Forest Restoration Planning in the Asia-Pacific Region :

Stocktaking Study on Policies, Legal Frameworks and Programmes

Asia-Pacific Network for Sustainable Forest Management and Rehabilitation

China Forestry Publishing House

图书在版编目（CIP）数据

亚太地区森林恢复规划研究 : 政策、法律框架和项目 = Forest Restoration Planning in the Asia-Pacific Region : Stocktaing study on policies,legal frameworks and programmes : 英文 / 亚太森林恢复与可持续管理组织编 . -- 北京 : 中国林业出版社 ,2021.12

ISBN 978-7-5219-1442-9

Ⅰ . ①亚… Ⅱ . ①亚… Ⅲ . ①森林植被—生态恢复—研究—亚太地区—英文 Ⅳ . ① S718.54

中国版本图书馆 CIP 数据核字 (2021) 第 254910 号

Preferred citation: APFNet, 2021. Forest Restoration Planning in the Asia-Pacific Region: Stocktaking Study on Policies, Legal Frameworks and Programmeszm. Beijing:China Forestry Publishing House.

Data of Cataloguing In Publication

Forest Restoration Planning in the Asia-Pacific Region: Stocktaking Study on Policies, Legal Frameworks and Programmes / Asia-Pacific Network for Sustainable Forest Management and Rehabilitation. Beijing: China Forestry Publishing House, 2021.12

ISBN 978-7-5219-1442-9

Ⅰ . ① A… Ⅱ . ① A… Ⅲ . ① Forest Vegetation — Ecological Restoration — Research — Asia-Pacific Region — English Ⅳ . ① S718.54

China CIP(2021)No.254910

Editors-in-charge: LIU Kaiyun ZHANG Jian

First Published in the P. R. China in December 2021 by China Forestry Publishing House（No.7, Liuhaihutong, Xicheng District, Beijing 100009）E-mail: 377406220@qq.com TEL：86-010-83143520

Printed and bound in by Jingping Chenqian Printing Limited Company,Hebei, China

Format：787mm × 1092mm 1/16

Printed sheets：6.5

Wordage：200,000

Price: CNY 80.00

Preface

The Asia-Pacific Network for Sustainable Forest Management and Rehabilitation (APFNet) is dedicated to advancing sustainable forest management and forest rehabilitation in the Asia-Pacific region. With 31 members, including 26 economies and five international organizations, APFNet works to build capacity and share information in policy dialogue forums, knowledge networks and pilot projects. In 2013, APFNet established the Asia-Pacific Forestry Planning Network (FPN), an informal knowledge network that aims to strengthen economy-level forestry planning processes in the Asia-Pacific region.

Based on a report on "Forest Restoration Planning and Practice in the Asia-Pacific Region" in 2019, this publication summarizes selected economy reports to present an in-depth understanding of forest restoration policies, legal frameworks, management structures and existing practices. A set of key messages and recommendations are provided to help guide economies to improve forest restoration efforts and build the regional forest capital in a sustainable way.

This report was developed by Mahendra Joshi, APFNet Senior Consultant, with invaluable guidance and support from Lu De, APFNet Executive Director; Kong Zhe, Programme Manager; and Chen Yijue, Programme Coordinator, of the Communication and Outreach Division, APFNet Secretariat.

APFNet sincerely thanks all experts and focal points of participating member economies for their valuable contributions. Special thanks go to Lim Bunna (Cambodia), He Youjun (China), Peter Thavone (Lao People's Democratic Republic), Oyunsanaa Byambasuren (Mongolia), Thaung Naing Oo (Myanmar), Sagar Kumar Rimal (Nepal) and Ina Karissa D. Tobias (the Philippines) for their reports. Valerie Wayte provided editorial services.

Contents

Acronyms

APFNet	Asia-Pacific Network for Sustainable Forest Management and Rehabilitation
CBFM	Community-based Forest Management
DENR	Department of Environment and Natural Resources (the Philippines)
DFPC	Department of Forest Policy and Coordination (Mongolia)
DOF	Department of Forestry (Myanmar)
FA	Forestry Administration (Cambodia)
FI	Fisheries Administration (Cambodia)
FAO	Food and Agriculture Organization of the United Nations
FECOFUN	Federation of Community Forestry Users (Nepal)
FMB	Forest Management Bureau (the Philippines)
FPN	Forestry Planning Network (APFNet)
FRA	Global Forest Resources Assessment
Lao PDR	Lao People's Democratic Republic
M&E	Monitoring and Evaluation
MAFF	Ministry of Agriculture, Forests and Fisheries (Cambodia)
MoFE	Ministry of Forests and Environment (Nepal)
NDC	Nationally Determined Contribution to the Paris Agreement of the United Nations Framework Convention on Climate Change
NGO	Non-government Organization
REDD+	Reducing Emissions from Deforestation and Forest Degradation in Developing Countries, and the Role of Conservation, Sustainable Management of Forests, and Enhancement of Forest Carbon Stocks in Developing Countries
SFM	Sustainable Forest Management
TNSP	Three North Shelterbelts Programme (China)
UNFCCC	United Nations Framework Convention on Climate Change

Executive summary

Key messages

Lessons learned

Recommendations for economies

Recommendations for APFNet

This study is a stocktake of policies, legal frameworks , plans and programmes for forest restoration in seven member economies of the Asia-Pacific Network for Sustainable Forest Management and Rehabilitation: Cambodia, China, Lao People's Democratic Republic (Lao PDR), Mongolia, Myanmar, Nepal and the Philippines. It reports on the common challenges and different approaches undertaken to combat deforestation in each economy. Examples of successful forest restoration are outlined. Drawing upon these experiences, a set of recommendations are presented to help guide economies to improve forest restoration efforts.

Key messages

In general, all economies have comprehensive policies, strategies, plans and programmes, appropriate laws and regulations for managing forests, the environment, agricultural development, climate change and other sectors. No economy has specific forest restoration policies.

All economies also have relatively sound institutional arrangements to implement policies and programmes as well as enforce laws and rules for forest development, conservation and sustainable management.

Most national forestry agencies are situated under a ministry overseeing forests, agriculture, environment, industry or natural resources. The ministries provide policy and political supervision while forest agencies are responsible for implementation, monitoring and evaluation. There are forest administration units in provincial, municipal and other local governments. All forestry agencies receive funds for forest restoration, mainly from national budgets. Coordination mechanisms for forest management between national and local governments vary between economies. Most economies understand the importance of monitoring and evaluation.

Economies noted that forest restoration is a long-term process, and that the sustainable management of forests should balance ecological, social and economic priorities, providing products and services to benefit livelihoods as well as ecological functions. Partnership among government agencies, private sector, local communities, non-government organizations (NGOs) and other stakeholder organizations is crucial for the success of forest restoration.

Mobilizing public support with clear messages on forests, climate change, biological diversity and people's dependence on forests is vital for successful implementation of forest restoration policies and programmes.

Lessons learned

Political commitment is of paramount importance for the success of forest restoration

Forest restoration is a long-term process that requires a national sustained political commitment. Examples of forest restoration from China and the Philippines demonstrate a strong commitment at the highest level of leadership. This provides momentum and motivation at all levels of society to plant, protect and restore degraded lands.

Coherence among sectoral policies and coordination between government agencies is critical

Many factors outside the forest sector impact the sustainable management of forests and opportunities for successful forest restoration. Coherence of economy-wide policies and effective coordination mechanisms among different sectors and government agencies is essential.

Stakeholder engagement is key

The active engagement of all stakeholders, as well as government agencies, are important for restoration of degraded forests and other fragile ecosystems. A number of economies have seen demonstrable success in forest restoration by adopting community forestry approaches. Appropriate government support through extension services, training and financial resources to community forest user groups will enhance their capacity to undertake forest restoration. Linking forest restoration and management to production, processing and marketing provides financial incentives for communities.

Forest restoration is linked with livelihoods and rural development

When forest restoration policies and programmes are linked to national development priorities such as poverty alleviation, food security, job creation and income generation, they have more public support. China's approach to combine economic development with forest restoration has prioritized forest and grassland restoration projects in poverty relief areas, attracting more people to participate and benefit.

Innovative initiatives lead to new policies, programmes and institutional arrangements

Innovative government initiatives have led to new strategies, policies, programmes and institutional arrangements. For example, China applied a stepwise project management

strategy based on the principle of "easy first and then difficult", "from near to far", "by stages and batches". In Myanmar, successful greening projects led to the creation of the Department of Dry Zone Greening Department within the Ministry of Forestry.

Strengthen land tenure and user rights

Strong land tenure is a precondition for the investment of time, labour and money by communities, private sector and individuals in tree planting and other measures of forest restoration. Innovative finance mechanisms to facilitate access to financial institutions by farmers, communities and businesses for afforestation and forest-based income generating enterprises were created.

Information flow and transparency builds public trust

Establishing a forest resources information platform, robust monitoring, evaluation/ assessment and reporting systems are important not only for the management of programmes and projects but also to inform the public of accomplishments, problems and lessons learned.

Invest in research, development and technology

Research and development are needed to address biophysical challenges (climate, wind, drought, sand/soil) and human pressures on forests to improve forest restoration.

Recommendations for economies

Adopt forest restoration and sustainable forest management as a priority policy and mainstream this policy across sectoral policies, plans and programmes. Policies should incorporate legal measures to restrict forest land conversion to non-forestry purposes or apply stringent criteria for forest land conversion only when absolutely necessary for national interests.

Work toward tenure rights for secure land title and legal enforcement to attract private investment and community forestry in forest restoration activities.

Further support and promote community-based forest management as an approach for forest restoration.

Make available appropriate land for forest restoration and enable long-term investment and access to finance.

Promote forest restoration at the landscape level, often known as forest landscape restoration, including forests, farmlands, sandy areas, water and grassland systems in an integrated manner.

Engage and encourage local governments, private sector, NGOs, farmers, scientific communities, educators, women's groups and other relevant stakeholders in planning, implementing and monitoring forest restoration programmes and activities.

Recommendations for APFNet

Continue **building the capacities of member economies in forest restoration**. Strengthen cooperation between economies and international partners on all aspects of forest restoration policies, strategies, planning, implementation and monitoring and evaluation (M&E).

Contribute to the achievement of regional and global objectives on forest restoration by providing a **platform for multi-economy, multisector and multistakeholder dialogue,** exchanges and mutual learning in forest restoration concepts, laws and regulations, policy implementation, standards and norms, science, technology and innovation.

Provide **scientific and technological support to improve the quality of forest restoration.** This may include transfer of advanced technology and knowledge for enhancement of tree seed germination and seedling quality, selecting suitable methods for afforestation/ reforestation, and M&E.

Commission an **assessment of economies' implementation of policies, legal frameworks and programmes** for forest restoration to understand the efficacy and constraints of these tools, as well as the level of satisfaction among stakeholders. This would help FPN develop more pragmatic cooperation to support forest restoration in each economy. A second study focused on **how relevant agencies undertake planning for forest restoration** in member economies could be combined with the implementation assessment.

Consider a **preliminary study on the impact of the COVID -19 pandemic** on forest restoration, sustainability of restored forests as well as planning of future restoration programmes and projects.

Chapter 1 Introduction

This report is an in-depth stocktake of policies, legal frameworks, key institutions and implementation approaches for forest restoration in Cambodia, China, Lao People's Democratic Republic (Lao PDR), Mongolia, Myanmar, Nepal and the Philippines. Commissioned by the Asia-Pacific Network for Sustainable Forest Management and Rehabilitation (APFNet), the study reports on the common challenges and different approaches undertaken to combat deforestation in each economy. Drawing upon these experiences, a set of recommendations are presented to help guide economies to improve forest restoration efforts. This timely report will guide the work of APFNet's Forestry Planning Network (FPN), an informal platform to strengthen forestry planning processes among forestry professionals and planners.

1.1 Context

Population growth, industrialization, agriculture and many other human factors are contributing to the loss of forests worldwide. The remaining forests are also being degraded in quality, structure and function. According to the Food and Agriculture Organization of the United Nations' 2020 Global Forest Resources Assessment (FRA), an estimated 420 million ha of forest has been lost worldwide through deforestation since 1990 (FAO, 2020). The rate of forest loss is declining substantially in the same period. In the most recent five-year period (2015–2020), the annual rate of deforestation was estimated at 10 million ha per year, down from 12 million ha per year in 2010–2015.

Many economies of the Asia-Pacific region are facing serious deforestation and forest degradation challenges. However, Asia has the highest net gain in forest area since 1990 (FAO, 2020). From 1990 to 2000, it saw an annual increase in forest area, by 202,000 ha per year. The rate of net forest gain went up to 2.35 million ha per year in 2000–2010, then to a slightly lower rate of 1.17 million ha per year from 2010 to 2020. Most of the increase in forest area occurred in China, followed by India and Viet Nam. Oceania recorded the second-largest average annual net gain in forest area from 2010 to 2020, at 423,000 ha, reversing the region's negative trend of previous decades.

Since 2008, APFNet has provided support for sustainable forest management (SFM) and forest restoration in 26 member economies. With the start of the United Nations Decade on Ecosystem Restoration in 2021, APFNet's role is crucial to the sustainable management of forests in the Asia-Pacific region. APFNet initiated FPN in 2013 to facilitate consultations, exchanges, workshops, capacity development and technical support. In 2019, an FPN workshop noted that economies in the region were still facing deforestation, forest degradation, unsustainable exploitation of forest resources and poverty in forest-dependent communities. Over 500 million ha of deforested and heavily degraded land in Asia and Oceania are in urgent need of recovery.

1.2 Objectives of the study

- Provide a clear view of current policies, legal frameworks and sectoral plans relevant to forest restoration in participating economies.
- Provide information on roles and responsibilities of institutions involved in forest restoration and the nature of coordination structures.
- Illustrate existing practices on implementation, monitoring and evaluation of forest restoration-related policies or plans.
- Put forward recommendations on reinforcing forest restoration planning and practice in participating economies and identify niches where APFNet can provide support.

1.3 Methodology, scope and limitations

Following discussions with member economies and APFNet Secretariat, Cambodia, China, Lao PDR, Mongolia, Myanmar, Nepal and the Philippines were selected to participate in the study. Eight economies were initially selected; however, one Pacific Island economy was unable to participate.

A reporting template was distributed to selected economies to provide relevant information on forest restoration in a consistent and comparable format (Annex 3). Due to practical constraints caused by the COVID-19 pandemic, field testing of the template was not conducted.

The template sought information for the following areas:

- Status of forest resources and management challenges.
- Current policies, legal frameworks and sectoral plans relevant to forest restoration.
- Roles and responsibilities of institutions involved in forest restoration and their coordination structures.
- Examples of existing practices of implementation, monitoring and evaluation of forest restoration-related policies, plans or activities.
- Lessons learned in restoration of degraded forest lands.
- Recommendations for improving forest restoration planning and practices; and how APFNet can provide support.

This report is a synthesis of information provided by the economies and also draws on other relevant sources including APFNet's FPN workshop on forest restoration planning and practice in the Asia-Pacific region (APFNet, 2019), APFNet international workshop on forest rehabilitation in the Asia-Pacific region (APFNet, 2017), APFNet training workshop on degraded forest rehabilitation and sustainable forest management in the Asia-Pacific region (Sein, 2014; Vongxay, 2014). Forest statistics are mainly drawn from FRA 2020 (FAO, 2020).

Limitations

While APFNet's 26-member economies are spread across Asia and the Pacific region (Figure 1-1), this synthesis report is based on only seven economies in Asia. Thus, the study may not be considered representative for the whole Asia-Pacific region. Moreover, support for (or adverse effect to) forest restoration efforts can come from many policies, programmes and institutions within and outside of the typical forest sector, for example, agriculture, energy, transportation and climate change.

In addition, the focus of the study is on policy and institutional arrangements to promote forest restoration and not on technical aspects of forest restoration activities. Many economies reported interesting forest restoration techniques and resources including seed sources, nurseries, species and planting stocks, afforestation, reforestation and rehabilitation techniques. However, these technical aspects are not part of the scope of the study which is focused on forest restoration policies, implementation and planning.

Finally, this study is a snapshot of current policies, plans, legislative and institutional arrangements in the selected economies. It is not an assessment of institutions, policies and their implementation. This distinction is crucial.

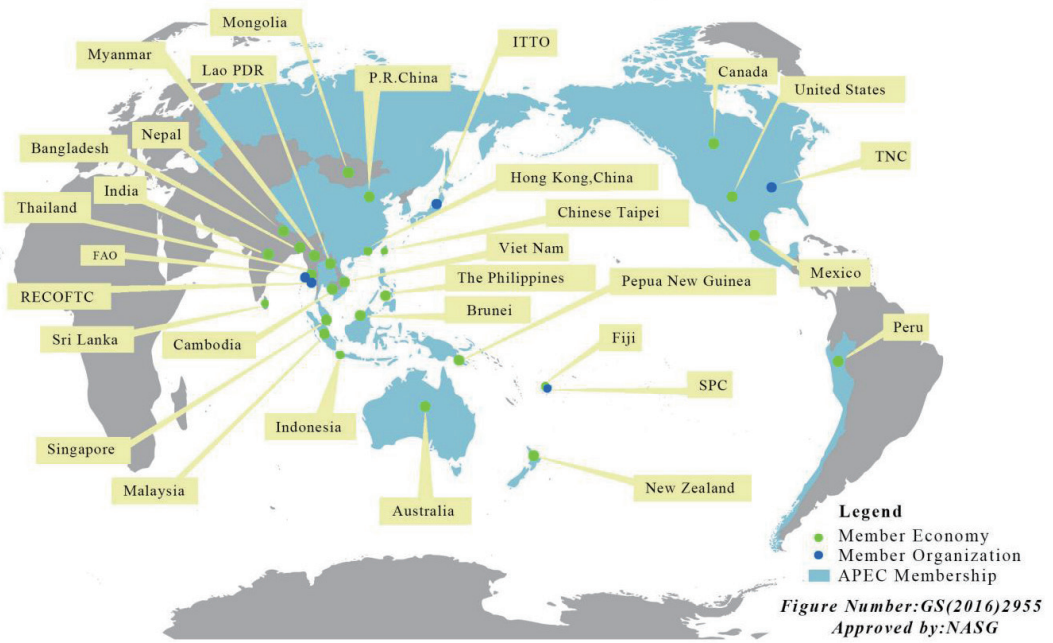

Figure 1-1 Membership of APFNet

Chapter 2 What is driving forest change?

2.1 Overview

All economies participating in this study were endowed with a rich diversity of forest ecosystems, wide range of timber species, other plant and wildlife species, water and mineral resources in the past. The diverse climatic, physiographic and edaphic characteristics across Asia have resulted in a wide variety of forest types ranging from lowland moist tropical forests in the south to montane temperate and boreal forests in the north. Mongolia and northern regions of China have large tracts of arid and semi-arid lands.

Asia has seen a fall in deforestation rates in the past two decades. China, Nepal and the Philippines have reported modest increases in forest cover (Table 2-1 and Table 2-2). Nevertheless, all seven economies view deforestation and forest degradation as serious problems for sustainable forest management and development. Economies have identified both human and natural causes of deforestation and forest degradation. Poverty, population growth, land tenure, policy and market failures, climate change, fires, pests, conversion of forest lands to agriculture or infrastructure, over and/or illegal logging and settlement are some of the factors mentioned by economies (Table 2-3).

China has the fifth largest forest area in the world (FAO, 2020). A massive, continuous forest restoration campaign is growing more forests every year but China's report concludes that its forest resources are still insufficient, unequally distributed and low in quality due to climate change and other factors.

Table 2-1 Extent of forest in 1990–2020

Economy	Forest area (1000 ha)				Net annual change					
	1990	2000	2010	2020	1990–2000		2000–2010		2010–2020	
					1000 ha/year	%	1000 ha/year	%	1000 ha/year	%
Cambodia	11,005	10,781	10,589	8068	-22.4	-0.21	-19.2	-0.18	-252.1	-2.68
China	157,141	177,001	20,061	219,978	1986	1.20	2361	1.26	1936.8	0.93
Lao PDR	17,843	17,425	16,941	16,596	-41.8	-0.24	-48.5	-0.28	-34.5	-0.21
Mongolia	14,352	14,264	14,184	14,173	-8.8	-0.06	-8.0	-0.06	-1.1	-0.01
Myanmar	39,218	34,868	31,441	28,544	-435	-1.17	-342.7	-1.03	-289.7	-0.96
Nepal	5672	5781	5962	5962	10.9	0.19	18.1	0.31	0.0	0.00
The Philippines	7779	7309	6840	7189	-47	-0.62	-47	-0.66	34.9	0.50

Source: FAO, 2020.

Table 2-2 Extent of planted forest in 1990–2020

Economy	Planted forest (1000 ha)				Net annual change					
	1990	2000	2010	2020	1990–2000		2000–2010		2010–2020	
					1000 ha/year	%	1000 ha/year	%	1000 ha/year	%
Cambodia	67	100	155	604	3.26	4.03	5.46	4.46	44.94	14.60
China	4152	54,830	73,324	84,696	1067.83	2.19	1849.4	2.95	1137.22	1.45
Lao PDR	1606	1580	1596	1771	-2.60	-0.16	1.58	0.10	17.55	1.05
Mongolia	4	9	10	8	0.46	7.45	0.11	1.15	-0.24	-2.72
Myanmar	31	31	305	427	0.00	0.01	27.45	25.81	12.19	3.42
Nepal	88	138	221	221	4.98	4.59	8.29	4.83	0.00	0.00
Philippines	291	321	351	381	3.00	0.99	3.00	0.90	3.00	0.82

Source: FAO, 2020.

Table 2-3 Drivers of deforestation and forest degradation identified by economies ①

Drivers	Economies						
	Cambodia	China	Lao PDR	Mongolia	Myanmar	Nepal	Philippines
1.Poverty as an underlying cause	√		√		√	√	
2.Population growth, increase in demand	√		√		√	√	√
3.Improved access to forests	√				√	√	√
4.Conversion to agriculture and agroindustry	√		√		√	√	√
5.Over harvesting, illegal harvesting	√		√		√	√	√
6.Insecure land tenure	√		√		√	√	√
7.Weak law enforcement	√		√		√	√	√
8.Shifting cultivation, encroachment	√		√		√	√	√
9.Contradiction between development and forest conservation	√	√	√		√	√	√
10.Infrastructure development e.g., roads, pipelines, dams, mining					√	√	√
11.Pest and diseases		√		√			
12.Unmanaged wildfire		√		√			√
13.Impact of climate change		√					√

① Other single-mentioned drivers include migration, lack of land registration and clear forest demarcation, weak political support for forests, policy gaps, poor implementation and contradictions among different sectors and jurisdictions, weak cross-sectoral coordination and cooperation among stakeholders, market and policy impacts such as international demand for forest products, international commodity prices, politics, lack of or adverse fiscal incentives/subsidies and inadequate skilled human resources.

2.2 Cambodia

The extent and quality of Cambodia's forests have declined in recent decades due to logging, forest fires, land-grabbing, encroachment and intensified shifting cultivation. In 2012–2015, about 1.2 million ha of forest was converted to agricultural land, housing and other uses.

Factors contributing to forest loss and degradation

According to *Cambodia's National REDD+ Strategy 2017*, the drivers of deforestation and forest degradation are:

- Improvements in access to remote forested areas, commercial logging and infrastructure projects; and inadequate government capacity to manage forests in these areas.
- Uncertain land tenure, land speculation, unauthorized encroachment of forest lands.
- Rapid expansion of agriculture into forest lands, grants for large-scale agro-industrial economic land concessions, and distribution of land titles under social land concessions between 1996 and 2012.
- Unauthorized logging and unsustainable harvesting of forest and non-timber products.
- Weak forest governance, law enforcement and monitoring of forest and land use sectors.
- Increasing regional and global demand for raw materials such as rubber and sugar.
- Population growth and demand for agricultural land.
- Rural poverty and lack of alternative livelihoods.
- Other drivers include migration into forest areas, weak implementation of land laws, inadequate implementation of environmental and social impact assessment regulations, and a lack of state land registration and forest estate demarcation.

To reverse the trend of forest degradation, a logging moratorium was introduced on 1 January 2002. Institutional reforms were initiated with a forest policy statement, a new forest law in 2002 and the national forest programme in 2010.

Cambodia has encouraged the participation of all people and organizations, including the private sector, in tree planting to reverse the trend of deforestation and forest degradation. Every year, the Forestry Administration plants about 200 ha of trees and distributes one million tree seedlings, especially to rural people for planting in villages, schools and other public areas. It also celebrates National Arbour Day on 9 July every year. This is presided over by the King of Cambodia.

Other measures include raising people's awareness on the importance of forests through extension services, strengthening forest law enforcement and promoting community forestry. As of 2020, 638 community forests were established, covering 518,770 ha (6.4 percent of the total forest cover in 2020).

2.3 China

China attaches great importance to forest restoration, with an average annual afforestation of 6.6 million ha. After years of hard work, China has been able to increase its forest cover from 8.6 percent in the early days of the founding of the People's Republic of China to 22.96 percent of the land area. China's forest cover has achieved a sustained growth over 30 years.

Although China's forest area and coverage rate have continued to grow, it is still a country with insufficient forests. The total amount of forest resources is relatively insufficient, quality is not high, and distribution is uneven. China's natural forest area accounts for only 14.4 percent of the land area. Although plantations have greatly improved China's environment, the ecological services of plantations are much lower than natural forests. Planted forests are simpler in composition and structure; prone to disturbances and have poor self-regulatory ability. Forest degradation is still a prominent challenge restricting China's sustainable development.

Factors contributing to forest loss and degradation

- Climate change. China is concerned that increased global temperatures will disrupt the distribution of water resources in time and space. This could impact the health and sustainability of forest resources in northwest China, a very sensitive ecological region.
- Forest fires. Since the 1980s, there has been a marked upward trend in the frequency of uncontrolled and damaging forest fires in China.
- Balancing forest protection and economic growth. China's economy is steadily growing, sometimes at the expense of forest protection, resulting in the destruction of forests.
- Forest pests. China is one of the economies with the most serious occurrence of forest pests.

To combat these challenges, the Chinese government has improved forest laws and regulations, led the scientific development of "land greening", strengthened the protection of natural forests, wetlands, nature reserves, national parks and other important areas.

Recognizing the significance of forest restoration and sustainable forest management for the construction of an ecological civilization[①], two indicators—forest cover and forest stock—have been incorporated into the national five-year planning process (Hanson, 2019). A systematic evaluation mechanism has been established to ensure the implementation of

① For a discussion on the concept of ecological civilization in China, see Arthur Hanson's paper, *Ecological civilization in the People's Republic of China: values, action and future needs*, Asian Development Bank, East Asia Working Paper No. 21, 2019. He describes it as "a coherent conceptual framework for adjustments to development that meets 21st century challenges. It differs from sustainable development in the emphasis placed on political and cultural factors, as well as on defining new relationships between people and nature that would permit living well, and within the eco-environmental bounds of planet Earth."

forest restoration policies.

The government also adopted a model that protects and manages the whole natural ecosystem (or landscape) rather than a single natural resource; promotes unified management approaches of all natural conservation sites; and enhances the effectiveness of ecological protection and restoration. Several major national ecological restoration projects were launched, including the protection and construction of natural forests in northwest-north-northeast China and Yangtze River basins, conversion of farmland to forests and grassland, control of wind and sandstorms in Beijing and Tianjin, and control of rocky desertification.

China continues social mobilization to undertake forest restoration. It also makes use of existing financial resources to support afforestation and greening, actively coordinates relevant departments, and has gradually raised investment standards for key ecological projects in the national budget. Subsidies are provided for afforestation, forest closure and aerial seeding; and forest loan products are available for forestry production and operations. Some forest restoration programmes also work to alleviate poverty by engaging people in land greening activities.

2.4 Lao PDR

Lao PDR is well endowed with natural resources, with approximately 9.5 million ha of forest cover (40.3 percent of total land area). Concern over the rapid loss of forest cover in Lao PDR between the 1940s and 1982 resulted in repeated efforts to increase the forest area in the country. Over the years, the government, in collaboration with international organizations and local NGOs, has undertaken a number of programmes to rehabilitate existing forests, grow new forests and improve the livelihoods of millions of rural people. During the 1990s, the annual loss of forest cover was around 1.4 percent, giving an average loss of forest cover of about 134,000 ha per year.

The combined forestry and agriculture sectors contributed 30 percent of gross domestic product (GDP) in 2008–2010 and provided 75 percent of total employment. Exported forest products (wood and non-timber forest products) are estimated to be worth around USD 74.4 million; domestic consumption is worth USD 31.4 million. In rural areas, it is estimated that forestry resources, including non-timber forest products, contribute between 30 and 70 percent of income for forest-dependent households.

The government's Seventh National Socioeconomic and Development Plan for 2011–2015 aims to increase forest cover from 41 percent in 2010 to 65 percent by 2015 and 70 percent by 2020. Although the economy report for this study provided no information on progress, FRA 2020 indicated a declining trend in forest area at 0.21 percent annually in the period

2010–2020. According to Vongxay (2014), the total area of natural degraded forest that needs to be rehabilitated is estimated to be 6.13 million ha.

2.5 Mongolia

Mongolia is a landlocked country located in the centre of the Eurasian continent, sandwiched between Siberian boreal forests in the north and desert regions in the south. The climate is characterized by high fluctuations and extremes in temperature and precipitation. The country has a significant area of forest consisting of two major forest biomes, boreal forests in the north, accounting for approximately 14.2 million ha and 2 million ha of saxaul forest in the south.

Approximately 140,000 ha of forests become degraded annually. Deforestation due to permanent land use change and continued degradation is relatively modest with a loss of 5300 ha annually. The two most significant causes of forest degradation in Mongolia are human-caused forest fires and pest insect infestations.

These changes in forest cover and quality have a significant bearing on the livelihoods of forest-dependent communities who are self-organized into over 1260 forest user groups to manage forests for subsistence and small-scale economic activities. Although the forest sector accounts for only 0.5 percent of Mongolia's GDP, both the public and private sector afforestation, reforestation, forest cleaning and wood processing activities are essential sources of rural employment and income for local communities.

Future climate scenarios predict a reduction in the country's forest cover by up to 6 percent during this century. Mongolia's forests are slow in growth and vulnerable to disturbances from overgrazing, forest fires and insect pests. The long-term effects of degradation could lead to permanent loss of forest cover and turn forest areas into steppe with few trees and shrubs. For example, forest fires are often followed by a succession of insect pest infestations, grazing and loss of soil moisture to convert intact forests into degraded forests. Also, large-scale open-pit mining operations remove vegetation and topsoil, making forest restoration difficult.

Under the overarching development framework set by the *Green Development Policy (2014)* and *Sustainable Development Vision 2030 (2016)*, *Mongolia's State Policy on Forest (2015)* aims to address these challenges by increasing forest cover from the current 7.8 percent to 9 percent and decreasing greenhouse gas (GHG) emissions from deforestation and forest degradation by 5 percent from current emissions levels by 2030. These commitments to SFM and forest protection have also permeated through to Mongolia's first *Nationally Determined Contribution (NDC) (2015) to the Paris Agreement of the United Nations Framework Convention on Climate Change* (UNFCCC).

2.6 Myanmar

Myanmar is endowed in rich forest resources with unique ecological diversity. Over 70 percent of the economy's population of 51 million (in 2014) is rural and dependent on forest resources for food, fodder, fuel and shelter. About 42.19 percent of the country's total land area is still covered with natural forests (FAO, 2020).

Myanmar's forests are gradually being depleted due to a mix of socioeconomic factors; agriculture being the largest driver. Over the last three decades, forest resources have been decreasing both in extent and quality. Average annual deforestation rate in 2010–2020 is about 0.96 percent of the country's total land area. Reducing deforestation as well as increasing reforestation and restoration of deforested and degraded forests are becoming increasingly important not only for providing timber and non-timber forest products but also for enhancement of ecosystem services, climate change mitigation and adaptation.

In Myanmar, small-scale plantations were started as early as 1856. Historically, teak plantations were established using the Taunggya System, a forerunner of agroforestry, where teak seedlings were planted amongst agricultural crops. Large-scale plantation forestry began in 1980 and about 30,000 ha of forest plantations have been established annually since 1984.

Factors contributing to forest loss and degradation

- Large-scale industrial agricultural crops plantation (e.g., oil palms, rubber, sugarcane).
- Clearing forest for cultivation of agricultural crops to improve livelihoods of landless farmers.
- Uncontrolled forms of shifting cultivation with shorter fallow periods by hill people.
- Over-harvesting of fuelwood and charcoal burning.
- Illicit logging, coupled with weakness in monitoring, weak forest governance and law enforcement, poor cross-sectoral coordination.
- Infrastructure development including mining, construction of roads, gas and oil pipelines, dams and reservoirs in forested areas.
- Insecure markets (domestic and international), commodity prices, political sanctions.
- Lack of national policies, fiscal incentives and subsidies.
- Expansion of urban areas and settlement areas of rural communities.
- Inadequate extension activities, lack of involvement of rural communities in resource management.

Myanmar has taken several measures to combat deforestation and forest degradation. These measures include adoption of policies on forest, land use, environment and climate change; enactment of new forest law; moratorium on timber harvesting and ban on log exports;

stricter forest law enforcement; reforestation programmes; promotion of community forestry and distribution of improved stoves to reduce firewood consumption, among others.

After issuing the *Myanmar Forest Policy* in 1995, the Forest Department of Myanmar has adopted a new strategy of forest restoration through the creation of five types of forest plantations: commercial plantations, village supply plantations, industrial plantations, watershed plantations and community plantations. The annual plantation area has gradually increased, reaching a peak of 42,891 ha in 1998 and 930,566 ha in 2020. Realizing the vital role of forests in sustainable development of the economy, the Myanmar Reforestation and Rehabilitation Programme (2017–2018 to 2026–2027), has been launched to scale up reforestation of degraded forests and strengthen sustainable forest management.

2.7 Nepal

Nepal is known for a diverse climate, spectacular landscape and rich natural resources. Since adoption of a new constitution and federal system of governance in 2015, the country is politically divided into seven provinces and 753 local governments.

Nepal has 6.61 million ha (44.74 percent) of the land area under forest cover. Between 1964 and 1994 Nepal lost about 2.134 million ha of forest, mostly to other land uses. However, with several policies and programmes including the development of community forestry, forest area has increased from 29 percent to 40.36 percent between 1994 and 2014, indicating a significant reduction in the rate of deforestation.

Factors contributing to forest loss and degradation

Nepal's REDD+ Strategy has synthesized the following drivers and underlying causes of forest loss.

- Unsustainable and illegal harvesting.
- Forest fire and expansion of invasive species.
- Unplanned infrastructure development.
- Uncontrolled grazing.
- Weak forest management practices.
- Urbanization and resettlement, encroachment.
- Mining/excavation (for sand, boulders).

With support from bilateral and multilateral financing institutions, Nepal has embraced several initiatives and programmes to tackle the drivers of deforestation and forest degradation, including forestry for prosperity, landscape-level conservation and management of natural resources and climate change adaptation in mountains. Forest sector policies,

strategies and legal frameworks are periodically revised to accommodate emerging issues, such as climate change, ecosystem-based adaptation, payment for environmental services and the role of the private sector in forest and biodiversity management. People-centric approaches to management of forests, biodiversity and watershed resources are accorded first priority.

2.8 The Philippines

The Philippines witnessed a continuous decline of forest area, from 7.8 million ha in 1990 to 6.8 million ha in 2010, at an average annual rate of 47,000 ha (FAO, 2020). However, the economy has been successful in reversing the trend from 2010 to 2020 with new policies, laws and programmes, in particular, the National Greening Programme (NGP) launched in 2011.

Timber harvesting peaked in the 1960s. The Reforestation Administration, now known as the Forest Management Bureau (FMB), was established in 1960 to develop programmes that would help stop the continuous decline of the country's forest cover. Its main task was to reforest and rehabilitate denuded forest lands. In 1975, efforts in management and rehabilitation of forests were institutionalized through *Presidential Decree No. 705*, which created the Bureau of Forest Development. This law aims to put all forest lands under management regimes.

Factors contributing to forest loss and degradation

- Inadequate and poorly implemented forest policies which led to the rapid and unregulated exploitation of forest products.
- Conversion of forest lands to other uses, including agriculture, settlements, infrastructure development and other uses.
- Illegal logging.
- Upland agriculture, slash-and-burn practices.
- Biophysical factors.

In the past two decades, efforts have been made to bring back the forests and control rampant illegal activities. In 1990, the government formulated the first *Master Plan for Forestry Development* (hereinafter referred to as the *Master Plan*) to provide a long-term vision and planning for SFM. The *Master Plan* has been reviewed, evaluated and redefined in 2003 and 2015, incorporating new developments in the policy environment and the potential impacts of climate change to forests. The *Master Plan's* scenarios for management of forest resources now consider the effects of climate change, demand for forest goods and services, and governance.

In 1995, the government adopted community-based forest management (CBFM) as the national strategy towards the sustainable management of forests. In addition, several new approaches and programmes were put in place, such as the household-based reforestation programme, upland development programme, reforestation through social mobilization, among others, with financial and technical assistance from the government.

In 2011, the government established a moratorium on logging in natural and residual forests to protect existing forests and set up NGP, the economy's largest reforestation programme, to grow 1.5 billion trees on 1.5 million ha nationwide from 2011 to 2016.

Chapter 3 Policies, legal frameworks, strategies and plans

3.1 Overview

3.1.1 Policies

All economies have reasonably comprehensive and clear policies, plans and programmes for promoting SFM and forest restoration. They all have legal frameworks with laws and regulations which support those policies and plans to translate normative visions into realities. Some economies have separate stand-alone forest restoration policies, programmes and strategies while others have a single forest master plan with clear statements on policies, strategies and programmes embedded in the plan.

Often, policy dialogue on forest restoration is done in conjunction with other land-related issues, such as forest management, deforestation, desertification, conservation and ecological degradation, and are closely tied to the economy's overall development planning.

In some cases, an economy's historical forest resource endowment, scale of forest cover losses, ecological crises, or aspirations for sustainable development define its policy and legal landscape for forest conservation, management and restoration. For example, in response to drastic deforestation and forest degradation, the Philippines imposed a moratorium on logging and launched a massive tree planting campaign to add millions of hectares of forest cover by 2028. Similarly, China has launched the world's largest shelterbelt network, a 73-year reforestation programme in the northern regions of the economy to mitigate severe desertification, soil and wind erosion, and to protect vulnerable ecosystems. Moreover, the overall development framework of an economy seems to be a major (significant) force, directly or indirectly, behind the making of policies and legal frameworks relevant to forest restoration. For example, China's policy framework for forest restoration evolved with the evolution of economic reform beginning from 1978.

In the constitution of some economies are core policy statements on the conservation, management and use of natural resources, including forests, and corresponding legal provisions to adopting appropriate ways of minimizing or mitigating negative effects on the environment (e.g., Nepal). In the case of Cambodia, a Rectangular Strategy is formulated to achieve growth, employment, equity and efficiency. SFM and forest restoration are mentioned in Phase IV (2019–2023) "Rectangular 4: Inclusive and sustainable development, promotion of agricultural and rural development; strengthening sustainable management of natural and cultural resources; strengthening management of urbanization; and ensuring environment sustainability and readiness for climate change."

In addition to national forest policies, Mongolia, Myanmar and the Philippines noted other

sectoral policies (land, agriculture, environment and climate) are the basis for their policy and legal frameworks addressing forest restoration. In these cases, forest and other sectoral policies and legal frameworks are anchored to the broader development vision.

3.1.2 Legal frameworks

All economies in this study have forest laws, decrees and regulations, executive orders and other administrative instructions to guide the management and utilization of forest resources. A suite of legal instruments also governs all aspects of protection, conservation, regeneration, restocking and utilization of forest resources.

In addition to forest-specific legal instruments, economies also have similar legal instruments regulating environment, climate change, biological diversity, land, mining and water resources, agriculture, energy and other sectors that address or impact on the sustainable management of forests. Some examples of instruments are shown in Annex 1.

3.1.3 Strategies, action plans and programmes

All economies have instruments to translate policies into actions on the ground for SFM, including forest restoration. These includes strategies and/or strategic plans (Cambodia), forestry master plans (Myanmar, Nepal, the Philippines), action plans (Myanmar) and other programmes. Similar plans are also developed for other related sectors such as agriculture and energy; and to meet economies' commitments to global legal instruments such as climate change, biological diversity, wildlife conservation, illegal trade of endangered species and so forth.

Not every economy has a standalone document labeled as strategic plan or action plan for forest restoration. In most cases, such action plans or strategies are imbedded in policies or national administrative procedures (e.g., national annual plans and budgets).

Examples of measures used by economies to address deforestation and forest degradation and promote forest restoration include:

- Logging moratorium (Cambodia, Myanmar, the Philippines).
- National tree plantation/Arbour Day campaigns (Cambodia, Lao PDR, the Philippines).
- Community-based forest management (Cambodia, Myanmar, Nepal, the Philippines).
- Public-private partnerships, forest owners/managers and industry collaboration (Cambodia, China, the Philippines).
- Capacity building (all economies).
- Research on nursery techniques, planting, harvesting, marketing (all economies).
- Climate change resilient forest management including REDD+ (all economies).

Several economies develop multiyear plans for overall economic development, most notable being five-year plans (China, Nepal, the Philippines). Under the umbrella of such periodic plans, sectoral plans and programmes are developed.

Annex 1 provides a summary table of policies, legal frameworks, strategic plans and programmes for all economies as reported.

3.2 Cambodia

3.2.1 Policies and strategic documents

Cambodia has ten main policy frameworks and strategies for SFM and forest restoration:

- *Rectangular Strategy.*
- *National Strategic Development Plan.*
- *National Policy on Green Growth and National Strategic Plan Green Growth 2013–2030.*
- *National Protected Area Strategic Management Plan 2016–2030.*
- *National Biodiversity Strategy and Action Plan 2016–2020.*
- *Strategic Planning Framework for Fisheries 2015–2024.*
- *National Forest Programme 2010–2029.*
- *Sub-decree on Community Forestry Management.*
- *Cambodia Sustainable Development Goals.*
- *Agriculture Strategic Master Plan 2030.*

In July 2004, the Royal Government of Cambodia produced the Rectangular Strategy to promote economic growth, generate employment and encourage efficiency through competition. The Strategy is now on its fourth phase (2019–2023) and consists of four key components (Rectangulars). SFM and forest restoration are included in its fourth rectangular "Ensuring environmental sustainability and readiness for climate change" .

3.2.2 Legal frameworks

Cambodia has a standalone Act known as the *Law on Forestry 2002*. It governs all activities related to forests in the economy. The law is aimed to ensure sustainable forest management for social, economic and environmental benefits, including conservation of biological diversity and cultural heritage. Articles 59 to 61 mention forest restoration by encouraging all stakeholders to participate in tree planting activities.

Cambodia celebrates National Arbour Day on 9 July every year. In Article 46, the Ministry of Agriculture, Forests and Fisheries (MAFF) issued a rule to encourage individuals to plant and maintain tree plantations.

3.3 China

China embarked on national policies on forests, natural resources and environment since the economy was established in 1949 but more aggressively so since the economic reform of 1978 to mitigate serious land degradation, deforestation, sandstorms, droughts and other ecological crises.

3.3.1 Policies and strategic documents

The sustainable forest management and forest restoration policy landscape is a process of continuous progress and improvement. After years of practice and experience, China has developed a basic framework of forest restoration policies suitable for its national development priorities and forest conditions.

The policies are designed to provide guidance and promote the science of forest restoration. Acknowledging the significance of forest restoration and SFM, China has incorporated forest cover and forest stock as the two binding indicators in its national five-year planning process and established a medium-term and final monitoring and evaluation mechanism to ensure implementation of forest restoration policies. China's policies promote the effective protection and management of the whole natural ecosystem to enhance ecological protection and restoration.

From 2003, China stepped up forestry development with greater emphasis on ecological construction projects. From 2012, policies and measures accelerated the construction of ecological civilization, expanding the construction of the Three-Northern Shelterbelts System (see Chapter 6) and strengthening the management of national forests for public well-being.

Forest restoration-related policies to date include the following:

- *Measures for Forest Management and Management in Natural Forest Resources Protection Project 2012.*
- *State Forestry Administration's Opinions on Deepening the Construction and Reform of the Three-North Protective Forest System 2014.*
- *Opinions of the CPC Central Committee and the State Council on Speeding up the Construction of Ecological Civilization 2015.*
- *Measures for Administration of Examination and Approval of the Use of Forest Land for Construction Projects 2015.*
- *Notice of State Forestry Administration on Strict Protection of Natural Forest 2015.*
- *Opinions of the General Office of the State Council on Improving the System of Collective Forest Rights 2016.*
- *State Forestry Administration Ministry of Finance on "state-level public welfare forest areas*

defined measures" and "state-level public welfare forest management measures 2017".

- *Interim Measures for the Examination and Approval of Construction Facilities in National Nature Reserve 2018.*
- *General Office of the CPC Central Committee and General Office of the State Council "Guidance on the Establishment of a System of Nature Conservation with National Parks as the Main Body 2019".*
- Plan on the System of Conservation and Restoration of Natural Forest, General Office of the *CPC Central Committee and General Office of the State Council 2019.*
- *National Development and Reform Commission Pilot Program for Ecological Comprehensive Compensation 2019.*
- *Notice of the National Forestry and Grassland Land Administration on Overall Promoting the Prevention and Control of the Epidemic Disease of Xinguang Pneumonia and Economic and Social Development to Do a Good Job in the Use of Forest Land for Construction Projects 2020.*

3.3.2 Legal frameworks

China has many laws and regulations related to forest restoration, the *Forest Law* being the main legal instrument. The national government's legal framework for forest restoration can be roughly divided into nine major policy areas: (i) forest resources, (ii) combating desertification, (iii) natural resources, (iv) soil and water conservation, (v) grassland resources, (vi) wildlife, (vii) environmental protection, (viii) water resources, and (ix) rural agriculture. Table 3-1 below lists the laws and corresponding regulations in those nine policy areas.

At the local level, relevant laws and regulations have also been formulated to complement national laws and regulations, for example, the *Inner Mongolia Autonomous Region Forest Grassland Fire Prevention Regulations*.

Table 3-1 Some national government laws and regulations on forest restoration in China

Policy area	Laws	Regulations
I. Forest resources	*Forest Act (1984/2019)*	*Regulations for the Implementation of the Forest Law (2000/2016/2018)* *Regulations on Returning Farmland (2002)* *Forest Pest Control Ordinance (1989)* *Forest Fire Protection Ordinance (2009)* *Nature Reserve Ordinance (1994/2017)*
II. Combating desertification	*Law on Sand Control (2001)*	

Policy area	Laws	Regulations
III. Natural resources	*Land Administration Act (1986/1988/2004/2019)* *Urban and Rural Planning Act (2007/2015/2019)* *Mineral Resources Act (1986/1996/2009)*	*Land Administration Act Implementation Ordinance (1991/1999/2011/2014)* *Land Survey Ordinance (2008)*
IV. Soil and water conservation	*Soil and Water Conservation Act (1991/2010)*	*Regulations on the Implementation of the Soil and Water Conservation Law (1993/2011)*
V. Grassland resources	*Prairie Act (1985/2002/2013)*	*Grassland Fire Protection Ordinance (1985/2002/2013)*
VI. Wildlife	*Wildlife Protection Act (1988/2004/2009/2016/2018)*	*Regulations on the Implementation of the Protection of Landborne Wildlife (1992)*
VII. Environmental protection	*Environmental Protection Act (1989/2014)* *Water Pollution Control Act (1984/1996/2008)* *Environmental Impact Assessment Act (2002/2016/2018)*	*Regulations on Environmental Protection of Construction Projects (1998/2017)*
VIII. Water resources	*Water Act (1988/2002/2009/2016)* *Flood Control Act (1997)*	*Hydrographic Ordinance (2007/2017)* *River Regulation Ordinance (1988/2017)* *Flood Control Regulations (1991/2005)*
IX. Rural agriculture	*Agriculture Act (1993/2002/2012)* *Rural Land Contracting Act (2002/2009/2018)*	*Basic Farmland Protection Ordinance (1998/2011)*

3.3.3 National plans and programmes

The key national plans and programmes for forest restoration in China include the following:

- *Outline of the Five-Year Plan for National Economic and Social Development.*
- *National Master Plan for Major Ecosystem Protection and Restoration Projects (2021–2035).*
- *Outline of the National Plan for the Protection and Utilization of Forest Land (2011–2020).*
- *Forestry Five-Year Plan (2016–2050).*
- *National Forest Management Plan (2016–2050).*
- *Guidance on the Establishment of a System of Conservation Areas with National Parks as the Main Body.*
- *Programme for Conservation and Restoration of Natural Forests.*
- *Programme on the System of Prohibition, Protection and Restoration of Sandy Land.*

3.4 Lao PDR

3.4.1 Policies and strategic documents

Current policies governing forest restoration/rehabilitation and land use in Lao PDR include the following:

- *Master Plan Study on Agricultural Development in Laos.*
- *National Growth and Poverty Eradication Strategy.*
- *Government's Strategic Vision for the Agricultural Sector.*
- *National Land Use Planning Program.*
- *Forestry Strategy to the Year 2020.*
- *National Strategy on Environment to the Year 2020 and Action Plan for the Years 2006–2010.*
- *National Biodiversity Strategy to 2020 and Action Plan to 2010.*
- *National Agricultural Biodiversity Program.*

The target of the National Forest Strategy is to increase the country's forest cover to 70 percent by 2020 through the natural rehabilitation of 6 million ha of degraded forest and 0.5 million ha of plantations. To achieve this, the strategy has the following nine programmes (with 146 action plans):

- Land and forest use.
- Production forest.
- Non-timber forest products.
- Tree plantation development.
- Harvesting/logging plans and royalties.
- Biodiversity conservation.
- Wood processing industry.
- Protection forest and watershed management.
- Village land use and forest management.

3.4.2 Legal frameworks

Lao PDR has made revision to its overall legal framework with strong priority on poverty issues. Accordingly, it has amended the *1991 Constitution* in 2003, and several laws and regulations. Some of the laws relevant to forest restoration and rehabilitation are presented below:

- *Forestry Law 2005.*
- *Land Law 2003.*
- *Water and Water Resources Law 2005.*
- *Industrial Processing Law 2005.*

- *Agricultural Law 2005.*
- *Environmental Protection Law 1999 (currently under consideration for revision).*

Forests in Lao PDR are divided into three categories: production, protection and conservation forests. Lao PDR's Forestry Law defines tenure rights and management responsibilities of forest lands. Natural forest and forest land are considered property of the nation, with central management authority vested in the State. There is a range of forest resource tenure rights, including state property; communal rights that may be shared by members of the community (Village Use Forest); private rights assigned to individuals, corporate bodies and non-profit organizations; and open access.

Since 1980, Lao PDR celebrates 1 June as the National Arbour Day to encourage tree planting nationwide every year.

3.5 Mongolia

Policies and strategic documents

Mongolia has a long 100-year history of forestry policy, legislation and strategic plans for forest conservation and management, including forest restoration. The first legal instrument issued was the *State Declaration of Land, Water and Forest Resources* in 1921, followed by the *National Forest Rule* in 1924 (see Box 3-1 for full list).

Mongolia's State Policy on Forest (SPF) of 2015 and the *Law on Forest of 2012*, revised in 2013, provide the economy's forestry sector policies, legal frameworks and implementation strategies relevant to forest restoration. SPF is aligned with the overarching development framework set by the government in the *Green Development Policy of 2014* and *Sustainable Development Vision 2030* (in 2016).

The SPF was adopted by the Government of Mongolia in 2015. The goal of SPF is to ensure stabilization of the Mongolian forest ecosystem, to halt the loss and degradation of forest resources, to increase forest area through regeneration and afforestation, to decrease greenhouse gas emission from deforestation and forest degradation, and to establish sustainable forest management for adequate and sustainable use of forest products and services. It takes a comprehensive approach to integrate the country's socioeconomic and environmental issues, and provides guidance for the conservation, use and restoration of forest resources for the well-being of its citizens with specific goals, principles and objectives.

The SPF covers the period of 2015–2030 and is being implemented in two stages. After implementation of stage one (2015–2020), review and fine-tuning, the second stage will be implemented from 2021–2030.

Box 3-1 Chronology of forestry legislation in Mongolia

21 May 1921:	*State Declaration of Land, Water and Forest Resources*
11 August 1924:	*National Forest Rule*
26 September 1924:	*Establishment of Forest Division, Ministry of Economy of Mongolia*
27 March 1931:	*Mongolian Law on Forests*
3 October 1934:	*Revision of Forest Law*
14 December 1940:	*Revision of Forest Law*
14 April 1944:	*Rule of Forest Fire Prevention and Fighting*
13 March 1957:	*Revision of Forest Law*
6 March 1964:	*Establishment of Forest Zones and Categories*
10 May 1968:	*Establishment of Forest Fire Fighting Commission*
4 July 1970:	*Rule of Forest Inspection and Control*
25 March 1972:	*Establishment of Ministry of Forestry and Wood Industry*
1 July 1974:	*New Revision of Forest Law*
22 November 1974:	*Rule of Forest Law Enforcement*
26 December 1974:	*New system of forest royalty and stumpage price*
1973–1975:	*Forestry Strategic Plan, 1975–1990*
17 January 1975:	*Re-establishment of Forest Zones*
31 March 1995:	*New revision of Law on Forest*
19 May 1995:	*Law on Fees for Forest Harvesting*
28 May 1996:	*Law on Forest Fire Prevention*
15 July 1998:	*National Forest Policy Statement*
26 December 1998:	*State Policy on Ecological Conservation*
31 October 2001:	*Revised National Forest Policy Statement*
17 May 2007:	*New revision of Law on Forest*
17 May 2012:	*Law on Forest*
9 July 2013:	*New revision of Law on Forest*
14 May 2015:	*State Policy on Forest*

The *State Policy on Forest* is guided by the following eight principles:

- Increase the forest area by increasing forest regeneration and afforestation.
- Conserve and protect forest biodiversity.
- Increase forest health, vitality and productivity.
- Increase the ecological and socioeconomic benefits of forests.
- Improve forest policy, legislative and institutional frameworks and establish a good "forest governance" providing opportunity for participation of interested parties.
- Set up scientific approaches for adequate and sustainable use of forest resources consistent with forest conservation and restoration measures.
- Establish national capacity to prevent forest and steppe fires, forest pests and diseases and

mitigate losses from those hazards.
- The owner and the user of forest resources shall be responsible for the protection of forest resources and implementation of sustainable forest management.

It is also a policy of Mongolia to increase its contribution to the *Paris Agreement* on climate change and other international instruments and processes by strengthening the role of its forest sector in achieving a green and sustainable future.

3.6 Myanmar

3.6.1 Policies and strategic documents

Myanmar has the following four key policies related to forests, sustainable forest management and forest restoration:

- *Myanmar Forest Policy (1995).*
- *National Land Use Policy (2016).*
- *National Environmental Policy (2019).*
- *Myanmar Climate Change Policy (2019).*

The Myanmar Forest Policy 1995 pursues forest development through regeneration and rehabilitation operations to optimize productivity from natural forests; encourages planting of fast-growing multipurpose tree species in degraded forest lands, rebuilding forest and farmlands to meet industrial and domestic demand, as well as restore ecological balance.

The following policy measures are specific to reforestation and closely relevant to forest restoration:

- Establish plantation cooperatives and provide institutional finance for establishment of plantation forests on degraded/denuded lands.
- Recognize that plantation forestry is not a substitute for natural forest management. A combination of both should constitute the most efficient use of forest resource base in the country.
- Reforest an annual area of 30,000 ha for rehabilitation of degraded lands and for meeting rural needs.
- Rehabilitate and protect denuded coastal areas.

Myanmar has spelled out strategies and plans to advance the objectives of this forest policy, including the creation of five types of forest plantations by the Forest Department: commercial plantations, village supply plantations, industrial plantations, watershed plantations and community plantations.

The *National Land Use Policy (2016)* is relevant to forest rehabilitation in Myanmar.[①] This policy aims to implement, manage and carry out land use and tenure rights in the country. It recognizes forest land as one of the three general land types (the other two types being agricultural land and other lands which includes urban land, village land, religious land, public land, government-administrated, vacant, fallow, virgin land and wasteland that are not classified as forest land and agricultural land, *etc*.).

The National Environmental Policy (2019) and *the Myanmar Climate Change Policy (2019)* duly recognize the significance of forests and restoration of degraded forests, and set the direction towards:

- Improving and maintaining the health and resilience of all ecosystems, including forest.
- Enhancing greenhouse gas sinks and reservoirs and promoting the reduction of greenhouse gas emissions from deforestation and forest degradation through sustainable management of forests and land use planning.
- Promoting sustainable natural resource management, preserving, conserving, and rehabilitating biodiversity and natural ecosystems to ensure the provision of ecosystem services.

3.6.2 Legal frameworks

The Forest Law (2018) and *the Conservation of Biodiversity and Protected Areas Law (2018)* are the two most relevant legal instruments for sustainable forest management and forest restoration in Myanmar. The *Forest Law (2018)* has specific articles that are directly related to the establishment of forest plantations, reforestation and afforestation. It also has legal procedures for involving individuals or organizations in cultivation and maintenance of private forests or firewood plantations in the public forest or other land (Articles 14 and 15). Furthermore, to ensure sustainability of forest resources, Article 16 requires that a person having the right to extract forest products and natural resources on a commercial scale shall establish forest plantations or encourage natural regeneration for the State at his/her own expense in accordance with prescribed terms and conditions contained in the permit.

Similarly, Article 13 of the *Forest Law* gives the Director General authority to take necessary measures to prevent protected areas from threats and disturbances from adjacent areas; community participation in protected area management; and designate buffer zones in protected areas for regional development activities, socioeconomic development of local community and ecotourism development without any adverse impact on core zones.

① The Republic of the Union of Myanmar, National Land Use Policy (2016). Available at http://extwprlegs1.fao.org/docs/pdf/mya152783.pdf.

3.6.3 Community Forestry Instructions (2019)

In Myanmar, historically, forests are managed by the government. Since 1995, community forestry has become an important viable alternative for sustainably managing the country's forests and attains much broader economic, political, social and cultural goals at the same time. The *Forest Law of 2018* has made provisions for the establishment of community forests.

The Forest Department's newly issued the *Community Forestry Instructions* in 2015 provided a procedure for the establishment of community forestry enterprises by community forest user groups. The instructions allow for the subsistence needs of community forest user group members and enterprise development. Communities can now get benefit from the sale and value addition of timber, including high-value species such as teak and ironwood, as well as commercialization of non-timber forest products.

3.6.4 Strategies, plans and programmes

Myanmar has the following three long-term plans and one long-term programme with important links to forest restoration:

- The *National Forest Master Plan (2001–2002 to 2030–2031)* is a 30-year plan covering all aspects of sustainable forest management, biodiversity conservation, watershed conservation, reforestation and afforestation (including mangrove conservation and plantations), community forestry, and timber production.
- The *Myanmar Climate Change Master Plan (2018–2030)* has six key sectoral areas: (i) agriculture, fisheries and livestock; (ii) environment and natural resources; (iii) energy, transportation and industry; (iv) cities, towns and human settlements; (v) climate hazards and health; and (vi) education, science and technology. The forest sector falls under "environment and natural resources" which focuses on "natural resource management that enhances the resilience of biodiversity and ecosystem services that support social and economic development and deliver carbon sequestration". Some of the forest-related action areas include REDD+; guidelines for inventory (forests, GHG emissions); monitoring (national forest monitoring) and mapping; establishing forest gene banks and conservation zones targeting climate-sensitive ecosystems such as mangroves and wetlands; implementing livelihood diversification activities, such as skill-oriented training on enterprise development and value addition and marketing for community forestry user group members; and developing sustainable soil and water management technologies.
- The *National Biodiversity Strategy and Action Plan (2015–2020)* is a major guiding document for planning biodiversity conservation in Myanmar. Some of the key targets that relate to forest restoration include:

- Launching an initiative to restore millions of hectares of forests that are commercially exhausted and subject to conversion to plantations or agriculture.
- Expanding the protected area network, including mangrove forests, through government and community-based approaches.
- Ensuring that national law recognizes customary tenure as a way to protect indigenous knowledge and genetic plant resources and provide a practical incentive for community participation in biodiversity conservation.

- The Myanmar Reforestation and Rehabilitation Programme (2017–2018 to 2025–2026) was developed by the Forest Department to address deforestation and forest degradation issues and to comply with international agreements related to climate change mitigation and adaption. Objectives include: (i) establishing forest plantations; (ii) encouraging private sector investment in reforestation activities; (iii) supporting community forestry, home gardens and agroforestry; (iv) developing rehabilitation and reforestation policy; and (iv) encouraging participation of stakeholders in planning, implementation and monitoring of reforestation and rehabilitation activities.

3.7 Nepal

3.7.1 Policies and strategic documents

- *The Constitution of Nepal (2015)* has nine policy statements related to the conservation, management and use of natural resources, including policies on sustainable use of forest biodiversity through conservation and management of forests, fauna and flora; and legal provisions to adopt appropriate ways of minimizing or stopping negative effects on the environment. It also has identified the role of federal, provincial and local governments in forest, biodiversity and soil conservation and watershed management.
- The National Forest Policy (2019) addresses sustainable forest management and ecological restoration issues through:
  - enhancing production, productivity and environmental services of the forestry sector.
  - oconserving, restoring and sustainably utilizing forests, plant resources, wildlife and biodiversity.
  - odeveloping the forest sector as a means of economic growth through agroforestry and horticulture.
  - ocontributing to carbon emission reduction.
- The National Environment Policy (2019) promotes a green environment through integrating environmental concerns in the development agenda, encouraging people's participation in environmental management and adopting the principle of "reduce, reuse and recycle".
- The Climate Change Policy (2019) has accorded high priority to forests, biodiversity and watersheds to addressing the adverse impact of climate change through sustainable management of forest, habitat improvement and watershed restoration.
- The goal of the Land Use Policy (2015) is to manage lands sustainably by developing

a specific land-use system through land-use planning. The policy classifies land into different land use zones including forest, agriculture, rivers, lakes, reservoirs, residential, commercial, industrial, mines and minerals, cultural and archaeological, public use and open space. The policy aims to ensure conservation and optimum use of forests.

- The National Agroforestry Policy (2019) contributes to national prosperity through the development, extension and commercialization of agroforestry systems. It aims to conserve biodiversity and develop climate-resilient ecosystems, reducing pressure on forests.
- The National Water Resources Policy (2020) has adopted the watershed management strategy, which includes forest protection and afforestation in degraded watersheds. This policy supports forest management and restoration. However, there is no coordination mechanism yet to implement the policy.

3.7.2 Legal frameworks

- The *Forest Act (2019)* integrates the concept of landscape-level management, ecosystem services, forest conservation areas and role of private sector in community-based enterprise development among others under the domain of sustainable forest management. It replaced the *Forest Act of 1993*. The Act outlines a communication and reporting mechanism between three tiers of government for the smooth flow of information.
- The *Environment Protection Act (2019)* includes provisions related to environmental study, climate change, protection of natural heritage and environmental conservation area, establishment of an environmental conservation fund, and formation of the environmental protection and climate change management council.
- The *National Parks and Wildlife Conservation Act (1971)* has created a secure legal base for wild flora and fauna to flourish in natural habitats through the conservation of forests, rangelands/grasslands and wetland ecosystems in protected areas. It allows the government to declare peripheral areas as buffer zones and considers local communities an integral part of protected areas.
- The *Soil and Watershed Management Act (1982)* seeks to conserve land and watersheds in an integrated manner by controlling natural calamities such as floods, landslides and soil erosion. This Act has the provision for the declaration of conserved watersheds for protecting water sources and controlling soil erosion and watershed degradation. However, this Act was never put into practice.

3.7.3 Strategies, plans and programmes

The *Forestry Sector Strategy (2016–2025)* aims to sustainably manage and make forest ecosystems and watersheds climate-resilient through a more decentralized, competitive, inclusive and well-governed forestry sector. Prior to the current Strategy, the *Master Plan*

for the Forestry Sector (1989) (hereinafter referred tous the *Master Plan*) had guided Nepal's forestry development for almost 25 years, ending in 2011. Nepal has undergone significant political, social and economic changes since *this Master Plan* was formulated. The new Forest Sector Strategy underscores those changes as well as new international priorities and commitments on issues related to forests, climate change and biodiversity.

In addition, the following plans, initiatives and strategies are directly relevant to forest restoration and management:

- *Nepal's 15th Five-Year Development Plan (2019–2023).*
- *National Biodiversity Strategy and Action Plan (2014–2020).*
- *Forest Fire Management Strategy, 2010.*
- *Forest Encroachment Management and Control Strategy, 2011.*
- *Scientific Forest Management Guideline, 2014.*
- *Community Forest Development Guideline, 2014.*
- *Landscape Conservation Initiatives.*
- *Nepal's Land Degradation Neutrality Targets for the United Nations Convention to Combat Desertification, 2018.*
- *Agriculture Development Strategy (2015–2035).*
- *National Adaptation Programme of Action (2010).*
- *REDD+ Strategy (2018–2022).*

3.8 The Philippines

3.8.1 Policies and strategic documents

The Philippines has many policies, legislative instruments and programmes to enhance the country's efforts in rehabilitating denuded and degraded forest lands, improve forest protection and law enforcement, and promote adaptation and mitigation of climate change. Most notable among those are the following:

- The *Presidential Decree No. 705 of 1975*. The Philippines' forest law is the *Revised Forestry Code of the Philippines* issued in 1975 (*Presidential Decree No. 705*, as amended). Most policies are anchored in this law.
- The *Wildlife Resources Conservation and Protection Act of 2001* (Republic Act No. 9147) aims to conserve and protect wildlife species and their habitats to promote ecological balance and enhance biological diversity; to regulate the collection and trade of wildlife; to pursue, with due regard to the national interest, the Philippine commitment to international conventions, protection of wildlife and their habitats; and to initiate or support scientific studies on the conservation of biological diversity.
- The *National Integrated Protected Areas System Act of 1992* established a system of classification and administration of all designated protected areas to maintain essential

ecological processes and life-support systems, to preserve genetic diversity, to ensure sustainable use of resources found therein, and to maintain their natural conditions to the greatest extent possible. All areas included under the System shall be designated as protected areas which shall be of national significance. It was further expanded through the enactment of Republic Act No. 11038 in 2018.

- The *Climate Change Act of 2009* (*Republic Act No. 9729*) ensures that national and subnational government policies, plans, programmes and projects are founded upon sound environmental considerations and on the principle of sustainable development. It integrated the concept of climate change in various phases of policy formulation, development plans, poverty reduction strategies and other development tools and techniques by all agencies and instrumentalities of the government. Taking into consideration the potential impacts of climate change to the forestry sector, the Forest Management Bureau developed the *Philippine Master Plan for Climate Resilient Forestry Development*, which was officially adopted in 2019.
- The *Presidential Executive Order No. 263 of 1995* adopted community-based forest management as the national strategy for SFM.
- The *Presidential Executive Order No. 318 of 2004* mainstreamed SFM into the Philippine policies and programmes. However, a legislated bill is still pending in Congress on a proposed *SFM Act*. There have been numerous attempts to pass a proposed *SFM Act* in the Congress, however it has limited support from lawmakers (in Congress and Senate). Currently, the Society of Filipino Foresters, Inc. are working to increase sponsorship of the Act in the Senate, funded by a FAO-European Union FLEGT project, "Advocacy Towards the Passage of the Sustainable Forest Management Bill Project". On a parallel initiative, pending the enactment of the Act, the forest sector has been formulating and advocating for Implementing Rules and Regulations (IRR) for Executive Order 318 of 2004. This work is also part of the FAO-EU FLEGT Programme to improve the capacity of government and private sector to participate in protection and management of the environment as well as sustainable production, marketing and trade of legal timber.
- The *Presidential Executive Order No. 26* launched the National Greening Program (NGP) in 2011. The programme aimed to grow 1.5 billion trees in 1.5 million ha, with an average area planted per year of 277,000 ha, nationwide within a period of six years. The programme was implemented from 2011 to 2016.
- T*he Presidential Executive Order No. 193 of 2015* extended the NGP to 2028 as the Enhanced NGP (ENGP). The Expanded NGP will rehabilitate all the remaining unproductive, denuded and degraded forest lands estimated at 7.1 million ha from 2016 to 2028. To meet that target, the economy plans to initially rehabilitate an additional 1.2 million ha by 2022. NGP or the ENGP is the first ever massive reforestation and forest rehabilitation programme solely funded by the Philippine government with an estimated total investment of over USD 600 million. The programme also aims to address issues on poverty, loss of biodiversity and management of the effects of climate change. As a major strategy, NGP is implemented through social mobilization and convergence among national

agencies and institutions.

- Every six years, the country develops integrated social and economic policies, plans and programmes between and across all sectors, popularly known as the *Philippine Development Plan* (PDP). In 2016, PDP 2017–2022 was approved and adopted. One of its goals is to increase forest cover and protection to prevent forest loss and degradation with a target of 1.2 million ha from 2017–2022. The ENGP is a part of the PDP.
- The *Master Plan for Forestry Development* was developed in 1990 and updated in 2003 as a long–term plan for SFM.
- The *Presidential Executive Order No. 23 of 2011* is a moratorium on logging in natural and residual forests.
- The *Department of Environment and Natural Resources Administrative Order No.21 of 2018* adopted the Lawin Forest and Biodiversity Protection System (Lawin System). The Lawin System uses different innovative approaches such as smartphones and web-based monitoring for recording and reporting threats by general public, communities and local authorities. This has improved forest law enforcement.
- The *Philippine National REDD + Strategy of 2010* was updated in June 2017 to facilitate the country's participation in reducing emissions from deforestation and forest degradation and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries.

3.8.2 Other relevant plans and programmes

- The *National Forest Protection Programme (2015–2019)* is a forest protection and law enforcement approach, aimed to protect forest from further destruction and degradation by choosing varied strategies and activities, including the use of unmanned aerial vehicles or drones to control illegal logging.
- *Integrated Watershed Management Plan.*
- *Forest Land Use Plan.*

Chapter 4 Institutional arrangements and coordination mechanisms

4.1 Overview

4.1.1 Institutional arrangements

In general, public institutional arrangements in an economy follow the political systems and traditions. The economies with a federal system of governance have institutions responsible for forests (and other sectors) with distinct hierarchical layers of governance—federal/central, provincial/state and local governments. In a single government system, the institutions are under one command system but still have multiple levels of governance.

Common to all economies, legislative bodies (e.g., Parliament, State Great Khural, CPC Central Committee and State Council) adopt laws, policies and budgets, and executive branches implement them through a range of institutions such as ministries, departments, administrations, agencies or commissions; as well as mechanisms such as regulations, law enforcement, programmes and projects. In some cases, the executive branch also passes special decrees or executive orders by the president or equivalent head of government which have established many legal frameworks for forest management.

In most economies, the institution responsible for forest management has been an agency in charge of forests, agriculture, natural resources or environment such as the Ministry of Forests, Ministry of Forests and Environment, Ministry of Agriculture, Fisheries and Forestry or similar agencies at the central/federal level. At the provincial/state level of government in a federal system (e.g., Nepal), the forest portfolio is assigned to a provincial/state level ministry, with its own subsidiary agencies to implement forest management and forest restoration activities.

At the provincial, municipal or local levels, local governments are responsible for the formulation of local laws, regulations and local policies, including standards and technical specifications related to all aspects of forest resources, forest ecology and management. Each of these governments has its own forestry agency to oversee all matters related to forest issues. Funding for forest restoration activities would be covered by the respective local financial authorities. The forest institution of the national government (e.g., ministry, administration, department) plays a coordination role with provincial and local governments, as well as international organizations and foreign governments.

In some cases, more than one agency is responsible for forest management, for example, in Cambodia, forests are managed by two ministries, the Ministry of Agriculture, Forestry and Fisheries (MAFF) and the Ministry of Environment (MoE). In 2016, the government made a major reform in the forestry sector by transferring all investment areas (e.g., economic

land concessions) under MoE to MAFF and MAFF transferred all protected forests to MoE, according to *Sub-Decree No.33 of 2017*. As a result, MAFF is responsible for forestry research and development and MoE implements conservation and protection activities.

4.1.2 Coordination mechanisms

Although every economy has systems of coordination, supervision and reporting of policy and programme implementation, only a few economies described coordination mechanisms in detail. A number of economies noted coordination is less than optimal or effective due to overlapping or contradictory mandates among institutions within the central government or between central and local governments and resulting lack of clarity in responsibilities and staffing.

4.1.3 Stakeholders involved in forest restoration

Other than government forestry institutions, the main stakeholders involved in forest restoration include NGOs, professional associations, private sector, academic and research institutions, community forest user groups and development partners (donors). As an example, in China, professional associations involved in forest restoration include China Forestry Society, China Wildlife Conservation Association, China Flower Association, China Sand Control and Sand Industry Society, China Forestry Engineering Construction Association, China Economic Forestry Association, China Forestry Workers' Ideological and Political Work Research Association, and China Green Carbon Sink Foundation. In the case of Nepal, an umbrella organization of community forest user groups (FECOFUN) acts as the key civil society organization when it comes to advocacy and lobbying for community forest interests. Mongolia also has noted the roles of forest user groups, professional forest organizations and NGOs in forest restoration activities.

4.2 Cambodia

In Cambodia, the Forestry Administration (FA) within MAFF is responsible for the management of the permanent forest estate including production forest. The Fisheries Administration (FiA) in MAFF has the mandate for the management of the country's flooded forests and mangrove areas. MoE's General Department of Administration for Nature Conservation and Protection is responsible for the management of protected areas including Tonle Sap Lake and biodiversity conservation corridors.

Both ministries have their working management units at provincial level. For example, under MAFF, there are Provincial Departments of Agriculture, Forestry and Fisheries as well as FA and FiA Cantonments. MoE also has Provincial Departments of Environment.

Private sector, development partners, NGOs and other key stakeholders are important for investment, participation in strategic development and joint monitoring. To promote the engagement of these partners, MAFF is currently developing regulations (known as Prakas) to encourage their participation in tree plantations.

Coordination mechanisms

At the national level, a technical working group on forestry reform is the government platform for coordination and facilitation among relevant ministries, development partners and NGOs. There is also a national committee for the Prevention, Elimination and Suppression of Logging, Burning and Fencing of Forest Land for Land Ownership, established in 2019 to prevent, eliminate and suppress all forest offences. This committee is also the coordination mechanism for relevant ministries at subnational levels. Despite the establishment of these coordination platforms, there are still some challenges in coordination at different levels of government.

4.3 China

The Chinese Government has established one main government institution at the central level and multiple local governments to manage forests, forest restoration, grasslands and wildlife.

At the central level, the National Forestry and Grassland Administration (NFGA) is the main institution responsible for all aspects of sustainable forest management, including forest restoration. Its broad mandate includes protection and management of forest, grassland and wetland resources; desertification prevention, fire management; establishment and management of national parks and nature reserves; and forest farms.

It is also responsible for managing central-level funds and assets; formulation of national laws, regulations, policies, standards and technical norms in the field of forest restoration; planning and implementation of national forest restoration and high-impact regional forest restoration plans and programmes; national inventory of forest resources and monitoring of changes in forest cover; forestry and grassland science and technology; education, extension activities and international cooperation.

The NFGA has a number of departments and divisions that have primary or supporting roles in forest restoration activities:

- Department of Ecological Protection and Restoration (Office of the National Greening Committee).
- Forest Resources Management Division.
- Grassland Management Department.

- Wetland Management Department (International Wetland Convention Implementation Office of the People's Republic of China).
- Desertification Prevention and Control Department (Office for Implementation of the United Nations Convention to Combat Desertification of the People's Republic of China).
- Department of Wildlife Protection (Administrative Office for Import and Export of Endangered Species of the People's Republic of China).
- Nature Reserve Management Department.
- Forestry and Grassland Reform and Development Department.
- State-owned Forest Farm and Seedling Management Department.
- Forest and Grassland Fire Prevention Department.
- Planning and Finance Division.
- Science and Technology Department.
- International Cooperation Department (Hong Kong, Macao and Chinese Taipei Office).

At the local level, local governments are responsible for forest restoration activities in their jurisdictions. Funding for those activities would be covered by the respective local financial authorities. However, certain key programmes for the protection and restoration of critical ecosystems such as natural forests, tropical rainforests, mangroves and public welfare forests that require large-scale land greening afforestation, conversion of farmlands to forests and grasslands, and tending, are funded and managed jointly by the central and local governments.

Coordination mechanism

In China, NFGA is the central coordinating body, given its broad and comprehensive mandate.

4.4 Lao PDR

The Ministry of Agriculture and Forestry is the primary institution responsible for forestry issues in Lao PDR. Under its overall guidance the following departments and institutions operate in all matters related to forests including forest restoration:

- The Department of Forestry (DOF) is the lead agency for developing and implementing policies, strategies, regulations and instructions concerning SFM as well as coordinating and directly overseeing forestry development programmes under its jurisdiction. DOF, through its line offices at provincial and district levels, is responsible for forest management of state forests (designated as production, protection, conservation forests) and other forest lands, including village forests. DOF's Plantation Forestry and Investment Promotion Division is responsible for all forestry plantation and restoration programme activities, in coordination with (and delegates down to) provincial forestry offices to implement at field level.
- The provincial Vientiane Agriculture and Forestry Office develops, oversees and implements forestry strategies and forestry development activities at provincial level. The Vientiane

Forestry Section is responsible for implementing national forest policy and provincial strategies as well as overseeing and giving guidance for all forestry activities at provincial level. The Plantation and Investment Promotion Unit of the Vientiane Forestry Section is directly responsible for forest restoration and plantation activities. The Vientiane Forestry Section also plays a key role in communication between central and local organizations and supports local organizations in the implementation of forestry activities.

- The District Agriculture and Forestry Office's forestry unit works with communities within districts to develop and implement community-level annual operation plans.
- Local stakeholders and villagers are critical for implementation of reforestation programmes. Village forest organizations are formed to facilitate concerned villagers working in their respective village forests. In each village organizational structure, there are different subgroups such as the elders' group, women union, youth organization, village security, village forester and village land management.

Coordination mechanism

Coordination on all forestry matters including forest restoration is done by the Department of Forestry within its jurisdiction.

4.5 Mongolia

Mongolia is divided into 21 provinces (aimags) and subdivided into 331 districts (soums). The capital Ulaanbaatar is administered separately as a capital city (municipality) with provincial status.

Under overall supervision of the Ministry of Environment and Tourism, the two key institutions responsible for forest management at the central level are the Department of Forest Policy and Coordination (DFPC) and the Forest Research and Development Centre (FRDC). DFPC is responsible for policy implementation, law enforcement, forest management, including forest restoration and reforestation, and other related activities. FRDC conducts forest-related research, technology development, and monitoring and reporting under the supervision of the DFPC.

All 21 aimags and the capital city have their own environment and tourism departments. These departments implement environmental policies including forest restoration and reforestation activities in their jurisdictions. The aimag environment and tourism department is responsible for soum forestry units reporting to the soum governor.

The forestry-related state budget is planned by the DFPC and implemented by DFPC and FRDC. Local governments (aimag, soum and bag) develop their own plans and budgets for forestry-related activities within their territories. Overall, forestry-related activities have to be

reported quarterly and yearly to DFPC.

Coordination mechanism

The government (executive branch) is responsible for inter-sectoral and inter-regional coordination on forest protection, sustainable use, restoration and afforestation. It can be safely inferred that DFPC performs the main role of coordination on forest restoration issues.

4.6 Myanmar

The Ministry of Environmental Conservation and Forestry is the primary institution responsible for forestry and environment. It has six departments:

- Forests.
- Dry Zone Greening.
- Environmental Conservation.
- Planning and Statistics.
- Myanmar Timber Enterprise.
- Survey.

The Forest Department and Dry Zone Greening Department are the main agencies responsible for implementing SFM, including forest restoration, while other departments contribute to forest restoration through their roles in survey or planning and statistics, for example.

Coordination mechanism

The Community Forestry National Working Group (CFNWG) is regarded as a successful coordination mechanism among forest and environment public agencies, private sector and NGOs. Established in 2013, CFNWG is responsible for improving coordination and collaboration among its members, supporting capacity development initiatives and seeking financial support for scaling up community forestry. CFNWG comprises over 30 members from government, civil society and private sector, with the observer presence of one international NGO. It meets on a quarterly basis.

4.7 Nepal

Nepal's new constitution of 2015 identifies responsibilities of the federal (central), provincial and local governments. Accordingly, the federal government is responsible for national and international environmental management, national parks, wildlife reserves and wetlands, national forest policies and carbon services. The use of forests and environmental

management within provinces are listed as the responsibility of provincial governments. Utilization of forests, mountains, and forest conservation areas stretching across province boundaries are jointly managed by federal and provincial governments. The constitution also identifies environment and watershed protection, biodiversity and wildlife as the mandate of local governments.

At the federal level, the Ministry of Forests and Environment (MoFE) is the lead agency providing overall leadership for forest, environment and climate change. MoFE is supported by the departments, centres and parastatals in discharging its mandate. Its roles and responsibilities include policy formulation, enactment of laws, rules and standards, and coordinating development assistance in the forest sector. It is also responsible for the preparation of a strategic plan of interprovincial forests and national forests within the provinces.

The Department of National Parks and Wildlife Conservation is the largest department under MoFE. It is responsible for the management of all protected areas of Nepal. The Department of Forests and Soil Conservation has a nominal presence in the field as most of the forest and watershed management functions remains with provincial governments.

At provincial level, the Provincial Ministry of Industry, Tourism, Forests and Environment is responsible for the management of forests, watersheds and biodiversity outside protected areas. And finally, the local-level governments have a significant role to play in environmental and disaster management, private, public land and urban forests. Except for revenue generation, the relationship between local governments and community forest user groups is not clear in the existing policy and legal framework. However, the two institutions work together to enhance revenue for local governments and leverage resources for the effective management of community forests.

Coordination mechanisms

With the recent transition to the new federal system of governance, Nepal is facing some challenges in monitoring, reporting and coordination among the three tiers of governments. There is no effective communication or smooth flow of data/information between the three levels of government. At present, federal ministries do not communicate directly with relevant provincial ministries. Provincial ministries and local governments are not required to report to federal agencies even if they receive federal funds to manage programmes. *Nepal's Intergovernmental Relations Act 2020* envisions the formation of thematic committees of federal and provincial ministers and mayors to improve coordination and implementation of policies, plans and development programmes.

However, forest-relevant policies such as the National Forest Policy (2019), Nepal Biodiversity Strategy and Action Plan (2014–2020), National Agroforestry Policy (2019) and the REDD+ Strategy (2018–2022) do have cross-sectoral, multi-level coordination and collaboration mechanisms. The *Forest Act (2019)* has a provision for constitution of a coordination committee comprising the representatives of relevant federal, provincial and local governments for the effective execution of the Act. The effective functioning of this committee will help bridge the current gap in information flow and communication.

4.8 The Philippines

The Department of Environment and Natural Resources (DENR) is the primary government agency responsible for conservation, management, development and sustainable use of the country's environment and natural resources. Its jurisdiction includes forest and grazing lands, mineral resources, including those in reservation and watershed areas, and lands of public domain. Accordingly, the department is supported by five bureaus which provide technical advice to the central and field offices. The Forest Management Bureau (FMB) is one of the five bureaus. It provides technical guidance for the effective protection, development, and conservation of forest lands and watersheds. It is also mandated to recommend policies and programmes towards the achievement of sustainable forest management, based on science and principles of good forest governance.①

DENR and the bureaus are responsible for planning, implementation and monitoring of forest restoration activities.

Coordination mechanisms

The Philippines Government has adopted a strategy known as the National Convergence Initiative to develop and operationalize a common framework for sustainable rural development that facilitates the convergence of resources of different agencies. This initiative aims to integrate and strengthen the development framework between and among government agencies and other stakeholders such as the Departments of Agriculture, Agrarian Reform, Social Welfare and Development, and Interior and Local Government, among others.

Within this initiative, it can be assumed that the FMB, on behalf of DENR, plays the central role in inter-sectoral and inter-regional coordination on forest issues, including forest restoration.

① http://forestry.denr.gov.ph/index.php/about-fmb/vision-and-mandate.

Chapter 5 Implementation approaches, challenges and impact of COVID-19

5.1 Overview

With most forests under public ownership in these economies, forest restoration is implemented by government institutions following similar patterns of implementation when translating forest restoration policies and strategies into reality. Their institutions develop rules and regulations, consider appropriate technical needs of forest restoration (planning, restoration techniques), set up finance and ensure stakeholder involvement (communities, private sector, NGOs, relevant public and research agencies, bilateral and multilateral cooperation, *etc*.). Some economies fund forest restoration initiatives from domestic sources while others have heavily relied on bilateral and multilateral sources.

Economies have pursued restoration efforts through programmatic and project approaches, depending on the severity and urgency of the problem recognized by governments and/or stakeholders (e.g., farmers, energy suppliers, environmentalists). These restoration initiatives are mostly aimed at stabilizing fragile landscapes, checking soil erosion, protecting and enhancing watersheds, creating shelterbelts or greening, and restoring ecological functions of degraded lands.

There is a growing trend of involving communities through community-based forest management approaches in restoration and management of forests. Economies are also enabling the private sector to invest in forest plantations as a means of restoring degraded forests.

Greening or national tree planting as a social movement is being pursued by most economies, e.g., Natisnal Arbour Day in Cambodia, National Tree Planting Day in Lao PDR, the National Greening Programme in the Philippines, and the celebration of the International Day of Forests in all economies.

There seems to be a tendency in some economies to view forest restoration as a simple task of planting trees in degraded or deforested lands with a clear preference for fast growing, native but commercially valuable tree species (e.g., Cambodia). Other economies emphasize that restoring forest ecosystems requires more than just planting trees. Such approaches focus on restoration of ecological structures and functions as close as possible to the original state (e.g., China's approaches of eco-forests, eco-civilization or close to nature forests). This is a critical issue in the forest restoration debate for forestry professionals, ecologists, economists, policymakers and private sector partners.

Monitoring and evaluation (M&E)

Each economy in this study has a system for monitoring, evaluation and reporting on the performance of its policies, programmes and projects on forest restoration activities but

the sophistication and comprehensiveness of systems may vary among the economies and institutions. A few economies have described M&E for specific projects or programmes in detail while others have not provided any information. Nepal has a government-wide M&E mechanism that involves not just the ministry responsible for forests but all other ministries through its National Planning Commission. Moreover, Nepal has drafted a bill to improve M&E of development policies, plans, programmes and projects in an organized manner. The bill identifies the National Planning Commission as the body to develop standards and criteria for M&E.

Some inference on M&E can also be made from the way coordination mechanisms are set up and function in economies, even if economies have not provided M&E-specific information for this stocktake.

5.2 Cambodia

Cambodia describes tree planting as the main approach of forest restoration. The government allocates funds for forest restoration every year to restore degraded forests in specific areas. It also supports transferring knowledge and skills to relevant stakeholders to produce seedlings for local communities to participate in tree planting. Cambodia has declared 9 July as National Arbour Day to raise awareness about forests and encourage the public to participate in national forest restoration campaigns. After planting, the government provides financial support for maintenance activities, including ploughing, dead-tree replacement, weed clearing, maintenance of forest fire trails, for up to five years. Currently, there are 80 forest extension and restoration stations covering about 500,000 ha.

As a general policy, Cambodia gives preference to planting local and fast-growing tree species. Agroforestry is also promoted to enhance local people's livelihoods and tree planting at the same time. About five to eight project sites in community forest areas are supported every year.

The government has a policy to engage the private sector in forest plantations to supply wood for domestic use and export markets. There are seven public-private-partnership companies and 17 Economic Land Concession companies planting trees.

In addition, a number of forest restoration projects are implemented with international support. For example, APFNet works to build capacity in planning and executing forest restoration and other forest management activities.

5.2.1 Monitoring and evaluation

Cambodia undertakes M&E in two contexts. The first is to report provincial field activities,

including forest restoration, to MAFF and MoE management units. Second, the private sector, development partners and NGOs are also involved in joint monitoring activities. Some project M&E teams are established to conduct M&E in three phases: pre-project preparation, implementation, and post-implementation.

5.2.2 Issues and challenges

Forest restoration requires a long timeframe, continuous maintenance and protection. Land encroachment is a serious issue in Cambodia. With rising population and economic growth, land value is skyrocketing, and some restoration areas are being occupied by people. Land registration and enforcement of tenure is very important to protect forest plantations.

5.3 China

China's implementation approaches include social mobilization, improved coordination among relevant departments, better use of existing funds as well increasing investment for key ecological projects in the central budget.

China provides financial incentives to encourage public participation in forest restoration activities such as afforestation, forest closure and aerial seeding. NFGA worked with the National Development and Reform Commission, Ministry of Finance and financial institutions to launch innovative forest loan products for land greening. NFGA also issued poverty alleviation work plans to engage local people in land greening activities.

5.3.1 Monitoring and evaluation

China has incorporated forest cover and forest stock as the two binding indicators in its national five-year plan and established a medium-term and final M&E mechanism for implementation of forest restoration policies.

China has a detailed M&E system for the Three-North Shelterbelt Programme (see Chapter 6). This system includes monitoring for resources, forest development, disaster and emergency response, and benefit evaluation. The system has three levels: Three-North Shelterbelt Programme monitoring centre station, provincial monitoring centre station and county monitoring point.

5.3.2 Issues and challenges

After 40 years of large-scale construction, China's Three-North Shelterbelt Programme has improved the ecological conditions of this vast region. However, ecological conditions remain

fragile and there are many biophysical and other challenges, for example:

- Lack of suitable land for afforestation. 36 percent of the shelterbelt programme area is arid or high elevation with steep topography. According to quality evaluation results, only 11 percent of arid and semi-arid regions of northwest China are suitable for afforestation.
- Lack of water resources. Water resources in the three-north regions are scarce. About 65 percent of the total area (about 2.84 million km^2) has an average annual precipitation of less than 350 mm. Rapid increases in population and farmland have exacerbated water scarcity. The use of water for residential, commercial, agricultural and ecological purposes needs to be coordinated to improve water-use efficiency and distribution.
- Low quality of forests and optimization of forest-grassland cover. Large-scale afforestation started with the aim of greening the land first, resulting in forests of poor quality and high risk of degradation. With the restricted growth conditions, tree species are not diverse and ecological community structures are not balanced with too many over-mature and mature forests, resulting in delayed regeneration.
- The distribution pattern of forests and grasslands is also uneven with a relatively high proportion of trees. Future restoration projects should have more shrub species which can better survive and grow in areas with less than 200 mm precipitation per year. Tree and shrub distribution and number in each region should be determined by the carrying capacity of water resources. The vegetation structure of forest and grassland should be optimized to form "close-to-nature" cover.

5.4 Lao PDR

Lao PDR has implemented several programmes to restore degraded forests and increase forest cover over the decades, mainly in collaboration with international organizations and local NGOs. The current forest strategy aims to increase forest cover to 70 percent by 2020 through natural rehabilitation/restoration of 6 million ha of degraded forests and 0.5 million ha of new plantations.

5.4.1 Monitoring and evaluation

M&E of forest restoration and rehabilitation in Lao PDR is based on 10-year inventories of forest resources conducted in 1982, 1992 and 2002, respectively. These regular assessments assist in the development of policies, strategies and further actions for forest rehabilitation.

5.4.2 Issues and challenges

Lao PDR identified a number of challenges including forest clearing and burning for unsustainable shifting cultivation, uncontrolled logging and conversion to agriculture and other land uses, widespread poverty, rapid population growth and weak law enforcement.

5.5 Mongolia

Mongolia has launched the following activities to implement the State Policy on Forest:

- Conduct a detailed assessment of the state of Mongolian forests for forest conservation, restoration and appropriate use.
- Provide government support to research organizations and universities for establishing incubator centres to develop and transfer advanced technologies for afforestation, restoration, forest conservation and timber use.

Both national and provincial governments allocate funds for forest restoration and ensures inter-sectoral and inter-regional coordination on forest protection, sustainable use, restoration and afforestation. Mongolia also mobilizes forest user groups, professional forest organizations and NGOs as well as international donors for undertaking forest restoration and reforestation activities in areas damaged by fire, insects and logging operations.

Tree planting is used for combating desertification at the forest-steppe border and often focuses on the establishment or maintenance of scattered woodlands. According to the Ministry of Environment and Tourism, a total of 1280 forest user groups manages 3.5 million ha and 83 private forest entities manage about 681,378 ha. Agroforestry is also promoted for forest restoration.

5.5.1 Monitoring and evaluation

No information was provided for forest restoration M&E systems specifically but provincial and local governments (khurals, cities, soums and districts) have responsibility to regularly report to their respective legislative bodies on the performance of programmes on forest protection, sustainable use, restoration, afforestation, forest/steppe fire prevention and other management issues. It can be assumed that there is an administrative mechanism for monitoring, assessment and reporting.

5.5.2 Issues and challenges

Challenges for forest restoration include:

- Lack of investment in the forestry sector.
- Inadequately trained workforce and obsolete machinery.
- Illegal logging and unsustainable timber removal (about 60 percent of the total harvest is estimated illegal).
- Weak institutional structures and unclear institutional responsibilities.
- An absence of strong community-based forest management organizations. More forest user groups are being formed gradually but the institutionalization of participatory forestry

management still remains a challenge.

Further actions are required in the following areas:

- Strict laws for controlling illegal logging.
- Strong government support, including funding.
- International technical assistance and funding.
- Committed rangers for monitoring and inspection of forests.
- Community activism for annual tree planting campaigns.
- Private sector investment.

5.6 Myanmar

In Myanmar, most reforestation projects are funded by the government and implemented by the Forest Department, for example, the Myanmar Reforestation and Rehabilitation Programme (2017–2018 to 2026–2027) and Rehabilitation of Natural Habitats (2018–2019 to 2027–2028).

A number of reforestation projects or integrated projects with strong reforestation components are funded by international donors, such as the Mangrove Reforestation Project (Government of Denmark); Forest Landscape Restoration Project (International Union for Conservation of Nature and The Nature Conservancy); Human Development Initiative (an integrated development programme funded by United Nations Development Programme); and three projects focused on helping poor farmers and landless people to improve production and increase incomes from agriculture, aquaculture, forestry, and livestock in the dry zone (FAO and the United Nations Development Programme).

At the subnational level, the Forest Department has developed and implemented many reforestation and restoration programmes and projects.

Myanmar has promoted community forestry since 1995. Within 25 years (1995 to 2020), about 299,203 ha of community forests were established by 5594 community forest user groups.

5.6.1 Monitoring and evaluation

Myanmar has an elaborate system for project monitoring and evaluation (M&E), which requires reporting at central, provincial and local levels. This includes a central project steering committee, chaired by the Union Minister of the Ministry of Natural Resources and Environmental Conservation; central project monitoring committee, chaired by the Director-General of Forest Department; and regional/state project monitoring committees, chaired by respective directors of regional/state forest departments. Implementation is undertaken

by district project committee, chaired by assistant directors of district forest departments; township project unit, chaired by those in-charge of respective township forest departments; and a field unit, chaired by the forest department's deputy director (plantation) of the respective project zone.

Township, district, state and regional forest departments have to submit monthly reports to the Community Forest Unit of the Forest Department, which reviews and monitors progress and provides guidance.

The Forest Department has an internal monitoring and evaluation mechanism, the Project Monitoring Board, to monitor and evaluate implementation, progress and impacts of all projects funded by international assistance. The board consists of senior officials of the Forest Department and chaired by the Director General. It organizes meetings on a quarterly basis and provides instructions to project managers. The Forest Department submits quarterly progress reports of all projects with international assistance to the Ministry of National Planning, Finance and Industry.

5.6.2 Issues and challenges

(i) Policy issues

- Weak and insecure land tenure, including lack of law enforcement and recognition of customary tenure rights.
- Historical absence of national land use policies (first issued in 2016).
- Lack of forest plantation policies and conflicts with other sectoral policies.
- Weak coordination mechanisms between government agencies and stakeholders.

(ii) Organizational issues

- Insufficient staff, limited skilled staff and lack of funds.
- Weak governance, monitoring and evaluation; and weak stakeholder engagement.
- Lack of strategic planning and policy analysis, resource management, environmental impact assessments, biological and economic research, forestry extension and establishment of inter-sectoral linkages.

(iii) Lack of technology and outdated timber industry

- Limited availability of good quality seeds, weak nursery practice systems, weak seasonal practices for silvicultural and forest management, limited access to technology and modern techniques, equipment and laboratories.
- Limited or lack of comprehensive databases on growth and yield of tree species.
- Inadequate timber industry infrastructure, inappropriate investments, outdated

technology, shortage of skilled labor, inefficiency and high transport costs.

(iv) Lack of secure markets

- Limited secure markets for even high-value trees. In the past, political sanctions have meant that most timber was sold to middlemen or brokers. This discourages the development of private sector investment in reforestation and plantations.

5.7 Nepal

Nepal has institutionalized the bottom-up, participatory approach to the management of forests, watersheds and biodiversity resources, including climate change adaptation and mitigation.

Public funding constitutes the main share of investment in the forest sector. Nepal has been receiving international and regional support for forest sector development since the early 1950s, mainly for forest resource surveys, land resource mapping, forest management planning, afforestation, reforestation, buffer zone management for biodiversity conservation and livelihood enhancement, and watershed management. In recent years, international assistance is directed to climate change mitigation and adaptation; landscape-level planning and management of natural resources; and human resources development. All of these activities have directly or indirectly contributed to forest management and restoration of degraded forests in Nepal.

Nepal's community forestry approach for the conservation and management of forests and improvement of local communities' livelihoods has significantly helped not only in the restoration of degraded forests but also in reversing the trend of deforestation. A recent study estimated that more than 1.2 million ha of forest land was restored between 1975 and 2015, mainly due to the success of community forestry. Voluntary contributions (both financial and human resources) made by members of community forest groups have been the key to the success of this programme, not only by adding value to the programme but also by developing a strong sense of ownership.

Leasehold forestry for the poor is another approach to forest management that proved successful in restoring degraded forest lands. Under this programme, degraded forest is leased for 40 years to groups of poor households with the objectives of forest restoration and rural livelihood enhancement.

Civil society organizations have played a supportive role in forest management through advocacy, community mobilization, capacity building and awareness-raising. Forest management and restoration initiatives have been the priority research agenda for academic and research institutions, generating a wealth of knowledge for improving forest

management and governance.

5.7.1 Monitoring and evaluation

The role and responsibility of monitoring is embedded in the planning units of agencies across the three tiers of government. At the federal level, the Ministry of Forests and Environment (MoFE) is mandated to carry out monitoring of programmes and projects with a dedicated M&E section who also communicate with other federal departments. A high-level committee chaired by the MoFE minister meets every three months to monitor progress and resolve any issues. Federal departments also conduct monitoring under their jurisdiction and report to MoFE periodically.

At the provincial level, the Forest Directorate under the Provincial Ministry of Industry, Tourism, Forests and Environment is responsible for monitoring and reporting all activities executed by forest and watershed management offices. At the local level, municipalities carry out periodic monitoring of forestry, environment and watershed-related activities and report to the local assembly.

The National Planning Commission is responsible for overall guidance on monitoring and evaluation of all government policies, programmes and projects in all sectors, including forests.

5.7.2 Issues and challenges

(i) Overlapping provisions for forest management in the legal framework

With the adoption of the new constitution in 2015, Nepal has separate roles and responsibilities among the three tiers of government. However, further reform and adjustments are needed to clarify the legal provisions and responsibilities of each government on different aspects of forest resources management. These legal ambiguities have adversely impacted forest management initiatives, and the absence of clear roles, responsibilities and ownership may trigger deforestation and forest degradation.

(ii) Underlying drivers of deforestation and forest degradation

Most of the underlying causes of deforestation and forest degradation such as poverty, over-dependency on forests for energy and livelihoods and insecure land tenure are mostly outside the forest sector. Addressing these drivers require concerted efforts of all sectors. Poor interagency coordination, weak policy harmonization, conflicting roles and responsibilities of each government level and the low priority accorded by concerned agencies to maintain the integrity of forest ecosystems are some of the challenges towards SFM and forest restoration.

(iii) Conversion of forest land for non-forestry purposes

The demand for forest land for non-forestry purposes, for example, agriculture expansion, resettlement of internal migrants, transportation, energy and other infrastructure developments, remains a major challenge to maintain forest areas. This challenge has become even more serious with the transition to the new federal system of governance.

5.8 The Philippines

The National Greening Programme (NGP) and its continuation through the Expanded National Greening Programme (ENGP) to 2028 is the largest forest restoration initiative of the Philippines. This long-term national initiative is designed not only to restore degraded forests but also to address other social, economic and environmental issues such as poverty, food security, environmental stability, biodiversity conservation and climate change mitigation and adaptation.

The ENGP implementation approach includes:

- Social mobilization to encourage government employees, students, private sector and civil society groups to participate in tree planting, maintenance and protection of established plantations.
- Harmonization and consolidation of initiatives for all tree planting activities with technical assistance from various agencies and institutions.
- Provision of incentives to communities to promote agroforestry and forest plantations.
- Monitoring and evaluation of programme activities includes the private sector, civil society and the research institutions.

5.8.1 Monitoring and evaluation

DENR and the department bureaus spearhead planning, implementation and monitoring of forest restoration activities, with engagement of the private sector, civil society and academia. DENR is required to conduct regular progress monitoring of the NGP, using a centralized database developed with other national government agencies. FMB has a major role in monitoring policies and programme implementation, including maintenance of the NGP website. It has also developed other M&E measures such as submission of GIS maps and geotagged photos; codification of planting sites; and tree plantation certification.

5.8.2 Issues and challenges

Management, utilization and conservation of forest resources is becoming more challenging with expanding pressures on forests due to high population growth and consumption. Issues

of accountability and transparency are being addressed but more work needs to be done. Changes in climate in the past decade have made planting and growing forests difficult.

5.9 Coronavirus pandemic and impact on forest restoration

Three economies provided information on the impact of COVID-19 on forests and forest restoration efforts to date. Understanding how an unexpected natural or human-caused disaster may affect forest restoration activities is important for future planning and risk assessments.

5.9.1 China

The spread of COVID-19 has had a significant negative impact on afforestation or forest restoration activities. Reduced economic growth has a potential impact on investment for afforestation. Employment, material preparations, seedling production and project bidding were greatly constrained, leading to a serious delay in tree planting activities during spring, the best season for afforestation. Postponing afforestation activities to later months poses a risk of lower survival rates of seedlings due to poor growing conditions.

5.9.2 Nepal

A preliminary study in Nepal indicated that the livelihoods of forest-dependent people are likely be at risk, with an estimated loss of more than 147,000 days of employment by local communities in the forest sector (Basnyat, et al., 2020). Forests can offer sources of emergency livelihoods to those who have lost their jobs, but this may mean increased illegal harvesting of forest products. Studies elsewhere suggested that COVID-19 lockdowns may have benefited the environment and recovery of the ecosystems to some extent (Basnyat, et al., 2020).

5.9.3 The Philippines

The Philippines Government has adopted the "family approach" as one of the main adaptations against the pandemic in implementing ENGP. The family approach vision is to provide income to families that were greatly affected by the pandemic. No further details were provided.

Chapter 6 Forest restoration examples

This chapter outlines some successful and innovative forest restoration programmes and projects in the region. The programmes are not the only successful or effective examples of forest restoration in the economies, rather the aim of this chapter is to present forest restoration programmes which might be inspirational due to their large-size, design and implementation approaches.

6.1 Cambodia

Cambodia has launched several forest restoration projects supported by APFNet. One project established four restoration models in community forests, carried out restoration of deforested and degraded forests; nursery improvements and disseminated technical reports. Another project developed a watershed management plan for the Prek Thnot Watershed, with participation of local stakeholders. Raising awareness and capacity, the project also piloted agroforestry and other forest-based livelihood development.

6.2 China

Three-North Shelterbelt Programme

China has demonstrated that forest and land restoration of any scale is possible with a long-term vision, strong political leadership and sustained public support. The largest restoration initiative, "Northwest-North-Northeast Protective Forest System" or "Northwest-North-Northeast China Networks of Shelterbelts" has operated in the northern regions of China since 1978 (also known as the Three-North Shelterbelt Programme). This is the grandest, longest planned and most ambitious forest restoration programme ever designed and implemented in human history. It is also the largest ecological shelterbelt construction project, longest duration (73 years from 1978–2050) and has the most difficult ecological management challenges. The Three-North Afforestation Bureau won the United Nations Environment Programme's 1987 Global Environment Protection Award (FAO, 1997).

The Three-North regions constitute the northern frontier of China, bordering more than ten economies, including the Russian Federation and Mongolia. Covering more than 4069 million km^2 of China's eight major deserts, four sand belts and the vast Gobi expanse, the region has one of the most vulnerable ecosystems. Before this initiative was launched, desertification was spreading fast and dust storms more frequent. The ecological damage caused by wind and sand hazards, soil erosion and drought severely restricted regional economic and social development. To mitigate these ecological, economic and social challenges, the Chinese Government took a major strategic decision to build the network of shelterbelts in November 1978.

The massive afforestation/reforestation programme's targets included 35.08 million ha of forest area by 2020, increasing the region's forest coverage from 5.05 to 14.95 percent; total forest biomass storage from 720 million to 4.27 billion m^3; annual output value of forestry from Chinese Yuan 900 million to 21 billion (approximately USD 138.5 million to 3.23 billion); degraded forests to be effectively rehabilitated; crop yields to be increased by 10–15 percent; soil erosion to be controlled; and desert areas to be effectively managed.

The programme is divided into eight phases. The fifth phase of the project is now nearing completion (2011–2020). The project includes 13 provinces and 42.4 percent of China's total land area as well as 83.7 percent of desertification land, 67 percent of soil erosion areas and 1/3 of state–level poor counties.

The programme is funded by the central government, supplemented by funding from local governments (provincial, municipal and county). The forestry departments at provincial, municipal and county levels are responsible for carrying out project activities and fund management. Over the past 40 years, Chinese Yuan 95.73 billion (approximately USD 14.73 billion) has been invested. The programme has accomplished over 30.143 million ha of afforestation. Forest cover rate in the Three North regions has reached 13.57 percent, forest stock volume has increased 4.96–fold and the forest and grass vegetation coverage rate has increased from 31.70 Percent to 42.41 percent. A total of 336,000 km^2 of desertified land has been managed and more than 10 million ha of desertified grassland have been protected and restored. The area of desertified land in the programme area has continued to decrease. The annual average number of sandstorm days has decreased from 6.8 to 2.4 days and the total restoration extent of waterbodies and soil erosion-prone areas has decreased to 447,000 km^2. An ecological security barrier consisting of trees, shrubs and grass in combinations of strip belts has been built.

The effectiveness of projects is monitored using systems for resource monitoring, forest management, disaster and emergency response, and benefit evaluation at three levels: project monitoring centre station, provincial monitoring centre station, and county monitoring point.

Other than ecological benefits, the programme also enhances local well-being and economic growth. The total stock volume in the programme area has increased to 1.83 billion cm^3, fuelwood forest area comprises 929,000 ha, economic forest area 4.06 million ha and the annual output of fresh and dried fruits has increased from less than 2 million to 48 million tonnes. More than 15 million people now rely on the forest industry for jobs and income. More than 30 million ha of farmland have been effectively sheltered by forests, which account for 44.13 percent of the farmland in the region. At present, the project area has established 8572 forest parks, 324 wetland parks and 90 desert parks, which have become the main sites for tourism, local income generation and raising public awareness for

ecological protection.

6.3 Lao PDR

The Government of Lao PDR has undertaken a number of programmes in collaboration with international organizations and local NGOs to restore forests and also contribute to improving the livelihoods of millions of rural people. In addition, the government has established a forest development fund and an environmental conservation fund through which it is implementing some of the major forest projects. However, the economy still heavily relies on international funding for research, development, management and restoration of forests.

6.4 Mongolia

Restoration of forests in the Tujiin Nars Special Protected Area is one of the most successful reforestation efforts in Mongolia. It is located west of Sukhbaatar City in Selenge Province. In the 1990s, Tujiin Nars forest almost disappeared due to illegal logging and forest fires. The government, citizens, NGOs and some international donors have been actively involved in reforestation, resulting in a total of 15,000 ha of degraded forests reforested. The project has received support from the North East Asia Forest Forum, Hyogo Environmental Advancement Association, Forest and Wildlife Center, Asian Development Bank, Global Environment Fund, and the United Nations (especially through the Food and Agriculture Organization).

Tree planting is the most common tool used for combating desertification at the forest-steppe border by mobilizing community forest user groups and private forest entities in the management of planted woodlots. The management impact of these groups varies widely and is not always effective.

Another example is a Mongolia-Republic of Korea joint project, known as "Green Belt", in the south of the country. It was launched in 2006 to halt degradation and reduce dust and sandstorms by establishing a belt of planted trees, such as Saxaul forest plantations, in the Gobi Desert. As a result, 45 ha of tree nurseries have been set up and 3046 ha of forests have been planted with USD 11.8 million from the Republic of Korea.

6.5 Myanmar

Nine Districts Greening Project was started in 1994–1995 by the Forest Department as the first 3-year pilot project in the dry zone of Central Myanmar. In 1995–1996, the project was extended from nine districts to 13 districts.

The Watershed Mountain Greening Special Project of Myingyan District was also started in 1996–1997. Following the success of dry zone rehabilitation, the Dry Zone Greening Department was constituted in July 1997 by the Ministry of Forestry (now Ministry of Natural Resources and Environmental Conservation).

6.6 Nepal

Community-based forest management is the most effective and successful forest management approach in Nepal, which is being widely replicated in other parts of the world. This approach has helped not only to restore degraded forest but also to reverse the trend of deforestation. Efforts to engage local communities in forest restoration and management began more than four decades ago and have proved very effective, resulting in the restoration of large areas of forests (estimated 1.2 million ha between 1975 and 2015). National data shows that nearly 38 percent of Nepal's forest area (2.5 million ha) is managed as a community forest. Community forest user groups are autonomous, corporate bodies to which the government hands over parts of the national forest to be managed for conservation and livelihoods.

As a result of a conducive policy environment, legal framework and supportive implementation arrangements, more than 8.5 million community forest users in more than 22,200 community forest user groups are engaged in forest management. The activities carried out include afforestation, reforestation, watershed restoration, rangeland and forest management.

6.7 The Philippines

The National Greening Programme (NGP) is an ambitious forest restoration initiative launched by the Philippines in 2006 through a Presidential Executive Order. It was heralded as a Presidential social contract. Underscoring the severity of the deforestation and forest degradation crisis in the Philippines, it aimed to grow 1.5 billion trees in 1.5 million ha nationwide within a period of six years (2011–2016). Fully funded by the national budget, it aimed to mobilize all stakeholders including school children, civil society, industry and business communities, local communities and government employees.

In 2015, the NGP was extended and expanded to rehabilitate an additional 7.1 million ha of forest lands by 2028 (including a target of 1.2 million ha of unproductive, denuded, and degraded forest lands for 2017–2022) and to maintain and protect existing forests. This is commonly known as the Expanded NGP (ENGP). As of 2016, a total of 1.7 million ha was planted.

NGP also aims to address poverty, food security, environmental stability, biodiversity conservation and climate change mitigation and adaptation. In 2016 alone, NGP was able to generate almost 620,000 jobs. Jobs generated for the entire six years of implementation (2011–2016) amounted to nearly 3.8 million.

FMB continuously monitors the programme and addresses implementation issues. The Bureau has developed good governance measures and implementation of safeguards

(including submission of GIS maps and geotagged photos, codification of planting sites and tree plantation certification).

Another noteworthy example from the Philippines is the BINHI reforestation programme of the Energy Development Corporation (EDC). This flagship programme uses science-based holistic approaches in restoring degraded watersheds, working with forest and farmer communities and other stakeholders to participate in reforestation and support livelihoods. EDC and farmer associations utilize the science of forest succession to regenerate denuded forests surrounding EDC project areas. After almost a decade, 6.4 million seedlings were planted and protected on 127,608 ha of forest lands managed by the company.

Chapter 7 Lessons learned, conclusions and recommendations

7.1 Lessons learned

Experiences and lessons learned by the economies participating in this study have many common themes. Some are unique to the specific biophysical, social, economic and technical or financial capacity of the economy.

7.1.1 Political commitment is of paramount importance for the success of forest restoration

Forest restoration is a long-term process that requires not only appropriate policies and legal frameworks; institutions and plans; sustained financial resources; technology; and human capacity but also national political commitment. As the forest restoration examples from China and the Philippines have demonstrated, a strong commitment at the highest level of leadership provides momentum and motivation at all levels of society to plant, protect and restore degraded lands.

7.1.2 Coherence among sectoral policies and coordination between government agencies is critical

Forest restoration cannot happen in isolation. Many factors outside the forest sector impact the sustainability of forests as well as opportunities for successful forest restoration. Coherence of economy-wide policies among different sectors (e.g., agriculture, energy, transportation, climate change, environment and internal migration) and coordination in execution of those policies and programmes are critical for forest restoration. For this to happen, effective coordination mechanisms between central government institutions (e.g., sectoral ministries) and different levels of governments (central, provincial and local) are essential. This would also facilitate effective enforcement of forest-related laws which is vital for forest restoration efforts.

7.1.3 Stakeholder engagement is key

Economies have clearly demonstrated that it is not only the involvement of government agencies but also active engagement of other stakeholders who are equally important for restoration of degraded forests and other fragile ecosystems. The involvement of local communities, farmers, women, private sector, professional forestry associations, teachers and school children, and NGOs are essential for success.

A number of economies have seen demonstrable success in forest restoration by adopting

community forestry approaches which encourages the involvement and empowerment of communities. For example, Nepal's community forestry policy and programmes are heralded as the main reason for the successful restoration of more than 1.2 million ha of forest land in 1975–2015.

Appropriate government support through extension services, training and financial resources to community forest user groups will enhance their capacity to execute forest restoration, protection and management of forest resources. Furthermore, linking forest restoration and management to production, processing and marketing provide financial incentives for the communities.

7.1.4 Forest restoration is linked with livelihoods and rural development

When forest restoration policies and programmes are linked to national development priorities such as poverty alleviation, food security, job creation and income generation, they have higher success rates and support from the public. For example, China's approach to combine economic development with ecological protection and restoration has prioritized forest and grassland restoration projects in poverty relief areas, attracting more people to participate and benefit.

7.1.5 Innovative initiatives lead to new strategies, policies, programmes and institutional arrangements

China applied a stepwise project management strategy based on the principle of "easy first and then difficult", "from near to far", "by stages and batches". This improved the quality of forest restoration projects. In Myanmar, successful greening projects in the dry zone of central Myanmar and watershed mountain greening of Myingyan district in mid-1990s led to the creation of a new Department of Dry Zone Greening Department in July 1997 within the Ministry of Forestry (now Ministry of Natural Resources and Environmental Conservation).

7.1.6 Strengthen land tenure and user rights

The economies noted the need to address land tenure and benefit sharing (user rights) as preconditions for investment of time, labour and money by communities, private sector and individuals in tree planting and other measures of forest restoration and forest conservation. The creation of innovative financial mechanisms can facilitate access to funds from financial institutions by farmers, communities and businesses for afforestation and forest-based income generating enterprises.

7.1.7 Information flow and transparency builds public trust

Forest restoration also requires effective transparency and active community participation. Establishing a forest resources information platform, robust monitoring, evaluation/assessment and reporting systems are important not only for management of programmes and projects but also to inform the public of accomplishments, problems and lessons learned.

7.1.8 Invest in research, development and technology

Research and development are needed to address biophysical challenges including climate, wind, drought, sand/soil and human pressures on forests.

7.2 Conclusions

In general, all economies have comprehensive policies, strategies, plans and programmes, together with appropriate laws and regulations, related to forests, environment, agricultural development, land use and climate change (e.g., REDD+ strategies). The majority of forests in these economies (and most APFNET economies) are under public ownership, thus public policies, legislation and programmes are extremely important for effective forest restoration and sustainable forest management.

All economies noted the significance of policies, laws and programmes in other related sectors for the success of forest restoration, including emerging issues such as climate change. However, none of the economies covered in this study have separate forest restoration policies. A few economies noted specific forest restoration provisions. For example, China has a separate department of ecological protection and restoration within the National Forestry and Grassland Administration and Myanmar has a 10-year Myanmar Reforestation and Rehabilitation Programme. Other economies have forest restoration integrated into their overall policy and programmatic landscape (e.g., master plans, strategies).

All economies have relatively sound institutional arrangements to implement policies and programmes as well as enforce laws and rules for forest development, conservation and sustainable management. Most main forestry agencies are situated under a ministry overseeing forests, agriculture, environment, industry or natural resources. Ministries provide policy and political supervision while forest agencies are responsible for implementation and M&E. There are forest administration units at provincial, municipal and other local governments. All forestry agencies receive funds from national budgets.

Coordination mechanisms among government ministries/departments at the central level and between central forestry agencies and those at lower levels of government varies between economies. M&E of programmes and projects is noted to be important by most

economies, but more research is needed on effective M&E and coordination mechanisms. The successful implementation of forest restoration is dependent on coordination, consultation, monitoring, assessment/evaluation and strong reporting systems.

Economies noted that forest restoration is a long-term process, and that the sustainable management of forests should balance ecological, social and economic priorities across entire landscapes, providing products and services to benefit human livelihoods as well as ecological functions. Partnership among government agencies, private sector, local communities, NGOs and other stakeholder organizations is crucial for the success of forest restoration.

Mobilizing public support with clear messages on forests, climate change, biological diversity and people's dependence on forests is vital for successful implementation of forest restoration policies and programmes. National Arbour Day celebrations and national greening programmes should be sustained.

7.3 Recommendations

This section synthesizes recommendations provided by economies and those that emerged from analysis of economy reports.

7.3.1 Recommendations for economies

- Adopt forest restoration and sustainable forest management as a priority policy and mainstream this policy across sectoral policies, plans and programmes. Forest restoration policies should incorporate legal measures to restrict forest land conversion to non-forestry purposes or apply stringent criteria for forest land conversion only when absolutely necessary for national interests.
- Work towards tenure rights for secure land title and legal enforcement to attract private investment and community forestry in forest restoration activities.
- Further support and promote community-based forest management as an approach for forest restoration and management.
- Make available appropriate land for forest restoration and enable long-term investment and access to finance (e.g., links with private financial institutions).
- Promote forest restoration at the landscape level, known as forest landscape restoration, including forests, farmlands, sandy areas, water and grassland systems in an integrated manner.
- Engage and encourage local governments, private sector, NGOs, farmers, scientific communities, educators, women's groups and other relevant stakeholders in planning, implementing and monitoring forest restoration programmes and activities.

7.3.2 Recommendations for APFNet

- Continue building the capacity of member economies. Strengthen cooperation between economies and international partners on all aspects of forest restoration policies, strategies, planning, implementation and M&E.
- Further contribute to the achievement of regional and global objectives on forest restoration by providing a platform for multi-economy, multisector and multistakeholder dialogue, exchanges and mutual learning in forest restoration concepts, laws and regulations, policy implementation, standards and norms, science, technology and innovation.
- Provide scientific and technological support to improve the quality of forest restoration. This may include transfer of advanced technology and knowledge for enhancement of tree seed germination and seedling quality, selecting suitable methods for afforestation/reforestation, and M&E.
- Commission an assessment of economies' implementation of policies, legal frameworks and programmes for forest restoration to understand the efficacy and constraints of these tools, as well as the level of satisfaction among stakeholders. This would help FPN develop more pragmatic cooperation to support forest restoration in each economy.
- Commission a follow-up study focused on how relevant agencies undertake planning for forest restoration in the member economies. This study may be combined with the implementation assessment.
- Consider a preliminary study on the impact of the COVID-19 pandemic on forest restoration, both on the sustainability of restored forests as well as planning of future restoration programmes and projects.

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Annex 1: Summary table of policies, legal frameworks, strategic plans and programmes for all economies as reported

Economy	Policies Note: Executive orders may contain both policy and legal provisions. Similarly, strategies, strategic plans and master plans may explicitly or implicitly include policies.	Legal frameworks		Strategic plans and programmes
		Laws	Regulations, directives	
Cambodia	*National Policy on Green Growth and National Strategic Plan Green Growth 2013–2030* *Cambodia Sustainable Development Goals* *National Arbour Day (9 July)*	*Law on Forestry 2002*		*Rectangular Strategy* *National Strategic Development Plan* *National Protected Area Strategic Management Plan 2016–2030* *National Biodiversity Strategy and Action Plan 2016–2020* *Strategic Planning Framework for Fisheries 2015–2024* *National Forest Programme 2010–2029* *Sub–decree on Community Forestry Management* *Agriculture Strategic Master Plan 2030*
China	*Measures for Forest Management and Management in Natural Forest* *Resources Protection Project 2012* *State Forestry Administration's Opinions on Deepening the Construction and Reform of the Three-North Protective Forest System 2014* *Opinions of the CPC Central Committee and the State Council on Speeding up the Construction of Ecological Civilization 2015*	*Forest Act* *Law on Sand Control* *Land Administration Act* *Urban & Rural Planning Act* *Mineral Resources Act*	*Regulations for the Implementation of the Forest Law* *Regulations on Returning Farmland* *Forest Pest Control Ordinance* *Forest Fire Protection Ordinance*	*Outline of the Five-Year Plan for National Economic and Social Development* *National Master Plan for Major Ecosystem Protection and Restoration Projects (2021–2035)*

China	*Measures for Administration of Examination and Approval of the Use of Forest Land for Construction Projects 2015* *Notice of State Forestry Administration on Strict Protection of Natural Forest 2015* *Opinions of the General Office of the State Council on Improving the System of Collective Forest Rights 2016* *State Forestry Administration Ministry of Finance on "state-level public welfare forest areas defined measures" and "state-level public welfare forest management measures 2017"* *Interim Measures for the Examination and Approval of Construction Facilities in National Nature Reserve 2018* *General Office of the CPC Central Committee and General Office of the State Council "Guidance on the Establishment of a System of Nature Conservation with National Parks as the Main Body 2019"* *Plan on the System of Conservation and Restoration of Natural Forest, General Office of the CPC Central Committee and General Office of the State Council 2019* *National Development and Reform Commission Pilot Program for Ecological Comprehensive Compensation 2019* *Notice of the National Forestry and Grassland Land Administration on Overall Promoting the Prevention and Control of the Epidemic Disease of Xinguang Pneumonia and Economic and Social Development to Do a Good Job in the Use of Forest Land for Construction Projects 2020*	*Soil & Water Conservation Act* *Prairie Act* *Wildlife Protection Act* *Environmental Protection Act* *Water Pollution Control Act* *Environmental Impact Assessment Act* *Water Act* *Flood Control Act* *Agriculture Act* *Rural Land Contracting Act*	*Nature Reserve Ordinance* *Land Administration Act Implementation Ordinance* *Land Survey Ordinance* *Regulations on the Implementation of the Soil & Water Conservation Act* *Grassland Fire Protection Ordinance* *Regulations on the Implementation of the Landborne Wildlife* *Regulations on Environmental Protection of Construction Projects* *Hydrographic Ordinance* *River Regulations Ordinance* *Flood Control Ordinance* *Basic Farmland Protection Ordinance*	*Outline of the National Plan for the Protection and Utilization of Forest Land (2011–2020)* *Forestry Five-year Plan (2016–2050)* *National Forest Management Plan (2016–2050)* *Guidance on the Establishment of a System of Conservation Areas with National Parks as the Main Body* *Programme for Conservation and Restoration of Natural Forests* *Programme on the System of Prohibition, Protection and Restoration of Sandy Land*

Lao PDR	*National Arbour Day (1 June)*	*Forestry law* *Land law* *Water and Water Resources law* *Industrial Processing Law Agricultural Law* *Environmental Protection Law 1999 (currently under consideration for revision).*		*Master Plan Study on Agricultural Development in Laos* *National Growth and Poverty Eradication Strategy* *Government's Strategic Vision for the Agricultural Sector* *National Land Use Planning Program* *Forestry Strategy to the Year 2020* *National Strategy on Environment to the Year 2020 and Action Plan for the Years 2006–2010* *National Biodiversity Strategy to 2020 and Action Plan to 2010* *National Agricultural Biodiversity Program*
Mongolia	*State Policy on Forest* *Green Development Policy* *Sustainable Development Vision 2030*	*Law on Forest*		
Myanmar	*Myanmar Forest Policy* *National Land Use Policy* *National Environmental Policy* *Myanmar Climate Change Policy*	*Forest Law* *Conservation of Biodiversity and Protected Areas Law*	*Community Forestry Instructions*	*National Forest Master Plan* *Myanmar Climate Change Master Plan* *National Biodiversity Strategy and Action Plan*

Nepal	*National Forest Policy* *National Environmental Policy* *Climate Change Policy* *Land Use Policy* *National Agroforestry Policy* *National Water Resources Policy*	*Forest Act* *Environmental Protection Act* *National Parks and Wildlife Conservation Act* *Soil and Watershed Management Act*		*Forest Sector Strategy* *Forest Fire Management Strategy* *Forest Encroachment Management and Control Strategy* *Scientific Forest Management Guidelines* *National Biodiversity Strategy and Action Plan* *Landscape Conservation Initiative* *Agriculture Development Strategy* *National Adaptation Programme of Action* *REDD+ Strategy* *15th Five-Year Plan (Development Plan)*
The Philippines	*Presidential Executive Order 23: Moratorium on logging* *Presidential Executive Order 263: Community-based Forest Management as national strategy for SFM* *Presidential Executive Order 31815: Mainstreaming SFM in the Philippine's policies and programmes*	*Presidential Decree 705: Forest Law* *Wildlife Resources Conservation & Protection Act (RA 9147)* *National Integrated Protected Areas System Act* *Climate Change Act (RA 9729)*		*Presidential Executive Order 26: National Greening Programme* *Presidential Executive Order 193: Extension of NGP as Expanded NGP (ENGP)* *Presidential Executive Order No. 318: Mainstreamed SFM into Philippine policies and programmes.* *Master Plan for Forestry Development* *National REDD-Plus Strategy* *Integrated Watershed Management Plan* *Forest Land Use Plan* *National Forest Protection Programme*

Annex 2: Concept note

Background

Globally, and particularly in Asia-Pacific region, forest sector is facing rapid changes. In recent decades, most economies in Asia-Pacific region have adopted sustainable forest management as the basic principle of managing forests. A shift from managing forests primarily for timber production towards not only for timber but also for other ecosystem services is also noticeable. At the same time, several processes at the international level, such as the UNFCCC (Paris Agreement) on climate change and the UN Sustainable Development Goals (SDGs), are impacting forests and forestry. It is obvious that all the changes have increased the complexity of planning in the forest sector, especially in terms of forest restoration which requires in-depth considerations of a larger scope of planning that both emphasizing ecological protection and the meanwhile meeting the socioeconomic development needs of the region.

During the 2019 Forestry Planning Network (FPN) workshop, held from 24 to 25 July 2019 in China, representatives exchanged experience and perspectives on success stories of forest restoration planning and lessons learned in their respective economies. The collected economy reports have been synthesized to share experiences among Asia-Pacific economies and demonstrate how forest restoration planning could be translated into concrete actions.

Building on the synthesized report, APFNet plans to further initiate a stocktaking study on forest restoration planning and practice in different economies in Asia-Pacific region, aiming to provide an in-depth understanding of the current policies, legal frameworks, management structures and existing practices related to forest restoration in various economies. The Study will target APFNet member economies on a voluntary basis and is expected to be conducted in 2020–2021.

Target economies and duration

- Target economies: The stocktaking study plans to cover about 10 regional economies. Participating economies will locate in APFNet's strategic geographic focus such as the Greater Mekong Subregion, Southeast Asia, South Asia and Pacific Islands.
- Duration: June 2020 to April 2021.

Objectives

The objectives of the stocktaking study are to:

- Provide clear views of the current policies, legal frameworks, sectoral plans relevant to forest restoration in involved economies.
- Provide detailed information on the roles and responsibilities of different institutions involved in forest restoration and how is the coordination structure.
- Illustrate the existing practices on implementation, monitoring and evaluation of forest restoration related policies or plans.
- Put forward recommendations on reinforcing forest restoration planning and practice in involved economies and identify niches where APFNet can provide supports.

Expected outputs

- An integrated report of the stocktaking study on forest restoration planning and practice in Asia-Pacific region will be produced. The reports will fully reflect the above objectives and serve as references for APFNet to plan its future activities.

Approach

The stocktaking study will be carried out following the approach as below:

- A senior international expert, who has rich experience in forestry planning and is familiar with forestry sector in Asia-Pacific region will be recruited to design the structure of the Stocktaking Study and prepare economic report template.
- FPN Focal Point from each participating economy will be requested to nominate a local expert who familiar with the forestry planning and management of the economy. The local expert is expected to perform the study tasks with Focal Point's support and submits the economic report according to template.
- The international expert will analyze the economies' reports submitted by involved economies and synthesize into an integrated report of stocktaking study.
- The staffs from APFNet's communication and outreach division will follow up the progress throughout the whole process of the study programme and participate in the preparation of integrated report.
- The report of the stocktaking study will be published and made available to the public.

Annex 3: Reporting template

Context for the study

Globally, and particularly in Asia-Pacific region, forest sector is facing rapid changes. In recent decades, most economies in Asia-Pacific region have adopted sustainable forest management (SFM) as the basic principle of managing forests. Several processes at the international level, such as the UNFCCC (Paris Agreement) on climate change and the UN Sustainable Development Goals (SDGs), are impacting forests and forestry practices. In spite of that, many economies of the region are still facing serious challenges of deforestation and forest degradation. Moreover, the current coronavirus pandemic has drastically disrupted all aspects of human civilization in every corner of the globe. The forest sector is not immune to the impact of this pandemic. It is obvious that all the changes and challenges have increased the complexity of planning in the forest sector, especially in terms of forest restoration that requires careful considerations to various natural and socioeconomic dimensions of SFM, such as maintaining health and vitality of forest ecosystems and contributing to economic and social development without adversely affecting environmental integrity of the economies.

In its effort to support member economies in forestry planning through collaboration and exchange of experiences, the Asia-Pacific Network for Sustainable Forest Management and Rehabilitation (APFNet) has launched a Forestry Planning Network (FPN). At its 2019 FPN workshop, on 24-25 July 2019 in China, economy representatives exchanged experiences and perspectives on forest restoration planning and lessons learned in their respective economies. The collected economy reports have been synthesized to share experiences among Asia-Pacific economies and demonstrate how forest restoration planning could be translated into concrete actions.

Building on the synthesized report, APFNet has initiated a stocktaking study on forest restoration planning and practice in different economies in Asia-Pacific region, aiming to provide an in-depth understanding of the current policies, legal frameworks, management structures and existing practices related to forest restoration in member economies.

Objectives of the stocktaking study

The stocktaking study is aimed to:

- Provide clear views of the current policies, legal frameworks, sectoral plans relevant to forest restoration in involved economies.
- Provide detailed information on the roles and responsibilities of different institutions involved in forest restoration and how is the coordination structure.
- Illustrate the existing practices on implementation, monitoring and evaluation of forest

restoration related policies or plans.

- Put forward recommendations on reinforcing forest restoration planning and practice in involved economies and identify niches where APFNet can provide supports.

Approach

This Stocktaking Study will be based on reports from APFNet member economies and will be synthesized into an integrated report. Although, such reporting will be on a voluntary basis, every effort will be made to receive at least 10 economy reports covering all subregions of the Asia-Pacific region.

A reporting template has been prepared to facilitate the member economies in providing relevant data and information on their policies, programs and experiences on forest restoration. The purpose of this reporting template is to provide a common format for all participating member economies to present information and lessons learned in a consistent and comparable manner. In the outline presented in the following pages, under each heading, a few sub-items and questions are provided as an indicative list of key information sought. However, they are neither comprehensive nor exhaustive. Economies are advised to use them as appropriate and are also encouraged to add any additional information and examples as they deem relevant.

A tentative list of key areas for which input is needed include the following:

- Background on the status of forest resources and management challenges in the economies.
- Details on the current policies, legal frameworks, sectoral plans relevant to forest restoration in involved economies.
- Roles and responsibilities of different institutions involved in forest restoration and their coordination structures.
- Provide examples/illustration of the existing practices on implementation, monitoring and evaluation of forest restoration related policies, plans or activities.
- Lessons learned in addressing restoration of degraded forest lands.
- Recommendations on reinforcing forest restoration planning and practice in involved economies and identify niches where APFNet can provide supports.

Length of reports

The length of the reports will vary from economy to economy. Economies are encouraged to be complete, yet as concise as possible, not exceeding 20 pages (excluding references, charts, tables and figures).

Submission of reports

Reports should be submitted by 31 January 2021 by email to: Ms. CHEN, Yijue, APFNet Secretariat (chenyijue@apfnet.cn); and Dr. JOSHI, Mahendra, Senior Consultant (mlj2005@gmail.com).

Template for preparing reports by the economies

Member Economy:
Date of Submission:
General Information

Officer/Expert who prepared the report

Name	
Title	
Address	
Telephone	
Email	

Forestry Planning Network (FPN) Focal Point

Name	
Title	
Address	
Telephone	
Email	

Suggested reporting template on forest restoration planning and practices in economies

1. Summary (about ½ page)
2. Introduction (about 2–3 page)

This section should set the context by providing a short description on the status of forest resources and management challenges. In particular, it should describe the following:
a. The extent of forest cover loss and forest degradation,
b. Factors contributing to the problems of forest loss and degradation.
c. Government response to combat those challenges.

3. Current policies, legal frameworks, sectoral plans relevant to SFM and forest restoration (about 3 pages)
This is one of the most important chapters of the report by economies. Please provide succinct but detailed and relevant information on all forest sector as well as other sectoral

policies, legal frameworks, and implementation strategies relevant to forest restoration. Details on specific elements of all instruments that address forest degradation and loss should be provided. For example,

a. Policies and their key features related to forests, SFM and forest restoration.
b. Legal frameworks and their key features related to forests, SFM and forest restoration.
c. Relevant sectoral plans, programmes such as Master Plans, National Forest Programmes, National Action Plans (e.g., for biodiversity conservation, combatting desertification, wildlife management, soil and water conservation, environment, etc.), and their key features related to forests, SFM and forest restoration.

4. Information on the roles and responsibilities of different institutions involved in forest restoration and nature of the coordination structures (about 3 pages)

Based on the information provided in the previous chapter, this chapter should provide detailed information on implementing strategies, implementing agencies (public and private), inter-linkages between those agencies, experiences in and their coordination mechanisms and challenges. For example,

a. Detailed information on the institutional arrangements within the different levels of government (e.g., in central, provincial, local governments).
b. Coordination and monitoring, reporting mechanisms among the different agencies and across the government levels.
c. Roles and engagement of non-state actors (stakeholders such as NGOs, industry, private sector, research institutions, *etc*.).

5. Examples/illustration of the existing practices on implementation, monitoring and evaluation (M&E) of forest restoration related policies or plans (about 3–4 pages)

The section should provide information on implementation policies and mechanisms supporting forest restoration from public and other stakeholders including examples. It may also discuss regional and international cooperation, including with APFNet, in the implementation and monitoring and evaluation (M&E) in relation to forest restoration and rehabilitation in the economy. Please include information, if any, on impact evaluation of implementation mechanisms, programmes, projects or activities on forest restoration. A few indicative examples (this is just for illustrative purpose and is not an exclusive list) could be on:

a. Examples of planning and programming for forest restoration at national and sub-national levels that are recognized as effective and successful in your economy.
b. Description of how resources for implementation of plans and programmes on forest restoration (financial, human and other resources) are mobilized.
c. Any unique and successful examples of coordination mechanisms within the forestry and environment relevant agencies, with other related public and private agencies.
d. Examples of unique and effective International cooperation with donor agencies and

international organizations.

e. M&E mechanisms and practices, including any noteworthy impact assessment conducted on the policies and programmes related to forest restoration.
f. Any other relevant illustrative cases and examples.

If there are practices or examples from sectors or agencies that are traditionally outside of the forest sector or forestry agencies (for example, public financial incentives or subsidies, financial institutions, business and community groups), which have impacted or have potentials to impact on forest restoration, please provide such information as well.

You should also include the impact of COVID–19 on forest sector in particular on forest restoration, if such information is available.

6. Lessons learned in addressing restoration of degraded forest lands (about 2–3 pages)

This chapter should provide in-depth information on lessons learned from all relevant policies, programmes, activities, their adequacies or gaps, and effectiveness based on national-level and local-level experiences, and identify major issues and challenges on forest restoration and management

7. Recommendations on reinforcing forest restoration planning and practice in involved economies and identifying niches where APFNet can provide supports (about 2 pages)

You are requested to provide national-level and local-level suggestions and recommendations to further enhance policies, programmes and capacity in the economy for planning and implementing forest restoration and management activities.

8. Additional relevant information, if any (pages, as appropriate)

A few indicative examples are supporting data, sources of information, publications, websites, etc..