Protocol in 2003. Myanmar has tried to participate in the programs of several other international and regional conventions and organizations concerning biodiversity conservation and sustainable natural resource uses, such as the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), the World Heritage Convention (WHC), the Ramsar Convention, the Man and the Biosphere (MAB) Programme, ASEAN Wildlife Enforcement Network (ASEAN-WEN), and ASEAN Centre for Biodiversity (ACB). At the moment, the major international conservation partners are the Wildlife Conservation Society (WCS) from the United States, the Makino Botanical Garden (MBK) from Japan, Flora and Fauna International (FFI) from Britain, Istituto Oikos from Italy, the Korea National Arboretum (KNA), the National Museum of Natural Sciences (NMNS) from Japan, the Norway Environmental Agency (NEA), the National Institute of Biological Resources (NIBR) from Korea, and the New York Botanical Garden (NYBG). The major fields of collaboration are biodiversity survey, livelihood support, capacity building, and strengthening biodiversity conservation and protected area management.

#### Habitat Restoration Plan for the Protected Areas

In collaboration with the international organizations, a habitat restoration plan for every protected area is being developed in order to conserve biodiversity systematically and sustainably. So far, "General Management Plan (2014-2018) for Lampi Marine National Park" has been developed in July 2014 with the support of Oikos. The Lampi Marine National Park is one of the 40 Protected Areas of Myanmar and the only marine national park. It is located in the Myeik Archipelago which comprises over 800 islands distributed along 600 km of coastline in the Andaman Sea. It conserves a variety of habitats, such as evergreen forest, mangrove, beach and dune forest, coral reefs, seagrass bed, and a rich diversity of marine fauna. The General Management Plan of Lampi Marine National Park is the first Management Plan arranged to provide clear guidance for the implementing staff and management partners.

Recognizing the importance of a long-term management plan, the Forest Department has been developing a "Habitat Restoration Plan" for all Protected Areas across the country. It is a big task and substantial supports from international organizations are needed to develop the most applicable Habitat Restoration Plan, not only for biodiversity conservation but also for environmental conservation, climate change mitigation, and adaptation.

Furthermore, the "Myanmar Biodiversity Conservation Investment Vision" was also published in 2013 by the Wildlife Conservation Society (WCS) in collaboration with the Forest Department. This book identified all species of concern to conservationists found in the country, as currently assessed by the Red List of IUCN. It includes over 100 species classified as Globally Endangered and Critically Endangered. In many cases, the remaining habitats in Myanmar are globally important for the survival of these species because large tracts of habitat still remain. This book also discusses Strategic Directions and Investment Priorities, which will contribute substantially to REDD+ of Myanmar. The recommended Strategic Directions and Investment Priorities are as described in Table 8.

No.	Strategic Directions	Investment Priorities
1.	Expand conservation	Conduct gap analysis of KBAs and protected areas and expand the national protected area network
	actions in Key Biodiversity Areas	Strengthen law enforcement to deal with the increasing amount of commercial hunting and international wildlife trade being conducted in the country
		Finalize the role of local communities to manage natural resources
		Clarify regulations regarding revenue collection and revenue sharing by and in protected areas
		Develop new models for community or privately managed protected areas and KBAs
2.	Mainstreaming biodiversity conservation into national development planning	Conduct comprehensive land use planning, taking into account the existing protected area network and other KBAs
		Develop a stricter regulatory framework covering major infrastructure programs, including the use of Strategic Environmental Assessments for major development sectors, especially Hydropower, Agriculture, and Mining
		Implement publicly accessible EIA and SEA for all development projects
		Develop a policy to consider payment for ecosystem services as an integral part of development projects
3.	Target conservation action for Priority Species	Conduct more extensive biodiversity surveys to fully understand the importance of poorly known KBAs
		Conduct surveys on poorly known taxonomic groups such as fishes, plants, amphibians, and invertebrates
		Develop ex-situ conservation approaches, especially for critically endangered turtle and tortoise species

#### Table 8: The Recommended Strategic Directions and Investment Priorities in Myanmar

No.	Strategic Directions	Investment Priorities
4.	4. Increase public participation and awareness Expand the role of national media to increase awareness Improve conservation awareness for target groups such as	Expand the role of national media to increase awareness and inform policy decisions
		Improve conservation awareness for target groups such as migrant workers and gold prospectors
5.	Identify no- regret actions for	Undertake vulnerability assessments of climate change on key species, ecosystems, and ecosystem services
	ecosystem-based climate change adaptation and conservation	Undertake assessments of how climate change is likely to affect current threatening processes to biodiversity and ecosystem services
	outcomes	

#### Table 8: The Recommended Strategic Directions and Investment Priorities in Myanmar

Through the collaboration and cooperation between the Forest Department and international organizations, a number of publications related to biodiversity conservation have been published. Among these publications, the most important publications are as follows:

#### Ongoing biodiversity conservation projects

The Forest Department, MONREC has been accelerating its collaboration with many international organizations in order to conserve biological diversity and environmental stability and enhance ecosystem services. In particular, ongoing projects collaborating with international organizations in the form of bilateral and multilateral cooperation are mentioned in Table 9.

The following are Biodiversity Conservation-related knowledge materials in Myanmar:

No.	Name
1.	The Fifth National Report on Biodiversity Conservation of Myanmar (Myanmar and English Languages)
2.	National Biodiversity Strategic Action Plan (2016-2020) (Myanmar and English Languages)
3.	Biodiversity of Natma Taung National Park, Myanmar
4.	Report on Establishment of Emorbon Protected Area and Bird Conservation
5.	Biodiversity of Mt. Popa
6.	Medicinal Plants of Mt. Popa
7.	Bird Survey and Training Report Ayeyarwady Data Myanmar (December 2016)
8.	Biodiversity Conservation in Myanmar: An Overview
9.	Norwegian Environmental Agency's baseline studies, 2013 – pilot subproject bird survey in Norwegian park
10.	Bird Conservation in Myanmar
11.	Marine Conservation in Myanmar (Current Knowledge and Research Recommendations)
12.	Funda & Flora International
13.	Completion Report 2016 (XTBS)
14.	Wild Color of Green Myanmar
15.	A Guide to Orchids of Myanmar
16.	Myanmar Ecology Photo Guide
17.	National Biodiversity Strategy and Action Plan
18.	The Flowering Plants of Mt. Popa, Central Myanmar
19.	Standard Nomenclature of Forest Plants, Myanmar (Including Commercial Timbers)
20.	A Guide to the Economic Plants of Natma Taung (Natma Taung National Park, Myanmar)
21.	A Guide to the Forests of Natma Taung (Natma Taung National Park, Myanmar)
22.	Manual of Myanmar's Fresh Water Turtles and Tortoise

Organizations
nternationc
with
rating
9
0
9
projects
Ongoing
е 

Tabl	e 9: Ongoing p	rojects collaborating with International Organizations			
°Z No	Development Partners	Projects	Project Period	Main objectives/activities	Project area
<i>.</i>	MGTC/TPC/ATL	Taninthayi Nature Reserve Project	From 1/4/2017 to 31/3/2021		Yay Phyu Township
5.	JIFPRO	Chaukkan Community Forest Project	From 12/2016 to 3/2020		Nyaung-Oo Township
ю.	SONEVA Foundation	Myanmar Stove Campaign-Phase 2	From 10/2016 to 12/2017		Mandalay & Ayerwady Division
4		Mangrove Rehabilitation Plan for Enhancement of Disaster Prevention in the Ayeyarwady Delta in Myanmar			
5.		Pilot Activities on Climate Change Adaptation			
ý.	ASFN, Royal Norwegian Embassy RNE, RECOFTC	Strengthening Sustainable and Appropriate Community-Based Forestry Development in Myanmar and the Capacity and Capability of Relevant Stakeholders	From 1/2013 to 12/2018	<ul> <li>To support the development of National Community Forestry Working Group and development of National Community Forestry Program Strategy</li> <li>To support the development of capacity building</li> <li>To support demonstration and scaling up of community forestry</li> </ul>	Myanmar
Ч.		Program on sustainable use of plant resources, with particular emphasis on the medicinal plants of Shan State on botanical inventory and subsequent evaluation			
8.	Marburg University	Cooperation in the Field of Biodiversity and Conservation of High- Altitude Mountain Areas in Myanmar	Marburg University	<ul> <li>To cooperate in the fields of Biodiversity and Conservation of High-Altitude Mountain Areas in Myanmar</li> </ul>	Marburg University
<u>6</u> .		Cooperation in the Field of Wildlife Conservation in Myanmar		• To cooperate in the Field of Wildlife Conservation in Myanmar	
10.		Cooperation in the Field of Biodiversity Conservation and Protected Area Management in Myanmar		<ul> <li>To cooperate in the Field of Biodiversity Conservation and Protected Area Management in Myanmar</li> </ul>	
1.		Cooperation in the Field of Biodiversity Conservation and Management in Lampi Marine National Park		<ul> <li>To cooperate in the Field of Biodiversity Conservation and Management in Lampi Marine National Park</li> </ul>	
12.	Flora and Fauna International (FFI)	Collaborative Program to support the Conservation of Biodiversity in Myanmar	From 6/12/2012 to 5/12/2017		Myanmar
13.		Research Collaboration on Biodiversity and Forest Ecology in Tropics			
14.		Cooperation for Flora of Pan-Himalaya			
15.	Flora and Fauna International (FFI)	Collaboration Program to support the Conservation of Marine and Terrestrial Biodiversity in the Tanintharyi Region	From 4/11/2013 to 3/11/2018		Tanintharyi Region
16.		The Provision of Goods for Addressing Climate Change			
17.	World View International Foundation	Capacity Building, Research, and Development Activity of Mangrove Reforestation and Conservation of Endangered Orchid Species in Myanmar	From 2/5/2014 to 1/5/2017		Ayerwady, Tanintharyi, Rakhine
18.	NIBR	Cooperation Concerning Biological Resources and Information	From 25/8/2017 to 24/8/2020	To conduct biodiversity survey To support capacity building To analyse chemical compounds in medicinal plants	Myanmar

s/activities Project area	Mhawbi Township, Yangon Division		Ayerwady, Tanintharyi, Rakhine	Myanmar	Ayerwady, Mandakay, Mgeway Regions	Hukong Valley, Khakaboraz, Phonekanra, Htamanthi	Mandalay Region, Shan State, Kayar State, Mon State, and Kayin State	Moe Yoon Kyi, Inn Taw Gyi, Chatthin, Shwe Sattaw Wildlife Sanctuary, Natma Taung National Park, and Mount Poppa	Innlay, Sittaung, and Bago Rivers	North Zarmani Nature Reserve Forest, Bago Region	Myanmar	Pintaya Township,
Project Period Main objective	ational Biodiversity ategy and Action an		m 2/5/2014 to 5/2017	om 3/10/2014 to /10/2019	m 6/2/2015 to 2/2019		am 22/10/2015 21/4/2018	am 30/11/2015 29/11/2018	om 2015 to 2018	am 2015 to 2018	om 22/7/2016 to /7/2020	om 3/2016 to
Projects	The establishment of ASEAN-ROK Forest Cooperation Regional N Education and Training Centre (AFoCo RETC) 81 PI	Strengthening Myanmar's National Forest Monitoring System, Land Use Assessment, and Capacity Building	Capacity Building, Research and Development Activity of Mangrove Fi Reforestation, and Conservation of Endangered Orchid Species in 1. Myanmar	Cooperation on the implementation of Small Grant Programmes in Fi ASEAN Heritage Parks of Myanmar	Upscaling Dissemination of Improved Cookstoves in Myanmar Fi through Replication of Best Practices from the Region 5.	Strengthening the Sustainability of Protected Area Management in Myanmar	Collaborative Program to support Main-streaming Karst Biodiversity Fi Conservation into Policies, Plans, and Business Practices in Mandalay to Region, Shan State, Kayar State, Mon State, and Kayin State	Conservation of Biodiversity and Improved Management of Protected Fi Areas	Integrated Water Resources Management-Institutional Building and Fr Training	Capacity Building of Relevant Stakeholders for REDD+ Readiness of Fi Myanmar	Cooperation in the Field of the Conservation of Sun Bear in Myanmar Fi 2	REDD+ in the Himalaya: Developing and Using Experience in
Development Partners	Korea Forest Services (KFS)/ AFoCo		World View International Foundation	ASEAN Centre for Biodiversity (ACB)	GERES/EGG	Global Environment Facility	Flora and Fauna International (FFI)	NEA	NIVA	Korea Forest Services (KFS)	Istituto Oikos	ICIMOD, GIZ
° Z	19.	20	21.	22.	23.	24.	25.	26.	27.	28.	29.	30.

## Strategic Environmental and Social Assessment

Myanmar has relied on natural resources for its economic development for many years, which has led to their depletion. Similarly, the development of infrastructure in recent years has also had a negative impact on natural resources. Moreover, economic reform, together with attractive investment laws, has attracted local and foreign business companies to invest in the industry-based economy in the last five years. In addition, Myanmar has also established special economic zones to encourage foreign investment and accelerate industrialization. These situations can create environmental problems if it is not managed in a proper and systematic manner. These environmental challenges are great barriers to the sustainable economic development of the country.

Thus, State Counsellor of Myanmar, Her Excellency Daw Aung San Suu Kyi stated in her 2015 Election Manifesto that "We would lay down appropriate methods so as to avoid environmental and ecological damage where there was natural resources extraction and usage." Moreover, she continued, "We would enact legislation to assess and evaluate the risks of environmental harm resulting from domestic and international investment" (Myanmar Times, 2015). This is a powerful statement for the conservation of Myanmar's environment and ecosystem.

Accordingly, the National Environmental Conservation Coordination Committee was formed as a national platform to guide national activities to tackle climate change-related problems and to safeguard the environment from the impact of development projects. Under this national platform, six technical working groups were formed to perform relevant activities. Similarly, environmental conservation committees were formed in regions and states to supervise and control environmental and social impacts due to development projects. The Environmental Conservation Department under the Ministry of Natural Resources and Environmental Conservation serves as the secretary of the National Environmental Conservation Coordination Committee. It coordinates and cooperates with relevant ministries and departments, the private sector, and international organizations.

The six working committees formed under the high-level platform cover the following areas: Policy, Law, Rules, Procedures, and Standards; Industry, Urban, and Rural Development; Natural Resources and Cultural Heritage Conservation; Climate Change Mitigation and Adaptation; Environmental Human Resources Development, Education, and Extension; and Green Economy and Green Growth. Moreover, every region and state has its own Environmental Supervision Working Committee.

With regard to environmental conservation, Myanmar adopted the following frameworks, rules, and regulations, which are the backbone of the Strategic Environmental and Social Assessment (SESA):

- Constitution (2008)
- Myanmar Agenda 21 (1997)
- National Sustainable Development Strategy (2009)
- Forest Law (1992) and Rules (1995)
- Protection of Wildlife and Wild Plants and Conservation of Natural Areas Law (1994) and Rules (2002)
- Environmental Conservation Law (2012) and Rules (2014)
- Environmental Quality Guidelines (2015)
- Environmental Impact Assessment (EIA) Procedures (2015)
- Myanmar Investment Commission (MIC) Law and Rules & Notification (2013)
- Foreign Investment Law (2015)
- Myanmar Investment Law (2016)
- Special Economic Zone (SEZ) Law (2014)
- Relevant Sectoral Laws and Rules
- National Adaptation Programmes of Actions (NAPA) (2012)
- National Biodiversity Strategy and Action Plan (NBSAP) (2016)
- Intended Nationally Determined Contributions (INDC) (2015)
- National REDD+ Strategy draft (2017)
- Safeguard Information System draft (2017)

The implementation of projects and programmes can have negative impacts on our environment. These impacts can lead to environment to degradation and depletion. Thus, environmental impact assessment, social impact

assessment, and strategic impact assessment are conducted for proposed projects and programmes to guide decision making on whether they are accepted or rejected. If accepted, the projects must be implemented and monitored in accordance with the stipulated laws, regulations, procedures, standards, and guidelines. Accordingly, the environment can be protected and sustainable economic development will be achieved. Figure 1 shows the mainstreaming of environmental conservation into the development of the country.

## Figure 1: Environmental Mainstreaming into Development



The National Environmental Policy is currently undergoing revision. At the same time, Myanmar has been putting great effort into developing a National Climate Change Policy and Strategy, National Green Economy Policy and Strategic Framework, and National Waste Management Strategic Framework. After developing these policies, action plans for climate change management, green economy and green growth, and waste management will also be developed and adopted. These action plans will be incorporated into sectoral plans of the public sector and private sector. Despite the fact that the policy, legislation, and strategies are already in place, there are many limitations on conducting the strategic assessment on environment and social aspects.

Economic development is giving rise to a series of environmental degradations which are affecting livelihoods and public health and well-being. Despite many limitations, including capable human resources, Initial Environmental Examination (IEE) and Environmental Impact Assessment (EIA) have been in practice for all development programmes, projects, and activities in accordance with the Environmental Conservation Law (2012) and EIA Procedures (2015). Essentially, all development projects and businesses need to be assessed for (but not limited to) the following:

- polluting air, water, and soils
- reducing agricultural productivity
- depleting natural resources
- inadequate wastewater treatment
- climate change risks, including the possibility of natural disaster such as a sea level rise

 Negative impacts on social aspects of local communities, including livelihoods, health, education, culture, traditions, etc.

After the Rio+20 Conference, Myanmar has focused on the following areas linking to Strategic Environmental and Social Assessment:

- Energy Sector: Energy Efficiency and Renewable Energy
- Agriculture: Sustainable Agriculture Production
- Livestock and Breeding: Sustainable Pet Industries
- Water: Ecosystem, Quality, Pollution
- Forest Conservation: Sustainable Forest Management
- Biodiversity: Value of Biodiversity
- Disaster Risk Reduction: Early Warning System
- Sustainable Cities: Green Cities
- Oceans, Seas, and Coastal Areas
- Extractive Industry including Mining
- Chemical and Hazard Waste Management

## Conclusion

Myanmar has been preparing for REDD+ Readiness activities with momentum, which are expected to be accomplished in 2020. More importantly, the forestry sector (including REDD+) of Myanmar has been put in the Nationally Determined Contributions (NDC) of the country. In this context, successful implementation of the REDD+ is of crucial importance for many reasons, including international commitments to climate change mitigation and adaptation, enhancing environmental services, poverty alleviation, and so on. This report highlights the existing policies, legislation, programmes, strategies, and plans related to FPIC, Biodiversity, and SESA under REDD+. In this perspective, the Himalaya REDD+ Project plays a vital role in complementing the gaps in the REDD+ Readiness process by providing technical and financial supports. This report is part of the REDD+ Himalaya Project (Myanmar) and would contribute to the success of REDD+ in Myanmar.

## References

- Aung, M. (n.d.). State of Forests and Forest genetic Resources in Myanmar. Retrieved from fao.org: http://www.fao. org/docrep/005/ac648e/ac648e08.htm
- Forest Peoples Programme. (n.d.). Forest Peoples Programme. Retrieved from forestpeoples.org: https://www. forestpeoples.org/en/guiding-principles/342
- Htun, N. Z., N. Mizoue, T. Kajisa, & Yosida, S. (2010). 'Deforestation and forest degradation as measures of Popa Mountain Park (Myanmar) effectiveness'. *Environmental Conservation*. 36: 218–224.
- Ministry of Environment Conservation and Forestry, The Government of the Republic of the Union of Myanmar. (2015). Myanmar's Intended Nationally Determines Contribution- INDC. The Republic of the Union of Myanmar.
- Ministry of Environmental Conservation and Forestry (2015). National Biodiversity Strategy and Action Plan. Republic of Union of Myanmar.
- Ministry of Forestry (1995). Myanmar Forest Policy. Union of Myanmar.
- Myers, N., Mittermeier, R.A., Mittermeier, C.G., Fonseca, G.A.B. & Kent, J. (2000). Biodiversity hotspots for conservation priorities. *Nature* 403: 853–858.
- National Land Resource Management Central Committee (2016). National Land Use Policy. The Republic of the Union of Myanmar.
- Peterson, K. (2013). Free, Prior and Informed Consent: ILO 169 and UNDRIP. scholar.law.colorado.edu. Retrieved from https://scholar.law.colorado.edu/free-prior-and-informed-consent/5/
- REDD+ Myanmar. (n.d.). REDD+ Myanmar. Retrieved from myanmar-redd.org: http://www.myanmar-redd.org/mm/myanmar-redd-programme
- Songer, M., Aung, M., Senior, B., DeFries, R. & Leimgruber, P. (2009). 'Spatial and temporal deforestation dynamics in protected and unprotected dry forests: a case study from Myanmar (Burma)'. *Biodiversity Conservation*. 18: 1001–1018.
- The State Law and Order Restoration Council (1992). The Forest Law. The Republic of Union of Myanmar
- United Nations, General Assembly. (2007). Resolution adopted by the General Assembly.

UN-REDD Programme (2013). Myanmar REDD+ Readiness Roadmap.

Oikos and Forest Department, (2014). Lampi Marine National Park General Management Plan. Yangon, Myanmar WCS and MONREC (2013). Myanmar Biodiversity Conservation Investment Vision. Yangon, Myanmar.

Development and Using Experience in Implementing REDD+ in the Himalaya, Myanmar



# 



FD-ICIMOD REDD+ Project Forest Research Institute, Forest Department Ministry of Natural Resources and Environmental Conservation Myanmar