

TRAINING REPORT

AFoCO – MOEF of Indonesia Capacity Building Workshop "An Intensive Discussion for MRV in Forest Carbon Assessment"

11-13 July 2023



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Asian Forest Cooperation Organization

TRAINING REPORT

AFoCO – MOEF of Indonesia Capacity Building Workshop "An Intensive Discussion for MRV in Forest Carbon Assessment"

11-13 July 2023 Indonesia

Notes to Readers

The report was prepared by the AFoCO Regional Education and Training Center for AFoCO-MoEF of Indonesia Capacity Building Workshop "An Intensive Discussion for MRV in Forest Carbon Assessment" organized on 11-13 July 2023 in Indonesia.

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The data in the report were validated by participants of An Intensive Discussion for MRV in Forest Carbon Assessment. The views expressed in this report may not necessarily reflect the views of the AFoCO.

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ABBREVIATIONS AND ACRONYMS

AGB Above Ground Biomass

FCPF Forest Carbon Partnership Facility

FRL Forest Reference Level

FREL Forest Reference Emission Level

FUGs Forest User Groups

IPCC Intergovernmental Panel on Climate Change

LULC Land Use, Land Cover Change

MRV Monitoring, Reporting, and Verification
NFMS National Forest Monitoring System

NFI National Forest Inventory

SDG Sustainable Development Goals
SIS Safeguard Information System

SLMS Satellite Land Monitoring System (SLMS)

VCM Voluntary Carbon Market
VCS Verified Carbon Standards

1. INTRODUCTION

Asian Forest Cooperation Organization (AFoCO) and International Tropical Timber Organization (ITTO) have been jointly organizing capacity-building workshops on Forest Landscape Restoration (FLR) in collaboration with partner organizations since 2021. The workshops are targeted at government officials and forestry experts from the Asia-Pacific Region to improve their understanding of the FLR. At its first and second workshops in 2021 and 2022, the concepts of FLR and REDD+ were introduced, and the participating countries expressed that insufficient capacities in monitoring, reporting, and verification hinders the forestry sector to develop high-quality proposals for accessing climate change funding.

Emphasizing the carbon benefits of implementing FLR, the third AFoCO-ITTO Capacity Development Workshop on FLR in the Asia-Pacific Region with a focus on "Monitoring, Reporting, and Verification in Forest Carbon Assessment" is organized on 4-6 July 2023. The workshop focuses on the forest carbon assessment in preparing FLR proposal. It is structured under three main components: (1) Article 6 of the Paris Agreement, (2) MRV tools and methodologies, and (3) country-based reporting and proposal development for improving the MRV process in FLR/REDD+ projects, so that the countries are encouraged to develop FLR projects and strategies with greater chance in accessing climate change finance from leading multilateral and bilateral funds.

Following the workshop, as its post-session, AFoCO RETC will organize an intensive discussion by inviting 14 AFoCO Member Parties on 11-13 July 2023 in Jakarta, Indonesia. Acknowledge the importance of partnerships in maximizing the financial support for FLR, the workshop will introduce a concept of the Climate Action Matching Platform (CAMP) currently under development as part of AFoCO Strategic Plan 2024-2030 and Climate Action Plan. Accordingly, the participants will be encouraged to discuss challenges and opportunities in implementing FLR/REDD+, also synergizing the FLR/REDD+ to achieve sustainable development goals within the countries.

A new trend in climate change issues is mangrove restoration. Extending the opportunity to have the workshop in Indonesia, the participants will also explore FLR/REDD+ implementation by visiting a mangrove site in the country. Mangrove forests along with seagrass beds and salt marshes are the three main types of ecosystems that have a great ability to absorb carbon, which is popularly known as Blue Carbon. Indonesia, which is a country with 23% of the world's total mangrove area, is the location for this year's AFoCO workshop. The Indonesian government recognizes mangroves as a vital tool not only for mitigating climate change, but also for overcoming various national environmental problems. Therefore, Indonesia is also developing an MRV system for assessing forest carbon on a national scale in mangrove areas. By holding the workshop in Indonesia, it is expected that workshop participants, especially those from countries with mangrove areas, can learn about the Indonesia MRV system of forest carbon assessments in mangrove area and develop the system in their respective countries.

¹ FAO recommended that to achieve the global FLR targets, finance for FLR should improve by promoting FLR as a joint climate change mitigation and adaptation target to climate finance such as GCF, and building partnerships (source). UN-REDD Programme promotes FLR-related partnerships by mainstreaming "Investment: Bolstering and spurring further investments into restoration" as one of the key approaches in cooperating with them to achieve FLR goals (source). Recently, Costa Rica received USD 16.4 million from the World Bank Trust Fund, Forest Carbon Partnership Facility (FCPF) for reducing 3.28 million tons of carbon emissions from deforestation and forest degradation (source). These are promoting partnerships and their carbon benefits maximized by the values of FLR in integration and stakeholder participation.

2. OBJECTIVES AND OUTPUTS

2.1 OBJECTIVES

The workshop aims to provide an intensive discussion among the member countries for FLR/REDD+ by learning about Indonesia's experiences in MRV. It will also provide an arena for knowledge sharing and the way forward to enhance the effective implementation of FLR/REDD+ activities with climate partnership actions.

2.2 EXPECTED OUTPUTS

OUTPUTS: At the end of the workshop, the participants will be able to:

- Understand the concept, challenges, and opportunities of forest carbon assessment through the Climate Action Matching Platform (CAMP)
- · Identify critical considerations to improve future planning of forest carbon projects

DELIVERABLES: At the end of the workshop, there will be two main deliverables:

- Workshop Report, and
- Complementary Policy Brief.

3. PARTICIPANTS' ANALYSIS

3.1 INFORMATION ABOUT PARTICIPANTS

This course welcomed 14 technical-level government officials and forestry experts involved in forest landscape restoration and related work of the AFoCO 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	Female	Male
1.	Bhutan	1	0	1
2.	Brunei Darussalam	2	2	0
3.	Cambodia	1	0	1
4.	Indonesia	5	2	3
5.	Myanmar	1	1	0
6.	Thailand	1	0	1
7.	Timor-Leste	2	0	2
8.	Viet Nam	1	0	1
	Total	14	5	9

(Note: 51 participants who received the certificate of completion)

Table 2. Position of participants

No.	Position	Number
1.	National Director	1
2.	2. Vice President	
3.	3. Chief/Senior Officer/Principal Forestry Officer	
4.	4. Forestry Officer/Technical Officer/	
5.	Environmental Controller /Forest Ecosystem Controller	
	Total	14

4. CURRENT ISSUES OF PARTICIPATING COUNTRIES

4.1 CORE PROBLEM PER COUNTRY

An effort was made to decipher the core problems faced by the participating countries in implementing system in forest carbon assessment within their jurisdictions from the Country Reports submitted by Participants. The assessment is reflected in the following Table:

Countries	Core Problems	
Bhutan	Lack in human resources and financial support	
Brunei Darussalam	Low human capacity in MRV	
Cambodia	Tenurial Rights	
Indonesia	Policy and Governance	
Kazakhstan	No institutional arrangements in MRV	
Myanmar	Lack in human resources and community involvement	
Thailand	Ineffective institutional arrangement	
Timor-Leste	Lack in human resources and financial support	
Viet Nam	Lack of voluntarily commitment/participation in MRV	

4.2 COUNTRY REPORT

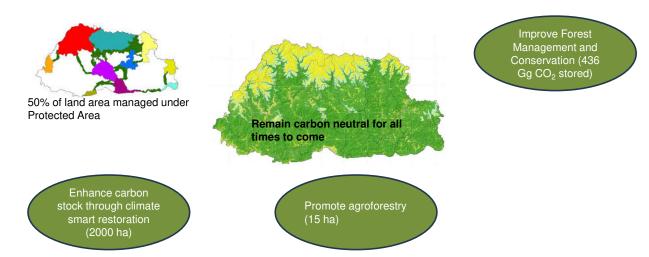
4.2.1. BHUTAN

1. Climate strategies in their countries

Names three (current or recently concluded) climate strategies in your country

- National REDD+ Strategy 2020
- Nationally Determined Contribution 2021
- · Low emission development strategies 2021
- National Adaptation Plan (draft 2023)

Forest targets and measures set within Sustainable Development Goals (SDGs) and NDCs



What are the obstacles and barriers to national/subnational FLR programs in your country?

- · Scare resources and competing priorities (budget, HR, land)
- High Forest and Low Deforestation Country
- Difficult to access climate finance
- No real benefits
- Difficult to institutionalize the project based programs

Please mention and explain regulations related to climate strategies or carbon trading (three at the maximum)

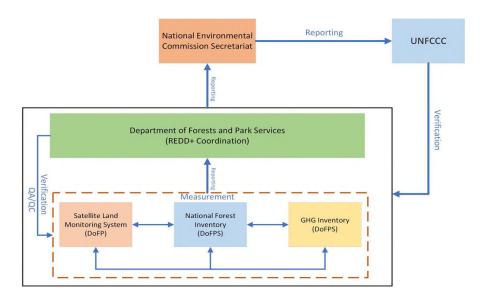
- The Constitution of Kingdom of Bhutan, 2008
- National Climate Change Policy 2020
- Forest and Nature Conservation Bill 2023
- Carbon Trading Rules 2023

2. Major constrain in the implementation of the monitoring, reporting, and verification (MRV) system

Please mention and explain the limitation of implementing MRV system in forest carbon assessment.

- · Benefits vs cost
- Limited fund and the paradox of Conservation vs. Development
- · Limited technical capacity
- Poorly defined roles and responsibilities of collaborating partners
- High mobility of human resources (transfers, resignations, etc.)
- · Insufficient education and advocacy on MRV and Climate Change

Please mention if there are any institutional arrangements for MRV



3. Climate Projects

	DETAILS
Project Title	REDD+ Readiness Preparation Proposal (R-PP) project of Bhutan
Implementing Organization	Organization Name: Department of Forests and Park Services, RGOB Nature or type: Grant Major functions/duties :REDD+ Leadership Development
Project Duration	2015-2022
Project Sites	National
Main Objectives	Development of REDD+ architecture Capacity building
Benefactors	DoFPS and local people
Budget USD \$8.6	
Financing Partners	FCPF, World Bank
Lesson Drawn From the Project	 Identification and involving stakeholders Proper planning and coordination Awareness and advocacy on the project components; Why? When, how, and where? Clear communication and teamwork Gap analysis and future improvements

4.2.2 BRUNEI DARUSSALAM

1. Climate strategies in their countries

Names three (current or recently concluded) climate strategies in your country



Brunei Darussalam Nationally Determined Contribution (NDC) 2020

Brunei Darussalam is no exception to being impacted by the effects of climate change as the rest of the world - believing that the challenges posed by climate change demand urgent, decisive and concerted global action.

Brunei Darussalam hereby communicates its Nationally Determined Contribution (NDC) and relevant information to facilitate clarity, transparency and understanding in accordance to decision 1/CP.21, paragraph 27 as contained in Annex 1 of decision 4/CMA.1.

This NDC supersedes the INDC and has been developed in an inclusive Whole-of-Nation process through the instituted national climate change governance. It sets a new ambition level which includes an economy-wide 2030 NDC target based on clear climate mitigation, resilience and adaptation policies.

However, limitations resulted from the COVID-19 pandemic, have posed challenges in the preparation of this NDC, which may be updated in due course should there be new findings from further assessments.

Brunei Darussalam is committed to a reduction in greenhouse gas (GHG) emissions by 20% relative to Business-As-Usual levels by 2030.

Forest targets and measures set within Sustainable Development Goals (SDGs) and NDCs

Target 15.1, 15.2, 15.3,15.5; In line with our Brunei National Climate Change Policy Strategy 2: Forest cover which mainly targets afforestation & reforestation in degraded areas i.e. caused by forest fire, mining activities by planting 500,000 trees by 2035 and to increase forest reserves from 41% to 55%.



What are the obstacles and barriers to national/subnational FLR programs in your country?



Less monetary focus for restoration projects



Heavy reliance on Government's budget



No consolidated land use and land use change data thus making restoration planning difficult



There are no experts within
the forestry sector in
conducting FLR/REDD+
program and to conduct
proper data collection
needed for climate finance
related funding such as
through voluntary carbon
markets



No national experts
available as point of
reference in climate finance
strategies/carbon trading
that can further justify the
funding importance to FLR
program

Please mention and explain regulations related to climate strategies or carbon trading (three at the maximum)

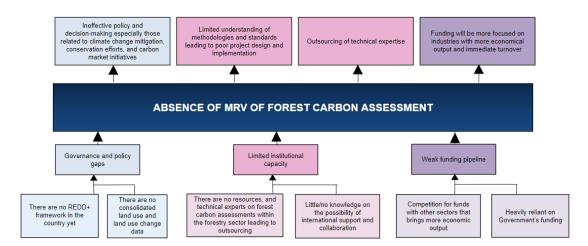
- No national regulations yet
- Brunei National Climate Change Policy Strategy 6: Carbon Pricing
- This strategy seeks to reduce carbon intensity from all industrial sectors and power utilities in Brunei Darussalam through internalizing the societal cost of carbon emissions and impending destructions from climate change impacts
- This strategy intends to introduce carbon pricing applicable to all industrial facilities and power utilities emitting beyond a carbon emission threshold limit by 2025

The intention to use voluntary cooperation under Article 6 of the Paris Agreement, if applicable.

Market mechanisms: Brunei Darussalam envisages to achieve the intended GHG emissions reductions under this NDC through domestic actions and financing. However, the Government of Brunei Darussalam will explore possible bilateral, regional and international mechanisms in meeting the NDC target.

2. Major constrain in the implementation of the monitoring, reporting, and verification (MRV) system

There are no current institutional arrangements of MRV system in forest carbon assessment in the country. The constraints in its implementation includes:



3. Climate Projects

No projects in the country that received climate finance yet

4.2.3 CAMBODIA

1. Climate strategies in their countries

Names three (current or recently concluded) climate strategies in your country

- National REED+ Strategy (NRS):
 - the Production Forests Strategic Plan (2018-2032),
 - the National Protected Area Strategic Management Plan (2017-2030)
 - the Strategic Planning Framework for Fisheries (2010-2019)
- National Forest Monitoring System (NFMS):

Cambodia has launched its NFMS in 2017 to monitor REED+ activities and is continuously working to improve methodologies for Emission Factors (i.e. data on forest carbon stocks) and Activity Data (i.e. data on forest cover change) estimation.

Forest Reference Level (FRL):
 Cambodia's initial FRL uses the most recent IPCC guidance and guidelines to estimate emissions and update data used for the development of the FRL, reflecting improvements in methodologies and capacities to assess activity data, emission factors and emission/removal estimates.

Forest targets and measures set within Sustainable Development Goals (SDGs) and NDCs

Summary of NDC implementation timeline and targets

	Ву 2020	By 2025	By 2030
Governance	Governance systems set up	NDC and climate change governance systems increasingly mainstreamed	NDC and other planning systems perfectly mainstreamed and used to report on NDC and SDGs
Mitigation	Implementation of mitigation actions	Increased ambition, economy-wide mitigation targets and implementation	Real-time economy-wide mitigation targets and implementation
Adaptation	NAP process ongoing and adaptation actions in NDC implemented	NDC linked to NAP process	NDC linked to NAP process and resilience improved
Finance	Finance systems set up and concessional financing terms	Climate investment plan operational and increased sophistication of finance system	Middle-income level of financial sophistication achieved
MRV/Transparency	Limited measurement of progress and development of transparency system	Transparency system partially operational	Transparency system upgraded and fully operational

What are the obstacles and barriers to national/subnational FLR programs in your country?

- Illegal logging of high value timber
- Forest fire
- Forest land encroachment and Land grabbing
- Lack sufficient land rights





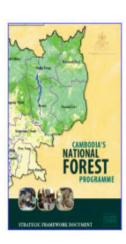
Please mention and explain regulations related to climate strategies or carbon trading (three at the maximum)

- National Forest Programme (2010-2029) aims to achieve sustainable forest management and alleviate poverty in Cambodia. The NFP has also identified REDD+ as an important source of sustainable forest financing. The NFP aims to increase the current level of forest cover to 60% of the total land area as its strategic indicators. It also sets a target of 500,000 hectares of high value commercial plantation established and 10 million tree seedlings distributed per year and two million hectares of forest land allocated for Community Forestry (approximately 1,000 CF).
- National Strategic Development Plan (NSDP) 2014-2018 emphasizes the need for Cambodia to "balance between development and conservation", and recognize the need for: (1) green cover, forest and wildlife conservation. The NSDP sets a national target of 60% forest cover with an annual area to be reforested of 25,000 hectares from 2014 to 2018.
- The National Green Growth Roadmap promotes restoration in the country thru incentive-based payments. It also enjoins the ministries and departments replant any lost vegetation along roads and maintain forest cover to ensure the stability of ecosystems and for the prevention of soil erosion.
- Cambodia Climate Change Strategic Plan (CCCSP) 2014 2023 Besides protection of water and forest resources, the Royal Government is promoting tree planting, rehabilitation of degraded forests and investment in production of biofuels.
- Sub-decree No 41ANK/BK on Public Investment Management Promulgated on 25 March 2020
- A draft SOP for PPP: Volume I: Policies and Procedures





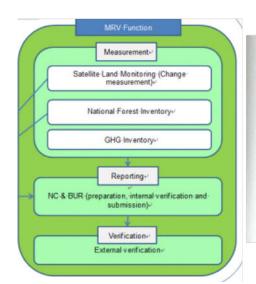




An Intensive Discussion for MRV in Forest Carbon Assessment

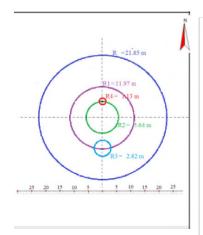
2. Major constrain in the implementation of the monitoring, reporting, and verification (MRV) system

Please mention and explain the limitation of implementing MRV system in forest carbon assessment.



Assessment Methodology 2014 Map 2.1. Methodology Landsat 8 Satellite Imagery, remotely sensed imagery interpretation techniques Geographical Information System techniques are applied to categorize force through a seven-step approach as shown in the below diagram: LANDSATS Satellite imagery Segmentation by eCognitum Cambodia FOREST COVER 2015

National Forest Inventory& GHG Inventory



The work phases at a circular sample plot are as follows:

Figure 1: Diagram of implementation stages of Land Use/Cover map 2014

- Locate the starting point.
- Establish a line towards North/South from the starting point, put poles to mark 5.64m to the North and 11.97m to the South from the center.
- The pole 5.64m to the North from the center is the center of a small sub-plot for counting seedlings with a radius of 1.13m.
- The pole 11.97m to the South from the center is the center of a small sub-plot for counting saplings with a radius of 2.82m.
- The plot boundaries are not physically visible. For small plots (radius of 1.13m or 2.82m) use rope or tape fixed to the center and move around to determine the plot boundaries. For big plots (radius of 5.64m, 11.97m or 21.85m) put a transponder in the center of the plot and use a Vertex to determine the plot boundaries.
- The work can start from the regeneration plot, since this plot is not yet disturbed.

GHG Inventory

- The FOLU NDC Scenario: Reduce 50% of historical emissions by 2030 (REDD+ programme); This target is based on the REDD+ national strategy which was included due to recommendations from the REDD+ Technical Secretariat (RTS) and the Department of Climate Change.
- The main assumption of the calculation was to reduce the 50% historical emission from the forest sector (76.3million tCO2e) by 2030 (38.1million tCO2e) with an average annual reduction of 21million tCO2e/year.

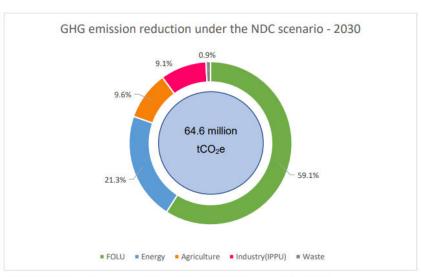


Figure 9 GHG emissions reduction under the NDC scenario in 2030

Table 6 Sectoral share and absolute number of GHG emission reduction under NDC scenario in 2030

Sector	Sectoral share (%)	GHG emission reduction (MtCO2e)
FOLU	59.1	38.1
Energy	21.3	13.7
Agriculture	9.6	6.2
Industry (IPPU)	9.1	5.9
Waste	0.9	0.6
Total	100%	64.6

Please mention if there are any institutional arrangements for MRV

- Protected Forest is under jurisdiction of MoE:
 - · All forestry areas are conserved and protected for ecology and environment aspect
 - · 74 Protected Area have been established
- Production forest is under Jurisdiction of MAFF:
 - All forestry areas are rehabilitated and reforested, to increase the forest resources for supplying the demand of wood production and NTFPs in country, and also to improve the livelihood of local communities.
- FA is responsible for reporting the assessment of forest cover conditions for the entire country as well as for producing nationwide walls to walls land use/cover maps.

3. Climate Projects

	DETAILS
Project Title	The Forest and Landscape Restoration Mechanism
Implementing Organization	Organization Name: FAO Nature or type: N/A Major functions/duties :MoE and MAFF
Project Duration	2016-2020
Project Sites	Kampong Thom, Preah Vihea, and Siem Reap
Main Objectives	 enabling environment of FLR with actions focused on institutional arrangement, intersectoral coordination, integrated landscape governance, capacity strengthening, assessment and monitoring of FLR resources mobilization through facilitation of the access of Cambodian institution/organization to both public and private investments and support innovative partnerships/initiatives on sustainable financing for FLR in the context of the sub-group on Forestry Sustainable Financing of Technical Working Group on Forestry Reform.
Benefactors	Government staff, Community Forestry,
Budget	USD \$500 000
Financing Partners	KFS and FVC
Lesson Drawn From the Project	Identification and prioritization of the innovative FLR inventions among CF

4.2.4 INDONESIA

1. Climate strategies in their countries

Names three (current or recently concluded) climate strategies in your country







Indonesia REDD+ National Strategy 2021-2030 FOLU NET SINK : Indonesia's Climate Actions Towards 2030 Invesment Framework For Reducing Emissssions From Deforestation And Forest Degradation, And The Role of Conservation, Sustainable Management of Forest and Enhacement of Forest Carbon Stock in Indonesia

Forest targets and measures set within Sustainable Development Goals (SDGs) and NDCs Seven corrective measures for Indonesia to implement the NDC are:

- Significantly reducing the rate of deforestation and forest degradation, through various direct actions such as a palm oil
 moratorium and the termination of permits for businesses in primary forests and peatlands.
- 2. Permanently preventing forest fires and their negative effects on the environment and the socioeconomic of
- 3. Actualizing biogeophysical principles, including environmental carrying capacity and absorption capacity, characteristics of river basins (DAS) and Biodiversity (Kehati), in the utilization and use of forest areas, internalizing the principles of environmental carrying capacity and absorption capacity into the preparation of the revised National Forestry Plan.
- 4. Preventing the loss of biodiversity through area conservation and protection of biodiversity.
- 5. Aligning the future direction of the Ministry of Environment and Forestry (KLHK) policy, taking into account international conventions, sustainable development goals or Sustainable Development Goals (SDGs), the Paris Agreement on Climate Change, the Aichi Biodiversity Target, Land Degradation Control and various other international conventions.
- 6. Building climate resilience through restoration, management and rehabilitation of peatlands, forest rehabilitation and deforestation control.
- 7. Changing the direction of forest management from being focused on timber management to management based on forest ecosystem resources and community-based.

Targets:

The government has set a target of reducing greenhouse gas (GHG) emissions in Indonesia's NDC. The details of the reduction are 29% with its own efforts and 41% with international support by 2030.

The government has included climate change adaptation in the Law on Protection and Management, as well as the National Medium-Term Development Plan (RPJMN) 2020-2024. In the RPJMN, the government targets three climate change adaptation. First, reducing vulnerability by around 30-40% by managing climate change risks through increasing social, economic, and livelihood capacity. Second, supporting climate change adaptation programs in various development sectors in at least 17 ministries or institutions and 60% of regencies or cities. Third, improving the services of freshwater ecosystems in 15 river basins (DAS) and lakes in regencies or cities.

What are the obstacles and barriers to national/subnational FLR programs in your country?

- Deforestation rate is quite high
- · Weak tenurial rights and unclear land allocation and ownership problems;
- Lack of intersectoral dialogue;
- · Poor governance hampers restoration efforts.
- Minimal budget
- · Low and limited Human Resources capacity
- Lack of active participation
- Lack of political will
- Conflicting land use priorities

Please mention and explain regulations related to climate strategies or carbon trading (three at the maximum)

- Ministerial Regulation of the Ministry of Environment and Forestry of the Republic of Indonesia Number P.70 of 2017 on the Procedures for Implementing Reducing Emissions from Deforestation and Forest Degradation, the Role of Conservation, Sustainable Forest Management and Enhancement of Forest Carbon Stocks
- 2. Ministerial Regulation of the Ministry of Environment and Forestry of the Republic of Indonesia Number 7 of 2023 on Procedures for Trading Forest Carbon in the Forestry Sector
- 3. Presidential Regulation No. 98 of 2021 on the Implementation of Carbon Pricing to Achieve the Nationally Determined Contribution Target and Control Over Greenhouse Gas Emissions in the National Development. This regulation establishes a carbon pricing mechanism in Indonesia, which includes a cap-and-trade system, a carbon tax, and carbon offsets.

2. Major constrain in the implementation of the monitoring, reporting, and verification (MRV) system

Please mention and explain the limitation of implementing MRV system in forest carbon assessment.

- · Land cover Change
- Cost / Minimal Budget
- Data availability and quality
- Technical challenges
- Political will
- Capacity constraints
- · Lack of coordination and Participations

Please mention if there are any institutional arrangements for MRV



PERATURAN MENTERI LINGKUNGAN HIDUP DAN KEHUTANAN REPUBLIK INDONESIA NOMOR P.72/MENLHK/SETJEN/KUM.1/12/2017

TENTANG
PEDOMAN PELAKSANAAN PENGUKURAN, PELAPORAN DAN VERIFIKASI
AKSI DAN SUMBERDAYA PENGENDALIAN PERUBAHAN IKLIM



Indonesia's NFMS (National Forest Monitoring System)

DENGAN RAHMAT TUHAN YANG MAHA ESA

MENTERI LINGKUNGAN HIDUP DAN KEHUTANAN,

3. Climate Projects

	DETAILS
Project Title	Forest Carbon Partnership Facility (FCPF) Carbon Fund, East Kalimantan Jurisdictional Emission Reductions Program, Indonesia
Implementing Organization	Organization Name: Ministry of environment and Forestry Nature or type: Jurisdictional Emission Reductions Program. Major functions/duties: designed to incentivize reduced deforestation and forest degradation in the province through sustainable forest management activities, including forest licensing improvements, strengthening forest management capacity, and promoting community-based planning. The program also focuses on addressing the province's main drivers of deforestation and forest degradation through improved forest governance, protection and rehabilitation of peatland areas, and support for alternative livelihoods and community forestry.
Project Duration	2020-2024
Project Sites	Kalimantan
Main Objectives	Jurisdictional emission reduction up to 22 million ton CO2eq
Benefactors	The Ministry of Environment and Forestry and its technical implementation units, East Kalimantan Provincial Government, Regency/City Government and regional apparatus according to their authority, Village Government, Private Sector, Community Groups, Universities, Non-Governmental Organizations, and other development partners.
Budget	USD \$110 million
Financing Partners	FCPF-World Bank
Lesson Drawn From the Project	Forest and land governance, Improving forest supervi-sion and administration, reducing deforestation and for-est degradation within licensed areas, sustainable alter-native for communities.

MYANMAR 4.2.5

1. Climate strategies in their countries

Names three (current or recently concluded) climate strategies in your country



Policy Priorities and Strategies on Climate Change

- Myanmar Climate Change Policy (2019)
- Myanmar Climate Change Strategy (2018-2030) Myanmar Climate Change Master Plan (2018-2030)

Policy Priorities and Strategies for Forest

- Myanmar Forest Policy (1995)
- Forest Law (2018)
- Conservation of Biodiversity and Protected Areas Law (2018)
- The National Forestry Master Plan (2001-2002 to 2030-31)
- National Sustainable Development Strategy for Myanmar (2009)
- Myanmar Reforestation and Rehabilitation Programme (2017-18
- National REDD+ Programme

Responsible Institutions & Ministries

- National Environmental Conservation and Climate Change Central Committee
- (NECCCCC) with 2
- Ministry of Natural Resources and Environmental Conservation (MONREC) Department of Environmental
- Conservation (ECD) under MONREC Forest Department (FD) under MONREC
- Department of Meteorology and Hydrology under the Ministry of Transport and Communication

Major Activities of Korea - Myanmar Joint - Bago District REDD+ Program, with North Zamari Wildlife Sanctuary Project



Provide capacity building and awareness raising



Support livelihood improvement program



Strengthen community forestry in project zone (reforestation, forest conservation, agroforestry)



Support patrol teams (wildlife staffs and community) to conduct regular forest patrol



Support the forest based camps to control illegal logging



Develop the VCS, CCBS and JNR PD

Project Proponent - Forestry Department of Myanmar Ministry of Natural Resources

> Environmental Conservation. and Terra Global Capital

Project Accounting Area - 71,846 ha

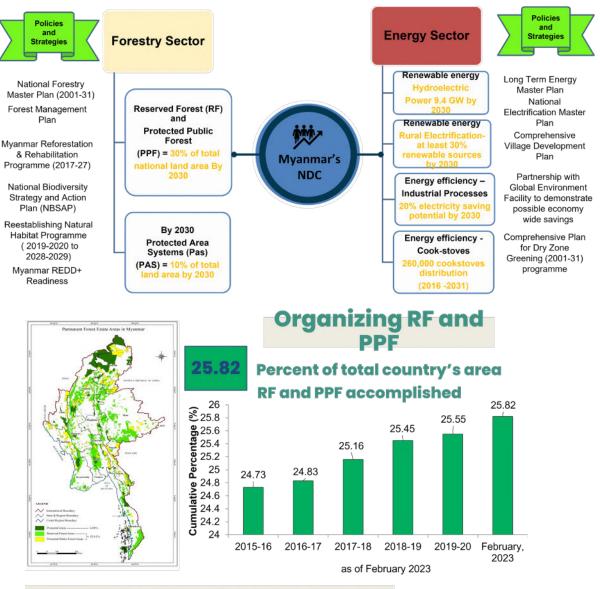
Project Area - 72,695 ha

Project period - June 2016 -

June 2046

- Average Annual Emission Reduction of 99,833 tCO2e yr-1
- Total emission reduction over the Project's 30-year (2016-2046) lifetime of an estimated 2,995,004 tCO2e

Names three (current or recently concluded) climate strategies in your country



Organizing Protected Areas (PAs)

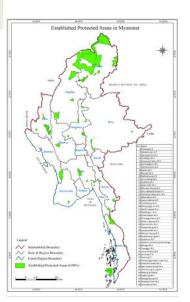


PAs 6.43 % of the total country's area accomplished

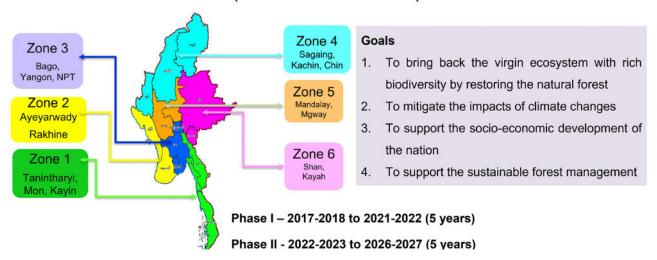
With a total area of 4,350,623.45 hectares

Number of Protected Area	No.	Area of extent (Ha)
Terrestrial	52	4,302,198.23
Marine	5	48,425.22
Total	57	4,350,623.45

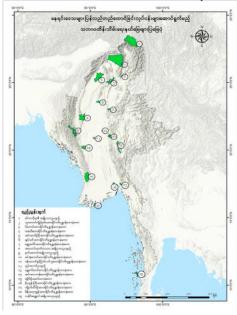




Myanmar Reforestation and Rehabilitation Programme (MRRP) (2017-18 to 2026-27)



Re-establishing Natural Habitat Programme (RNHP) (2019-2020 to 2028-2029)



RNHP composed of two major components: restoration & protection.

Major Activities

Restoration Activities	Protection Activities
Restoring wildlife corridors	Patrolling
Repairing ponds and salt lakes	Boundary repairing
Wildlife restoration	Public Education
Restoring habitats	Species monitoring
Coral restoration	Protecting water resources
Removing invasive species	Livelihood support Activities
	Capacity building for staff & local people

Main Strategic Elements of REDD+ Implementation in Myanmar

- Conditional Target: 50% of total carbon emission by 2030 (based on net emission of 2005-2015)
 Unconditional Target: 25 % of total carbon emission by 2030 (based on net emission of
 - **Unconditional Target:** 25 % of total carbon emission by 2030 (based on net emission of 2005-2015)
- Project level and subnational REDD+ implementation to complement national level Policies and Measures (JCM and VCS -VERRA)
- Measuring and reporting capacities for REDD+ are further enhanced through a functional fully national scale National Forest Inventory and efficient satellite based forest degradation/ restoration monitoring tools for tracking carbon flux changes on forest areas remaining forests.

Contributions of Forestry Sector to Main SDGs

















What are the obstacles and barriers to national/subnational FLR programs in your country?

Constraints in the Implementation of FLR

Myanmar Reforestation and Restoration Programme (MRRP) is most successful project in comprehensive manner

Strength

- Inclusive (FD, DZGD, private, community are implementing) and comprehensive (19 forestry operations including reforestation 258,000 ha)
- National carbon removal target and ecosystem restoration
- Supporting NDC commitment and one part of National REDD+ strategy
- Local job opportunity creation
- Rewarding system enhances the performance

Obstacles

- Participation of Local community on success
- Weakness in long-term maintenance (still lack of plantation policy)
- Lack of adequate staffs and limited capacity
- Weak monitoring
- Unexpected challenges (Covid-19; Political Issues)

2. Major constrain in the implementation of the monitoring, reporting, and verification (MRV) system

Major Constraints in the Implementation of MRV system

. Depend on the project focus

(WIF project focus on restoration activities while KFS REDD+ project focus on reducing deforestation through livelihood improvement activities, forest conservation and reducing illegal activities.)

Lesson drawn from REDD+ project

- Participation of local communities is essential not only for reforestation project but also for reducing deforestation project.
- Encouragement of policy maker level is curial to implement the project activities.
- Collaboration from local authority is important to control illegal activities especially reducing deforestation project.
- Awareness of relevant stakeholders also important for successful project implementation
- ☐ Extending cooperation in Sustainable Forest Management and REDD+ with Korea Forest Service and other international organizations for technical assistance and financial support moving towards to fulfill the international commitments in forestry sector.

Major Constraints in the Implementation of MRV system at the **National Level**

Policy and Legal Issues

- · Inconsistency (conflicts) of landrelated policies and legislations
- Weak in law enforcement
- Unclear land and resource tenure
- land-related stakeholders
- · Weak coordination mechanism among government Ministries

Technical Issues

- Limited individual and institutional capacity in MRV at national level
- · Lack of updated satellite image (high resolution) for NFMS at national level
- Land use conflicts among relevant Limited expertise to monitor Ecosystem Services provided by the Forests
 - · lack of completeness in GHG inventory

Financial Issues

· Limited incentive to mobilize financing from private sector

Fetimated

· Limited financial resources

· Uncertainties regarding financing

3. Climate Projects

Ongoing Climate Projects

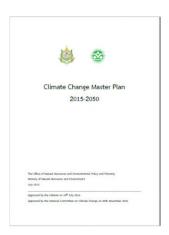
Name	Proponent	Project	AFOLU Activitie s	Methodol ogy	Status	Annual Emission Reduction s	Crediting Period
Restoration of Degraded Mangroves and Sustainable Development in Myanmar	Worldview International Foundation	AFOLU	ARR	AR- AM0014	Under development	77130	2020-2050
Mangrove Restoration and Sustainable Development in Myanmar	Worldview International Foundation	AFOLU	ARR; WRC	AR- AM0014	Registration requested	403831	2020-2040
Korea - Myanmar Joint - Bago District REDD+ Program, with North Zamari Wildlife Sanctuary	Multiple Proponents	AFOLU	REDD	VM0006	Under validation	238397	2016-2046
Reforestation and Restoration of degraded mangrove lands, sustainable livelihood and community development in Myanmar	Worldview International Foundation	AFOLU	ARR; WRC	AR- AM0014	Registered	184006	2015-2045

4.2.6 THAILAND

1. Climate strategies in their countries

Names three (current or recently concluded) climate strategies in your country

- Climate Change Master Plan 2015-2050
- Thailand's National Adaptation Plan
- Thailand's Long-Term Low Greenhouse Gas Emission Development Strategy







Forest targets and measures set within Sustainable Development Goals (SDGs) and NDCs



What are the obstacles and barriers to national/subnational FLR programs in your country?

- 1. Complexity of government structure
- 2. Complexity of laws and regulations for practical implementation
- 3. Ineffective collaboration among relevant agencies

Forest targets and measures set within Sustainable Development Goals (SDGs) and NDCs



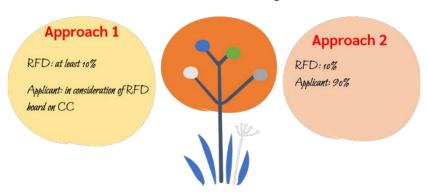
โดยที่เป็นการผมการผ่านที่ไม่โดยตักการขึ้นผูกผกการผมการผมการผมการปลูก ป่ารุง อนุรักษ์
เมลที่หลุยไว้ในพื้นที่บ่าไม่ เพื่อกักครการผมลุขของระบบรับวล ตอดต่อเสยใหญ่แกรเพิ่มที่แก็จังขึ้นได้เกราะ
เป้าหนางร้อยละ ๕๕ จองที่เก็บระเทศ สามายุกตรกร่าวที่ โดยท. โดยต่อ และและไทยที่เก็บระเทศ ผูกสามายุกสามที่ เดิง M. Lectae - Lecao และเกาะปฏิบัประเทศ และผูกสามายุกสามายกระเทศเพื่อ และเดินเหลือน และต่อเสียเหลือให้เก็ตการจัดตรอนไปแป้วันผลการของและที่สนิทารทางสมายกระ และเก็บเลี้ยน และต้อนสินที่เก็บได้ที่ การทางสามายุกผู้ให้ไป และเก็บเลี้ยน เลี้ยน เลี้ยนใหญ่เหลือและ และเก็บเลี้ยน และเก็บเลี้ยน เลี้ยน เลี้ยน เลี้ยน เลี้ยน เลี้ยน เลี้ยน และเก็บเลี้ยน และเก็บเลี้ยน เลี้ยน และเก็บเลี้ยน และเก็บเลี้ยน และเก็บเลี้ยน เลี้ยน และเก็บเลี้ยน เลี้ยน และเก็บเลี้ยน เลี้ยน และเก็บเลี้ยน และเก็บเลี้ยน และเก็บเลี้ยน เลี้ยน และเก็บเล้ายน และเก็บเล้ายน

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RFD regulation on forest carbon credit sharing from planting, maintenance, conversation and restoration in forest areas B.E. 2564

Approach 1: participating forest activities with Planting **Activity** Article Forest Reserve Act Restoration Maintenand Approach 2: forest land permit granted Article Forest plantation 13/1, Article 54 16, Forest Act Cabinet Resolve Forest Reserve Act

Forest carbon credit sharing



2. Major constrain in the implementation of the monitoring, reporting, and verification (MRV) system

Please mention and explain the limitation of implementing MRV system in forest carbon assessment.

- Insufficient skillful and experienced staffs
- Appropriated technology and adequate equipment
- Limited budget

Please mention if there is any institutional arrangements for MRV

Unclear institutional arrangement, both within the department and among forest departments who will be assigned as the focal point on MRV in forest carbon assessment

3. Climate Projects

	DETAILS
Project Title	Integrated Forest Landscape Management for Strengthening the Northeastern and Eastern Forest Corridors
Implementing Organization	Organization Name: RFD, RECOFTC and FAO Nature or type: Major functions/duties: Facilitator, Operational units, and GEF implementing agency
Project Duration	2024-2028
Project Sites	4 forest complexes: Phu Phan, Phanom Dongrak, Dong Prayayen Khao Yai, Eastern
Main Objectives	To promote the conservation of globally important biodiversity in four forest complexes in the Northeast and the northeastern re-gion with forest landscape management approach
Benefactors	Global Environment Facility (GEF)
Budget	USD \$2,983,910
Financing Partners	14 organizations for in kind contribution
Lesson Drawn From the Project	N/A

4.2.7 TIMOR-LESTE

1. Climate strategies in their countries

Names three (current or recently concluded) climate strategies in your country The three climate strategy of Timor-Leste are;

- Green,
- Inclusive and,
- Resilient recovery

Forest targets and measures set within Sustainable Development Goals (SDGs) and NDCs in Timor-Leste:

The Government of Timor-Leste approves the following definition of sustainable development: 'development based on effective environmental management that meets the needs of the current generation without compromising the environmental balance and the possibility for future generations to meet their needs as well' – Timor-Leste NDC 2022-2030

Forest targets and measures set within Sustainable Development Goals (SDGs) and NDCs

The Govt. of TL values the importance of forests and indicates in its NDC to the UNFCCC in 2016 that the forestry sector can play a significant role to mitigate climate change. The dangers posed from climate change and the importance of forests in tackling this issue is a key concern for the nation.

In line with this objective, TL's political leadership called for tangible actions be taken to reduce GHG emissions through REDD+ and put in place long term political visions, plans and strategies, most notably;

- 1. The Environmental Basic Law (Decree Law 26/2012);
- 2. The Environmental License Decree Law 2011 and climate change issues (Decree Law 5/2011);
- 3. The Operational Law of Clean Development Mechanism under the Kyoto Protocol (2010);
- 4. The Decree Law on Export, Import and Use of Ozone Depleting Substances (Decree Law 36/2012);
- 5. Environmental Strategic Plan; The Decree Law on Protected Areas (Decree Law 5/2016);

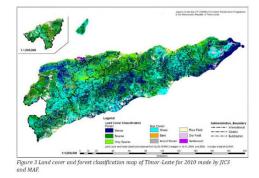
The Govt. of TL's SDP vision to promote renewable energy;

Biodiversity Decree Law, drafting of Climate Change Policy (2016) and Timor-Leste Strategic Development Plan 2011-2030. Moreover, TL aims to address REDD+ at the national level where reducing emissions from the forest sector becomes an important policy priority.

As such, TL has decided to develop its forest reference levels at this scale, where all REDD+ efforts are also better monitored and measured, as a result of the latest GIS and Satellite Land Monitoring Systems, equipment and tools which have been introduced and built into the country's existing national agencies. This will effectively contribute towards the country's policy directions and act as a guide for its forest policy.

What are the obstacles and barriers to national/subnational FLR programs in your country?

- Historically, there has been no national forest inventory since TL independence in the year 2000.
 Therefore, no full scale NFI is available to test the best stratification for carbon and other purposes.
- Limited experts and technical staff as well advanced equipment and gears to support the FLR programs.



Please mention and explain regulations related to climate strategies or carbon trading (three at the maximum)

2. Major constrain in the implementation of the monitoring, reporting, and verification (MRV) system

Please mention and explain the limitation of implementing MRV system in forest carbon assessment.

- Lack of governmental institutional capacity that leads to slow of Govt. Policy and decision-making on the climate change related issue and carbon market initiative.
- Donor Funding dependency, due to lack/limited of funding support from the central government

Please mention if there are any institutional arrangements for MRV

Established the following

- National Focal Point to UNFCCC in 2006, following the ratification to UNFCCC in October 2006 and Kyoto Protocol to UNFCCC in October 2008. As a party to UNFCCC, Timor-Leste has an obligation to report its National Communication to the Conference of the Parties (COP);
- 2. National Designated Authority (NDA) to facilitate the Clean Development Mechanism (CDM) project;
- 3. Focal Point for Green Climate Fund (GCF);
- 4. Research Centre related to climate change in cooperation with universities, and working group for climate change, and
- 5. Formulations of laws and strategic plans related to climate and environment.

3. Climate Projects

	DETAILS
Project Title	National Forest Inventory (NFI) – REDD+ Readiness Project
Implementing Organization	Organization Name: GDFCIP / MAF Nature or type: National Project Major functions/duties : N/A
Project Duration	N/A
Project Sites	Timor-Leste National
Main Objectives	Establishment of the methodology and preparation of important field design and process for the implementation of NFI
Benefactors	Government of Timor-Leste and the relevant stake holder
Budget	USD \$ 1,000,000
Financing Partners	FAO and Govt. Timor-Leste
Lesson Drawn From the Project	Policy and regulation development takes more time than ex-pected

4.2.8 VIET NAM

1. Climate strategies in their countries

Names three (current or recently concluded) climate strategies in your country

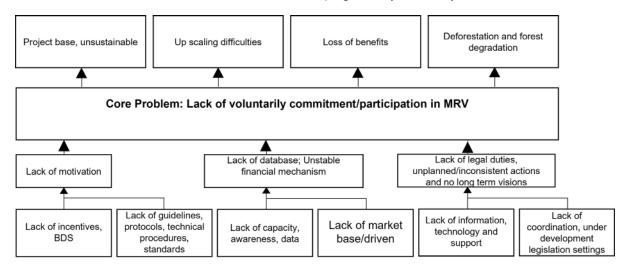
- National Strategy for climate change response: Decision 896/QĐ-TTg 26/7/2022
- Most successful project: FCPF REDD+ Program in 6 North Central Provinces (World bank's agreement on payment for FCPF REDD+ Program in 6 North Central Provinces & having legal document on benefits sharing; 2018-2025, total 10.3 mil CO2e tons).
- Lessons learn: strong institutional agreement, strong commitment and cooperation among stakeholders/partners; legislation frameworks, MRV, national guidance, procedures need to be more comprehensive.

RECENT CLIMATE/FOREST CARBON PURCHASE INNITIATIVES



Forest targets and measures set within Sustainable Development Goals (SDGs) and NDCs N/A

What are the obstacles and barriers to national/subnational FLR programs in your country?



Please mention and explain regulations related to climate strategies or carbon trading (three at the maximum) N/A

2. Major constrain in the implementation of the monitoring, reporting, and verification (MRV) system N/A

3. Climate Projects

N/A

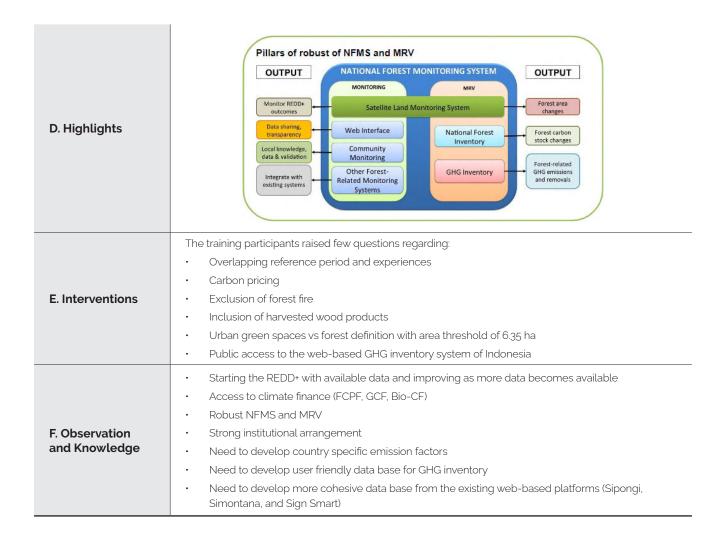
5. WORKSHOP SCHEDULE (Jakarta Standard Time, GMT +07)

Day	Time	Activity	Remark
July 10 (Mon)		Participants' arrival in Indonesia	MOEF/RETC
	09:00-09:30 (30')	Opening & Introduction of the Workshop	RETC
	09:30-10:15 (45')	Recap of the Previous Online Workshop & Orientation for Participants' Roles and Group Work	RETC
	10.15-10.30 (15')	Break	
	10:30-11:30 (60')	Presentation 1: Measurement, Reporting and Verification (MRV) of REDD+	MOEF
	11:30-12:00 (30')	Presentation 2: Country report	Participants
	12:00-13:00 (60')	Lunch Break	
	13:00-15:00 (120')	Presentation 2: Country report	Participants
July 11 (Tue)	15:00-16:00 (60')	 Discussion 1: FLR contributions on SDGs and NDCs, with guiding questions to wit: What are the forest targets and measures set within Sustainable Development Goals (SDGs) and NDCs in your country? How can the FLR program play role in achieving the SDGs and NDCs of your country? What are the obstacles and barriers to national/subnational of FLR programs in your country? 	Participants/ RETC
	16:00-16:30 (30')	Break	
	16:30-17:00 (30')	Discussion 2: MRV of forest carbon assessment in Your Country, with guiding questions to wit: What are the limitations of MRV system of forest carbon stocks in your country? How do we link the stakeholders to make synergies mutually supported?	Participants/ RETC
	17:00-17:15 (15')	Daily feedback and housekeeping announcement	RETC
July 12 (Wed)	09:00-17:00	MRV system field practice sites in Indonesia (see Attachment-2)	MOEF/ RETC
	10:00-11:00 (60')	Recap on the previous days	
	11:00-11:15 (15')	Break	
	11:15-12:00 (45')	Presentation 3: Concept for AFoCO Climate Action and Importance of MRV	RETC
	12:00-13:00 (60')	Break	
July 13 (Thu)	13:00-15:00 (120')	 Discussion 3: AFoCO Climate Action Matching Platform, with guiding questions to wit: What is your expectations from the CAMP? Can you also specify them in terms of the MRV? Which are the key departments and/or institutions for the MRV of the outcomes to be reported toward NDC and SDG VNR in your country? 'Scenario to be provided (e.g.: 1,000 ha reforestation) What kind of institutional arrangements for the MRV can be improved through the CAMP? What is your expected process to engage into the CAMP with AFoCO? 	Participants/ RETC
	15:00-15:15 (15')	Break	
	15:15-16:30 (45')	Closing ceremony	MOEF/RETC
July 14 (Fri)		Participants Departure	MOEF/RETC

6. SESSION SUMMARY AND OUTPUTS

6.1 PRESENTATION 1. MEASUREMENT, REPORTING AND VERIFICATION (MRV) OF REDD+

This session will give an overview of the Indonesian MRV system in general, particularly the forest carbon assessment done by the ministry.
At the end of this session, participants will be able to: Learn the MRV system of Indonesia Understand the institutional arrangement of Indonesia MRV system Explore the Forestry Carbon Partnership Facility (FCPF) system for measuring carbon stock
 Data for Carbon Estimation Emission Factor-National Forest Inventory Method Destructive Sampling Method Non-Destructive Sampling Mangrove components to be quantified for forest biomass and carbon stocks Measurement of Mangrove Sample Plot (NFI)
 UNFCCC decision, Evolution of REDD+ and MRV Bali Action Plan- MRV and incentives for REDD+ activities Cancun Agreement- four elements of REDD+ (National Strategy, FREL/FRL, NFMS and SIS) Warsaw framework for REDD+REDD+ architecture Common goal with differentiated roles/responsibilities—capabilities and national circumstances Successful implementation of the REDD+ Follow UNFCCC Guidance documents FREL/FRL as basis for RBP- start with available data and improve as more data becomes available, technically assessed by UNFCCC Submission of REDD+ technical annexure to UNFCCC with BUR- technical analysis by UNFCCC, maintaining consistency with assessed FREL Process of development of FREL Definition of the REDD+ activities to be included in the FREL/FRL Understanding the definition of REDD+ Activities (Deforestation, Forest degradation, Enhancement of forest carbon stock) Decision on inclusion of carbon pools and gases Consideration for the national circumstances Start with available data and improve when the data becomes available Use of remote sensing - land cover maps, burned area map and peat land map as activity data Use of latest IPCC guidelines Pillars of Robust of NFMS and MRV A Satellite Land Monitoring System for activity data generation National Forest Inventory (NFI) for emission factor A national GHG Inventory for reporting on anthropogenic forest-related GHG emissions/removals



6.2 FIELD PRACTICES FOR MANGROVE: MRV SYSTEM IN INDONESIA

A. Session Overview	This session will introduce the role of climate change finance in accelerating global emission reduction goals, its contribution to forest restoration, and REDD+ implementation. The participants could also take inspiration from successful REDD+ projects from some countries that are financed by climate change funds.
B. Learning Outcomes	At the end of this session, participants will be able to: Understand climate change finance Know the status of climate change financed projects in the Asia-Pacific Region Learn successful climate finance case studies Identify climate change finance sources to enhance FLR/REDD+ implementation in their countries
C. Content	 Data for Carbon Estimation-MRV Emission Factor-National Forest Inventory Method Destructive Sampling Method Non Destructive Sampling
D. Highlights	 How to calculate the data for carbon stock Two data collection methods; 1) Destructive sampling; 2) Non-destructive sampling Components of Mangrove for Quantification of Forest Biomass and Ecosystem Carbon Stocks (Aboveground pools and Belowground pools)
E. Interventions	N/A
F. Observation and Knowledge	 Success of mangrove rehabilitation with good collaboration with the private sector Becomes the tourist attraction Potential for research activities Cause changes to the main purpose (LULUCF) as the mangrove forest located close to the residential area

6.3 PRESENTATION 3: CONCEPT FOR AFoCO CLIMATE ACTION AND IMPORTANCE OF MRV

A. Session Overview	This session will introduce AFoCO Climate Action Matching Platform (CAMP) which is under establishment.
B. Learning Outcomes	At the end of this session, participants will be able to: • Understand the concept of AFoCO climate action • Explore forest carbon under different regimes • Acknowledge the importance of MRV in
C. Content	 Critical moment for climate action Rationale for AFoCOs climate action Accreditation and partnerships Objective and role of AFoCO for the climate action Key elements of the AFoCOs climate action Motivation of the partners for the fund provision Interests of the AFoCO Members and Partners List of cooperation items Actors to be considered for AFoCO Climate Action AFoCO Climate Action Matching Platform CAMP Project/Program REDD+ Feasibility Study with Private Partners Forest Carbon under Different Regimes National Submission toward UNFCCC Project applying Voluntary Carbon Standards MRV issues to be considered Application of cooperative approaches Corresponding adjustment Public and Private Partnership to accelerate climate action Improving Community Forest's Contribution towards NDC Importance of MRV Consideration for the MRV of CAMP Project
D. Highlights	Over 80 global companies are investing in 65 countries to achieve their ESG management and corporate net-zero emissions targets The objectives of AFoCO Climate Action: to promote forest cooperation in Asia to contribute to achieving SDGs and 2°C climate target to provide enabling environment by resource mobilization, capacity building, and partnerships to implement action-oriented programs and projects based on the Strategic Plan and Climate Action Plan AFoCO CAMP enable expertise, technology, and resource mobilization to implement the forest based climate actions
E. Interventions	N/A

F. Observation and Knowledge

- There are different pathways through which cooperative action can be taken and guidance is provided under Article 6;
- There is increasing recognition of the role of FLR/REDD+ in meeting the Paris Agreement target and each country's NDCs and to reach carbon neutrality in country long-term strategies;
- Countries must decide that their emission reductions will be used for NDCs or for other international mitigation purposes to avoid double-counting issues by applying corresponding adjustments;
- While the roles of FLR/REDD+ are increasingly mentioned to be imperative in reaching carbon neutrality, it is only possible if the FOLU sector can develop a significant carbon sink and all other sectors gradually reduce their emissions; and
- All sectors must be involved in reaching their emission reductions goal and FLR/REDD+ or NBS is not a one-stop panacea

7. DISCUSSION

7.1 DISCUSSION 1: FLR CONTRIBUTIONS ON SDGs AND NDCs

7.1.1 Group A

1. What are the forest targets and measures set within Sustainable Development Goals (SDGs) and NDCs in your country?

SDG	NDC
Life on land	Plantation/restoration (2 billion trees (KZ), 500000 trees (BN), 20000 ha (BTN), 77000 ha(IDN)
Climate Action	Emission reduction 15% (KZ), 20 %(BN), carbon neutral (BTN), 31,89% (IND)
No poverty	Enhancement of forest carbon
Zero hunger	Reducing forest degradation (fire monitoring)

2. How can the FLR program play role in achieving the SDGs and NDCs of your country?

- · FLR supports efforts to address the climate change crisis and ensure biodiversity management and conservation.
- Investing in ecosystem restoration, will help the economy recover from the pandemic by creating more green jobs (reduce/no poverty/hunger).
- · Enhance carbon removal and reduce emissions thus helps achieving each country's NDC target
- Community forest programs through labor-intensive activities, planting and rehabilitation such as mangroves and peat. Generates green jobs & income for the community thus addressing poverty and hunger issues indirectly

3. What are the obstacles and barriers to national/subnational of FLR programs in your country?

- Less monetary focus on FLR programs (competing benefits with projects that give faster returns)
- Lack of consolidated land use change data/information and land ownership issues
- · Limited areas to implement FLR programs
- High forest and low deforestation country (BT & BN)
- Lack of national legislation (FLR/REDD+)

7.1.2 Group B

1. What are the forest targets and measures set within Sustainable Development Goals (SDGs) and NDCs in your country?

Targets:

- Achieving to reach Goal 15, which also means supporting Goal 13.
- Target 15.1: Conserve and Restore Terresterial and freshwater ecosystems
- Target 15.2: End deforestation and restore degraded forests
- Target 15.3: End Desertification and restore degraded land
- Target 15.5: Protect biodiversity and natural habitats

Goal 5: Gender equality - Committed to creating a gender fair society where human dignity and women's rights are valued, protected by law and culture.

Measures:

- Strategy 2: Forest cover (BNCCP) which are mainly targeting afforestation & reforestation in degraded areas by planting 500,000 trees by 2035 and to increase forest reserves from 41% to 55%.
- Strengthening law enforcement: Indonesia is strengthening law enforcement to crack down on illegal logging and forest clearing.

NDCs Target:

- Reducing greenhouse gas emissions by 31.89% unconditionally by 2030, or by 43.20% with international support (Indonesia)
- Reducing greenhouse gas emissions by 20% relative to Business as usual levels by 2030 (Brunei Darussalam)

2. How can the FLR program play role in achieving the SDGs and NDCs of your country?

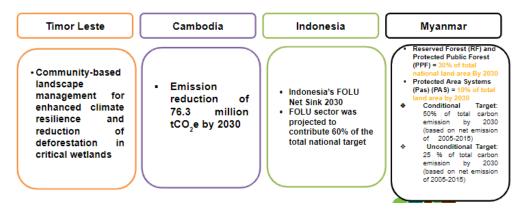
- Sustainable management of forests and improve land use not only for the protection of wildlife and forests, this improves the livelihood of local communities and ensure the sustainability of the forest resources.
- Protect and conserve the forest important for mitigation of climate change and sustainable cities and communities for better environment and education
- FRL can help to reduce deforestation and forest degradation, which are major sources of greenhouse gas emissions.

3. What are the obstacles and barriers to national / subnational of FLR programs in your country?

- · Conflicts with other land users
- · Lack of technical expertise
- Limited resources (land, human resources and finance)

7.1.3 Group C

1. What are the forest targets and measures set within Sustainable Development Goals (SDGs) and NDCs in your country?



2. How can the FLR program play role in achieving the SDGs and NDCs of your country?

Timor Leste	Cambodia	
Safeguarding rural communities and their physical and economic assets from climate induced disasters Enhancing Early Warning System Community-based Landscape Management for enhance climate resilience and reduction of deforestation	Reducing emission from deforestation and forest degradation conservation of forest carbon stock sustainable of forest management enhancement of forest carbon stock	
Indonesia Enhancing sustainable practices and law enforcement and compliance in forest and land use sector Strengthening REDD+ architecture and SRN Strengthening forest and land governance Improving livelihood of forest dependent people	Myanmar Forest restoration and rehabilitation and enhancement of forest carbon stock Conservation of remaining forests Community forest management Increase the land under the Reserved and Protected public forest National carbon removal target and ecosystem restoration Supporting NDC commitment and one part of National REDD+ strategy	

3. What are the obstacles and barriers to national / subnational of FLR programs in your country?

- Lack of active participation
- High deforestation rate
- · High dependency on donor funding
- Limited capacity

7.1.4 Group D

1. What are the forest targets and measures set within Sustainable Development Goals (SDGs) and NDCs in your country?

- Established the regulation as the tangible incentive for private sectors through forest carbon credit sharing mechanism
- Promoted wood utilization in sustainable way for example we only use planted timber that will eventually increase forest plantation areas

2. How can the FLR program play role in achieving the SDGs and NDCs of your country?

- Participation from local community
- We should consider the principle of Free prior inform consent (FPIC) when implementing the FLR program

3. What are the obstacles and barriers to national/subnational of FLR programs in your country?

- · FLR consists many stakeholders which need effective collaboration among stakeholder
- Many stakeholder and government agency have their own regulation which can cause obstacle in implementing the FLR
 Program

7.2 DISCUSSION 2: MRV OF FOREST CARBON ASSESSMENT IN YOUR COUNTRY

7.2.1 Group A

1. What are the limitations of MRV system of forest carbon stocks in your country?

Common limitation

- Technical capacity
- Financial resources
- · Lack of human resources

Country specific

- Cost vs benefits (BT, BN)
- Internal capacity (KZ)
- Lack of regulatory framework (KZ)

2. How do we link the stakeholders to make synergies mutually supported?

- · Coordination among the national development planning agencies
- · Better understanding the stakeholders need
- Strengthen/Develop a proper institutional framework with clear roles and responsibilities
- Create a specific trust fund for REDD+/FLR

7.2.2 Group B

1. What are the limitations of MRV system of forest carbon stocks in your country?

- Data Availability and Quality
- · Lack of Technical Expertises
- · Lack of Financial Resources
- Complexity of the system

2. How do we link the stakeholders to make synergies mutually supported?

- Socialization and Coordination
- Enhancement the Regulation
- Make a National Focal point involvement from related sector
- Capacity Building for the whole team members

7.2.3 Group C

1. What are the limitations of MRV system of forest carbon stocks in your country?

Timor leste	Cambodia	Indonesia	Myanmar
Lack of knowledge	Effective data collection and management system	Limitations on technical capacity	Lack of GHG Inventory
Limitations of forest land	Lack of individual and institutional capacity on MRV (technical, financial, expertise)	Limited financial support	Lack of completeness in accounting carbon pools
Unclear policy and regulations	Unclear guidelines on methodologies for MRV	Long and complex process for data collection from the baseline forest management unit	Lack of individual and institutional capacity on MRV (technical, financial, expertise)
Lack of individual and institutional capacity on MRV (technical, financial, expertise)	Weak coordination mechanism among the relevant organizations		Complexity in institutional arrangement
Unclear institutional arrangement			Weak coordination mechanism among the relevant organizations
Weak coordination mechanism among the relevant organizations			Inconsistency (conflicts) of land-related policies and legislations

2. How do we link the stakeholders to make synergies mutually supported?

- Awareness raising
- Equal capacity building sharing
- · Law enforcement and clear regulation
- Incentive for private sector engagement
- · Create the livelihood opportunities for local communities
- Benefit Sharing
- Sectoral coordination
- Information dissemination

7.2.4 Group D

1. What are the limitations of MRV system of forest carbon stocks in your country?

Vietnam: Lack of funding for maintaining the project and there is no mandatory regulation from the government regarding maintaining the project

Thailand: Limited Personnel and skillful personnel who experience in carbon regarding MRV, Thailand have 3 forest government agency with different objective,

Indonesia: Limited personnel who have skillful experience in carbon assessment

2. How do we link the stakeholders to make synergies mutually supported?

- Building a Transparent Marketplace related to forest carbon market.
- · Set up Regulation system to ensure all stakeholder to have the beneficial from the program

7.3 DISCUSSION 3: AFoCO CLIMATE ACTION MATCHING PLATFORM

7.3.1 Group Thailand, Cambodia, and Myanmar

- 1. What is your expectations from the CAMP? Can you also specify them in terms of the MRV?
- · Support in capacity building (financial, technical, human resource development)
- Feasibility study
- · Follow up national technical working group make sure to implement MRV module or IPCC guidelines/ guidance

2. Which are the key departments and/or institutions for the MRV of the outcomes to be reported toward NDC and SDG VNR in your country?

- Thailand: The Office of Natural Resources and Environmental Policy and Planning
- Myanmar: Ministry of Natural Resources and Environmental Conservation (REDD+ Office in FD, National REDD+ Taskforce (MONREC, MoALI, Ministry of Electricity and Energy, Mnistry of Home Affairs, Other Ministries)
- · Cambodia: FA responds to MRV activities and MoE is responsibility to NDC report and NDC updating submit to UNFCC

3. What kind of institutional arrangements for the MRV can be improved through the CAMP? What is your expected process to engage into the CAMP with AFoCO?

	Thailand	Cambodia	Myanmar
Institutional Arrangement	Aligning the forest carbon efforts under compliance and voluntary regimes for double counting avoidance	MoE collaborate with FA of MAFF	No institutional framework at the national level Just project level implementation for VCM Experts and ToTs
Expected process to engage into the CAMP	Through the existing AFoCO mechanism	On going to support and close collaborate to strength technical working group of MRV team	Through the AFoCO national focal point to the higher decision makers

Group Bhutan and Kazakhstan 7.3.2

1. What is your expectations from the CAMP? Can you also specify them in terms of the MRV?

Bhutan

- Platform to track the progress towards NDC and SDG Goals
- Assist accessing climate finance both in voluntary and compliance carbon market
- Country specific capacity building--- verification process
- foster expert exchange--among the member countries
- periodic Inventory and reporting
- biodiversity fund

Kazakhstan

- Attract grants from foundations for the implementation of the MRV work and expert help
- Help in establishment of institutional arrangement

2. Which are the key departments and/or institutions for the MRV of the outcomes to be reported toward NDC and SDG VNR in your country?

Bhutan

- Department of Forests and Park Services
- Department of Environment and 2
- Climate Change UNFCCC focal point (National Environmental Commission)
- Ministry of Finance
 Ministry of Foreign Affairs and
 External Trade
- Ministry of Agriculture and Livestock

Kazakhstan

- Department of climate policy and green technologies
- Ministry of National Economy
- Ministry of Energy

3. What kind of institutional arrangements for the MRV can be improved through the CAMP? What is your expected process to engage into the CAMP with AFoCO?

Bhutan

- Adoption of best practices in the at global, regional and local MRVs with better defining the roles and responsibilities
- Matching our needs and investor's interests
- MOU, bilateral arrangement and direct engagement

Kazakhstan

- Expert and technical assistance
- Assist accessing grants
- Building industry and research capacity for the needs of combating climate change
- Strengthening the participation of civil society in the climate agenda
- Promoting the climate agenda at the regional level
- Piloting forest climate projects

Group Brunei Darussalam and Timor-Leste

1. What is your expectations from the CAMP? Can you also specify them in terms of the MRV?

Brunei	Timor-Leste	
To include other climate finance fund that are not carbon standard related i.e: biodiversity fund especially for countries where REDD+ is not applicable; Technical experts attached in the country to help developing country's forest MRV i.e: Data Collection to Producing Report and Climate Finance analyst.	Build a strong working relationships amongst relevant stakeholders in order to have standardize MRV system; Capacity Building to the technical staffs and expertise in order to be able to implement the MRV according to the standard.	

2. Which are the key departments and/or institutions for the MRV of the outcomes to be reported toward NDC and SDG VNR in your country?

Brunei	Timor-Leste
 Local Institutions / Universities (Research and Data) Forestry Department (Forest – related data) Brunei Climate Change Secretariat (National GHG) Prime Minister's Office (SDG reporting) 	Ministry of Agriculture, Fisheries, livestocks and Forestry (Secretariat of state for Forestry) Ministry of Tourism and Commerce (General Directorate of Environment) Secretariat of State for Natural Disaster

3. What kind of institutional arrangements for the MRV can be improved through the CAMP?

Brunei	Timor-Leste		
CAMP to provide process guideline			
CAMP to adapt to each countries institutional arrangements (match to countries needs)			
CAMP to provide expertise in strengthening in Legal and Institutional framework			
CAMP to provide technical expertise in MRV to relevant institutional			

4. What is your expected process to engage into the CAMP with AFoCO?

Brunei	Timor-Leste	
Direct Engagement through AFoCO National Focal Point (Project proposal)	Direct Engagement through AFoCO National Focal Point (Technical MoU and agreement)	
Expertise - MoU	Bilateral agreement (MAFLF)	
Non - PPP Investment - Bilateral agreement (MPRT) PPP Investment - Bilateral agreement (MOFE)	Multilateral agreement (Prime Minister)	

7.3.4 Group Vietnam

1. What is your expectations from the CAMP? Can you also specify them in terms of the MRV?

To learn and to get support for establishing an MRV system for the Forestry sector in Vietnam for all scale/level: Central, provincial, and forest owner.

2. Which are the key departments and/or institutions for the MRV of the outcomes to be reported toward NDC and SDG VNR in your country?

Department of Forestry, Ministry of Agriculture and Rural Development; -- Report to Department of Climate Change, MONRE

3. What kind of institutional arrangements for the MRV can be improved through the CAMP? What is your expected process to engage into the CAMP with AFoCO?

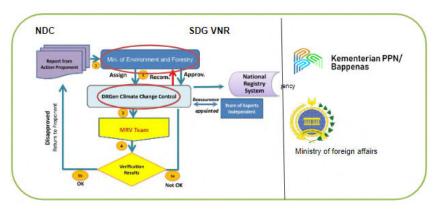
- Need to setup a regular MRV system from the Central level to the provincial level, and to the forest owner level (require
 to establish some kind of Management Boards at all levels, including organization, personnel, regulations, duties,
 procedures/protocols, methodologies and tools, funding sources, etc.).
- Is it better to do bottom-up by setting up some pilot MRV systems for forest owners first, then provincial level, then the Central level and then go back from top-down approach to complete the system?
- · Collaborate with the DoF to recruit national experts using ToR to get national design, proposal, training, etc.?

7.3.5 Group Indonesia

1. What is your expectations from the CAMP? Can you also specify them in terms of the MRV?

- · To provide access to project and data related to climate change
- · To provide access to funding, as a matching platform
- To capacity building for technical (i.e. data collecting) and project management
- To connect the NGO / private sector to collaborate in MRV activities
- To facilitate projects that indirectly but relevant with climate change, e.g.: mangrove ecotourism, preserve and promote bio-economy of silkworm.

2. Which are the key departments and/or institutions for the MRV of the outcomes to be reported toward NDC and SDG VNR in your country?



3. What kind of institutional arrangements for the MRV can be improved through the CAMP? What is your expected process to engage into the CAMP with AFoCO?

- Link all stakeholders and assess the initiated program, e.g. capacity building regarding MRV, CAMP act as facilitator between PPI, BP2SDM, BRIN, BSI (as National Focal Point)
- · Provide access to data, information, and technical experts for proposal drafting, and building framework through MOU
- Give facilitation and guidelines for project implementation through direct engagement with AFoCO

8. **SURVEY RESULT**

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

8.1 DISCUSSION 1: FLR CONTRIBUTIONS ON SDGs AND NDCs

Based on the results of the questionnaire (Table 1), 63.6% of the respondents agreed that the organization of the workshop was appropriate, and 48.3% of them strongly agreed to the same survey item.

Table 1. Organization and Preparation

Variable	Percentage (%)	
variable	Strongly Agree	Agree
The organization of the workshop was appropriate	36.4	63.6
I was well informed and kept updated before, during and end of the workshop	63.6	36.4
I was satisfied with the pre-arrangement of the organization	72.7	27.3

8.2 **EDUCATIONAL ENVIRONMENT**

Based on the results of the questionnaire (Table 2), 22.2% of the respondents were very satisfied with the Zoom setting and 44.4% of them were satisfied with the same statement. 63.6% of the participants were very satisfied that the hospitality of the RETC staff and 36.4% of them were satisfied with the same statement.

Table 2. Educational Environment

Variable	Percentage (%)	
variable	Strongly Agree	Agree
Zoom Setting	22.2	44.4
Hospitality of the RETC staff	63.6	36.4

COMPARISON WITH OTHER WORKSHOP 8.3

Relative to other workshops taken by the participants (Table 3), 63.6% of the respondents answered the overall quality of this training course was "high/more", followed by 36.4% who said it was "much higher". 63.6 % of the respondents said that the level of intellectual challenge presented was "higher", and the respondents who said it was "similar" and "much higher" were 18.2%. 72.7% of the participants said that the amount of effort participants put into this course was "higher", followed by 18.2% who said it was "much higher". 72.7% of the respondents answered that the level of involvement/participation in this course was "higher", followed by 27,3% who said it was "similar". 45,5% of the respondents answered that the amount of knowledge/ information gained through this course was "higher". The same percentage is also shown for the respondents who said it was "much higher".

Table 3. Relative to other workshops taken by the participants

Variable	Frequency (%)		
variable	Much higher	Higher	Similar
The overall quality of this workshop	36.4	63.6	0
The level of intellectual challenge presented	18.2	63.6	18.2
The amount of effort participants put into this workshop	18.2	72.7	9.1
The level of involvement/participation in this workshop	27.3	72.7	0
The amount of knowledge/information gained through this workshop	45.5	45.5	9

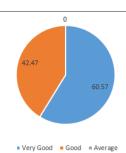
8.4 RESOURCE PERSON EVALUATION

Resource Person Evaluation Elements	Freq	Frequency in Average (%)		
Resource Person Evaluation Elements	Strongly agree	Agree	Neutral	
Helpful for work and self- improvement	48.5	48.5	3	
Professionalism of Lecturer	60.57	39.43	0	
Performance and attitude of Lecturer	60.57	39.43	0	

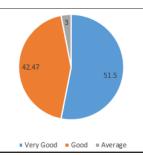
2. LIST OF RESOURCE PER

Name	Affiliation	Sessions
Mr. Budiharto	Head of Greenhouse Gas Inventory Subdivision, Indonesia Ministry of Environment and Forestry	Presentation 1: Measurement, Reporting, and Verification (MRV) of REDD+
Dr. Anna Tosiani	National Forest Resource Data Analyst, Indonesia Ministry of Environment and Forestry	Field Practices for Mangrove: MRV System in Indonesia
Dr. Dong Hwan KIM	Program Officer of Strategy and Coordination, Strategic Planning Division-AFoCO	Presentation 2: Concept for AFoCO Climate Action and Importance of MRV

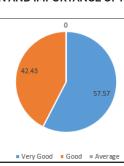
PRESENTATION 1: MEASUREMENT, REPORTING AND VERIFICATION (MRV) OF REDD+



FIELD PRACTICES FOR MANGROVE: MRV SYSTEM IN INDONESIA



CONCEPT FOR AFoCO CLIMATE ACTION AND IMPORTANCE OF MRV



9. RECOMMENDATIONS FROM PARTICIPANTS

Thank you notes:

- · Thank You for the opportunity given
- Well organized
- · Thank you for amazing arrangements to field site visit
- The training is very good and very helpful to leveling up our capacity regarding MRV and Carbon
- Very helpful and resourceful. Thanks!

Next workshop may be considered ...

- Advance MRV especially data arrangement
- None
- Mr. Budiharto (MRV of REDD+)
- Best practice MRV system. e.g. Lecture by Mr. Budiharto on MRV of Indonesia
- · Remote sensing and making permanent sampling plot in various landscape not only for mangrove
- · I would recommend all of the material in package

10. LIST OF PARTICIPANTS

Country	Name	Position	Affiliation	
Bhutan	Mr. Dorji Wangdi	Principal Forestry Officer	Forest Resources Management Division	
Brunei Darussalam	Ms. Miza Ghani	Forestry officer	Forestry Department, Ministry of Primary Resources and Tourism	
	Ms. Rahmalina Rahman	Forestry Officer	Forestry Department, Ministry of Primary Resources and Tourism	
Cambodia	Mr. Khin Sokimon	Technical Officer	Department of Forestry and Community Forestry , Forestry Administration	
Indonesia	Mr. Frengki Ardiansyah Saputra	Forest Ecosystem Management Officer	Balai KPH Ampang Plampang	
	Mr. Satrio Erland Prakoso	Staff	UPT KPHP Minas Tahura	
	Ms. Rezki Wahyuni Anwar	Technical Cooperation Analyst on Climate Change	Directorate General of Climate Change, Ministry of Environment and Forestry, Indonesia	
	Ms. Darwati	Environmental Impact Controller (PEDAL)	Institute for the Implementation of Environment and Forestry Instrument Standards of Banjarbaru (BPSILHK Banjabaru)	
	Mr. Sadar Maulana Sidik	Forest Ecosystem Controller	Institute for the Implementation of Environment and Forestry Instrument Standards of Kuok	
Kazakhstan	Kazakhstan	Chief expert	Ministry of Ecology and Natural Resources of Kazakhstan	
Myanmar	Ms. Kay Khine	Staff Officer	Training and Research Development Division, Forest Department	
Thailand	Mr. Komsan Ruengritsarakul	Forestry Technical Officer, Senior Level	Royal Forest Department	
Timor-Leste	Mr. Mario Godinho	National Director	Directorate of Community Forest Development	
	Mr. Fonseca Julio	Forestry Technical Officer	Directorate of Community Forest Development	
Viet Nam	Dr. Phung Van Khoa	Associate Professor, Dr. Vice President, Vietnam National University of Forestry	Vietnam National University of Forestry, Xuan Mai, Chuong My, Ha Noi, Vietnam	

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.

www.afocosec.org

International Tropical Timber Organization (ITTO)

ITTO is an intergovernmental organization promoting the sustainable management and conservation of tropical forests and the expansion and diversification of international trade in tropical timber from sustainably managed and legally harvested forests.

www.itto.int

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