TRAINING REPORT

Payments for Ecosystem Services

19 – 23 July 2021

AFoCO

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Payments for Ecosystem Services (PES)

19 – 23 July 2021

Note to Readers

The training report was prepared by the AFoCO Regional and Education and Training Center to the AFoCO Capacity Building Workshop on "Payments for Ecosystem Services: how PES serves as a new financial instrument in UN Decade on Ecosystem Restoration 2021 - 2030"virtually organized on 19 - 23 July 2021.

The Secretariat is grateful for the support and resources provided by participants of the Member Countries: Bhutan, Brunei Darussalam, Cambodia, Indonesia, Kazakhstan, Lao PDR, Malaysia, Mongolia, Myanmar, Philippines, Singapore, Thailand, Timor-Leste, and Viet Nam.

All comments on the assessment report by the participants were considered and duly addressed, where appropriate, in the final text of the report. The data in the report were validated by participants of Bhutan, Brunei Darussalam, Indonesia, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Viet Nam. The views expressed in this report may not necessarily reflect the views of the Assembly.

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CONTENTS

ABBREVIATIONS AND ACRONYMS

AFoCO	Asian Forest Cooperation Organization
BNCCP	Brunei Darussalam National Climate Change Policy
CBFE	Community-Based Forest Enterprises
CBFED	Community-Based Forest Enterprises Development
CBFMA	Community-Based Forest Management Agreement
CF	Community Forestry
CFE	Community Forestry Enterprises
CIFOR	Center for International Forestry Research
CPA	Community Protected Area
CSO	Civil Society Organization
DENR	Department of Environment and Natural Resources
ENR	Environment and Natural Resource
FAO	Food and Agriculture Organization of the United Nations
FMB	Forest Management Bureau
M&E	Monitoring and Evaluation
MoEF	Ministry of Economy and Finance
NAP	National Adaptation Plan
NDP	National Development Plan
NFA	National Forestry Act
NFMS	National Forest Monitoring System
NFP	National Forestry Policy
NP	National Plan
NGO	Non-governmental Organization
PES	Payment for Ecosystem Services
PFES	Payments for Forest Environmental Services
PFPDF	Provincial Forest Protection & Development Fund
PRF	Permanent Reserved Forests
RCG	Green Growth Roadmap
REDD+	Reducing Emissions from Deforestation and Forest Degradation-plus
RETC	Regional Education and Training Center
RECOFTC	The Center for People and Forests
RFD	Royal Forest Department
SOP	Security of Payment
VNFF	Vietnam Forest Protection and Development Fund
VNUF	Vietnam National University of Forestry
WFP	World Food Programme

1. BACKGROUND

Payments for Ecosystem Services (PES) is a type of market-based incentive system offered to farmers or landowners in exchange for managing their land to provide some ecological services for society or end-users. PES is considered and implemented as part of nature-based solutions under the Sendai Resilience Framework, contributing to disaster risk reduction and climate change adaptation with socio-economic benefits in an integrated manner.

Under the "UN Decade on Ecosystem Restoration 2021-2030" declared by UN General Assembly in 2019, the value of the PES has remained as one of the new financial instruments. At the 25th Session of the FAO Committee of Forestry in 2020, PES was emphasized as one of the innovative financing modalities for forest conservation, restoration, and sustainable use, to address deforestation. This call to action recognizes the need to speed up the restoration of damaged ecosystems to combat the global warming problem, improve food security, provide clean water, and conserve the planet's biodiversity.

Application of PES in the AFoCO region is at various stages of development among the countries. In 2014, AFoCo organized an international thematic workshop on PES entitled "How PES serves Livelihood of Forest Community in the Southeast Asia Region" in Da Lat, Lam Dong Province, Viet Nam. Participants from Cambodia, Indonesia, Republic of Korea, Lao PDR, Malaysia, Myanmar, Philippines, Thailand, and Viet Nam voiced out at the workshop, including a field visit to the Sun Lao community of Don Duong District, Lam Dong Province.

Throughout the 3-day intensive sessions, participants learned various lessons by sharing challenges and opportunities facing each country. One common experience about PES among the countries was that despite many valuation studies and pilot projects implemented in some countries with success, the outcome of such projects could not be brought forward without a high-level policy direction and regulatory support (A summary of country readiness to PES in 2014 is shown in Attachment-1). It was mainly summarized as below:

- A clear policy direction and commitment at the national level are needed to implement an effective PES program.
- A lack of high-level commitment needs to be addressed to expand the application of the PES scheme in the country.
- Awareness-raising and information sharing need to play a part in the PES operation.

The PES training in 2021 is a new arena for further clarification and examination before planning a PES programme/initiative at the regional level. Particularly, this training course focused on measures to address the said three challenges, such as exploring financial instruments to set the PES schemes in member countries.

2. OBJECTIVES

As a successive opportunity from the AFoCO PES workshop in 2014, the course aims to provide participants with a comprehensive understanding of PES for practical strategies in planning and encouraging projects/programs for PES in the forests and forestry sector. Participants learned how to address practical and sustainable solutions by sharing cases and experiences of the Asian region. The training outputs are utilized as the baseline information for the project concept note development. Eight sessions are provided by the trainers and various experts from international organizations, universities, research institutes, and government agencies. In addition, four PES practices of the member countries are introduced, which covered the current trends and cross-cutting practices reflecting general concepts and methodologies. The overview of the lectures is in **Attachment-2.**

3. PARTICIPANT ANALYSIS

3.1 INFORMATION OF PARTICIPANTS

This course welcomed 57 gender-balanced technical-level government officials and forestry experts involved in Payments for Ecosystem Services and related work of the Member Countries. Those involved for a minimum of one year of serving the government were invited from the respective member countries.

Table 1. Number of participants from the member countries

Sr	Countries	No. of Participants
1.	Bhutan	2
2.	Brunei Darussalam	3
3.	Cambodia	3
4.	Indonesia	10
5.	Kazakhstan	2
6.	Lao PDR	6
7.	Malaysia	2
8.	Mongolia	3
9.	Myanmar	2
10.	Philippines	13
11.	Singapore	3
12.	Thailand	4
13.	Timor-Leste	3
14.	Vietnam	1
	Total	57

Table 2. Position of participants

Sr	Position	Number
1.	Deputy Chief / CEO	11
2.	Forest Management Specialist	12
3.	Forestry Officer	11
4.	Manager	2
5.	Researcher	15
6.	Technical Assistance	1
7.	Teacher	3
8.	Student	2
	Total	57

3.2 PURPOSE OF PARTICIPATION

Country	Purpose of Participation
Bhutan	• How to design the PES scheme and the best practices and technologies for improving existing PES implementation? • Learn more about Ecosystem Service Indicators and valuation methodologies.
Brunei Darussalam	• To explore different PES mechanisms in the region • To get a deeper understanding of experiences in a region along with the logical structure of PES hence helping in designing PES schemes in a country
Cambodia	• The practical concepts of PES? How does it work? When is it feasible? Guidelines and Case Studies • How will PES schemes interact with underlying legal and policy frameworks?
Indonesia	• What strategies should be taken to increase communities' awareness to realize that ES has important roles and high values? • Is it possible to put a reasonable price on ES so that conservation and livelihood improvement objectives can be achieved or even equal the opportunity cost of other land uses?
Kazakhstan	• Exchange of experience • Professional development
Lao PDR	• How to create the PES guideline for the National level in each country after this training? • How to involve the young generation to share and implement this PES? • How to implement to the country that had an unclear guideline for this PES?
Malaysia	• What are the best practices to conduct PES, especially on its impact? • What is a new field/knowledge and technology for assessing payment for ecosystem services that can be explored? (if currently, there is none).

Mongolia	• How do we encourage more PES schemes as Mongolia has more unidentified than identified PES schemes? • A new field/knowledge such as an ex-ante indicator of the value of land plots applying for enrollment or of the relative value of proposed changes in management practices provided by different bids for enrollment.
Myanmar	• Is PES workable for ecosystem restoration in developing countries? • How to ensure the sustainability of PES between seller and buyer?
Philippines	• How do we encourage more replication of PES systems and involve more stakeholders in its implementation? • How do we ensure the sustainability of PES systems?
Singapore	• How can one integrate natural capital with a market-based approach for climate change adaptation? • How are PES projects developed?
Thailand	• To understand the PES concept correctly and appropriately with country context. • To build the capacity of regulators related to PES. • Need technical assistance to raise PES implementation.
Timor-Leste	• What are the main challenges of the Payments for Ecosystem Services in your country? • Which explains an example of a direct benefit of ecosystem services?
Viet Nam	• How is PES in Southeast Asia currently applied? • What kinds of PES have been already implemented and will be implemented in the future?

(Note: Information excerpted from Country Reports submitted by Participants)

3.3 CORE PROBLEMS

Country	Core Problems
Bhutan	• A limited number of PES schemes in the country
Brunei Darussalam	• PES is not yet recognized in the country
Cambodia	• No institutional arrangement (sectoral strategic development plan)
Kazakhstan	• N/A
Indonesia	• Institutional Arrangement for PES is still weak
Lao PDR	• Degradation of Ecosystem Services
Malaysia	• Conflict social and community
Mongolia	• PES in a limited frame (initial stage)
Myanmar	• No Market of Ecosystem Services
Philippines	• Lack of sufficient and sustainable financing for watershed management and conservation
Singapore	• Balancing the interests of the nation
Thailand	• None of PES national strategy and Action Plan
Timor-Leste	• High rate of deforestation in Timor-Leste
Viet Nam	• Institutionalization & development PES mechanisms for mangrove ecosystems

(Note: Information excerpted from Country Reports submitted by Participants)

3.4 CURRENT ISSUES OF PARTICIPANTS

PES READINESS IN 2014

- Nine (9) countries

CATEGORY	KH	ID	ROK	LA	MY	MM	PH	TH	VN
1. Valuation Study	Y	Y	Y	Y	Y	Y	Y	Y	Y
2. Pilot Project and Outcomes	Y	Y	Y	Y	Y	N	Y	Y	Y
3. Policy Advocacy and Awareness Raising	N	Y	Y	Y	Y	N	Y	Y	Y
4. Stakeholder Consultation	N	Y	Y	Y	N	N	Y	Y	Y
5. Enabling Legal Framework	Y	Y	Y	Y	N	Y	Y	N	Y
6. Nationwide Implementation	N	N	Y	N	N	N	Y	N	Y

PES READINESS IN 2021

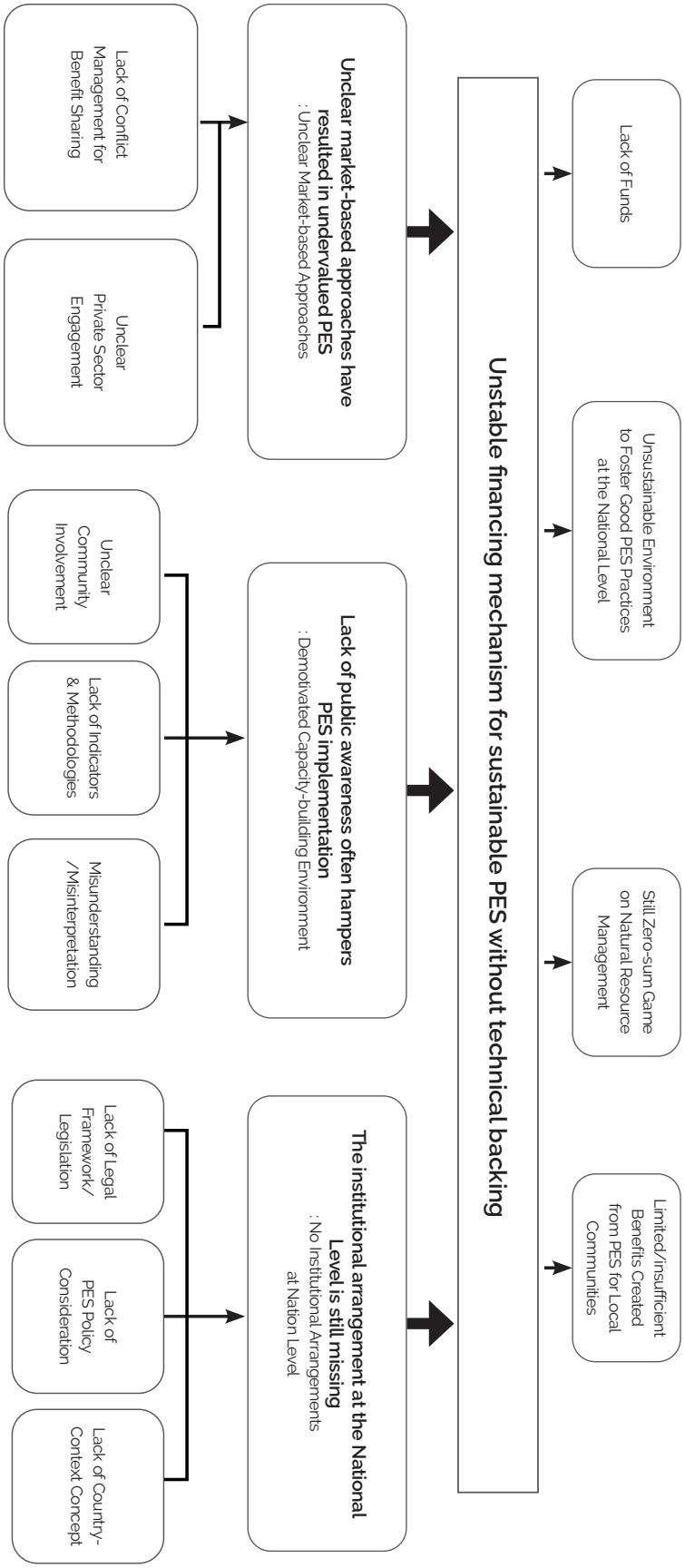
- 15 countries

CATEGORY	BT	BN	KH	ID	KZ	ROK	LA	MY	MN	MM	PH	SG	TH	TL	VN
1. Valuation Study	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	N	Y
2. Pilot Project and Outcomes	Y	N	Y	Y	N	Y	Y	Y	Y	N	Y	N	Y	N	Y
3. Policy Advocacy and Awareness Raising	Y	N	N	Y	N	Y	Y	Y	Y	N	Y	Y	Y	N	Y
4. Stakeholder Consultation	Y	N	Y	Y	N	Y	Y	N	Y	N	Y	Y	Y	N	Y
5. Enabling Legal Framework	Y	N	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y
6. Nationwide Implementation	Y	N	N	N	N	Y	N	N	Y	N	Y	N	N	N	Y

BT: Bhutan BN: Brunei Darussalam KH: Cambodia ID: Indonesia KZ: Kazakhstan KR: Korea, Republic of LA: Lao PDR MY: Malaysia	MN: Mongolia MM: Myanmar PH: Philippines SG: Singapore TH: Thailand TL: Timor-Leste VN: Viet Nam

Y= Yes; N= No; N/A= No answer

PROBLEM TREE ON PES IN THE AFOCO REGION



3.4.1 BHUTAN

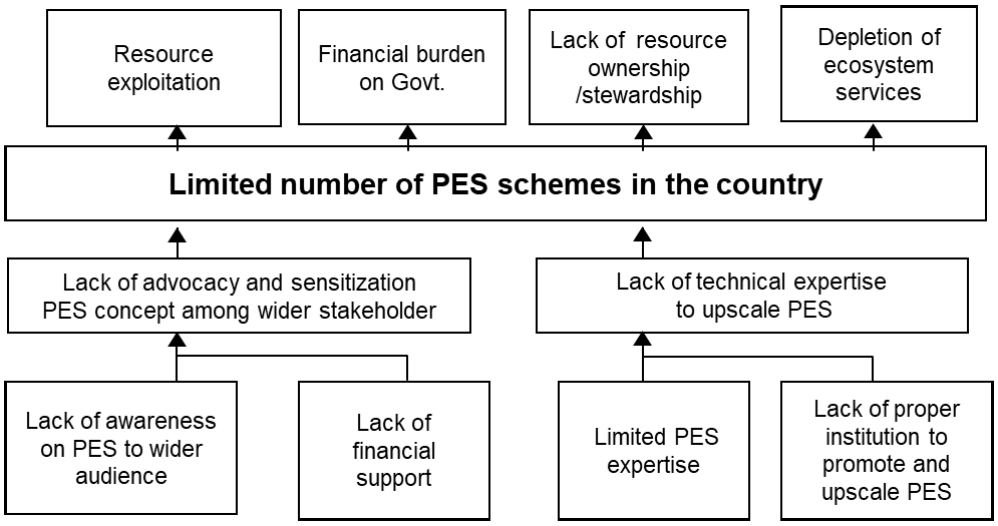


FIGURE 1. PROBLEM TREE ON PES IN BHUTAN

TABLE 3. SWOT OF PES IN BHUTAN

Strength	Weakness
• Foster partnership among relevant stakeholders and promote stewardship of resources by local communities to ensure effective conservation of natural resources. • Secure financial resources to manage natural resources (PES fee) • Ensure proper check and balance • Clear roles and responsibilities, including payment modalities	• Lack of awareness on PES • Applicability limited to certain/specific areas • Lack of capacity • Lack of financial resources (start-up fund)
Opportunity	**Threat**
• Change the practices of individuals who carry out harmful activities. • Conservation of the environment through the implementation of conditional conservation activities • Improve the livelihood of the upstream communities • Reduce financial and human resource burden on the government.	• The conflict between stakeholders (in case parties fail to adhere to agreed norms) • Misuse/ inequity in terms of resource allocation/ distribution

TABLE 4. COUNTRY STATUS AND ISSUES ON PES IN BHUTAN

Valuation Study	• Valuation on forest ecosystem done in 2018 • Capacity building • There is potential on watershed level for PES • Inconvenient for ecotourism and hydro power
Stakeholder Consultation	• Ministry of Agriculture and Forests (MoAFs) • Local Government- RNR Sectors including Gups, Magmis, and Tshokpas • Relevant Dzongkhag officials • Community Forest Management & Non-wood Forest Products Management Groups • Chief Forestry Officer, Territorial Divisions • NGOs (WWF-Bhutan, BTFEC, Royal Society for Protection of Nature (RSPN) • Communities • Hoteliers • Town residents and representative
Policy Advocacy and Awareness	• The PES framework for Bhutan 2015 and PES field guide for Bhutan 2015 have been developed.
Enabling Legal Framework	• The National Forest Policy of Bhutan, 2011 • The National Environment Protection Act, 2007 • The Water Act of Bhutan, 2011 • Bhutan Water Policy, 2007 • The Land Act of Bhutan, 2007 • The Cooperative (Amendment) Act of Bhutan 2009, and • The Economic Development Policy 2010 • Understanding the level or extent of the stakeholders • Priority of the stakeholders
Implementation	• Yakpogang PES in Mongar District: between Yakpugang community as ES provider Mongar town and Mongar Regional Referral hospital as ES beneficiaries • Burkhey PES Scheme in Chhukha District: between Industrial companies and Burkhey community • Namay Nichu PES Scheme in Paro district: between Namay Nichu community and Hoteliers • Thakorling & Khuchidangra PES Scheme in Tsirang District: between Kuchidarachhu community and Damphu town residence (5000 hh) • Preliminary assessment and PES feasibility conducted: - Assessment and stakeholder consultation to establish PES scheme in Gelephu under Sarpang District between upstream communities and Gelephu town completed. - Assessment and stakeholder consultation to establish PES scheme in Dopshari under Paro district completed.

3.4.2 BRUNEI DARUSSALAM

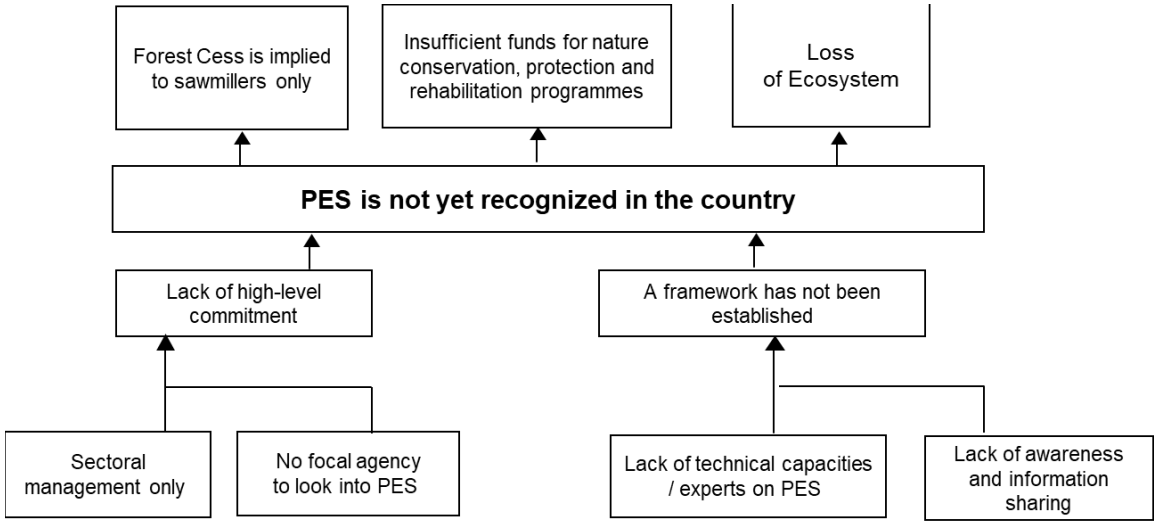


FIGURE 2. PROBLEM TREE ON PES IN BRUNEI

TABLE 5. SWOT OF PES IN BRUNEI

Strength	Weakness
• Involvement of multi-stakeholders, i.e., Tourism agencies and local community (Teraja Longhouse) • Forestry Department as an intermediary	• Conflict of Interests • Tourism target - market economy • Local Community – preserve the forest
Opportunity	**Threat**
• Create jobs and revenue for the local community • Preserve biodiversity of the forest	• Payment distribution (ratio of payment) • Forest Maintenance • Income to the tourism industry • Income to increase the livelihood of locals • Uncontrolled/Improper planning of development and land use

TABLE 6. COUNTRY STATUS AND ISSUES ON PES IN BRUNEI

Valuation Study	• N/A
Stakeholder Consultation	• N/A
Policy Advocacy and Awareness	• Forest Act, Chapter 46, Laws of Brunei • National Forestry Policy, 1989 • Forestry Strategic Plan 2020-2022 • Brunei Darussalam National Climate Change Policy 2020
Enabling Legal Framework	• Definition according to the Forest Act Chapter 46 Forest - A cess is payable in respect of any forest produce removed from any reserve forest, state land, reserved land, or alienated land at a rate per annum of US $4 per cubic meter • The cess shall be used for the following purposes - The preparation and implementation of programmes relating to forest conservation, rehabilitation programmes, and silvicultural works • The recruitment of personnel including consultancy services, the procurement of equipment, and the development of infrastructural facilities for the above activities; and - The promotion and awareness building of the public on activities related to the management, development, and conservation of forest resources. • Green Protocol - One of the initiatives spearheaded by the government in promoting a sustainable lifestyle to reduce carbon emissions in the country is in line with the Brunei Darussalam National Climate Change Policy (BNCCP) of paving the way for the country to become a sustainable nation. - Introduced the Cut 1 Plant 1 Development Policy, i.e., for every tree cut during the development of any government project, one new tree must be planted to compensate for the loss of carbon removal capacity.

3.4.3 CAMBODIA

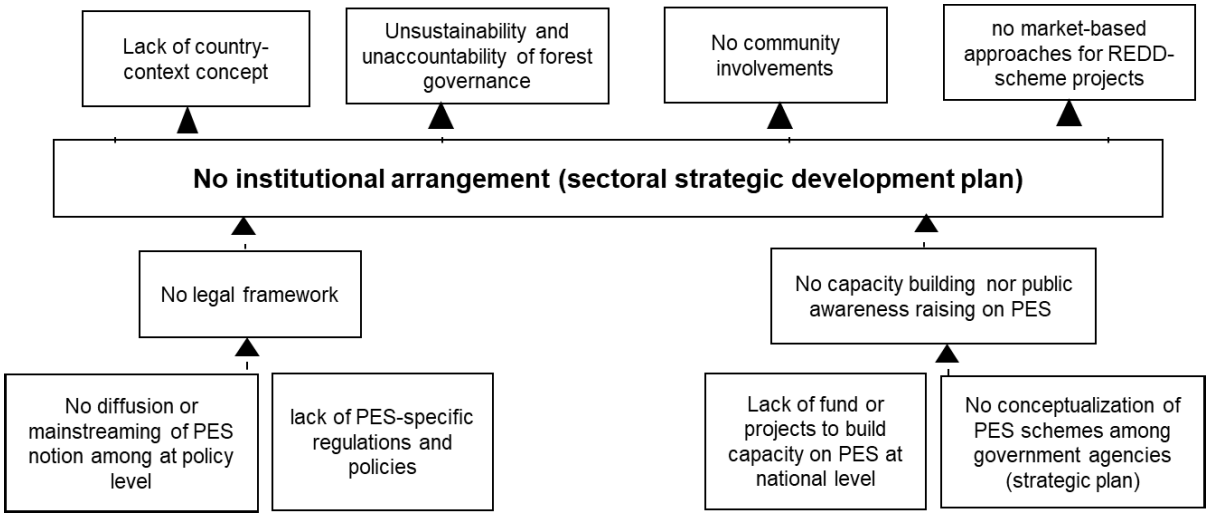


FIGURE 3. PROBLEM TREE ON PES IN CAMBODIA

TABLE 7. SWOT OF PES IN CAMBODIA

Strength	Weakness
• Existing regulations, policies, and schemes (projects) related to the management of Community Forestry (CF), Community Protected Area (CPA), REDD+ project… • Management regulations and coordination related to economic land concession (most part in former natural forest area) • Some practices (ecotourism, wildlife conservation, REDD+, water resource management, etc.) are already existed to generate direct income to local communities regarding PFES	• Local people still have poor knowledge and • No institutional setting: the rules of the PES scheme is not included in those • Relevant regulations/policies • No incentive/benefit-sharing mechanism provided to local ES-providers are emerged and ensured in the existing regulations (CF and CPA, in particular) • A lack of country-context concept
Opportunity	**Threat**
• Local people will be able to receive benefits of • Capacity Building / raise public awareness/ • Advocating/mainstreaming PES or PFES scheme into policies/regulations • Compilation of best practices related to PFES to prove how PES works	• Lack of support for policy at the national level • No explicit definition of what to pay, such as watershed management, biodiversity conservation, carbon sequestration… • No conflict management scheme

TABLE 8. COUNTRY STATUS AND ISSUES ON PES IN CAMBODIA

Valuation Study	• Tmaboey ecotourism protected Area • REDD+-Tumring (Kampong Thom province) • REDD+-Keo Seima (Mondulkiri province) 2015 (both are in verification stage-verified carbon standard)
Stakeholder Consultation	• At the local level (province, district, commune)
Policy Advocacy and Awareness	• Tmaboey ecotourism protected Area in Prech Vihea Province, Cambodia. • Yet, REDD+ public awareness seems not to be conducted widely
Enabling Legal Framework	• There is no legal basis for PES in Cambodia, but the idea of environmental services does feature in key policy documents. (Chervier et al., 2012). • These include the National Green Growth Roadmap (RCG 2009), the REDD+ Readiness Roadmap (UN-REDD 2010), and the National Forestry Programme (NFP) for 2010-2029 (RGC 2010). • These are used as an innovative financing tool and funding source for natural resource management or as a distribution mechanism for potential REDD+ revenues
Implementation	• Bird nest protection - Local people are offered a reward of up to US$5 for reporting nests - Protectors receive $1/day for their work, and an extra$1/day worked upon completion if the chicks successfully fledge - The birds nest protection program works entirely through individual contracts; it is not community-based • Community-based on Eco-tourism - The ecotourism program aims to conserve the globally threatened wildlife through establishing local village-level tourism enterprises that directly link revenue received to long-term species conservation - $30 per person if all key species are seen and $15 if only a subset are seen • Agri-environmental payment: Wildlife-Friendly Products (Ibis Rice) - Farmers that keep to the land-use plan and no-hunting rules - Sell their rice through the village committee responsible for the management of the land-use plan to a marketing association - Offers preferential prices to the farmers, which are supported by directly selling the rice to national market centers, bypassing middlemen who previously monopolized village trade, and through selling to tourist hotels under the 'Wildlife-Friendly' certification system, a new global brand - All profits are shared between the farmers and the village organizations after deducting the costs of the association - Average: $160/farmer • Seima Protected Area FEDD+ Project - Mondulkiri Province - Started: Jan. 2010 - 180 513 ha - 20 villages - VCS (Verified Carbon Standard) and CCBA (Climate Community and Biodiversity Standard) - Ongoing Verification

3.4.4 INDONESIA

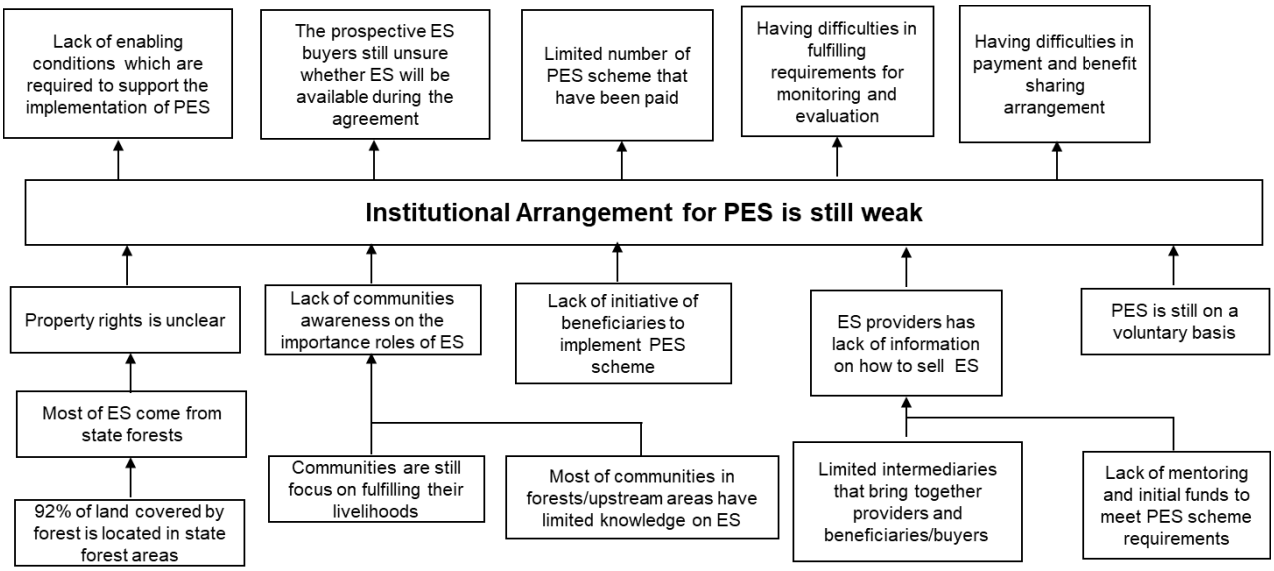


FIGURE 4. PROBLEM TREE ON PES IN INDONESIA

TABLE 9. SWOT OF PES IN INDONESIA

Strength	Weakness
• We already have some successful PES schemes. • Regulatory framework to establish PES in Indonesia • There are some potential beneficiaries using water from Cisadane Watershed 80% of the raw water source of Bogor city drinking water is originated from the Cisadane watershed.	• Lack of community awareness –information on ES distributed unevenly. • Weak Monitoring and Evaluation, e.g., there are guidelines on rehabilitation in the watershed area but limited monitoring and evaluation. • Lack of funds. • The community is still struggling to fulfill its livelihood. • About 97% of upstream Cisadane Watershed is categorized as a potential to critical - very critical land.
Opportunity	**Threat**
• The Indonesian Rehabilitation Program to improve the watershed condition. • The existing institutional arrangement at the local site: Watershed Forum, Forest Farmer Group. • Cisadane watershed is one of 15 watersheds of national priorities in Indonesia.	• Land conversion for other land uses. • Development is still based on sector perspectives.

TABLE 10. COUNTRY STATUS AND ISSUES ON PES IN INDONESIA

Valuation Study	• Indonesia has the third-largest expanse of tropical forests with important biodiversity, carbon stores, and locally important ES. • ES is included as one of the public goods available in large quantities and can be obtained free of charge. • Decreasing ES quality and increasing disaster frequency (landslide, flood) => raise people's awareness of the importance of ES. • Research: - Upstream and downstream linkages on ES - Quantification of ES - Valuation of ES • The role of upstream areas for conservation vs. to meet livelihood. • PES schemes have been operating in Indonesia since the beginning of the year 2000.
Stakeholder Consultation	• Ministry of Forestry (Directorate General of Watershed Management and Forest Rehabilitation, Directorate General Social Forestry and Environmental Partnership, Directorate General of Climate Change, Directorate General of Forestry and Environmental Planning) • A regional drinking water company • Private companies (eg PT Krakatau Tirta Industri) • District government • Provincial government • CSO/NGO (Konsepsi, WWF, Rekonvasi Bhumi, Flora Fauna Indonesia, Community Forest Ecosystem Services)
Policy Advocacy and Awareness	• Government, NGO/CSO, private companies, related stakeholders are already aware of the role of providers in providing ES. • To support the implementation for ES; networks, institutional arrangement, and capacity building for providers => Watershed forum, forest farmer groups, village forest • The government has promulgated regulations governing the implementation of PES.
Enabling Legal Framework	• Law No. 32/2009 on Environmental Protection and Management • Government Regulation (GR) No. 46/2017 on Environmental-Economic Instruments
Implementation	• PES schemes have been implemented in Indonesia at the project level (private to the community), district level, and provincial level. • Important roles of "intermediary agencies." • PES schemes identified are for water and carbon services. • In each PES scheme, there is a contract agreement that contains the rights and responsibilities of stakeholders and the amount of payment.

3.4.5 KAZAKHSTAN

(No problem tree provided)

TABLE 11. SWOT OF PES IN KAZAKHSTAN

Strength	Weakness
• Opportunity to benefit from ecosystem services • The benefits obtained make it possible to maintain additional environmental institutions	• Lack of Concept on payment for ecosystem services
Opportunity	**Threat**
• N/A	• Weather conditions for land users • Mistrust between buyers, suppliers, and intermediaries of ecosystem services

TABLE 12. COUNTRY STATUS AND ISSUES ON PES IN KAZAKHSTAN

Valuation Study	• Pilot project - There is a developed methodology based on the example of the Karkarali State National Natural Park. - There are problems at the legislative level.
Stakeholder Consultation	• Necessary with all stakeholders.
Policy Advocacy and Awareness	• Policy Advocacy and Awareness are supported by various project
Enabling Legal Framework	• The legal framework is being improved
Implementation	• Implemented with the support of a UNDP project

3.4.6 LAO PDR

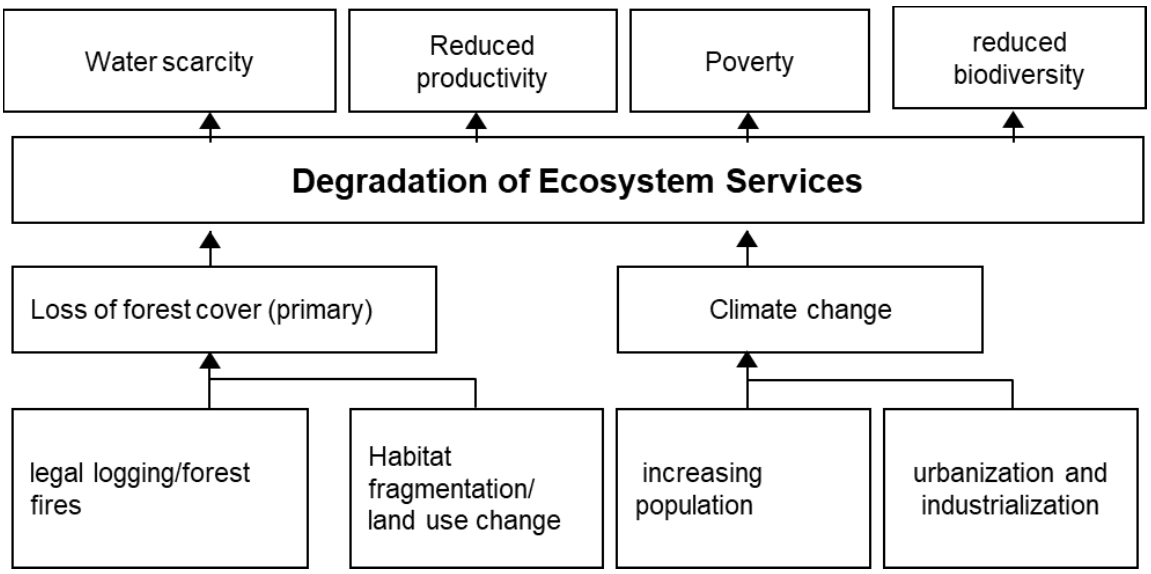


FIGURE 5. PROBLEM TREE ON PES IN LAO PDR

TABLE 13. SWOT OF PES IN LAO PDR

Strength	Weakness
• Forestry area • Legislation • Community, staff, private sector	• Excessive utilization • Lack of join enforcement • A different direction to action
Opportunity	**Threat**
• Forest and Ecosystem restoration	• N/A

TABLE 14. COUNTRY STATUS AND ISSUES ON PES IN LAO PDR

Valuation Study	• J. Bennett, P. Kyophilavong, G. Scheufele, M. Renton and X. Tsechalicha (July 2017) Designing and Implementing Payments for Environmental Services Schemes: Experience from Lao PDR. • William Robichaud (2014) Motivation for payments for ecosystem services in Laos
Stakeholder Consultation	• Government • Ministry of Agriculture and Forestry • Department of Forestry (Office in the district to the local community)
Policy Advocacy and Awareness	• Forest tread policy brief in forest conversion in Lao PDR (2020) • The Awareness-raising workshop on FLEGT VPAs, REDD+ and Timber Legality Definition in Forest Governance and Forest law for the local government officers and local community (22 February 2020) • Lao PDR National Agro-Biodiversity Programme and Action Plan II (2015-2025) • National forestry and administration in Laos (17 July 2020)
Enabling Legal Framework	• Forestry Law (2019) - Refer to activities specifically related to forestry, including Non-Timber Forest Products and forest-based agro-biodiversity resources. It calls for management plans to be developed for all conservation, protection, and production forest categories. • Agriculture Law (1998) - Aims to promote agricultural production to guarantee that food and agricultural commodity supply expand agro-industrial processing and contribute to the national economy without damaging the environment. • Water and Water Resources Law (1996) - Under revision as Law on Water Resources containing issues on flood management, data sharing, and water quality. • Environmental Protection Law (2012) - Sets the legal basis for management, monitoring, restoration, and protection of the environment, natural resources, and biodiversity for the country's sustainable development.
Implementation	• PES Scheme has been implemented in Lao PDR. But there is not cover for all projects. There is lacking guidelines for National PES • Nam Theun 2 (NT 2) is the first buyer who had to pay for ecosystem service (PES); in this case, NT 2 must pay for Watershed Management and Protection Authority (USD 1M/year)

3.4.7 MALAYSIA

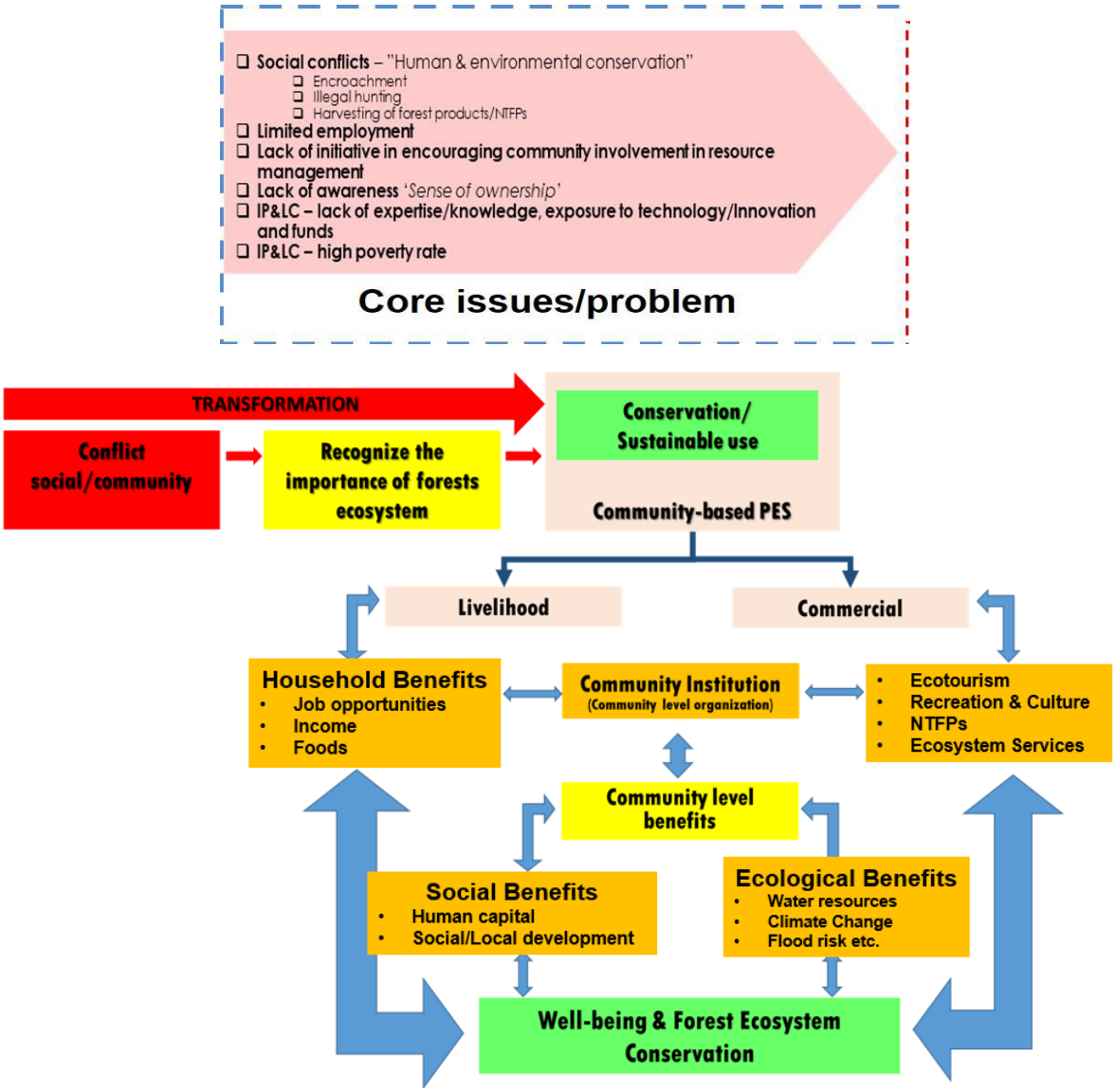


FIGURE 6. PROBLEM TREE ON PES IN MALAYSIA

TABLE 15. SWOT OF PES IN MALAYSIA

Strength	Weakness
• Forested area about 5.7 mil ha in Peninsular Malaysia • Water catchment areas have been gazetted • Malaysia has been recognized as one of the 12 mega biodiversity countries in the world	• There is no forest act that allows the collection of payments to certain ecosystems. • Limited funding
Opportunity	**Threat**
• Increase the income of the household • The local authorities allocate funds to upgrade and develop facilities • Increase the activity for natural landscape protection and biodiversity conservation	• Land-use changes – Forest is a state matter • Focus more on income rather than conservation – Revenue of services

TABLE 16. COUNTRY STATUS AND ISSUES ON PES IN MALAYSIA

Valuation Study	• Quite extensive but focus more on timber and market goods in each forest ecosystem • Lack of economic values to indicate environmental resources and non-plant resources • Nature tourism areas in a forest environment in particular – undervalued - Considered the extractive value of their component resources (such as commercial forestry & etc.) • Little economic importance attached to a non-extractive value - Generates no obvious commercial returns, no value • Resulted - Under-emphasized in development and conservation policy, planning and management practice
Stakeholder Consultation	• The agency/department has conducted various stakeholder consultations with government agencies, the private sector, NGOs, including community groups • Educate/empower the public for greater support and engagement in natural resource conservation
Policy Advocacy and Awareness	• The Forestry Department Peninsular Malaysia is responsible for the management, planning, protection, and development of the Permanent Reserved Forests (PRF) in accordance with the Malaysia Forestry Policy 2020 and the National Forestry Act (NFA) 1984 • Various initiatives and programmes on forest and biodiversity conservation are intensified, improved, and strengthened • Recently, the Greening Malaysia program/agenda to enhance forest conservation through tree planting, rehabilitation, and restoration of degraded forest areas, in collaboration with state governments
Enabling Legal Framework	• Existing and relevant policies and legislation will be consulted • Among the policies and legislation include: - National Forestry Act 1984 (Amendment 1993) - Malaysia Forestry Policy
Implementation	• Conservation through effective ecosystem management – JFM with local communities (Community-based PES)

3.4.8 MONGOLIA

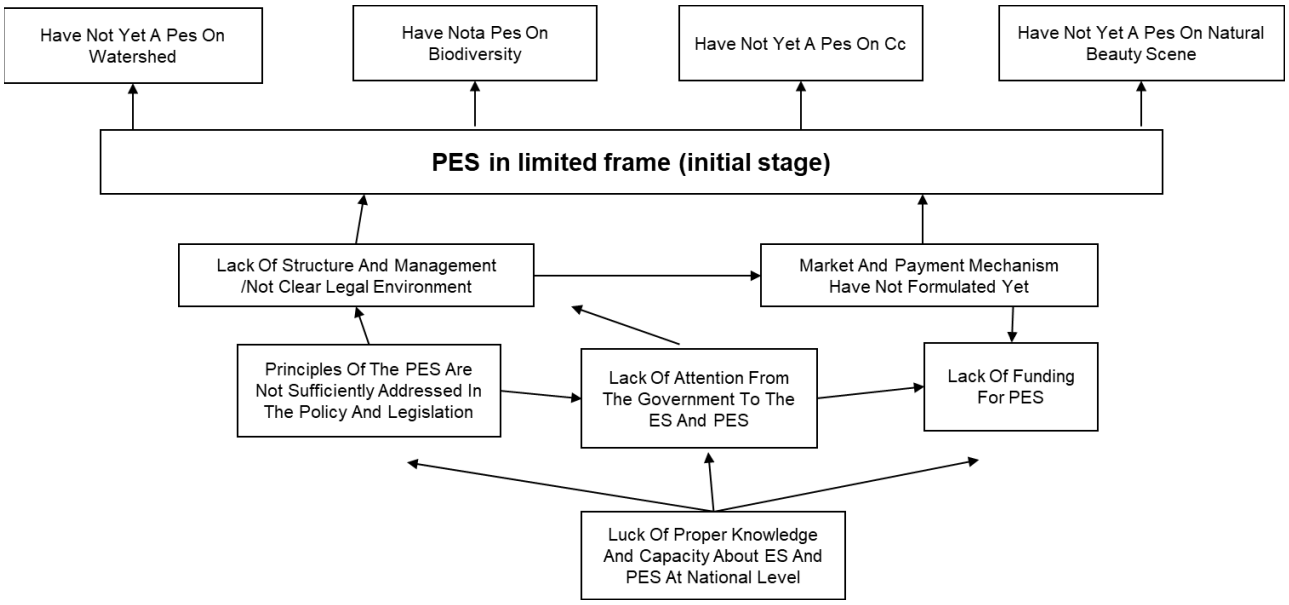


FIGURE 7. PROBLEM TREE ON PES IN MONGOLIA

TABLE 17. SWOT OF PES IN MONGOLIA

Strength	Weakness
• Natural virginity preserving relatively long • Traditional nomadic culture • Pure ecological products and services	• Lack of knowledge of PES • Lack of legal environment • Lack of proper management and capacity building
Opportunity	**Threat**
• Financial support from donor agencies • Number of BDC projects that possible to link the PES	• Covid-19 • Weak knowledge and experience

TABLE 18. COUNTRY STATUS AND ISSUES ON PES IN MONGOLIA

Valuation Study	• Pressing issues of rangeland in Mongolia: Solutions and Prospect, 2019 (suggested a pasture use fee scheme) • Assessment on the biodiversity and ecosystem services of the four aimags, 2021
Stakeholder Consultation	• The national scale consultation on Ecosystem Services and its payment mechanism has not yet been held, but sectoral and/or aimag level workshops have been organized since 2015.
Policy Advocacy and Awareness	• Introducing pasture fees – a form of BD financing solution (BIOFIN) • Introducing and testing PES, namely, payment for non-timber forest products, financing of argali and ibex hunting regions, and pasture use fee (ENSURE)
Enabling Legal Framework	• Law on Natural Resources Use Fee (17 May 2012) • Law on Livestock Tax (13 Nov 2020) • Package Law on Land drafted that addressed pastureland issues, wildlife management, and ecosystem services.
Implementation	• Mongolia is one of the few countries that can fully implement ecosystem services since its natural virginity is preserving relatively long. • Embedding systemic tools and capacity for enhancing ecosystem services through sustainable rangeland and forest management, and biodiversity conservation • Application of sustainable rangeland and forest management and BDC to reduce land degradation/desertification and to enhance ecosystem services • Community livelihoods enhancement to restore and sustain BD and ecosystem services • Knowledge management, M&E, and gender streaming • The fees imposed on the use of timber, flora, and fauna are set at the local government level. • The PES mechanism of non-timber forest products was tested at two target soums of Zavkhan aimag in 2020. As a result, MNT 810,200 (USD 311) was collected in Tosontsengel soum and MNT 208,380,000 (USD 80,146) in Ikh-Uul soum, Zavkhan aimag from non-timber forest products (cedar nuts and fruits). Ikh-Uul soum's Citizens' Representative Khural was decided to spend MNT150,000,000 (USD 57,692) on forest protection and forest rehabilitation for 2021

3.4.9 MYANMAR

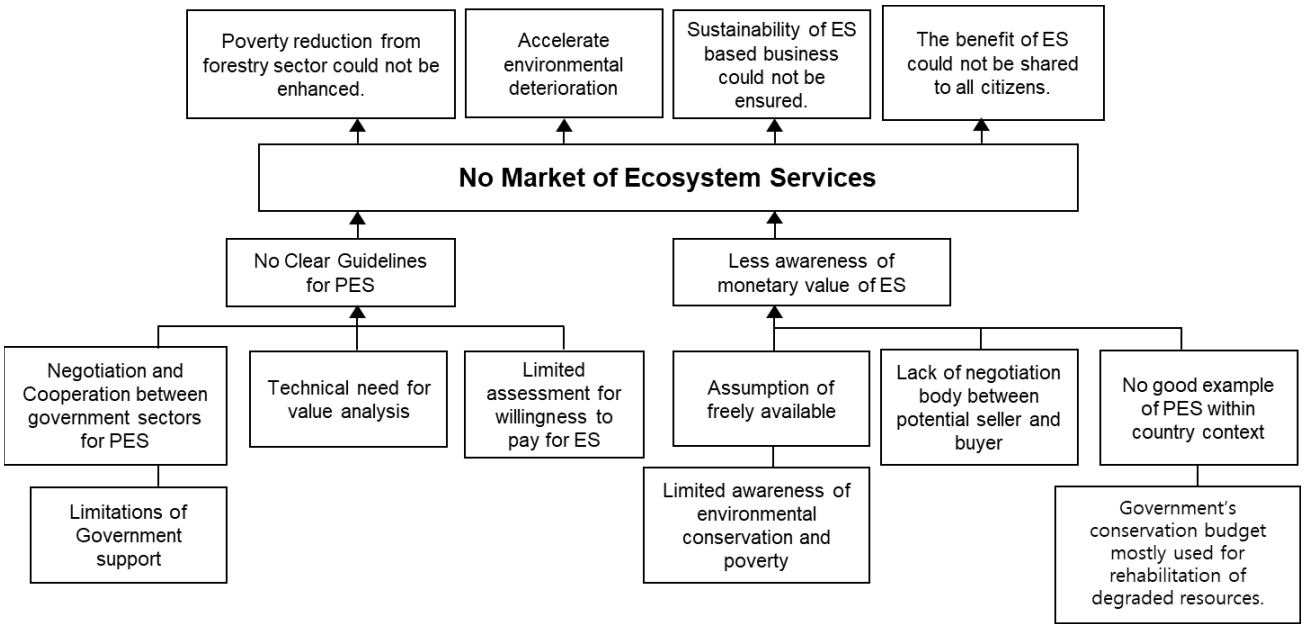


FIGURE 8. PROBLEM TREE ON PES IN MYANMAR

TABLE 19. SWOT OF PES IN MYANMAR

Strength	Weakness
• Biodiversity richness (PAS) • The legal framework already existed • Information sharing platform (FD website)	• Effective management needs funds and HR • Law enforcement needs to be strong • Awareness-raising needed • Sectoral co-ordinations needed to scale up to more
Opportunity	**Threat**
• MRRP & RNH ongoing State-funded programs for ecosystem restoration • Inle Lake PES program-pilot to be conducted • Introduction of PES into Private-Public Partnership • CFE implementation	• Policy endorsement needed • Market liability

TABLE 20. COUNTRY STATUS AND ISSUES ON CBFED IN MYANMAR

Valuation Study	• Emerton, L. and Aung, Y.M. (2013) The Economic Value of Forest Ecosystem Services in Myanmar and Options for Sustainable Financing. International Management Group, Yangon. • Peh, K.S-H.; Merriman, J.C.; Dae We Aung, T.; Theint, S.M.; Murata, N.; Suzue, K. (2015) Economic valuation of Moeyungyi Wetland, Myanmar. BirdLife International, Tokyo, Japan. • Soe Zin, W.; Suzuki, A.; Peh, K.S.-H.; Gasparatos, A. (2019) Economic Value of Cultural Ecosystem Services from Recreation in Popa Mountain National Park, Myanmar: A Comparison of Two Rapid Valuation Techniques. Land 2019, 8, 194. • https://doi.org/10.3390/land8120194
Stakeholder Consultation	• Stakeholder consultations are usually conducted at some project levels in the framework of sustainable forest management and watershed conservation approaches
Policy Advocacy and Awareness	• In Myanmar, there are six policy imperatives in Forest Policy (1995), including Public Awareness Raising. • The PES program might be feasible to implement under the Forest Policy (1995), although there is no specific policy formulated for PES.
Enabling Legal Framework	• In the framework of Forest Management and Biodiversity & Environmental Conservation, there are laws and regulations already issued in Myanmar - The Forest Law (2018) - The Conservation of Biodiversity and Protected Areas Law (2018) - Environmental Conservation Law (2012) - Community Forestry Instructions (2019)
Implementation	• There is some potential in implementing PES programs such as payments for recreation-based ecosystem services, carbon trade from sustainable model forests, and payments for watershed services. • Although there are no significant outcomes directly related to PES programs in Myanmar, the intact potentials exist but are still locked in various challenges or obstacles ahead.

3.4.10 PHILIPPINES

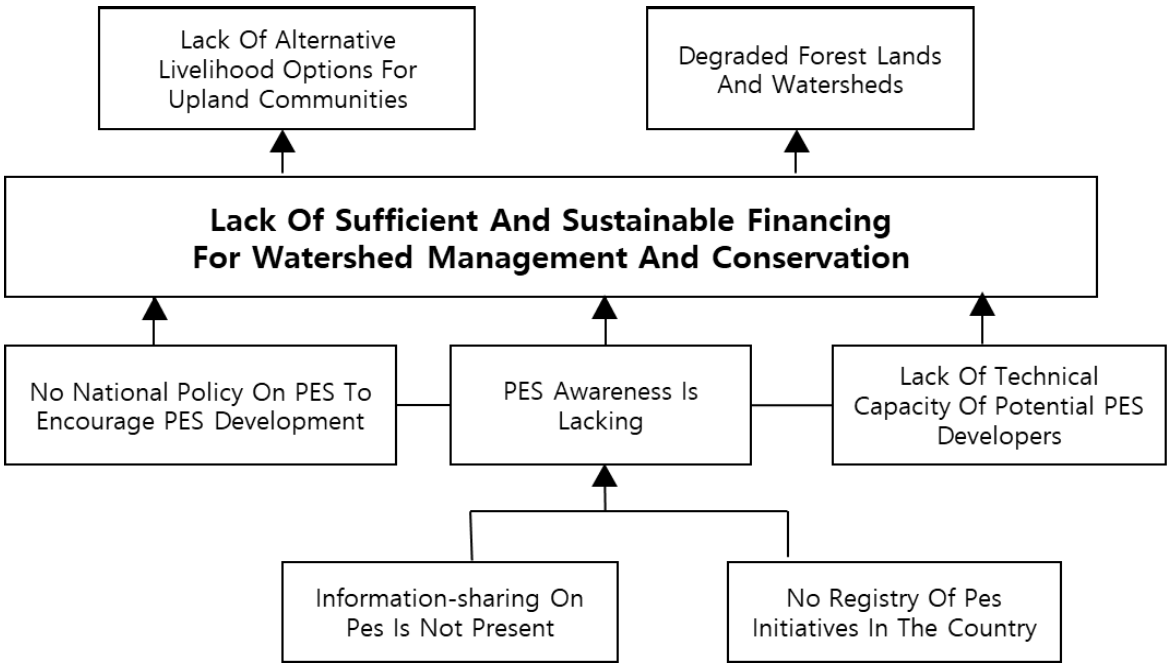


FIGURE 9. PROBLEM TREE ON PES IN THE PHILIPPINES

TABLE 21. SWOT OF PES IN THE PHILIPPINES

Strength	Weakness
• PES can be considered as supporting instruments of forest-related policies • An important role in sustainable forest management, particularly in the protection and conservation of watersheds • PES as a key market-based instrument for achieving environmental protection goals • Availability of several PES studies which can be used in institutionalizing the PES mechanism	• Inadequate understanding of ecosystem services, especially what is being sold, and its long-term implications for local livelihoods and resource rights • Absence of national policy on PES mechanism
Opportunity	**Threat**
• Eligible for funding such as in Natural Capital Financing Facility and organizations such as AFoCO, CIFOR, World Bank, which provides funding and technical assistance to the different countries • Availability of several studies focused on PES • Continuous popularity and trend of sustainability	• There is a potential for unfair sharing of net revenues • When rural communities form partnerships with • Business entities to supply ecosystem services, Especially when there is unequal access to Information on the demand market. • Political influence in the decision-making process, particularly in the field

TABLE 22. COUNTRY STATUS AND ISSUES ON PES IN THE PHILIPPINES

Valuation Study	• ES Valuation is usually done by the academe/CSOs in the country. Recent valuation studies in which FMB was part of: - Philippine Wealth Accounting and Valuation of Ecosystem Services (Phil-WAVES) Project (2015) - DENR-World Bank Program on Forests Study (2017) - Contingent Valuation study as part of the Replication of PES initiatives in Bataan, Philippines (2018) - Valuation of Watershed Ecosystem Services in Forestland Management Project sites (2020) - Valuation of Watershed and Forest-based Ecosystem Services in Chico and Bukidnon Upper River Basins (INREMP, 2020)
Stakeholder Consultation	• Stakeholder consultation is being done usually at the project and local level.
Policy Advocacy and Awareness	• Policy advocacy and awareness-raising on PES are usually done at the project/local level, although not in a continuous way. Recently, a national campaign (Save our Watershed) was launched, highlighting resource mobilization and fund generation schemes and mechanisms for watershed development. • Information sharing of existing PES systems in the country is not present.
Enabling Legal Framework	• The Philippines issued Executive Order 318, stating that innovative financing systems shall be encouraged to support sustainable forest management and conservation of forest-based biodiversity. • The Philippine Master Plan for Climate-Resilient Forestry Development also included establishing PES guidelines as one of its strategies.
Implementation	• Implementation of PES schemes is present in the different parts of the Philippines and is usually done through the issuance of a local ordinance/resolution and sometimes through a national law (EPIRA/IPAF). • Implementation of all PES initiatives in the country is not monitored in a centralized manner. A national policy that encourages developing more PES systems and monitors all existing systems is currently not in place. However, an administrative order has already been drafted to address this matter.

3.4.11 SINGAPORE

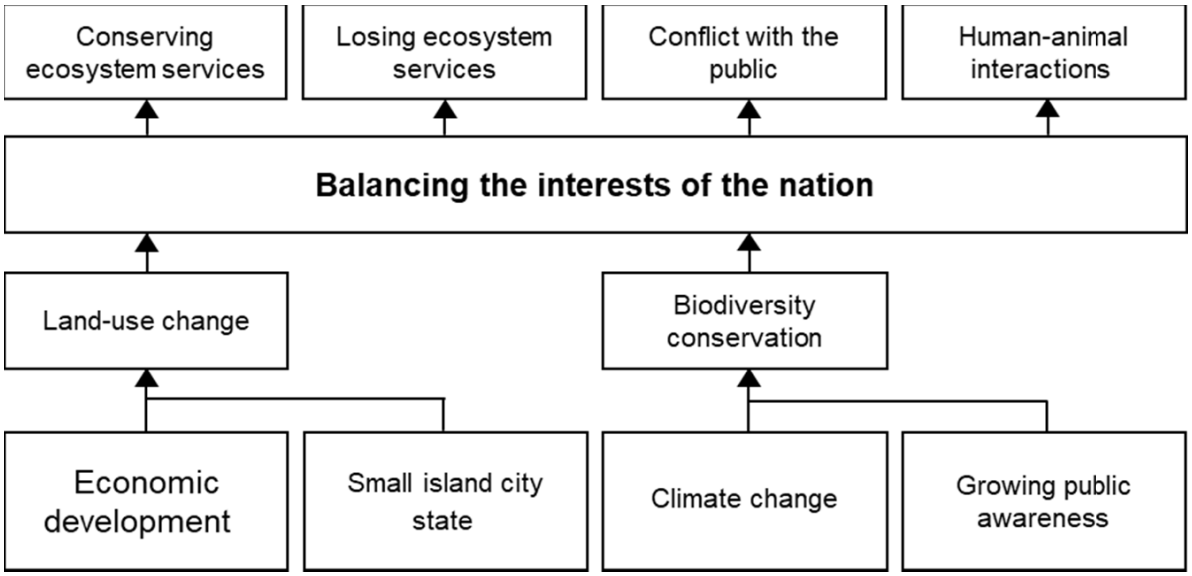


FIGURE 10. PROBLEM TREE ON PES IN SINGAPORE

TABLE 23. SWOT OF PES IN SINGAPORE

Strength	Weakness
• Review standard operating procedures on decision-making for development • A form of nature-based adaptation solution • Involvement of public and other stakeholders	• Singapore is a small island state with limited land for implementing PES, also noting that the government manages almost all land with no local communities living traditionally off the land • Varying ecosystem services that are valued by the public differently (economic, social, health, etc.) make data collection difficult
Opportunity	**Threat**
• Explore other regional or bilateral PES systems • Produce new Standard Operating Procedures in evaluating ecosystem services • Build on the existing Natural Capital project • Explore the potential for urban greenery to provide ES	• Disagreements between stakeholders in the valuation system • Incomplete valuations that overlook certain ecosystem values

TABLE 24. COUNTRY STATUS AND ISSUES ON PES IN SINGAPORE

Valuation Study	• N/A
Stakeholder Consultation	• The Natural Capital Singapore project was the first comprehensive assessment of tropical urban natural capital in Singapore, a unique collaboration between academia, research institutes, and government. • Objectives of the project - Quantify the status of Singapore's terrestrial and coastal-marine ecosystems - Quantify and value Singapore's ecosystem services to society – both economic and societal - Assess interactions between urban development and natural capital - Assess future policy and development opportunities that integrate natural capital within a sustainable future city - The interdisciplinary research team comprised of architects, biologists, ecologists, economists, geographers, and software engineers from government agencies, NGOs, and the wider research community in Singapore and internationally
Policy Advocacy and Awareness	• Singapore Green Plan 2030 (SGP2030) - National sustainability movement seeking to rally bold and collective action to tackle climate change • City in Nature - Integrating nature into our city to strengthen Singapore's distinctiveness as a highly live able city while mitigating urbanization and climate change. - Singaporeans will enjoy an environment that will have cleaner air and water, cooler urban temperatures, and benefits to health and well-being. - Four key strategies will guide Singapore's transformation into a City in Nature (1) Extending Singapore's natural capital (2) Intensifying nature in gardens and parks (3) Restoring nature into the urban landscape (4) Strengthening connectivity within Singapore's green spaces
Enabling Legal Framework	• The Parks and Trees Act (2005) - Provide for planting, maintaining, and conserving trees and plants within national parks, nature reserves, tree conservation areas, heritage road green buffers, and other specified areas, and for matters connected in addition to that.
Implementation	• As Singapore becomes a City in Nature, we will build upon what has been achieved and further restore nature into the urban fabric. We have identified several key areas to guide our efforts towards fulfilling this vision.

3.4.12 THAILAND

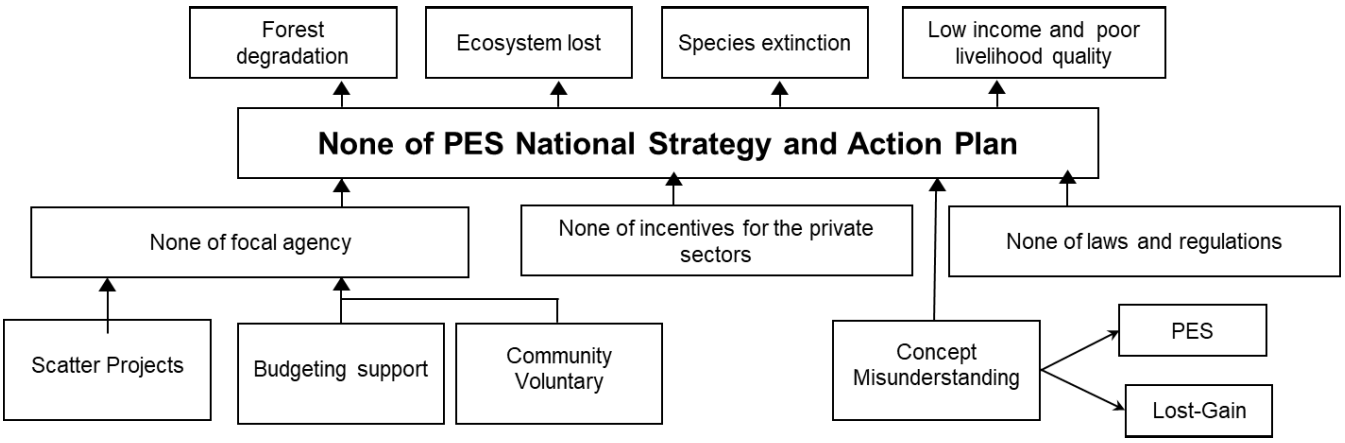


FIGURE 11. PROBLEM TREE ON PES IN THAILAND

TABLE 25. SWOT OF PES IN THAILAND

Strength	Weakness
• National Policy Advocacy • Experiences from many Pilot Sites • Some Legal Framework mentioned on PES concept	• Lack of thoroughly PES Concept • Misinterpretation in PES activities • Non-consistency of budget allocation • No focal point agency for PES regulations • PES is not the priority of regulating agencies • Scattered projects were conducted with different services, sites, and agencies. • Service buyers are free riders for ES benefit currently.
Opportunity	**Threat**
• Community Voluntary in NR conservation • Responsible Private Enterprises • Global trend supports this Market-based approach which can substitute the gaps of command and control	• Unstable political status • Government Policy/intervention is contradicted with conservation. • Mistrust among providers, buyers, and intermediaries

TABLE 26. COUNTRY STATUS AND ISSUES ON PES IN THAILAND

Valuation Study	• Economic Evaluation of Non-timber Forest Products for Benefits from Omkoi National Forest Reserve, Chiang Mai Province (2014) • Willingness to Pay for the Benefits of Biodiversity and Ecosystem Service: A Case Study of Bang Ka Chao, Prapadang District, Samutprakarn Province (2015) • The Economic of Ecosystem Service on Tourism and Recreation in Protected Areas: Case Study of Eastern Forest Complex (2015) - CATSPA • Economic Valuation of East Thanon Thong Chai Range Forest (2015) • Valuation of Khlong Thadee Watershed Management for Water Utilization un Urban Area of Nakhon Si Thammarat (2018) - ECOBEST • Economic Valuation of Conservation: Benefit Awareness of Yangna (2018) • Economic Valuation of Shoreline Erosion from Beach Forest: A Case Study of Charathath Beach, Songkhla Province
Stakeholder Consultation	• N/A
Policy Advocacy and Awareness	• The 12th National Economic and Social Development Plan (2017 – 2021) • National Strategy (2018 - 2037) • National Reform Plan – Natural Resources and Environment (2017) • Master Plan for Climate Change (2015 – 2050)
Enabling Legal Framework	• Community Forest Act (2019) • National Environmental Quality Preservation and Promotion Act (1992)
Implementation	• N/A

3.4.13 TIMOR-LESTE

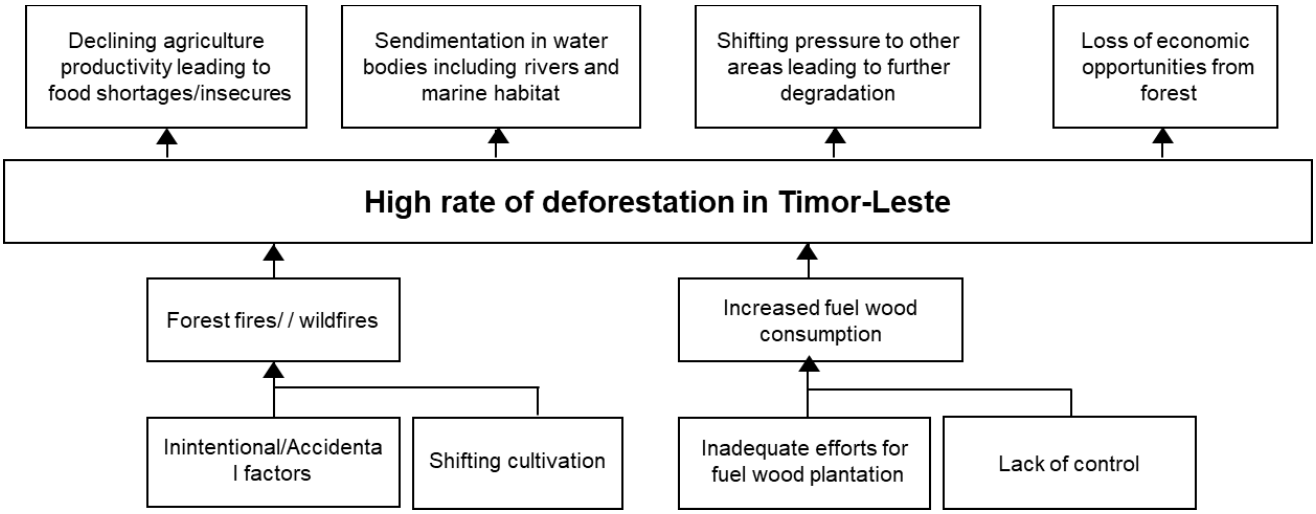


FIGURE 12. PROBLEM TREE ON PES IN TIMOR-LESTE

TABLE 27. SWOT OF PES IN TIMOR-LESTE

Strength	Weakness
• Improve the community's economy. • Facilitate the community to support the family economy through sustainable forests	• The function of community forest has not yet differentiated between community forest and state forest • There is no special regulation on forest use
Opportunity	**Threat**
• Nature tourism opens jobs for the community • Reduce erosion and forest fires	• Illegal logging • Shifting land and • Forest fires

TABLE 28. COUNTRY STATUS AND ISSUES ON PES IN TIMOR-LESTE

Valuation Study	• The degradation of the Nation's forests is severe in mountainous localities and is causing harmful soil and rock erosion and aggravation of debris in riverbeds. This degradation is having an adverse effect on the conditions of the river basins – which is directly related to the supply of water for irrigation and therefore to food security – and weakens the wood and firewood production potential, and limits the capacity to harvest non-timber forest products. Forest degradation also leads to significant loss of biodiversity (including loss of ecosystems and habitat), undermining rural communities' food security.
Stakeholder Consultation	• Forests have the potential to greatly increase their value to Timor-Leste if they are restored and complemented by sustainably managed plantations. However, the effective protection of forests is a central element of forest policy for this aspect of sectoral development to be achieved. In Timor-Leste, there are several distinct, unique, and globally threatened examples of plant and animal ecosystems, especially birds, which are important for its effective long-term conservation.
Policy Advocacy and Awareness	• The results of the national forest policy assessments, the review of its implementation, and the preparation of the forest law carried out in 2016 form the basis for the revised national policy for the forest sector, presented in the following sections. The main structure of the 2007 national forest policy statement is largely maintained with an introduction in which the role of forests in the national development strategy is clarified, and a summary of the current situation of forests and forest development is presented, followed by an outline summary of the revised policy framework, a description of the development objective for the forest sector and a presentation of forest policy objectives and instruments.
Enabling Legal Framework	• National development strategy plan 2011-2030 • Sustainable development goal 15 life and land • Strategy plan MAF 2014-2020 (Rev. 2021-2025) • Eighth (18) Constitutional Government program 2018-2023 • Law No. 14/2017 General Forest regime • DL No. 5/2016 National System National Park • National Forest sector police-Alvu strategy goal (Rev. 2017) • National plan forest conservation 2013 • Strategy and plan of action for national development Bamboo in Timor-Leste • Government resolution N 11-2017 National day Sandalwood and forest
Implementation	• Payments for Ecosystem Services (PES) reforestation projects hold the potential to meet social and environmental goals. • This investigates whether the pursuit of reforestation and development objectives through PES can contribute to environmental justice. • PES community forestry projects in Timor-Leste were selected to study how notions of justice have been integrated along the course of implementation and how this has affected local engagement. A grounded approach was taken to ensure a power-sensitive and socially informed understanding of the PES conformations and outcomes.

3.4.14 VIET NAM

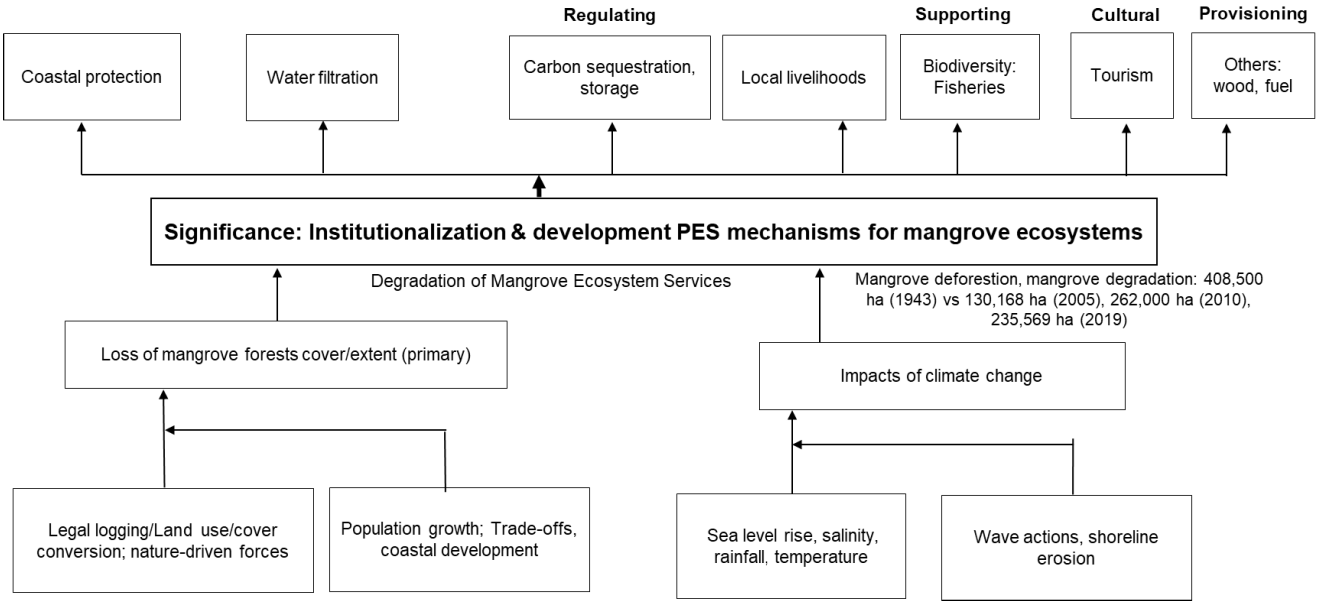


FIGURE 13. PROBLEM TREE ON PES IN VIET NAM

TABLE 29. SWOT OF PES IN VIET NAM

Strength	Weakness
• Good baseline data • Experienced experts • Lessons learned from samples of previous studies • Good legal frameworks, institutional schemes	• Inadequate understanding of mangrove ecosystem services (mangrove carbon storage, sequestration – local livelihoods) • Lack of advanced technology • Absence of specific guidelines on the PES mechanism of mangroves.
Opportunity	**Threat**
• Social awareness set-up • Political commitments.	• Lack of budget resources, financial support • Lack of regulatory PES regarding carbon storage, sequestration, aquaculture

TABLE 30. COUNTRY STATUS AND ISSUES ON PES IN VIET NAM

Valuation Study	• Recently reviewed ten years of PFES implementation (VNUF, VNFF, CIFOR held on 24th Nov 2020)
Stakeholder Consultation	• At all levels, including National, Provincial, District, and community.
Policy Advocacy and Awareness	• Forest Protection & Development (2004, expired) • Now Law on Forestry (2017) • Law on Biodiversity (2008, expired; now 2018) • Law on Environmental Protection (2014, expired; 2020) • Decrees related PES - 99/2010/ND-CP, dated 24 Sep 2010 - 147/2016/ND-CP, dated 2nd November 2016 - 156/2018/NĐ-CP dated 16 November 2018 of the Government on detailed provisions for the execution of several articles of the Law on Forestry. • Vietnam is a typical country pioneering in Asia and the world for formulating the legal framework on Forest Protection & Development Fund; and the policy on Payments for Forest Environmental Services (PFES).
Enabling Legal Framework	• The Law on Forestry (2017), Decree 156/2018/ND-CP (dated Nov 16th, 2018): detailing the implementation of several articles of the Law on Forestry, including PFES implementation.
Implementation	• currently in 49/63 provinces with Forest Protection and Development Funds (PFPDF, Provincial Forest Protection & Development Fund) established

4. TRAINING SCHEDULE (Korea Standard Time, GMT +9)

Day	Time	Activity	Remark
16 July (Fri.)	15:00-17:00	Check and confirm Zoom Application connection	RETC
19 July (Mon.)	12:00-12:30	Zoom check-in	RETC
	12:30-13:00	Opening Ceremony & Introduction of participants	RETC
	13:00-15:00 (120')	Introduction of learning flow and agenda Presentation 1. Country report	RETC
	15:00-16:00	Break	
	16:00-18:00 (120')	Session 1. How PES serves livelihood of forest community: Recaps from the AFoCO Int'l Workshop in 2014 and the global discourses on PES	AFoCO & Guest speaker
	18:00-18:15	Daily feedback & housekeeping announcement	RETC
20 July (Tue.)	12:30-13:00	Recap on the previous day	RETC
	13:00-15:00 (120')	Session 2. The role of institutional work for payments for ecosystem services	Guest speaker
	15:00-16:00	Break	
	16:00-16:45 (45')	Session 3. PES Practice #1: Viet Nam's endeavors on institutional work on PES	Guest speaker
	16:45-17:30 (45')	Session 4. PES Practice #2: Thailand's endeavors on institutional work on PES	Guest speaker
	17:30-18:00 (30')	Open discussion (moderator: RETC)	Guest speakers of 20 Jul
	18:00-18:15	Daily feedback & housekeeping announcement	RETC
21 July (Wed.)	12:30-13:00	Recap on the previous day	RETC
	13:00-13:45 (45')	Session 5. PES Practice #3: Bhutan's story on natural capital and valuing ecosystem services	Guest speaker
	13:45-14:25 (45')	Session 6. PES Practice #4: Indonesia's story on PES and REDD+	Guest speaker
	14:25-15:15 (50')	Break	
	15:15-16:00 (45')	Session 7. PES Practice #5: ROK's story on private sector engagement: Incentives for Ecosystem Services	Guest speaker
	16:00-17:00 (60')	Open discussion (moderator: RETC)	Guest speakers of 21 Jul
	17:00-17:15	Daily feedback & housekeeping announcement	RETC
22 July (Thur.)	12:30-13:00	Recap on the previous day	RETC
	13:00-15:00 (120')	Session 8. Building a vision for PES as a financial instrument to boost up restoration under climate change and pandemic recovery	Guest speakers of 21 Jul
	15:00-16:00	Break	
	16:00-17:00 (60')	Open discussion (moderator: RETC)	Guest speaker
	17:00-17:15	Daily feedback & housekeeping announcement	RETC
23 July (Fri.)	12:30-13:00	Recap on the previous day	RETC
	13:00-16:00 (180')	Presentation 2. Action plan & Discussion	Guest speaker
	16:00-17:00	Break	
	17:00-17:30 (30')	Recap & highlights of the training (inc. evaluation of training)	RETC
	17:30-17:45	Closing Ceremony	RETC

5. SESSIONS SUMMARY

5.1 SESSION 1. HOW PES SERVES LIVELIHOOD OF FOREST COMMUNITY: RECAPS FROM THE AFOCO INT'L WORKSHOP IN 2014 AND THE GLOBAL DISCOURSES ON PES (LECTURER: Yeongjoo Lee, Chulhyun Jeon)

A. Lecture Overview	This session recaptures the highlights of the AFoCo PES Int'l Workshop in 2014. It covers the stages in the PES readiness in 2014 and that of 2021 based on the country reports.
B. Learning Outcomes	At the end of this session, trainees will be able to understand: • the member countries' status of PES readiness, including valuation study, pilot project, and outcomes, stakeholder consultation, policy advocacy, awareness-raising, enabling legal framework, and implementation.
C. Content	(1) PES readiness in 2014 (2) PES readiness in 2021, based on country reports
D. Highlights	• Update of the AFoCO member countries on the PES readiness assessment criteria (comparing 2014 workshop and 2021) • Lesson learned from the Viet Nam's Lam Dong Province PES model site (positive environmental and social impacts as well as challenges and difficulties faced) • Regional PES programme or initiative to consider in the future • PES definition and criteria – PES is a voluntary transaction scheme wherein a well-defined ES is being bought by ES buyer from ES provider, providing the ES provider secures ES provision (conditionality) • Four preconditions of PES scheme (i. economic; ii. social and cultural; iii. information and scientific & technological; and iv. institutional) • A step-by-step approach is crucial to developing PES

E. Interventions	• Support and facilitation from NGOs and private sectors are important for the local communities' participation in the PES scheme.
	• Consultation between local partners, government agency and other stakeholders at both national and sub-national levels is very important at the beginning of the PES scheme in deciding the eligible participants to the scheme and to come up with a consensus agreement on who would be determined at a different scale.
	• The government usually determines the percentage of money. However, payment distribution doesn't always follow uniform/fixed formula.
	• A flexible mechanism is usually agreed upon between the sub-national government and the locals, but the percentage may change over time.
	• From the country reports presented, below are the general causes that lead to the common core problem faced by most countries that participated in this workshop;
	  • Lack of funds
	  • Lack of capacity building
	  • No institutional arrangements at the national level

5.2
SESSION 2. THE ROLE OF INSTITUTIONAL WORK FOR PAYMENTS FOR ECOSYSTEM SERVICES (LECTURER: Pham Thu Thuy)

A. Session Overview	This session provides guidelines on how to build up the institutional framework for PES based on the analytical and research tool.
B. Learning Outcomes	At the end of this session, trainees will be able to understand: • Identify ways to develop an institutional framework of the PES in the country context. • Initiate to develop its related action plan.
C. Content	(1) Institutional framework of PES in Asia (2) Strategies and measures (3) Risks and enabling conditions (4) Suggestions to the participants
D. Highlights	• In Asia Region, PES started in 2000, and till now, after 20 years, there are more than 500 programs and projects related to PES Scheme. • Viet Nam is one of the countries in Asia that successfully develop the National PES Scheme. It is reported that PES increases up to 75% of households' income in Vietnam. • When design PES Scheme, seven questions need to ask (1) What to pay? (2) Who to pay? (3) Who receives? (4) How to collect the money? (5) How to distribute the money? (6) Monitoring & Evaluating PES conditionality? (7) Safeguards. • In the organizational arrangement, these three aspects need to be considered: the law of enforcement, M&E, and consistent games rules. • Besides, to develop PES, the 3Es, which are effectiveness, efficiency, and equity, need to be considered.
E. Interventions	• Before designing PES, the objectives of PES need to be clarified so that it will help identify who has the right to benefit from PES. • Dialogues among the players in all levels like agencies, local communities, users are required due to process and participation in decision making of PES implementation. • The payment rate for every ES depends on government policy, and the percentage at the national and state-level needs to be documented. • The participants suggested developing a PES system at the sub-regional level on haze prevention for clean air. • The AFoCO region might be divided into three sub-regions: Mekong; Malaysia-Singapore-Indonesia, and Bhutan-Kazakhstan. • But for now, this is a tricky issue and very political at the moment. • CIFOR as the research organization, is welcoming any country to collaborate in terms of technical advisor to support the implementation of the PES Scheme.

5.3
SESSION 3. PES PRACTICE #1: VIET NAM'S ENDEAVORS ON INSTITUTIONAL WORK ON PES (LECTURER: Nguyen Chien Cuong)

A. Session Overview	This session explores PES status in Viet Nam, particularly the country's pathway in institutional work for the last two decades.
B. Learning Outcomes	At the end of this session, trainees will be able to understand: • Identify opportunities and challenges in the PES from the case studies of Viet Nam • Explore potential ways to develop PES projects/programmes in the country context
C. Content	(1) PES in Viet Nam (2) Suggestions to the participants
D. Highlights	• Decree 99 on the national PFES application was issued in 2010, but efforts have been made since 2002 (strategy, Decree 05 on FPDF, pilot projects). PFES in Vietnam aims to achieve sustainable financing, environmental sustainability, and social sustainability. Since 2008, there are 46 provincial funds and 1,168 contracts signed. ES Users include hydropower, clean water suppliers, industrial facilities, eco-tourism agents, CO2 emitters, and aquaculture producers, which provided payments to FES providers such as forest owners/managers. • Five hundred and five million USD has been collected from 2011-2020 from PFES, covering 6.7 million ha. A social survey in 2017 indicates that 86.2% of households benefitted are ethnic, average household (hh) income are 200 USD/hh/yr, and that PFES account for 7% of total hh income. • Gaps still exist, such as pending FES (CO2/aquaculture), payment rates are lower than real ES value, a big gap of payment rates per ha of forest among provinces, and limited M&E. • Future plans include payment rate increase, the institutionalization of forest carbon PFES, application of high technology M&E, e-payment and banking payment, and M&E manual development. • For a successful national policy, important elements must exist: (1) Scientific and legal basis; (2) Pilot at a small scale; (3) Engagement of related ministries; (4) Awareness raising (5) Technical/financial resource mobilization
E. Interventions	• On questions regarding the PES payment rate, the speaker clarified those proper studies were conducted before the imposition of payment rates, which apply nationwide. In convincing traders to pay and invest in PES, willingness should be present. • On the currently pending PES on CO2 sequestration, charges will be made to those with high CO2 emissions. It was also highlighted forest carbon demonstrations as an additional PES would be important. • A question was also raised on ensuring no double payment/double counting in the benefit-sharing mechanism. The speaker mentioned that it is done by knowing the proper beneficiaries and how many hectares they manage and following the important prerequisites before the provincial funds are disbursed. All of these are included and regulated in the decrees. • There are two possibilities on payments for PES on forest carbon sequestration: domestic vs. international. Direct payments will be made for international schemes/initiatives, while for domestic schemes, payments will be coursed through the FPDF.

5.4
SESSION 4. PES PRACTICE #2: THAILAND'S ENDEAVORS ON INSTITUTIONAL WORK ON PES (LECTURER: Piyathip Eawpanich)

A. Session Overview	This session explores PES status in Thailand, particularly the country's pathway in institutional work for the last two decades.
B. Learning Outcomes	At the end of this session, trainees will be able to understand: • Identify opportunities and challenges in the PES from the case studies of Thailand • Explore potential ways to develop PES projects/programmes in the country context
C. Content	(1) PES in Thailand (2) Suggestions to the participants
D. Highlights	• Concepts of PES - In 2014, the concept of PES has not yet been officially applied at the policy level for watershed management. The PES in Thailand is rather supply-side PES where the government is mainly the buyer of services, not the direct beneficiaries. • There were 17 PES pilots in 2014 and two sites in 2015-2020 that have been a big contribution to the development of the concept of the PES. • The character of PES - can be applied at different scales, and the range is very wide. For example, it can reward good management practices beyond legal requirements or the norms and is closely tied to the regulatory baseline and its enforcement. • PES has been trying to use in the existing legal frameworks - for example, collecting payments from non-members of the Community Forest act and supporting sustainable Community Forest management.
E. Interventions	• Thailand 20 years National Strategies (2017-2036) - the PES term has been mentioned in 7 sub aspects of Aspect 4: Growth with environmentally friendly quality of life. • National Forest Policies (2020) - The National Forest Policies have promoted the utilization and the concept of making the PES work. • To make PES design, we have to make sure the people recognize the value of the Ecosystem services, demonstrate how much the value are, and try to capture them. This is the main philosophy of the PES. • Suan Bua Chompoo - A small enterprise that has been practicing PES and has delivered ES beneficiaries. • PES can be used in watershed conservation programs and all types of environmental systems and conservation programs.

5.5
SESSION 5. PES PRACTICE #3: BHUTAN'S STORY ON NATURAL CAPITAL AND VALUING ECOSYSTEM SERVICES (LECTURER: Jamyang Phuntshok)

A. Session Overview	This session explores PES status in Bhutan, particularly its policies and regulations in valuing ecosystem services and natural capital.
B. Learning Outcomes	At the end of this session, trainees will be able to understand: • Identify opportunities and challenges in the PES from the case studies of Bhutan • Explore potential ways to develop PES projects/programmes in the country context
C. Content	(1) PES in Bhutan (2) Suggestions to the participants
D. Highlights	• Bhutan has conducted a valuation study on the forest ecosystem. • Bhutan has several policies and legislation that enable the implementation of PES. Although PES thinking is not new, the actual implementation was limited by the lack of experience. • The feasibility studies on PES were conducted in 2009 and identified three areas where PES can be explored: Hydropower, Tourism, and Drinking water. However, only PES on drinking water has succeeded in implementation so far. • In the first PES scheme, Community Forest Management Group (Yakpugang and Kilikhar) served as the service provider, and Mongar Town, schools, and a hospital colony as the beneficiaries for the protection of drinking water sources area Mongar town. • It consists of six activities like valuation method, putting a price on each of the six activities, and agreed through negotiation between service providers and users. • The verification team consists of ES providers, users, intermediaries and ensures that CFMG does the agreed activities. • Verification is conducted quarterly or biannually based on the contract. Payment is based on a verification report. • Some of the positive impacts of PES include a connection between upstream ES providers and downstream ES users in managing watersheds, raising people's awareness on the need to conserve the ecosystem, improvement of forest condition, and reduction of illegal activities.
E. Interventions	• Policy and/or legislation of Bhutan related to the PES mechanism. • Bhutan Climate policy 2020 details ways to maintain carbon neutrality as committed to UNFCCC. • The forest area belongs to the state, but the local community can manage the forest as a community forest based on approval from the relevant authority. However, even when the forest area is managed for ES, the community still has the right of timber extraction for their house construction which is arranged in the CF management plan (annual allowable cut). • The role of government and other stakeholders play a role in the process of PES development. • The government (Watershed Management Division, Department of Forest and Park Service) is acting as a mediator for PES. The division that is the main agency supported by local agencies facilitates the local community to implement PES. • The CFMG directly manages the current PES in Bhutan, and the whole payment goes to the community. There is no share of payment to the government or other agencies. • The government holds the role of facilitation only between ES providers and buyers for problem identification, determination of activities agreed in a PES scheme, and determination of payment. • Once the activities and payment are agreed upon and signed, that agreement wherein CFMG is the one who implements the PES activities. • The verification team serves to monitor whether the service provider (CFMG) carries out the agreed activities and looks after the restrictions. • There is a connection between the Gross National Happiness (GNH) index and ecosystem services. Ecosystem services are very much considered in the calculation of the Gross National Happiness (GNH) index. There are four pillars of GNH: Preservation of the environment, Sustainable social-economic development, good governance, and Promotion of culture.

5.6
SESSION 6. PES PRACTICE #4: INDONESIA'S STORY ON PES AND REDD+ (LECTURER: Muhammad Zahrul Muttaqin)

A. Session Overview	This session explores PES status in Indonesia, particularly related to REDD+, how it is embedded in its contribution to the expansion of the concept of PES.
B. Learning Outcomes	At the end of this session, trainees will be able to understand: • Identify opportunities and challenges in the PES from the case studies of Indonesia • Explore potential ways to develop PES projects/programmes in the country context
C. Content	(1) PES in Indonesia (2) Suggestions to the participants
D. Highlights	• Indonesia has a vast forest of 125,92 million Ha (five forest areas) classified as; Permanent Production, Limited Production, Convertible Production, Protection & Conservation Forests). • There is a legal basis supporting PES establishment in Indonesia, and even PES projects were developed before establishing a regulatory framework. • To implement PES schemes, the environmental services need to be clearly understood. To classify environmental services, understanding the nature of environmental services is important. • A PES scheme is 'a transparent system for the additional provision of environmental services through conditional payments to voluntary providers'. • Conditionality and additionally are two essential criteria of an efficient PES. • REDD+ can be considered as a PES scheme, and the implementation of REDD+ was explained. Indonesia has intensively involved in developing the REDD+ framework before COP 13. REDD+ is a climate mitigation action as part of the Indonesian NDC.
E. Interventions	• How to design PES for CB REDD+ → About 3 to 4 million forests is given to the community. The Social Forestry program is speeding up. There are various social forestry programs like; Village Forest, Community Forest, Community Plantation, Customary/Adat Forest & forestry Partnership. Many Village Forests are implementing PES for REDD+. • How communities are involved in REDD+ → The 1st step is to identify forest tenure through the development of the SF program, and the 2nd step is designing a payment mechanism. After obtaining the rights over resources, the communities can negotiate in REDD+ with buyers. • 2 stage PES for REDD+: - Initial period: Paid based on opportunity costs and involvement in a carbon monitoring system. - PES for REDD+ Period: Voluntarily join REDD+ program and paid based on the volume of stored in forests. - Indonesia has initiated and developing PES mainly for water utilization. Furthermore, Indonesia has shown its achievement in REDD+ through committed result-based payments. REDD+ is part of the Indonesian NDC that should ensure that global temperature will not increase above 1.5-degree Co compared to the pre-industrial era.

5.7
SESSION 7. PES PRACTICE #5: ROK'S STORY ON PRIVATE SECTOR ENGAGEMENT: INCENTIVES FOR ECOSYSTEM SERVICES (LECTURER: Chulhyun Jeon)

A. Session Overview	This session explores the incentive mechanism for ecosystem services by the private sector from case studies of the Republic of Korea. The guest speaker will further bring some good examples of Costa Rica.
B. Learning Outcomes	At the end of this session, participants will be able to: • Identify opportunities and challenges in the PES from the case studies of the ROK and Costa Rica • Explore potential ways to develop PES projects/programmes in the country context.
C. Content	(1) PES in ROK and Costa Rica (2) Relations/cooperation with the private sectors (3) Suggestions to the participants
D. Highlights	• Recreational forests have been experiencing an increase in annual visitors and total sales revenue, efforts were made to enhance the areas, and an online booking system was implemented. • Baekdudaegan Ridge is significant for agriculture but located in the BDMS Protected Area to prevent biodiversity loss in diverse forest systems due to fragmentation. Compensation is provided to local farmers negotiated through the Baekdudaegan Community Support Programme, supported by private company contributions. • Social Contribution Types on Forest Carbon Offset Scheme: An evaluation framework and complete procedures from registration to the transaction, verification by various certification agencies. • The 12 Forest Public Functions amounted to 221 trillion Korean won (equivalent to 191 billion USD) in 2018.
E. Interventions	• Private sector participation is completely voluntary and not directly related to their forest use. The companies liaise with the government, and monies are disseminated by regional governments. Companies may also wish to initiate their forest projects, and productive forests are not considered part of the PES schemes. • Economic values for ecosystem services were created to support foresters. Diverse methods of valuing these services are involved, like household incomes and entrance fees. • There is a wide range of ecosystem services valued in forests, including clean air and the opportunity for healing programmes. • Management of certain services such as landscape value may vary in different country contexts. • Singapore shared that the diversity of valuation methods was interesting to note that different country circumstances might involve creative and innovative ways of determining ecosystem values. For example, recreational visits to Singapore's nature reserves are free, so its recreational value cannot be calculated through entrance fees like in ROK

5.8 SESSION 8. BUILDING A VISION FOR PES AS A FINANCIAL INSTRUMENT TO BOOST UP RESTORATION UNDER CLIMATE CHANGE AND PANDEMIC RECOVERY (LECTURER: Himlal Baral)

A. Session Overview	This session explores PES from the perspective of a financial instrument to expedite restoration activities to address climate changes. It will further investigate innovative directions under the post-COVID19 era.
B. Learning Outcomes	At the end of this session, trainees will be able to: • Identify ways to approach the PES as a financial instrument in the country context • Initiate to develop its related action plan.
C. Content	(1) Global trend of PES as a financial instrument (2) Strategies and measures (3) Risks and enabling conditions (4) Suggestions to the participants
D. Highlights	• Ecosystem restoration - A process of stopping and reversing degradation can lead to improved ecosystem services & recovered biodiversity. It encompasses a comprehensive continuum of practices, depending on local conditions and societal choice. Restored Ecosystems can follow different trajectories from degraded natural to more intact natural Ecosystems; from degraded, modified Ecosystems to more functional modified Ecosystems; from modified Ecosystems to more natural Ecosystems. • Facts & figures - four of nine planetary boundaries crossed (climate change, loss of biosphere integrity; land-system change; altered biogeochemical cycles); costs of degraded land restored (challenges vs. opportunities); Global ecosystem under pressure. • Multiple benefits delivered by Ecosystem Restoration: (1) Climate mitigation; (2) Climate adaptation; (3) Food security (4) Economy; (5) Water supplies; (6) Health; (7) Biodiversity • Restoration: an economic activity? Why not doing it? - Due to relatively low financial returns, risky investment due to complexity & difficulty to access to land ownership guarantee. - To total reach land degradation neutrality, US$ 318 billion year-1 has to be invested. - Responsible and coordinated investment from the private sector is required for restoration investments in addition to the national budget.
E. Interventions	• Restoration is significant for maintaining global temperature rise < 20C, ensuring food security for an increasing population, and slowing species extinction rate. • Ecosystem restoration is needed on a large scale for the sustainable development agenda. • Ecosystem restoration delivers multiple economic & environmental benefits. • Private sector investments should be encouraged through public-private partnerships. • The finance for restoration should be increased by eliminating the perverse subsidies that incentivize further ecosystem degradation & fuel climate change and enhance the public awareness of the risks of Ecosystem Degradation.

6. ACTION PLAN OF THE COUNTRIES

6.1 BHUTAN

Item	Details
Implementing Organization	• Name: Department of Forests and Park Services, Ministry of Agriculture and Forest • Nature or type: Government Agency • Major functions/duties: Natural Resource Management & Enforcement
Project Duration	2021 – 2025
Est. Budget	USD$ 160,000.00
Main Objectives	"Access to 24x7 Safe Drinking Water with Irrigation" Upscale PES schemes in BHUTAN
Benefactors	Gelephu Municipality + 3 Districts (Bumthang, S/J, Paro)
Potential environmental and social risk	Major erosion and landslides, Drying of drinking and irrigation water sources/ Decrease in the discharge of base-flow, Poor water management/governance, Dispute between communities, Inequity in terms of resource allocation/distribution
Project Details	"Payment for Environmental Service Scheme to protect water resources that supply water to urban areas" - RGoB has prioritized "Access to 24x7 Safe Drinking Water with Irrigation" as one of the Flagship Programs in the 12th Five Year Plan. The component manager must identify and assess the degraded watersheds that cater to drinking water in Municipalities. Management plans or action plans need to be developed for these watersheds based on the need. Then possibility to implement Payment for Ecosystem Services schemes to be explored in these watersheds for sustainability.
Expected Outcome	• Economic Effects: - A secure designated fund to manage the resources - Incentives-Alternative source of revenue and employment opportunities for upstream communities - Reduce financial and human resource burden on government • Technical Effects: - Build capacity & technical expertise- National/district and local level, M&E capacity, strengthening local institute-book keeping, financial statement, etc. - More awareness on PES mechanism- community, district, central govt. level • Social and Environmental Impacts: - Watershed/springshed protection- quantity & quality of discharge improved - Mitigate/control erosion and landslides - Just, harmonious & equitable sharing of net benefits accruing from PES - Enhance livelihood of local communities - Ownership/Stewardship of resources- good governance - Illegal activities reduced

6.2 BRUNEI DARUSSALAM

Item	Details
Implementing Organization	• Name: Ministry of Primary Resources and Tourism and Teraja Longhouse Community • Nature or type: Semi-Government • Major functions/duties: To oversee the effectiveness of PES through ecotourism
Project Duration	2022 – 2025
Est. Budget	USD$ 410,000
Main Objectives	To integrate PES in ecotourism and land use planning
Benefactors	Tourism agencies and Teraja Longhouse community, Forestry Department (HoB and Wildlife division)
Potential environmental and social risk	Uncontrolled/Improper planning of development and land use, potential to increase encroachment into new areas, and invasion of privacy, especially the indigenous community
Project Details	• Workshop/Training – Hire foreign experts to train the local community • Capacity building • Gazetting Land • A community-based approach to include indigenous knowledge in project implementation
Expected Outcome	• Economic Effects: - Reduced cost for government - Green jobs - Circular economy • Technical Effects: - Increase technical expertise in Brunei • Social and Environmental Impacts: - Biodiversity conservation - Improved the livelihood of the community - Improved capacity of the community through involvement in technical capacity building and policy framework

6.3 CAMBODIA

Item	Details
Implementing Organization	• Name: Forestry Administration • Major functions/duties: Wildlife and Forest Management
Project Duration	A least 4 years
Est. Budget	558,780.00 USD($)
Main Objectives	To build enabling environment for PFES implementation through mainstreaming PES into the institutional setting and practices for community forestry
Benefactors	Local communities (CFs, CPA, stakeholders)
Potential environmental and social risk	Inconsistency of policies/supports for PES schemes by deferent sectors (One sector may outweigh another)
Project Details	• Capacity building and mainstreaming PES/PFES into national sectoral policies and regulations to support best practices of forest landscape restoration and management
Expected Outcome	• Economic Effects: - Ensure benefit-sharing mechanism to allocate the payment to ES/FES providers - Conflict management schemes that ensure the sustainability of PFES practices - Establish a good start/initiatives to improve sustainable livelihood development for beneficiaries as ES/FES providers • Technical Effects: - There is an institutional arrangement: policies and regulations related to PES/PFES - Establish PES/PFES-schemes related to community and private sector engagement, indicators & methodologies, conflict management, etc. - Defining clearly who are FES providers/receivers, and buyers/payers, for what and where? • Social and Environmental Impacts: - Improve suitability of forest landscape management and conservation - Sustainable development is integrated into national strategies (community forestry that can add value to its natural resources) - Raise public awareness on the importance of the relationship between PFES and forest ecology

6.4 INDONESIA

Item	Details
Implementing Organization	• Name: Cisadane Water Services • Nature or type: Water Services • Major functions/duties: Catchment Area Protection through rehabilitation of upstream areas using multipurpose tree species by forest farmers groups
Project Duration	2022 – 2023
Est. Budget	USD$ 34,000
Main Objectives	Increase capacity building of ES providers Transfer knowledge on PES to prospective beneficiaries/buyers • Empower Cisadane Watershed Forum to implement PES scheme
Benefactors	Regional drinking water companies Bogor City, Tangerang City, Tangerang District, Industries.
Potential environmental and social risk	• Potential environmental risk: - Land degradation due to conversion from forest to other land uses. - Prone to disasters such as landslides influence water quality and quantity for the drinking water companies/industries. • Social risk: - Communities do not want to change their behavior. - Beneficiaries are not attracted to have a negotiation process with the providers.
Project Details	• Study of literature on valuation of ES in Cisadane watershed. • Develop baseline of ES providers on social and economic aspects, and how community's understanding on PES => household surveys, • In-depth interview and Focus Group Discussions/ Participative Rural Appraisal. Forest farmer group, national park, local government, NGOs/CSOs, companies, Cisadane Watershed Forum. • Data collection of technical measurement: water quality and quantity during rainy and dry seasons => involve Cisadane Watershed Forum. • Increasing community's capacity building on the importance ES => training. • Strengthening existing community's institution => community forest group, • Transfer of knowledge on PES to Regional drinking water company => discussions (WTP to ES providers). • Empowering Cisadane Watershed Forum. • Scoping the possibility of the negotiation process. • Requesting the MoEF to provide MPTS-native species for rehabilitation.

Item	Details
Expected Outcome	• Economic Effects: - Baseline data on social, economic, and perception of ES - Increase HH income upstream from ES payment (once the payment is delivered). - Increase HH income from multipurpose tree species planting. - Water drinking companies conducted less water treatment as the quality and quantity of raw water sources are maintained. • Technical Effects: - Data on water quality and quantity - Good water quality - Increase forest cover. • Social and Environmental Impacts: - Community awareness on the crucial role of ES increased. - Reduce the possibility of disasters (landslide), - Cleaner river, less sedimentation, healthy watershed - The willingness of drinking water companies to invest in upstream areas through tree planting and allocate funds for raising community awareness (in a densely populated area along the river before the inlet water source) - Strengthening community's institution.

6.5 KAZAKHSTAN

Item	Details
Implementing Organization	• Name National project "Zhasyl Kazakhstan. " • Direction: "Tabigat" • Main functions/responsibilities: Development of protected areas, fauna, increasing the area of forest cover of the country's territory, preserving and expanding forests.
Project Duration	2021 – 2025
Est. Budget	USD $ 446,400.00
Main Objectives	N/A
Benefactors	Mainly at the expense of the republican and local budgets. The sponsorship will be
Potential environmental and social risk	No environmental and social risk
Project Details	Creation of new specially protected natural areas, construction of visitor centers, an increase in the number of animals, an increase in fish resources, planting 2 billion trees in the forest fund, reducing the average area of one forest fire, expanding forests at the expense of unaccounted land.
Expected Outcome	• Economic Effects: - Increased cash flow through the provision of ecosystem services • Technical Effects: N/A • Social and Environmental Impacts: - Creation of new jobs - Increase in the flow of tourists

6.6 LAO PDR

Item	Details
Implementing Organization	Major functions/duties: cooperate between department and University
Project Duration	2022 – 2026
Est. Budget	USD $ 150,000
Main Objectives	To contribute the found to the local community based on the reforestation
Benefactors	N/A
Potential environmental and social risk	• Quality soil • Forest fire • Water source • Community lack of knowledge
Project Details	• Land-use planning: • Forest and E-co restoration • Community livelihood improvement: • Community capacity building: • Staff strengthening:
Expected Outcome	• Economic Effects: - More increasing of income for Government • Technical Effects: - Technical for forestation • Social and Environmental Impacts: N/A

6.7 MALAYSIA

Item	Details
Implementing Organization	• Name: Forestry Department Peninsular Malaysia • Nature or type: Government agency. • Major functions/duties: Responsible for the management, planning, protection, and development of the Permanent Reserved Forests (PRF) in accordance with the National Forestry Policy (NFP) 1992 and the National Forestry Act (NFA) 1984
Project Duration	2022 – 2024
Est. Budget	USD$ 250,000
Main Objectives	Design PES scheme to protect the watershed for flood mitigation and domestic use
Benefactors	Government and local communities
Potential environmental and social risk	Safety, Loss of biodiversity, Health, Increase of water treatment
Project Details	The project is suggested to carry out for Watershed Area in Kelantan, which is about 35,726ha was created for climate stability, water flow sources, preserving the environment, restoring biodiversity, and reducing soil erosion problems due to floods.
Expected Outcome	• Economic Effects: - Signing contracts with PES users - PES as one of the funding sources to state government - Other industries that depend on the forest also can generate - Income (Ecotourism, small skill industries such as medicinal plants, handicraft) • Technical Effects: - A clause in Forest Act - Financial Management Manual - Watershed Framework/Watershed Management Plan - Payment method, disbursement of the payment, and M&E guidelines • Social and Environmental Impacts: - Many households benefited from the implementation of PES – the risk of flooding, water quality - The total forested area is increasing as many parties manage the forest very well - Many local communities are contracted for forest management – Park Ranger

6.8 MONGOLIA

Item	Details
Implementing Organization	• Name: MET/ENSURE project • Nature or type: Nature Conservation through livelihood improvement • Major functions/duties: Support to sustain the ES and pilot PES in Mongolia
Project Duration	2021 – 2025
Est. Budget	USD$ 52,600.00
Main Objectives	To pilot at least 3 PES on the BD (game hunting), Forest (cedar nuts, wild berries), and Natural Beauty Scene (eco-tourism)
Benefactors	Local communities (herder households)
Potential environmental and social risk	Lack of shared understanding about the PES at all levels
Project Details	• Assignment to pilot a PES 'Game hunting' in the Bayantsagaan Mountain Range LPA • Assignment to pilot a PES 'Wild Berries' in the Tarvagatai NP • Assignment to pilot a PES 'Ecotourism' in the project site.
Expected Outcome	• Economic Effects: - Alternative income generation - Increase value of ecosystem • Technical Effects: - Educated group of people in terms of Ecosystem Services and PES • Social and Environmental Impacts: N/A - Improve the livelihood of local communities - Sustain ecosystem services

6.9 MYANMAR

Item	Details
Implementing Organization	• Name: Forest Department • Nature or type: Government Agency • Major functions/duties: Management of forestland and protected areas in Myanmar
Project Duration	2021 – 2026
Est. Budget	USD$ 925,000
Main Objectives	• To formulate guidelines for PES implementation • To strengthen capacity and awareness of gov. personnel and local communities • To establish a demonstration site for PES at Moe Yun Gyi Wetland Wildlife Sanctuary, Bago, Myanmar
Benefactors	Conservation Agency and local communities
Potential environmental and social risk	Ecotourism impacts ecosystems and local people
Project Details	• Name – Development of PES Guideline in Myanmar Project • Demonstration Site - Moe Yun Gyi Wetland Wildlife Sanctuary, Bago, Myanmar Payments come from Recreation Services (bird watching) Hunting pressures (birds & insects), irrigation problems Government training on human resources and local communities for livelihoods. Conservation measures (incentives, micro-financing mechanisms introduced, livelihoods training) - Cooperation and Negotiation with related sectors
Expected Outcome	• Economic Effects: - PES financial norms can be set to collect the payments in similar cases. • Technical Effects: - Clear guidelines will enhance the PES process among gov. personnel, local businessmen, and local communities. • Social and Environmental Impacts: - Ecosystem sustainability secured with the full support of sustainable livelihoods in the given area.

6.10 PHILIPPINES

Item	Details
Implementing Organization	• Name: DENR-Forest Management Bureau • Nature or type: National Government • Major functions/duties: The DENR, through FMB, is the primary government agency responsible for conservation, management, development, and proper use of the country's natural resources, specifically forests, including those in reservation and watershed areas, and lands of public domain
Project Duration	2024 – 2028
Est. Budget	USD$ 2,162,000.00
Main Objectives	• Revisit and assess existing PES based mechanisms in the country • Build PES awareness through the conduct of capacity building activities and development of PES registry and information system • Replicate PES in (3) pilot watersheds that do not have existing PES schemes/arrangements, to finance watershed management activities • Encourage, rationalize, and increase participation in the development of PES mechanisms in the Philippines.
Benefactors	Department of Environment and Natural Resources, Local government units, ES users and providers, National Government Agencies, and people's organizations
Potential environmental and social risk	PES schemes will rarely provide all the financial resources needed for a resource-dependent family or community. But, more importantly, PES is not feasible everywhere. There is a potential for unfair sharing of net revenues when rural communities form partnerships with business entities to supply ecosystem services, especially when unequal access to information on the demand market.
Project Details	• Assessment of existing PES based mechanisms in the country • Building PES awareness and capacity building among stakeholders • Replication of PES in (3) Pilot Sites • Policy initiatives for sustainable PES in the Philippines • Creation of PES registry and information system • Project Management
Expected Outcome	• Economic Effects: - Economic upliftment - Contribute to the greening of the economy, both local and national - Alternative livelihood opportunities for millions of forest-dependent communities in the Philippines. - Increase in income of household beneficiaries of PES • Technical Effects: - Quantification and valuation of ecosystem services are usually enjoyed for free. - Improvement of data pool on ecosystem services for policy and planning purposes • Social and Environmental Impacts: - Empowered Organization - Improved perception of people on ES - Improvement of forest and biodiversity conditions - Participation of marginalized sector into the economy - Protection of threatened forests and watersheds

6.11 SINGAPORE

Item	Details
Implementing Organization	• Name: N/A • Nature or type: N/A • Major functions/duties: Partnership between government and researchers
Project Duration	3 Years
Est. Budget	Depending on the final scope of the project
Main Objectives	Build on valuation criteria for a robust decision-making process
Benefactors	Nation
Potential environmental and social risk	N/A
Project Details	Determine the health and relational values of ecosystem services, including from coastal and marine ecosystems
Expected Outcome	• Economic Effects: - Evaluation of energy offsets for cooling the Urban Heat Island effect - Robust valuation for tree-planting schemes - Improved understanding of opportunity cost for development • Technical Effects: - Improve knowledge of ecosystem services - Improved SOPs for decision-making • Social and Environmental Impacts: - Increased community and stakeholder engagement - Improved SOP for designing livable and sustainable environments - Improving climate change adaptation and biodiversity conservation measures

6.12 THAILAND

Item	Details
Implementing Organization	• Name: Royal Forest Department • Nature or type: National government • Major functions/duties: facilitator
Project Duration	Jan. 2022 – Dec. 2026
Est. Budget	USD$ 1,800,000
Main Objectives	- To clarify and integrate the PES concept into the existing national legal framework and institutions. - To enhance the competence of the personnel in RFD and other intermediaries' agencies on the PES concept and its development. - To normalize PES as one of the economic instruments for agencies responsible for biodiversity and ecosystem management and conservation.
Benefactors	MNRE (Forestry Sector) CBFEs, CF, CSO, Business Enterprises
Potential environmental and social risk	• Natural disasters and severe climate change affect the targeted sectors • Unstable political status • Unplanned national policies that negatively affect long-term conservation
Project Details	• Assessment of existing PES based mechanisms in the country • Building PES awareness and capacity building among stakeholders • Replication of PES in (3) Pilot Sites • Policy initiatives for sustainable PES in the Philippines • Creation of PES registry and information system • Project Management
Expected Outcome	• Thailand has been exposed to PES concepts for almost 20 years, and there have been more than 20 PES pilot sites. Unfortunately, these could not be achieved to national or sectoral adoption. Crystalize knowledge on PES is needed for ensuring the application of PES would enhance the effectiveness and efficiency of ecosystem and biodiversity conservation and provide equity benefits to all relevant stakeholders. • Even though PES does not stand out as the term in any current sectoral laws, the term "Economic Instruments" has been called for in several sectoral national policies. They are, for example, the Country 20 Years National Strategies (2017-2036), Forestry Policy 2020, National Security Policy and Plan 2019-2021, the 12th National Economic and Social Development Plan (2017-2021), National Master Plan on Water Resources Management 20 Years (2018-2037). These rooms provide great opportunities for PES to be further developed as one of the economic instruments to mobilize these plans to their achievements. • This project would allow the Royal Forest Department team to explore the core principle of the PES concept and design and how to integrate PES into community forest management, where the RFD is the nationally responsible agency. In addition, it would provide RFD the mission to seek cooperation with agencies responsible for critical ecosystems such as wetlands and coasts and establish the right platform for negotiating with enterprises whose businesses rely on services of these ecosystems. • Together with these agencies and partners, the project visions to have Thailand National PES Strategy endorsed within the project's lifetime.

Item	Details
Expected Outcome	• Economic Effects: - Baseline data on social, economic, and perception of ES - Increase HH income upstream from ES payment (once the payment is delivered). - Increase HH income from multipurpose tree species planting. - Water drinking companies conducted less water treatment as the quality and quantity of raw water sources are maintained. • Technical Effects: - Data on water quality and quantity - Good water quality - Increase forest cover. • Social and Environmental Impacts: - Community awareness on the crucial role of ES increased. - Reduce the possibility of disasters (landslide), - Cleaner river, less sedimentation, healthy watershed - The willingness of drinking water companies to invest in upstream areas through tree planting and allocate funds for raising community awareness (in a densely populated area along the river before the inlet water source) - Strengthening community's institution.

6.13 Timor-Leste

Item	Details
Implementing Organization	• Name: Management and creation of boundary markers in protected areas • Nature or type: Protect the ecosystem and encourage the surrounding community • Major functions/duties: N/A
Project Duration	2022 –2027
Est. Budget	USD$ 1,000,000.00
Main Objectives	Increase the economic income of surrounding villages while conserving forests and PES
Benefactors	Government
Potential environmental and social risk	Uncontrolled fires, illegal logging, landslides, or natural disasters
Project Details	Community-based management in protected areas with the expected result of improving the economy of rural communities and their participation in reforestation and protection of forest resource ecosystems.
Expected Outcome	• Economic Effects: - Education the public about income from ecosystems - Facilitation of employment for the community - Generate a lot of ecosystem income for the community • Technical Effects: - The system that has been established - Provide conservation and inventory techniques - Use of permanent limit pals • Social and Environmental Impacts: N/A - Protect forest damage - Preventing natural disasters - Prevent ecosystem damage - Prevent forest fires

6.14 VIET NAM

Item	Details
Implementing Organization	• Name: Vietnam National University of Forestry (VNUF), Vietnam Administration of Forestry, MARD • Nature or type: National Government Agency • Major functions/duties: VNUF is under the MARD, responsible for providing the training and education at all levels; and providing scientific consultants and advisory services on conservation, management and development activities, and proper use of forest resources in particular mangrove forests.
Project Duration	2024 – 2027
Est. Budget	USD$ 300,000.00
Main Objectives	Institutionalization and development PES mechanisms for mangrove ecosystems in Quang Ninh Province, Vietnam (Piloting study in VN) - Revisit & assess existing PES mechanisms relevant to mangrove ecosystem services in Vietnam - Build PES awareness through the conduct of capacity building & development of PES registry on mangrove ecosystems and information system - Conduct replication of PES on mangrove ecosystems to finance management activities - Formulate policy initiatives to encourage, rationalize, and increase participation in the development of PES mechanism on mangrove ecosystems in Quang Ninh Province, Vietnam
Benefactors	Vietnam Administration of Forestry, Vietnam National University of Forestry, Provincial/local government units, ES users and providers, National Government Agencies, and people's organizations.
Potential environmental and social risk	• ES schemes on mangrove ecosystem services will not possibly provide all the financial resources needed for a coastal resource-dependent community. • PES on mangrove ecosystems has not been implemented in VN yet.
Project Details	• Assess existing associated PES mechanisms for mangrove forests in Quang Ninh Province, Vietnam • Building PES awareness and capacity building among stakeholders • Replication of PES on mangrove ecosystems in pilot sites • Formulation of policy initiatives for sustainable PES on mangrove ecosystems in Quang Ninh Province, Vietnam • Creation of PES registry and information system • Project Management

Item	Details
Expected Outcome	• Economic Effects: - Contribute to the greening of the economy, at local, and national scales - Alternative livelihood opportunities for coastal mangrove-dependent communities in Quang Ninh Province, Vietnam. - Increase in incomes of household beneficiaries of PES on mangrove forests. • Technical Effects: - Quantification & valuation of mangrove ecosystem services, which are usually enriched and transferred. - Improvement of data pool on mangrove ecosystem services for policy and planning purposes. • Social and Environmental Impacts: - Improved perception of people on ES on mangrove ecosystems - Improvement of mangrove forests and biodiversity conditions - Participation of marginalized sector into the economy - Protection of highly vulnerable mangrove ecosystems from nature & human-driven forces.

7. SURVEY RESULT

After completing all training sessions, the participants filled out the questionnaire composed of the organization and preparation of the training course, subjects, training design, comparisons with other training courses, and opinions for the training course.

7.1 Organization and Preparation

Based on the questionnaire results **(Table 1),** 53.1% of the participants strongly agreed that the organization of the course was appropriate, and 46.9% of them agreed to the same survey item. In addition, 56.3% of the participants strongly agreed that they were well-informed and kept updated before the training course, and 37.5% agreed to the same statement. About satisfaction with the pre-arrangement of the organization, 59.2% of the participants strongly agreed, and 40.8% of them agreed to the same statement.

Table 1. Organization and Preparation

Variable	Percentage (%)	
	Strongly Agree	Agree
• The organization of the course was appropriate	53.1	46.9
• I was well informed and kept updated before the training course	56.3	37.5
• I was satisfied with the pre-arrangement of the organization	59.2	40.8

7.2 Educational Environment

Based on the questionnaire results **(Table 2)**, 51.0% of the participants were very satisfied with the Zoom setting, and 44.9% of them were satisfied with the same statement. Furthermore, 68.8% of the participants are very satisfied with the hospitality of the RETC staff, and 29.2% of them are satisfied with the same statement.

Table 2. Educational Environment

Variable	Percentage (%)	
	Very Satisfied	Satisfied
• Zoom Setting	51.0	44.9
• The hospitality of the RETC staff	68.8	29.2

7.3 Comparison of this training course to other training courses taken by the participants

Relative to other training courses taken by the participants **(Table 3)**, 87.7% of the participant answered the overall quality of this training course was "high or much higher," followed by 12.2% who said it was "similar". Furthermore, 83.7% of the participants said that the level of intellectual challenge presented was "high or much higher", followed by 16.3% who said it was "similar", and the level of involvement/participation in this course 55.1% of the participants said that was "high or much higher", followed by 38.8% who said it was "similar". 73.4% of the participants said that the amount of effort participants put into this course was "high or much higher", followed by 26.5% who said it was "similar". Finally, 95.9% of the participant answered the amount of knowledge/information gained through this course was "high or much higher", followed by 4.1% who said it was "similar".

Table 3. Relative to other training courses taken by the participants

Variable	Frequency (%)		
	Much higher	High	Similar
• The overall quality of this training course	30.6	57.1	12.2
• The level of intellectual challenge presented	18.4	65.3	16.3
• The amount of effort participants put into this course	26.5	46.9	26.5
• The level of involvement/participation in this course	18.4	36.7	38.8
• The amount of knowledge/information gained through this course	30.6	65.3	4.1

7.4 Lecturers Evaluation

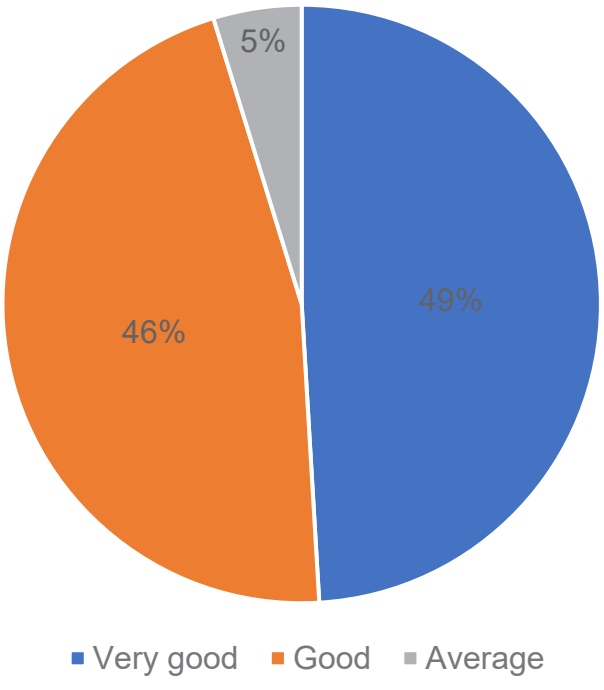
I. LECTURER EVALUATION ELEMENTS

A. Helpful for work and self- improvement
B. Professionalism of Lecturer
C. Performance and attitude of Lecturer

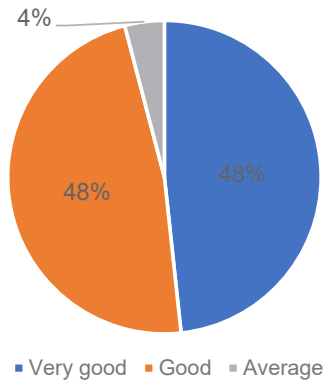
II. LECTURERS LIST

No.	Name	Session
1	Yeongjoo Lee	Director of Planning and Budget Division & Concurrent Director of Capacity Development Division of the AFoCO Secretariat
2	Pham Thu Thuy	A CIFOR Senior Scientist and Country Representative of CIFOR in Vietnam
3	Nguyen Chien Cuong	Vietnam Forest Protection and Development Fund (VNFF) in charge of the Payment for Forest Environmental Services (PFES)
4	Piyathip Eawpanich	Independent researcher expertized in natural resource management and project management
5	Jamyang Phuntshok	The staff of the Watershed Management Division (WMD) under the Department of Forest and Park Services in Bhutan
6	Muhammad Zahrul Muttaqin	Deputy Director for Multilateral Cooperation at the Bureau of International Cooperation, Ministry of Environment and Forestry, Republic of Indonesia
7	Chul Hyun Jeon	A research scientist at the National Institute of Forest Science (NIFoS), Republic of Korea
8	Himlal Baral	CIFOR Senior Scientist working under the Forests and Environment programme.

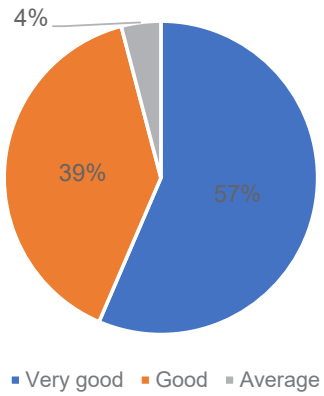
III. COMPREHENSIVE RESULT ON SATISFACTION OF SESSIONS



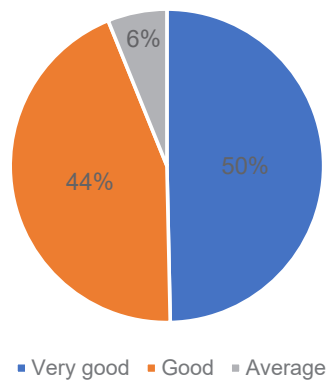
SESSION 1. HOW PES SERVES LIVELIHOOD OF FOREST COMMUNITY: RECAPS FROM THE AFOCO INT'L WORKSHOP IN 2014 AND THE GLOBAL DISCOURSES ON PES



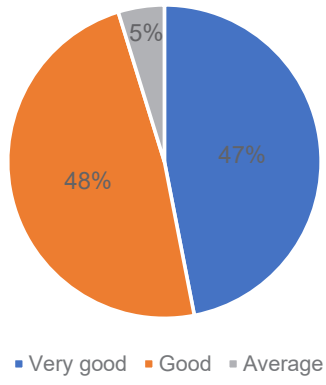
SESSION 2. THE ROLE OF INSTITUTIONAL WORK FOR PAYMENTS FOR ECOSYSTEM SERVICES



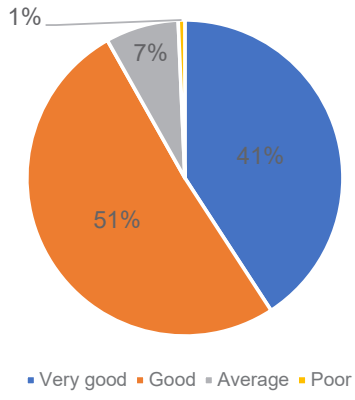
SESSION 3. PES PRACTICE #1: VIET NAM'S ENDEAVORS ON INSTITUTIONAL WORK ON PES



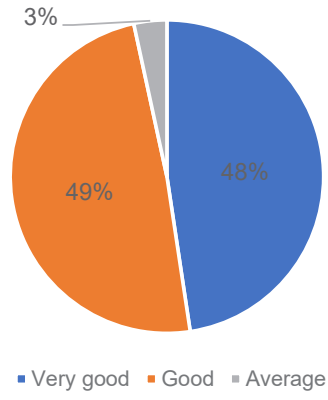
SESSION 4. PES PRACTICE #2: THAILAND'S ENDEAVORS ON INSTITUTIONAL WORK ON PES



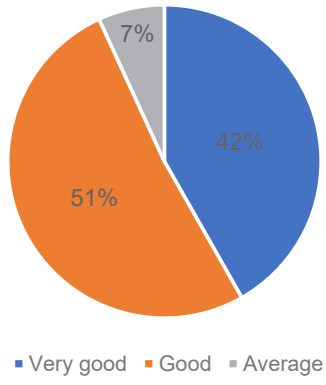
SESSION 5. PES PRACTICE #3: BHUTAN'S STORY ON NATURAL CAPITAL AND VALUING ECOSYSTEM SERVICES



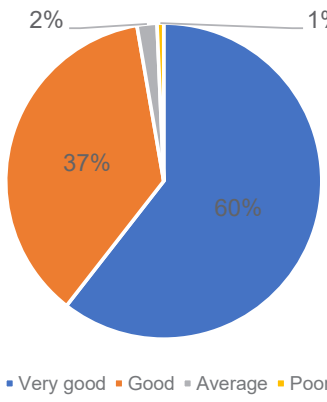
SESSION 6. PES PRACTICE #4: INDONESIA'S STORY ON PES AND REDD+



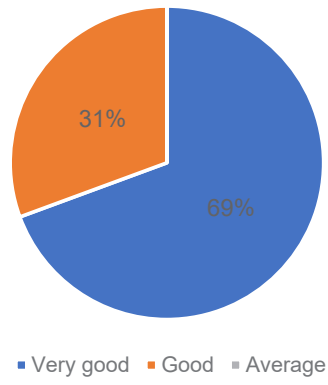
SESSION 7. PES PRACTICE #5: ROK'S STORY ON PRIVATE SECTOR ENGAGEMENT: INCENTIVES FOR ECOSYSTEM SERVICES



SESSION 8. SESSION 8. BUILDING A VISION FOR PES AS A FINANCIAL INSTRUMENT TO BOOST UP RESTORATION UNDER CLIMATE CHANGE AND PANDEMIC RECOVERY



WAS THE OVERALL TRAINING COURSE USEFUL?



8. RECOMMENDATIONS FROM PARTICIPANTS

Thank you notes:

- Great thank to the organizer's member and AFoCO that provide us a good opportunity to join this training; I think it's very useful for us to learn and get more experience from this course.
- Good job for the RETC in organizing this event; I hope I can have the opportunity again to experience this training course.
- The training is very informative, although it is quite overwhelming.

Next training may be operated considering...

- The translator for the participants who can't speak the English language or are not perfect with the speaking too.
- Allocation of more time for discussion on (a) the "concept," challenges, and various approaches to address these challenges, (b) benefit-sharing mechanism.
- Upload all the lectures one day before the training.
- Provide additional important reference materials/ information.
- Arrange also for high-level officials from both environmental and economic sectors.
- Give more time for open discussion.
- Time management for different time zone.
- Distinguish between "Training" and "Capacity Building Workshop".
- Conduct such courses more often.

The next training topic on PES may include...

- Elaboration or analysis just one case study per the theme
- Video presentations of success stories
- Include PES topic in the preparation of the different environment and natural resources planning efforts

9. LIST OF PARTICIPANTS

NO.	COUNTRY	NAME	POSITION	AFFILIATIOIN
1	BHUTAN	Sonam Drugyel	Senior Forest Ranger II	Department of Forest and Park Services
2		Karma Choki	Forestry Officer	
3	BRUNEI DARUSSALAM	Duratul Ain Haji Durani	Forestry Officer	Forestry Department, Ministry of Primary Resources and Tourism
4		Hanney Aleesa Ramdan		
5		Rozizan Maslin	Asst. Forestry Officer Level 2	
6	CAMBODIA	Pang Phanit	Chief of wildlife and Biodiversity Protection Office	Department of Wildlife and Biodiversity, Forestry Administration
7		Koh Sotheavy	Deputy Chief of Forest Demarcation, Registration, and Forest Land Use Office	Department of Forestry and Community, Forestry Administration
8		Chhorn Vireak	Deputy Chief Office of Administration, International Cooperation, and ASEAN	Department of Forest Industry and International Cooperation, Forestry Administration
9	INDONESIA	Mega Lugina,	Researcher	Research and Development Center of Social, Economic, Policy and Climate Change
10		Indartik,		
11		Galih Kartika Sari		
12		Niken Sakuntaladewi		
13		Sri Lestari		The Center of Forest R&D, FOERDIA
14		Mira Yulianti		
15		Bondan Winarno		
16		Husnul Khotimah		
17		Gerson N. Njurumana		Environment and Forestry Research Institute of Kupang, East Nusa Tenggara
18		Rubangi Al Hasan		Non-timber forest products technology R & D Insitute, Mataram
19	KAZAKHSTAN	Niyaz Zholbarys Arystananuly	Specialist of the Committee for Forestry and Wildlife	Ministry of Ecology, Geology and Natural resources of the Republic of Kazakhstan
20		Bekkaliev Timur		
21	LAO PDR	Somvang Phoutthavong	Deputy Head of Conservation and Protection Unit	Provincial of Agriculture and Forestry
22		Thipphaphone Linthasone	Teacher	Faculty of Agriculture and Forestry
23		Khandala Khamphila		
24		Sisamone Xaiyakanya		
25		Thipphaphone Khamthepha	Student	
26		Vilaysack Xaisimueng		
27	MALAYSIA	Tuan Marina binti Tuan Ibrahim	Head of Section (Forest Economics)	Forestry Department Peninsular Malaysia
28		Nor Izzati binti Othman	Economist	
29	MONGOLIA	Enkhjin Ganbold	Forest Restoration Specialist	Ministry of Environment and Tourism, Mongolia
30		Anudari Bayarkhangai	Fire and GIS-based Ecosystem Monitoring Specialist	The Fire Management Resource Center-Central Asia Region, National University of Mongolia
31		Bolor Radnaabazar	Specialist	ENSURE Project, Ministry of Environment and Tourism, Mongolia

32	MYANMAR	Ye Lwin Aung	Staff Officer	Forest Department, Myanmar
33		Aye Mya Thant	Range Officer	
34	PHILIPPINES	Eugene Soyosa	Economist III	DENR-FMB
35		Larlyn Faith Aggabao	Development Management Officer IV	
36		Kathleen Q. Marasigan	Senior Forest Management Specialist	
37		Aloysius Jan Revilla		
38		Gabriel Paolo E. Mendoza	Economist III	
39		Angelo Marquez	Forest Management Specialist I	
40		Elise Gabrielle Esguerra	Forest Management Specialist II	
41		Leo Paulo Ferrer		
42		Ferlyn Trinidad	Watershed Management Specialist	FMB-INREMP
43		Jeanna Lane M. Bago	Planning Officer III	FMB-FMP
44		Ayesha Chennel B. Abawag	Project Evaluation Officer III	
45		Merlito A. Villar	Supervising Environment Management Specialist	DENR-Region 3
46		Romeo P. Alicante, Jr.	Land Management Officer I/Planning Officer	DENR Region 6 (CENRO Bago City)
47	SINGAPORE	Lorraine Tan	Manager (International Biodiversity Conservation)	National Parks Board
48		Fairoz Mohamed		
49		Hassan Ibrahim	Deputy Director (International Biodiversity Conservation)	
50	Thailand	Kantinan Peawsa-ad	Director of Forest Biodiversity Research Division	Royal Forest Department
51		Prattana Meesincharoen	Foreign Relations Officer	
52		Ms.Weerana Sompeewong	Scientist, senior professional Level	
53		Ms.Watcharaporn Polsri	Forestry Technical Officer, Practitioner Level	Community Forest Management Officer
54	Timor Leste	Jose Ronaldo Oqui Fernandes	GIS Officer	N/A
55		Silveiro Boavida	Community Forestry Officer	
56		Calisto Afoan	Reforestation Officer	
57	Viet Nam	Nguyen Hai Hoa	Vice Dean, Faculty of Forest Resources & Environmental Management	Viet Nam National University of Forestry (VNUF)

58	Lecturers and Facilitators	Yeongjoo Lee	Director	AFoCO Secretariat
59		Chulhyun Jeon	Research Scientist	National Institute of Forest Science
60		Jamyang Phuntshok	Staff of Watershed Management Division	Department of Forest and Park Services in Bhutan
61		Nguyen Chien Cuong	Researcher	Vietnam Forest Protection and Development Fund (VNFF)
62		Piyathip Eawpanich	Researcher	
63		Muhammad Zahrul Muttaqin	Deputy Director	Multilateral Cooperation at the Bureau of International Cooperation, Ministry of Environment and Forestry, Republic of Indonesia
64		Pham Thu Thuy	Research Scientist	CIFOR
65		Himlal Baral		
66		Soozin Ryang		RETC
67		Su Yi Hnin		
68		Youngeun Rho	Internship student	
69		Zhaniyat Baltabayeva		

Asian Forest Cooperation Organization (AFoCO)

AFoCO is a treaty-based intergovernmental organization that is committed to strengthening forest cooperation and taking concrete actions to promote sustainable forest management and address the impacts of climate change.

AFoCO Regional Education and Training Center (RETC)

AFoCO RETC was established as a subsidiary organ of AFoCO to develop the capacities of member countries in dealing with forestry and related environmental issues. The RETC provides practical and problem-solving oriented training programs, training courses, and workshops to enhance the knowledge and skills of diverse participants including government officials from member countries, researchers, university students, and members of local communities, among others.

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