INDONESIA
REDD+ NATIONAL STRATEGY
2021-2030

Reducing Emissions from Deforestation and Forest Degradation, and the Role of Conservation, Sustainable Management of Forests and Enhancement of Forest Carbon Stocks

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Ministry of Environment and Forestry of the Republic of Indonesia
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FOREWORD

Role of forestry sector in Indonesia's commitment to the Paris Agreement has continuously increased since the adoption of the agreement. In both NDC and LTS – LCCR 2050, Forestry and Other Land Uses (FOLU) sector has set an ambitious target through a transformation from net emitter to net-sink in 2030. Among mitigation actions in forestry, REDD+ plays an important role in achieving NDC and FOLU net-sink targets.

With forest areas of about 64 percent of the country land territory, Indonesia will continue to play a central role in global effort to fight against climate change impacts. At the national level, forestry is important not only for mitigation but also for adaptation.

Through REDD+, there exist wide ranging opportunities to enhance synergy among three Rio Conventions, namely UNFCCC, CBD, and UNCCD. As a country that ratifies the three Rio Conventions, Indonesia is in the advantageous position to strengthen synergy in the implementation of these Conventions.

Despite REDD+ huge potential in Indonesia, its implementation is challenging institutionally and methodologically. Indonesia has addressed these challenges, including through establishment of BPDLH, putting into effect regulatory measures which support REDD+ implementation, and continuous improvement of methodological infrastructure, such as NFMS-MRV systems, SRN, SIS, and others.

This REDD+ National Strategy is meant to guide the implementation of REDD+ in the context of achieving NDC target and FOLU net-sink 2030, with intended users both national stakeholders as well as international partners supporting REDD+, taking into account relevant COP decisions on REDD+ (including Warsaw Framework) and the Paris Agreement. With this Strategy, it is expected that REDD+ implementation will be able to generate both national and global benefits. Furthermore, REDD+ should also be used as a vehicle to safeguard the consistency among climate-related initiatives within the sector and with other related sectors.

Lastly, I would like to take this opportunity to express my appreciation to those who contribute in various ways to the completion of this document.

Dr. Siti Nurbaya
Minister of Environment and Forestry

PREFACE

Indonesia had gradually progressed in REDD+ implementation from readiness, transition, and has entered the full implementation since 2014. With a long history of engagement in REDD+ negotiation at the international level and the implementation at the national level, Indonesia has shown the ability to achieve REDD+ objectives.

From the past few years, Indonesia has received commitment on REDD+ RBP, namely GCF and Norway for pre-2020 results, FCPF Carbon Fund and BioCF-ISFL for results between 2019 - 2024 and 2021- 2025 respectively.

As the guidance for both national stakeholders and international partners providing REDD+ supports, the National Strategy consists of substantive elements from historical background, vision and missions to be achieved, strategy pillars and directions for the strategy implementation. The strategy pillars which comprise of strengthening REDD+ architecture and institution, managing REDD+ implementation, paradigm shift, and stakeholder engagement and benefit sharing, are the basis for determining directions for the strategy implementation.

With the release of this REDD+ National Strategy, it is expected that REDD+ in Indonesia can be implemented more effectively and that contributes meaningfully to the achievement of NDC target, FOLU net-sink 2030 and other national and global goals.

I thank all those who have made the completion of this document possible.

Ir. Laksmi Dhewanthi, MA, IPU
Director General of Climate Change

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ABBREVIATION, ACRONYM, AND GLOSSARY

AGB   : Above Ground Biomass

APBN   : *Anggaran Pendapatan dan Belanja Negara* as known State Budget

APPS   : *Alat Penilai Pelaksanaan Safeguards* as known Safeguards Implementation Assessment Tool

BGB   : Below Ground Biomass

BioCF – ISFL   : BioCarbon Fund - Initiative for Sustainable Forest Landscape

BPDLH/IEF   : *Badan Pengelola Dana Lingkungan Hidup*, as known Indonesia Environmental Fund

CBIT   : Capacity Building Initiatives for Transparency

CO_2 : Carbon Dioxide

N_2O : Nitrous Oxide

DW   : Dead Wood

ENR   : Enhancement of Natural Regeneration

FCPF-CF   : Forest Carbon Partnership Facility – Carbon Fund

FOLU   : Forestry and Other Land Uses

FREL   : Forest Reference Emissions Level

FRL   : Forest Reference Level

GCF   : Green Climate Fund

GEF   : Global Environment Fund

GHGs   : Green House Gasses

KPH/FMU   : *Kesatuan Pengelolaan Hutan*, as known Forest Management Unit

LTS – LCCR   : Long Term Strategy for Low Carbon and Climate Resilience

MHA   : *Masyarakat Hukum Adat*

MoEF   : Ministry of Environment and Forestry

MRV   : Measuring, Reporting, Verifying

NDC   : Nationally Determined Contribution

NEK   : *Nilai Ekonomi Karbon* (Carbon Pricing)

NFMS   : National Forest Monitoring System

PCI   : Principles, Criteria and Indicators

PERMEN LHK : *Peraturan Menteri Lingkungan Hidup dan Kehutanan* (Ministerial Regulation of Environment and Forestry)

PERPRES   : *Peraturan Presiden* (Presidential Regulation)

RAP-REDD+ : *Rencana Aksi Provinsi* REDD+ (Provincial Action Plan for REDD+)

RBP/rbp   : Result Based Payment (national scale or level)/result based payment (sub-national scale/level)

REDD+	: Reducing Emissions from Deforestation and Forest Degradation, Role of Conservation, Sustainable Management of Forest and Enhancement of Forest Carbon Stocks
SIS	: *Sistem Informasi Safeguards*/Safeguards Information System or System for Providing information on how Cancun Safeguards for REDD+ are Addressed and Respected
SRN	: *Sistem Registri Nasional* (National Registry System)
STRANAS REDD+	: *Strategi Nasional* REDD+ (National Strategy for REDD+)
TAT	: Technical Assessment Team
VER	: Verified Emission Reduction
WPK	: *Wilayah Pengukuran Kinerja* (Performance Assessment Areas)

1. INTRODUCTION

1.1. Background

Indonesia's commitment to contribute to the global temperature goal under the Paris Agreement has been reflected in its Nationally Determined Contribution (NDC) 2021-2030 and Long-Term Strategy for Low Carbon and Climate Resilience (LTS – LCCR 2050) with forestry and land uses to reach net-sink in 2030 (Indonesia's FOLU Net-Sink 2030). Nearly 97.2 % of the NDC target comes from forest and land and energy sectors, while the remaining 0.8 % is shared by agriculture, industrial process and product use (IPPU) and waste sectors.

The First NDC (2016) has set very ambitious target in forestry sector. Among the 29 % up to 41 % emission reduction target in 2030, forestry contributes 17.2 % to 23 %. The ambitious target has been set up particularly on rehabilitation of degraded forest and land (12 million ha) and peatland restoration (2 million ha), along with protection of the remaining natural forest through REDD+ and sustainable plantation forests. The enhanced NDC (2022) has increased the national target on emission reduction from 29 % to 31.89 % unconditionally and from 41 % to 43.20 % conditionally. Among these targets, forestry and land use contribute 17.4 % to 25.4% by enhancing land rehabilitation (afforestation, reforestation, rehabilitation) and peat water management.

A road map has been developed for implementing the NDC with six main strategies to reduce emission from forest and land use sectors as follows : (i) improvement of forest resources management through establishment and operationalization of Kesatuan Pengelolaan Hutan (KPH), known as Forest Management Unit (FMU) for all forest areas; (ii) strengthening sustainable practices in production forest management; (iii) reduction of dependency to natural forests in meeting the demand for timber by expediting development of industrial and community-based plantation forest and the use of timber from estate crops; (iv) reduction of pressure to natural forests in meeting the need of agricultural development by optimizing spatial planning, the use of un-productive land, increase productivity and intensity of plantation; (v) conservation and enhancement of forest carbon stocks through ecosystem restoration of production forests, rehabilitation of degraded land and moratorium of new permit on peatlands as

well as improvement of peat land management system; and (vi) acceleration of adoption of low carbon technology.

REDD+ plays a strategic role in achieving Indonesia's NDC target from forestry sector. The Cancun Agreement (Decision 1/CP. 16) enables developing countries to undertake, based on their national circumstances, capacities, and capabilities, as well as the level of support received, the following activities: (a) reducing emissions from deforestation, (b) reducing emissions from forest degradation, (c) Conservation of forest carbon stocks, (d) Sustainable management of forests, and (e) enhancement of forest carbon stocks. Therefore, scope of REDD+ activities will vary among countries and at the national level can be dynamic overtime, depending on the activities which are included in the establishment of Forest Reference Emissions Level (FREL) / Forest Reference Level (FRL) at the first period and its revisions in subsequent periods.

With a long history of involvement in REDD+ negotiations and other related processes at the international level and its implementation at the national level, Indonesia has rapidly progressed with REDD+ implementation from readiness, transition, to full implementation since 2015.

Along with the adoption of the Paris Agreement with NDC commitment, the progress of REDD+ implementation, changes in institutional setting and the strategic role of REDD+ in achieving NDC target from forestry sector, the existing National Strategy for REDD+ was reviewed as departing point for developing the REDD+ National Strategy 2021-2030. Furthermore, in line with LTS – LCCR 2050 which set a target to achieve net-sink in forestry and land uses in 2030 (FOLU net-sink 2030), REDD+ National Strategy 2021-2030 should also support the achievement of this target.

1.2. Process

Development of the National Strategy for REDD+ 2021-2030 has been initiated since early 2020, by carrying out review to the REDD+ National Strategy (2012). The review focused on the progress of the strategy implementation, taking into account the changes in institutional arrangement for REDD+ since 2014, and policy focus in forestry sector. The review outcomes were considered in defining scope of REDD+ National Strategy 2021-2030, strategy pillars and elements to be included in each strategy pillar.

Series of FGD have been carried out since the process started in 2020, however, the Covid-19 pandemic has affected the management of the process of the development of the REDD+ National Strategy. Prior to the finalization of the REDD+ National Strategy, a stakeholder consultation was carried out, inviting government institutions at national and sub national levels, private sectors, CSOs, universities, research institutions, partner countries and institutions.

1.3. Document Structure

The National Strategy for REDD+ consists of three main Chapters as follows:

Chapter 1 Informs the background of REDD+, process and structure of Indonesia REDD+ National Strategy 2021- 2030.

Chapter 2 explains briefly the vision which direct the mission to the goal; mission and objectives to be achieved; and scope of REDD+ activities.

Chapter 3 provides details on four strategy pillars, starting from strengthening REDD+ architecture and institutions; managing REDD+ implementation; paradigm shift in the new normal; to stakeholder engagement and benefit sharing. Strengthening REDD+ architecture covers FREL/FRL, National Forest Monitoring System (NFMS) and Measuring, Reporting and Verifying (MRV), safeguards and Safeguards Information System (SIS), REDD+ finance and finance institution, National Registry System (SRN), and REDD+ institution and governance.

Chapter 4 elaborates direction of the strategy implementation which covers four strategy pillars/programmes with description on actions to be taken in each phase and strategy pillar.

2. VISION, MISSION, OBJECTIVES AND SCOPE

2.1. Vision

Sustainable management of forest and land to achieve NDC target in Forestry sector by 2030.

2.2. Missions

- 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.

2.3. Objective

Achieving FOLU net-sink 2030 target and providing a strong basis for maintaining its increasing trend after 2030 to contribute to low carbon and climate resilience in 2050 and net-zero emissions in 2060 or sooner, with a view to complement the efforts towards sustainable, inclusive, just and more equitable Covid-19 recovery, and climate resilient future.

2.4. Scope

REDD+ Indonesia covers all territory, known with national approach and sub-national implementation. Indonesia framework for REDD+ encompasses four interlinked elements, namely: (i) architecture, (ii) Means of Implementation (MoI), (iii) institution, regulation and system, and (iv) implementation (see Figure 1).
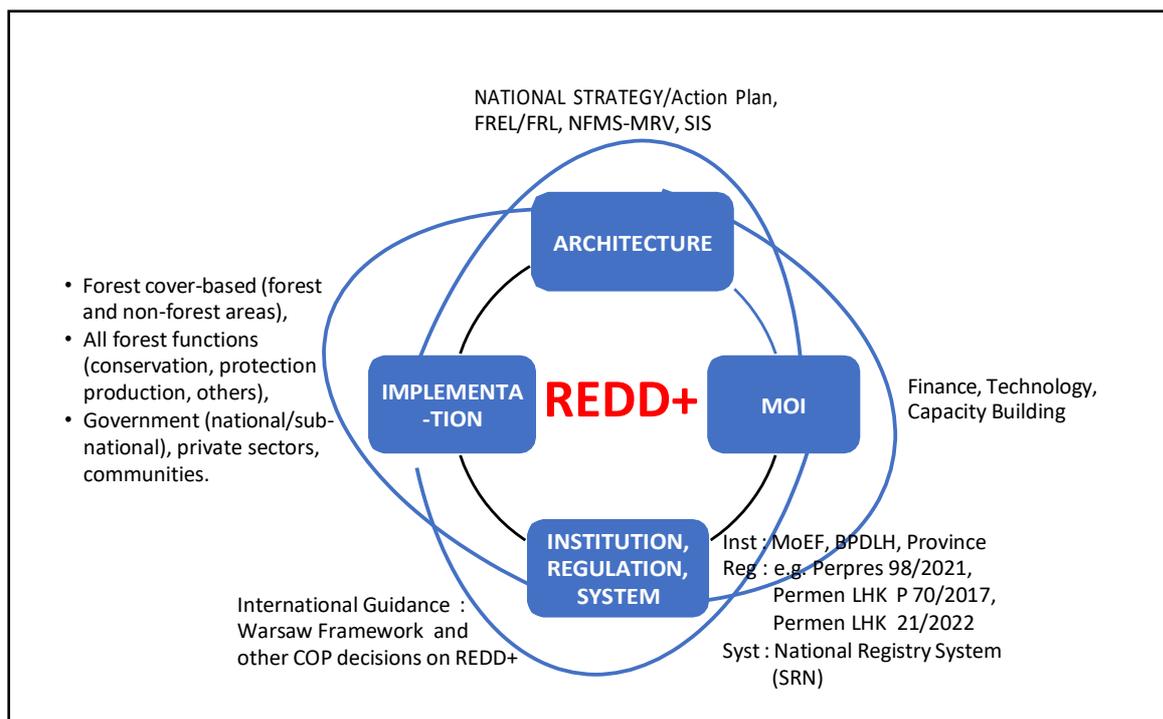
Figure 1. Indonesia Framework for REDD+

REDD+ architecture*:* The Cancun Agreement (Decision 1/CP. 16) requires, in the context of provision of support, the following REDD+ architecture need to be in place: National strategy/action plan, FREL/FRL, NFMS – MRV*,* and system for providing information on how safeguards are addressed and respected (SIS), for REDD+ implementation.

Implementation: REDD+ implementation is forest-cover based and includes forest areas in all forest functions (conservation, protection, production) and non-forest areas (Id. APL/*areal penggunaan lain*). Government at national and sub-national levels, private sectors, communities, and other stakeholders play key roles in the implementation of REDD+.

Means of implementation (MoI): at the current stage of REDD+ implementation, MoI covers finance in the form of Result Based Payments (RBP) and others from various sources; technical and technological support, and capacity building both human resources and institutions.

Institution, regulation and system*:* Institution includes Ministry of Environment and Forestry (MoEF) as the responsible institution for REDD+ in Indonesia, with support

of Badan Pengelola Dana Lingkungan Hidup (BPDLH), known as Indonesia Environmental Fund (IEF) as the responsible institution for managing environment fund including REDD+, while the provincial government is the coordinating institution in REDD+ implementation at the sub-national level. Existing regulations which guide REDD+ implementation include Presidential Regulation on Carbon Pricing (PERPRES No. 98/2021) and Ministerial Regulation on REDD+ (PERMEN LHK No. P 70/2017). The SRN plays roles as the backbone for transparency framework in climate change related actions and supports including REDD+ in Indonesia.

In terms of scope of REDD+ activities, the Cancun Agreement (Decision 1/CP. 16[1]) as has been reflected in PERMEN LHK No. P 70/2017 is the guidance for defining the scope of activities to be included in the establishment of FREL/FRL as the benchmark to measure carbon-based results of REDD+ activities. The REDD+ activities encompass:

(i)   reducing emissions from deforestation.
(ii) reducing emissions from forest degradation.
(iii) conservation of forest carbon stocks.
(iv) sustainable management of forest.
(v)   enhancement of forest carbon stocks.

Taking into account technical and methodological requirements for establishing FREL/FRL, national context and priorities, capacities, and capabilities, additional activities can be included such as peat decomposition in Indonesia's First FREL document. Similarly, separation/combination/integration of activities can also be done, for example, integration of conservation of forest carbon stocks into reducing emissions from deforestation; and sustainable management of forest into reducing emissions from forest degradation.

Beyond activities which directly generate emission reduction/removals, the following enabling activities are needed for successful REDD+ implementation in Indonesia:

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[1] Decision 1/CP.16. The Cancun Agreement : Outcome of the work of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention, *Section C. Policy approaches and positive incentives on issues relating to reducing emissions from deforestation and forest degradation in developing countries, and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries.*

(i)   enhancing human resources and institutional capacities.

(ii) strengthening policies and REDD+ architecture.

(iii) research and development,

(iv) other enabling conditions.

Indonesia has defined non-carbon benefits (NCBs) to be considered in REDD+ implementation which may increase the value of carbon in RBP of REDD+, as follows:

(i)   conservation of biological diversity.

(ii)   protection of hydrological function

(iii) protection of ecological function

(iv)   improved livelihood

(v)   improved forest and land governance

(vi)   protection of essential ecosystem.

Along with the progress in the implementation of REDD+ and other relevant forest and land-use climate actions, other potential NCBs will be explored.

3. STRATEGY PILLARS

Four strategy pillars were defined in order to achieve REDD+ objective (Figure 2). The four pillars are interlinked and collectively determine the success of REDD+ implementation in Indonesia. Strengthened REDD+ architecture and institution will show the level of credibility of REDD+, supported by sound management of REDD+ implementation. Furthermore, substantial paradigm shift and effective stakeholder engagement will contribute to effectual operationalization of other pillars.
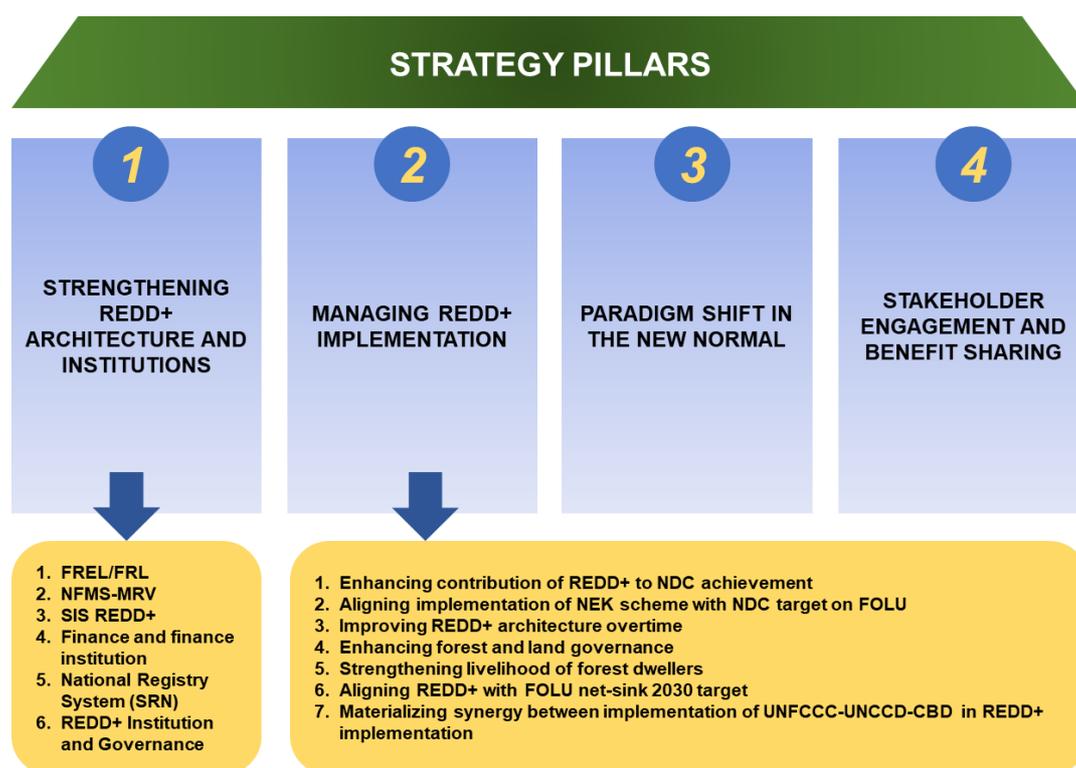
Figure 2. Strategy Pillars and Their Elements

3.1. Strengthening REDD+ Architecture and Institution

Under the Cancun Agreement, as stated in earlier section, developing country aims to implement REDD+ needs to develop the following elements: (1) A national strategy or action plan; (2) FREL and/or FRL; (3) A robust and transparent national forest monitoring system for the monitoring and reporting REDD+ activities; and (4) A system for providing information on how safeguards are addressed and respected (SIS).

Indonesia has developed REDD+ architecture, consisting of the above four elements (National Strategy, FREL, NFMS, SIS), finance, and SRN as well as REDD+ institution and governance.

3.1.1. Forest Reference Emissions Level (FREL)/Forest Reference Level (FRL)

A national FREL and/or FRL is one among four elements to be developed by REDD+ country as mandated by the Cancun Agreement. Technical and methodological requirements for the construction, submission and technical assessment of FREL/FRL for REDD+[2] influence the decision on scope of REDD+ activities to be implemented in certain period, for example:

(a) in FREL/FRL construction: the need to take into account historical data and ensure consistency with forest-related (Green House Gasses) GHGs emissions by sources and removals by sinks in the national inventory data,

(b) in FREL/FRL submission: the need to provide complete, consistent, and accurate information in a transparent manner on the data, methodology, pool and gases used to construct FREL/FRL, and relevant policy aspects;

(c) in technical assessment of FREL/FRL: the need to ensure the consistency between data, methodology, and procedures which are used in the construction of FREL/FRL and information provided in the submitted FREL/FRL to the UNFCCC Secretariat with the guidance under Decision 12/CP.17[3].

Based on Decision 12/CP.17[4] FREL/FRL is the benchmarks for assessing each country's performance in implementing REDD+. The Cancun Agreement (Decision 1/CP. 16) enables developing countries to undertake REDD+, based on their national circumstances, capacities, and capabilities. Therefore, scope of REDD+ activities will be vary among countries and at the national level can be dynamic overtime, depending

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[2] COP decisions on FREL (*Decision 12/CP. 17 Chapter 2 : modalities for forest reference emission levels and forest reference levels) and its Annex; Decision 13/CP. 19 'Guidelines and procedures for the technical assessment of submission from Parties on proposed forest reference emission level and/or forest reference level.*

[3] Decision 12/CP. 17 '*Guidance on systems for providing information on how safeguards are addressed and respected and modalities relating to forest reference emission levels and forest reference levels as referred to in decision 1/CP.16 Chapter II (modalities for forest reference emission levels and forest reference levels) and its Annex.*

[4] Decision 12/CP. 17. Guidance on systems for providing information on how safeguards are addressed and respected and modalities relating to forest reference emission levels and/or forest reference levels as refer to in decision 1/CP.16.

on the activities which are included in the establishment of FREL/FRL at the first period and in subsequent periods.

The First National FREL was established and submitted to Secretariat of UNFCCC in 2015[5] and completed technical assessment process by UNFCCC Technical Assessment Team (TAT) in 2016[6]. In line with modalities for FREL/FRL[7], the First National FREL was updated. Second National FREL was submitted in early 2022 and is expected to complete technical assessment process by the end of 2022. The Second National FREL considered knowledge development, improved methodology and modified scope of activities. Comparison on some key elements of the First and Second National FREL can be seen in Table 1.

Table 1. Key Elements of First and Second National FREL

KEY ELEMENTS	FIRST FREL	SECOND FREL
Reference period	1990 - 2012	2006 - 2020
Emission estimation	Historical emission	Historical emission
Scope of activities	• Reducing emissions from deforestation • Reducing emissions from forest degradation	• Reducing emissions from deforestation • Reducing emissions from forest degradation • Enhancement of forest carbon stocks
Methods for calculation of emission reduction	Carbon stock difference with gross emissions for reduced deforestation	Carbon stock difference with net emissions for reduced deforestation and net removals for enhanced forest carbon stocks
Pool and Gas	• Pool: Above Ground Biomass (AGB) for all natural forests, soil carbon for peatland • Gas: CO_2	Pool: AGB, Below Ground Biomass (BGB), Dead Wood (DW), litter, soil carbon for peatland and mangrove Gas: CO_2 , CH_4 and N_2O
Approach for Uncertainty calculation	Tier 1 (error propagation)	Tier 2 (Montecarlo simulation)
Projection period	2013-2020	2021-2030

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[5] FREL document: *www.unfccc.int*

[6] Report of Technical Assessment: *www.unfccc.int*

[7] Decision 12/CP.17, *Section II. Modalities for forest reference emission level and forest reference level.*

Along with the advancement of knowledge, methodology, data availability, national FREL/FRL will continue to be updated periodically. Within the time frame up to 2030, the consecutive national FREL/FRL will be developed, including consideration to expand further the scope of REDD+ activities and carbon pools.

Depending on actions to be taken in reducing forest degradation and sustainable forest management, it is possible that reducing emissions through sustainable forest management which currently falls under category of reducing emissions from forest degradation could be as a separate category. Similarly, conservation of forest carbon stocks under existing REDD+ activities is included in reducing emissions from deforestation and forest degradation.

Categorization of REDD+ activities under the Cancun Agreement allows flexibility to be implemented in the context of mitigation actions in forestry and land use in both NDC[8] Road Map and FOLU-Net Sink 2030. Hence, there will be possible dynamics in scope of REDD+ activities to be included in FREL/FRL construction. For example, there will be opportunity in future FREL/FRL construction to define natural forest under 'conservation of forest carbon stocks' rather than under deforestation and forest degradation, similarly for sustainable management of forest.

Along with Enhanced NDC (ENDC) and FOLU net-sink 2030 target, enhancement of forest carbon stocks has significant potential for future REDD+ in Indonesia through forest and land rehabilitation. The NDC Road Map defines two types of forest and land rehabilitation namely rehabilitation with rotation (for production function) and rehabilitation without rotation (for protection/conservation function) including revegetation of degraded peatland. These two activities can be the candidate for enhancement of forest carbon stocks under REDD+. Furthermore, peat water management as included in ENDC can be a potential activity for emission reduction/avoidance under REDD+.

In order to operationalize Indonesia's policy on REDD+ with national approach and sub-national implementation, the national FREL/FRL may be disaggregated into sub-

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[8] Notes: in this context NDC reflects both First NDC and Updated NDC as both NDC have the same emission reduction target.

national (in this case provincial) level FREL/FRL. The disaggregated FREL/FRL is particularly important as the benchmark for measuring provincial level contribution to the national scale REDD+ performance which receive RBP. At the later stage, verified performance will be the basis for determining incentive to be given to the province.

Sub-national/provincial FREL/FRL may also be constructed for REDD+ implementation in the respective Province/sub-national authority with different scope of activities, carbon pool, and reference period, in line with national guidelines for sub-national FREL/FRL construction.

3.1.2 National Forest Monitoring System (NFMS) and Measuring, Reporting and Verifying (MRV)

Cancun Agreement requires a robust and transparent NFMS for monitoring and reporting REDD+ activities. NFMS in Indonesia has long been established and improved overtime. The NFMS serves a broad range of forest monitoring, including forest resources (timber and non-timber), biomass, forest and land cover, forest cover change, deforestation, and de-vegetation. The NFMS[9] also serves as an information system or spatial-based application in SIGAP (National Geospatial Information Network Hub[10]). The system is also equipped with deforestation alert tool (de-vegetation) which allow early response to forest and land cover change indication.

Improvement of forest cover and forest cover change data to meet the principles of transparency, accuracy, completeness, consistency, and comparability, is ongoing, including uncertainty analysis on forest cover and forest cover changes data as well as forest inventory results. The improvement is carried out using step-wise approach based on the existing system.

Further improvement of forest cover and forest cover change data will be carried out along with the development in technological and methodological aspects as well as future needs, including extension of forest cover classification, where appropriate, to support expansion of scope of REDD+ activities.

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[9] *https :// nfms.menlhk.go.id*
[10] *https ://webgis.menlhk.go.id*

Warsaw Framework requires MRV emissions/removals/forest carbon stocks/forest carbon stocks and forest area changes as a result of REDD+ activities to be consistent with methodological guidance under Decision 4/CP.15[11]. Under the Decision 4/CP. 15, measurement which is supported by the NFMS should use a combination between remote sensing and ground-based forest carbon inventory approaches in estimating emissions/removals/forest carbon stocks and forest area changes. The estimates should meet the principles of transparency, consistency, accurate, and reduced uncertainty. Reporting result of measurement of emissions/removals/forest carbon stocks/forest carbon stocks and forest area changes from REDD+ activities against FREL/FRL, for obtaining RBP, should be included in Technical Annex of Biennial Update Report (BUR) with guidelines as in Annex of Decision 14/CP.19. The First and Second Technical Annex which reflect REDD+ results nation-wide from 2014-2017 and from 2018-2020 respectively are included in the Second BUR (2019)[12] and Third BUR (2021)[13].

The ongoing improvement in measuring/estimating and reporting emissions/removals/forest carbon stocks/forest carbon stocks and forest area changes from REDD+ activities and the NFMS which support these measuring and reporting is intended particularly to improve transparency, accuracy, completeness, consistency, and comparability.

Taking into account the progress of FREL/FRL, NFMS, and MRV development, lessons from technical assessment of the First FREL and Second FREL and technical analysis to the first REDD+ result (technical annex of the 2nd BUR and 3rd BUR), also anticipate the future needs including the extension of scope of REDD+ activities, alignment of REDD+ with FOLU Net sink target 2030, further improvement will be done, inter alia, in the following elements:

(i)   emission factors: including enhance development of site-specific emission factors;

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[11] Decision 4/CP.15. Methodological guidance for activities relating to reducing emissions from deforestation and forest degradation and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries.
[12] Indonesia Second Biennial Update Report under the United Nations Framework Convention on Climate Change, DGCC – MoEF (2018) : *http://www.ditjenppi.menlhk.go.id*
[13] Indonesia Third Biennial Update Report under the United Nations Framework Convention on Climate Change, DGCC – MoEF (2021) : *http://www.ditjenppi.menlhk.go.id*

(ii) methodology: improvement to support measurement/monitoring of forest cover, forest cover change and its associated carbon stocks;

(iii) reporting: strengthening reporting at national and sub-national levels; and

(iv) verification: strengthening verification, consistent with verification of national mitigation action.

Remote-sensing based measuring/monitoring will continue to be enhanced to support reporting purposes both for national and international reporting. Implementation of the existing guidance for measuring/monitoring, reporting and verification need to be reviewed periodically to identify gaps and needs for improvement of the guidance as well as human resources and institutional capacity.

<u>MRV for non-carbon benefits (NCBs)</u>

The existing NCBs need to be further elaborated, including the development of criteria and indicator for assessing the NCBs provision in REDD+ implementation. Furthermore, along with experiences in implementing adaptation including through climate village programme (PROKLIM), adaptation to climate change including PROKLIM in/surrounding forests is considered to be a potential NCBs in REDD+ implementation. In order to measure/monitor, report, and verify the NCBs which may be delivered in REDD+ implementation, criteria and indicators for NCBs assessment will be developed during the implementation of this national strategy.

3.1.3. Safeguards and Safeguards Information System (SIS)

Safeguards and SIS and other elements of REDD+ architecture are integral part of the national regulation for REDD+ implementation[14]. Taking into account the Cancun Agreement (Decision1/CP.16, Part C) and Decision 12/CP. 17, the REDD+ safeguards policy is described in seven following principles which reflect the seven Cancun safeguards and national regulatory framework as well as related safeguards practices:

1. **Principle 1**. Legal compliance and consistency with national forest programmes. REDD+ activities shall comply with government regulations and nationally ratified

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[14] PERMEN LHK No. P 70/2017 (Article 14 on SIS-REDD+ and Article 13 on SRN).

international conventions/agreements and shall be consistent with the objectives of national forest programmes.

2. **Principle 2**. Transparency and effectiveness of national forest governance. REDD+ activities at all scales and contexts shall contribute to transparent and effective forest governance in accordance with national sovereignty.

3. **Principle 3**. Rights of indigenous people and local communities (*masyarakat hukum adat/MHA dan masyarakat lokal*).
   REDD+ activities shall respect indigenous people and local communities' rights through actions appropriate to the scale and context of implementation.

4. **Principle 4**. Effectiveness of stakeholder participation.
   REDD+ activities shall be based on proactive and transparent identification of relevant stakeholders, and the engagement of them in planning and monitoring processes, with an increasing level of intensity from national level to site level scales.

5. **Principle 5**. Conservation of biodiversity, social and environmental services. REDD+ activities will include effective strategies that maintain, conserve or restore biodiversity and ecosystem services for social and environmental benefits.

6. **Principle 6**. Reducing risk of reversals.
   REDD+ activities shall seek to reduce risks of reversals through means appropriate to the scale and context, emphasizing sub-national action and national level policy initiatives.

7. **Principle 7**. Reduction of emissions displacement.

Recognizing that monitoring and reduction of emissions displacement is the responsibility of sub-national (KPH, district, province) and national government, REDD+ activities shall include strategies to reduce displacement of emissions and support sub-national and national monitoring.

The seven safeguard principles are elaborated further into 17 criteria and 32 indicators (Principles, Criteria and Indicators/PCI), and assessment tools for safeguards implementation (*Alat Penilai Pelaksanaan Safeguards/APPS).* Detail explanation on the PCI, APPS, institutional arrangement and flow of information on safeguards implementation, the process of their development and other related aspects can be

seen in *Safeguards Information System for REDD+ in Indonesia: moving towards an Operational SIS-REDD+* (DGCC, 2016)[15].

Currently there are a number of existing safeguards and safeguards related instruments applied to forestry and other land-based sectors for different purposes, including safeguards instruments applied to REDD+ at the jurisdictional and project levels. For the purpose of safeguards reporting to SIS-REDD+, REDD+ implementers are required to provide information and evidence of safeguards implementation in their REDD+ activities in line with elements of APPS.

In order to ensure efficiency and effectiveness in gathering, processing, analysing, and presenting necessary information on how safeguards are addressed and respected in REDD+ activities, an institutional arrangement and flow of information for SIS-REDD+ have been developed[16]. Furthermore, for easy access and promote transparency, SIS-REDD+ has been designed as a web-based information provision which consist of a database to manage data and information on safeguards implementation and a Web-platform which present and display information on safeguards implementation.

Under the reporting procedures, REDD+ implementers are required to report the safeguards implementation through SIS-REDD+ and SRN. In this regard, synchronization of main data between SIS-Web and SRN-Web is crucial for increasing efficiency.

Reporting safeguards implementation and operationalization of SIS-REDD+ have not progressed significantly because of technical and non-technical challenges. Technical challenges include user-friendliness of the system (SIS and SRN) and the need to synchronize main data requirement between SIS and SRN. Non-technical challenges relate to institutional arrangement and capacity at sub-national level, and different safeguards requirement from different sources of REDD+ finance. Some steps have been taken to improve user-friendliness and necessary synchronization between SIS and SRN, as well as harmonize institutional arrangement at the national and sub-

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[15] Note : can be downloaded from the SIS- REDD+ website *(http://www.sisredd.menlhk.go.id).*

[16] Detail information on institutional arrangement and flow of information for SIS-REDD+ can be seen in *Safeguards Information System for REDD+ in Indonesia : moving towards an Operational SIS-REDD+* (DGCC, 2016).

national levels, increase capacity of sub-national institutions and human resources, and integrate reporting of non-Cancun safeguards into SIS-REDD+ and using APPS to assess compliance to the Cancun safeguards.

Lessons from several years of safeguards implementation and SIS operationalization suggested the need for reviewing the implementation of the Cancun safeguards, as well as PCI and APPS, including identify gaps and the needs for enhancing PCI and APPS. Early step to identify gaps in safeguards implementation has been carried out through socialization and training on reporting safeguards implementation through SIS. Some issues to be addressed include the need to:

(a) simplify safeguards reporting format in SIS-REDD+,
(b) assign responsible unit (administrator) for safeguards reporting at sub-national level,
(c) enhance awareness and capacity of sub-national actors,
(d) enhance understanding on how to address risks of displacement and risks of reversals in implementing and reporting these safeguards.
(e) enhance APPS to accommodate emerging elements such as gender, youth, vulnerable groups, and other relevant issues.

Necessary improvements will be carried out during the strategy implementation period, along with the improvement on the provision of information on how safeguards are addressed and respected, as well as review and enhancement of SIS.

3.1.4. REDD+ Finance and Finance Institution

PERMEN LHK No. P 70/2017 defines REDD+ finance as part of climate finance which may come from international (bilateral and multilateral) and national sources, divided into four categories namely grant, RBP state budget (APBN), and other sources (Article 16). REDD+ finance is managed by BPDLH (Article 15), which can be distributed or used through several mechanisms such as: (a) rbp at sub-national level based on their contributions to the emission reduction which may include payment for non-carbon benefits (NCBs); (b) grant to support enabling activities; (c) carbon trading; and (d) other mechanisms.

REDD+ finance which is received by BPDLH from various sources (grant, RBP, APBN, other sources) may have pre-arrangement on the use of finance, however, it should

be in line with the mechanisms under PERMEN LHK No. P 70/2017 guidance. While grant and APBN sources may have specific arrangement mechanism for their uses, RBP received for Verified emission reduction (VER) from REDD+ activities for a certain time period at the national and jurisdictional levels may cover a broader scope of uses arrangement mechanisms. Guided by Investment Framework for REDD+[17], BPDLH develops planning (Investment Plan) for distribution of each source of finance.

For the past fifteen years, Indonesia has received finance support for climate change related programmes and activities in forestry sector from bilateral and multilateral sources, including for REDD+. A number of sources of finance in various forms were received for REDD+ readiness and transition phase programmes and activities, such as UNREDD+ (USD 5 Million), Forest Carbon Partnership Facility – Carbon Fund (FCPF – CF) Readiness (USD 8.6 Million), BioCarbon Fund - Initiative for Sustainable Forest Landscape (BioCF – ISFL) (USD 1.5 Million for Preparation and USD 13.5 Million for Pre-Investment), FIP (USD 38 Million), Norway (part of USD 1 billion commitment), Republic of Korea (USD 5 Million), and Australia, UK, Germany, Japan in the form of technical assistance (TA). Recently, some RBP for REDD+ have also been committed such as Green Climate Fund (GCF) (USD 103.8 Million) and Norway (USD 56 Million) for pre-2020 results, FCPF-CF (USD 110 Million) and BioCF-ISFL (USD 70 Million) for post 2020 results.

REDD+ RBP will continue to be the backbone of international finance to support NDC in forestry sector and FOLU net-sink 2030, taking into account the possible dynamic of REDD+ scope of activities along with REDD+ implementation under NDC and FOLU net-sink 2030, as well as the existing commitment from international partners for REDD+ RBP between 2020-2030. Other opportunities under different mechanisms will be explored along with the implementation of 'Presidential Regulation on The Implementation of Carbon Pricing to Achieve the Nationally Determined Contribution

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[17] For detailed elaboration on REDD+ finance, including procedure and eligibility criteria to access finance, beneficiaries, flow and uses, distribution mechanism and other aspects of finance see MoEF, 2021. Investment Framework for Reducing Emissions from Deforestation and Forest Degradation, and the Role of Conservation, Sustainable Management of Forests and Enhancement of Forest Carbon Stocks (REDD+) In Indonesia. Directorate General of Climate Change. The Ministry of Environment and Forestry. Indonesia *(http ://WWW. Ditjenppi.menlhk.go.id).*

Target and Control Over Greenhouse Gas Emissions in the National Development' (*PERPRES No. 98/2021 tentang Penyelenggaraan Nilai Ekonomi Karbon untuk Pencapaian Target NDC dan Pengendalian Emisi Karbon dalam Pembangunan Nasional*).

For the time period from 2021-2030, some improvement will be done including in implementation of funding distribution mechanisms. Keeping pace with the development in forest and land-use sector post Glasgow COP-26, the existing REDD+ Investment Framework will be reviewed, taking into account the needs for financing FOLU-Net Sink 2030 target. Taking into account the outcome of the review, REDD+ investment framework will be enhanced, align with FOLU-Net Sink 2030 finance. Furthermore, mobilization of finance for REDD+ will be enhanced and its management will also be strengthened.

3.1.5. National Registry System (Id. *Sistem Registri Nasional*/SRN)

The SRN was established in 2016 as a web-based system for managing data and information on mitigation, adaptation, and means of implementation (finance, capacity building, and technology transfer and development). Public access through website allows stakeholders to obtain data and information on mitigation, adaptation, and means of implementation which are registered in the system, including REDD+.

SRN has the following functions: (a) registration of mitigation and adaptation actions, achievement and resources to support actions (finance, capacity, technology); (b) provision of information for awarding government recognition to mitigation and adaptation contribution of various actors; (c) provision of public access to data and information on actions and resources; (d) data base management to support policy analysis and formulation; (e) provision of data and information on certified emission reduction and certified carbon stock enhancement, and (f) avoiding double counting of achievement.

The SRN will play a strategic role in the implementation of 'One GHGs Data Policy', other programmes of NDC implementation strategy, FOLU net-sink 2030, as well as the home of Carbon Registry to support implementation of Presidential Regulation No. 98/2021. Therefore, SRN will be further enhanced, taking into account outcomes of the review of SRN design, experience and lessons drawn from several years

operationalization of SRN, and international development in transparency framework. Specific for REDD+ activities, registration and reporting mechanism in SRN will be improved. Existing SRN Road Map will be reviewed and strategy for enhancing SRN overtime will also be developed.

The SRN is targeted to be fully functioning by 2030, with interim target by 2024 that SRN will be able to provide most data and information needed for preparing national communication (NATCOM) and biennial transparency report (BTR), in line with Katowice rule book and subsequent COP decisions on transparency framework. In this regard, there is a need for significant investment to strengthen human resources and institutional capacities and technology development, to enable the SRN fully functioning by 2030. Hence, both domestic and international resources will be mobilized, including opportunities under capacity building Capacity Building Initiatives for Transparency (CBIT) mandated by Decision 1/CP. 21 and the Paris Agreement. Under the CBIT, Indonesia receives Global Environment Fund (GEF) assistance to strengthen institutional capacity for climate transparency, further develop robust systems for GHG inventory and MRV in compliance with the Paris Agreement, and to strengthen NDC implementation and tracking its progress.

3.1.6. REDD+ Institutions and Governance

Post COP-13 in Bali the role of forestry in global climate regime has become stronger over time. The period of 2008-2014 was a dynamic period with a number of changes of institutions responsible for coordinating climate change issues. Along with the establishment of Global REDD+ Partnership and the signing of Letter of Intent (LoI) between the Governments of Indonesia and Norway in 2010, Indonesia established REDD+ Task Force to coordinate REDD+ implementation in the same year which was later transformed to REDD+ Agency in 2013.

Along with the global processes both REDD+ negotiations under UNFCCC and REDD+ Partnership activities, the implementation of Indonesia-Norway LoI mainly addressed the readiness phase of REDD+ implementation as guided by the Cancun Agreement, including the development of REDD+ National Strategy (STRANAS REDD+), coordinated by REDD+ Task Force (SATGAS REDD+). The STRANAS

REDD+ which cover key components to be prepared during the readiness and transition phase and actions to be implemented from the period of 2012-2020.

With the change of Government in 2014, the REDD+ Agency was discharged in 2015 and since then REDD+ has been part of MoEF mandate and its implementation has been coordinated by the DGCC. Along with the completion of REDD+ negotiation process and development of overall climate negotiations under UNFCCC, the completion of REDD+ Partnership's tasks, and the changes in domestic policy, REDD+ policy and institutional setting have been adjusted. During institutional and programme transition of REDD+ after its integration to MoEF mandate, at the same time Indonesia was also at the start of entering full implementation phase of REDD+ which was marked by the establishment of FREL for REDD+ and REDD+ Performance Report as the basis for its RBP. Figure 3 shows stages of REDD+ development in Indonesia from readiness to full implementation. The full implementation of REDD+ reflects pre-2020 situation with voluntary commitment on emission reduction and post-2020 with mandatory contribution to reduce emission as determined nationally.
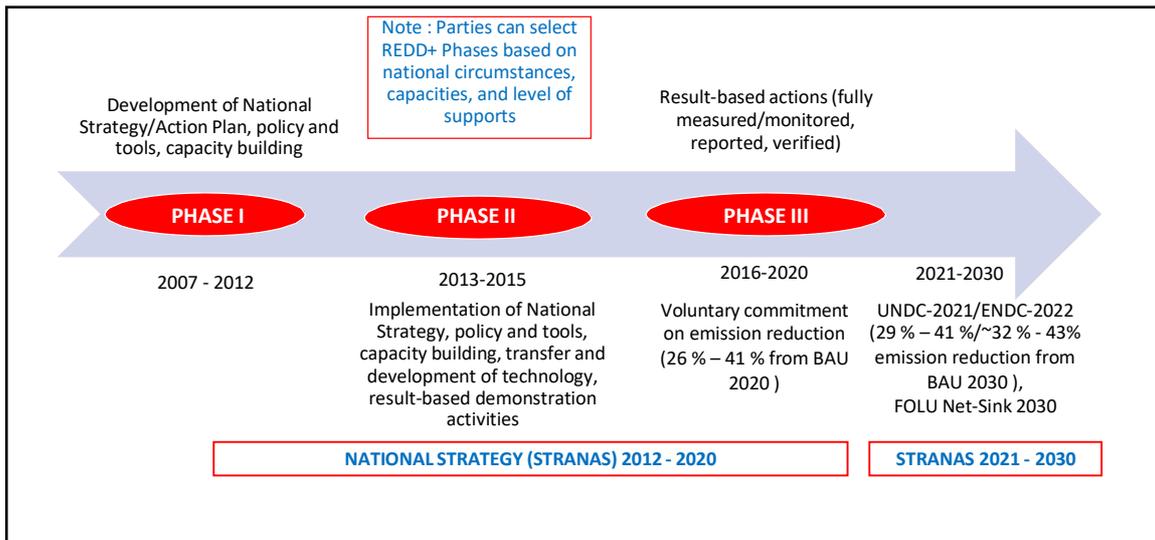
Figure 3. Development of REDD+ Implementation in Indonesia Based on COP Decision No.1/ CP. 16

In line with Indonesia's commitment under the Paris Agreement, REDD+ activities have been part of NDC scope of activities for forestry sector and FOLU net-sink 2030. PERMEN LHK No. P 70/2017 is the guidance for REDD+ implementation on technical-methodological, finance and institutional aspects. Figure 4 shows the substantive elements of the regulation and relations among relevant articles.
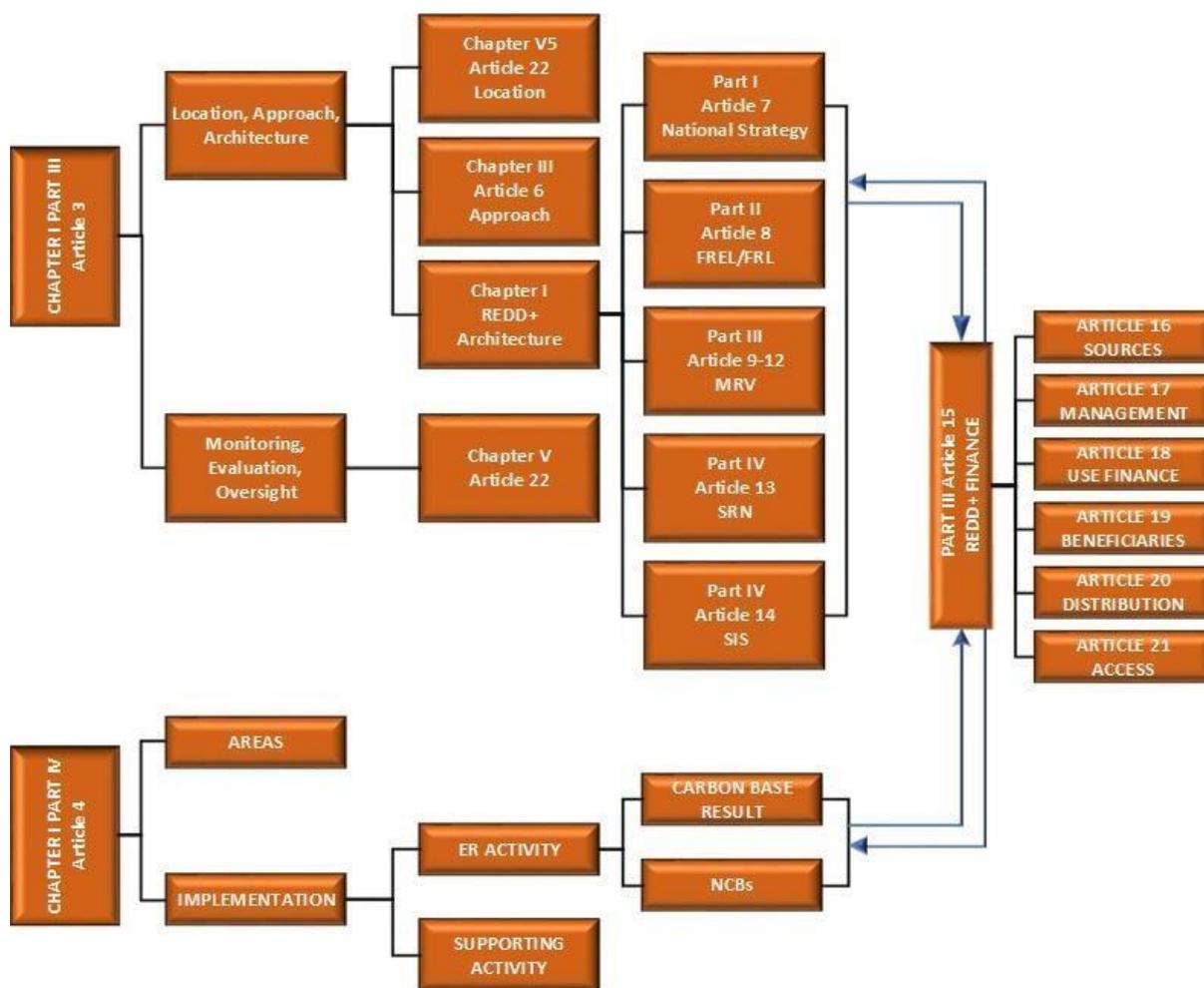
Figure 4. Substantive Elements of PERMEN LHK No. 70/2017 on REDD+

With policy on REDD+ known as 'national approaches with sub-national implementation', PERMEN LHK No. 70/2017 stated that REDD+ covers nation-wide area and implemented at sub-national level (Article 4). The Ministry of Environment and Forestry is responsible for overall implementation of REDD+ at the national level, while implementation at the sub-national level is carried out by sub-national government, private sector, KPH, and community (Article 6).

Consistent with Decision 1/CP. 16, REDD+ is mitigation actions in forest sector through the following activities: (a) reducing emissions from deforestation, (b) reducing emissions from forest degradation, (c) conservation of forest carbon stocks, (d) sustainable management of forests, and (e) enhancement of forest carbon stocks. The regulation allows enabling activities to support the implementation of these activities,

which include: (a) institutional and human resource capacity building, (b) strengthening policy and REDD+ architecture, (c) research and development, and (d) other relevant enabling activities.

The VER is eligible for payment for results if the results come from areas which were included in the establishment of FREL/FRL (Article 5 – Article 8), named as REDD+ performance assessment areas (*Wilayah Pengukuran Kinerja*/WPK REDD+). Guidance for MRV is contained in Articles 9 to12 with brief explanation as follow:

(a) MRV process for the REDD+ finance distribution is divided into two categories namely payment for VER (rbp) and grant for supporting activities (non-rbp),

(b) To receive payment for emission reduction (rbp), the results of REDD+ activities shall be measurable, reportable and verifiable.

(c) The results shall be estimated in the areas included in the establishment of FREL/REL (named as WPK-REDD+) and are registered to SRN.

(d) Verification for rbp is carried out by MRV Team and Independent Verificator to the measured and reported results.

(e) Verification for non-rbp is carried out by MRV Team to the proposed work programme/activities under four areas of enabling activities (Article 18).

(f) Verification results will be recorded in SRN and be the basis for implementer/intermediary agency/Provincial REDD+ Authority (*Lembaga Pelaksana-REDD+ Provinsi)* to propose payment with Concept notes and full proposal to BPDLH.

In accordance with PERMEN LHK No. P. 70/2017, REDD+ finance from various sources (Article 16) which are received by Indonesia are managed by BPDLH (Article 17). Within its mandate[18], BPDLH receives/mobilizes, manages, and distributes environmental fund for various uses. The regulation categorizes the use of REDD+ finance which is managed by BPDLH into payment for results at sub-national level (rbp) and support for enabling activities (Article 18). RBP/rbp is awarded to VER from one or more of the above five REDD+ activities, and may include non-carbon benefits. The non-carbon benefits of emission reduction (carbon-based) activities may include: (i) protection of hydrological function of forests, (ii) protection of ecological function,

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[18] Presidential Regulation (PERPRES) No. 77/2018: *Peraturan Presiden Tentang Pengelolaan Dana Lingkungan Hidup.*

(iii) protection of biological diversity, (iv) strengthening livelihood, (v) strengthening governance of forest and land, and (vi) strengthening essential ecosystem.

As part of improving governance in REDD+ implementation, enhance policy coherence, consistent law enforcement and compliance relating to spatial planning and programmes which reduce pressure to natural forest and increase forest cover will be further enforced and strengthened.

3.2. Managing REDD+ Implementation

Along with REDD+ development to date, management of REDD+ implementation need to be strengthened, both at the national and sub-national levels. At the sub-national level, ensuring alignment of its REDD+ actions with national guidance as well as enhancing horizontal and vertical coordination are prerequisite.

> Box 1. Managing REDD+ Implementation
> Sub-national government (in this case Provincial Government) aims at implementing REDD+ shall develop REDD+ Action Plan in line with REDD+ National Strategy (STRANAS REDD+). The REDD+ Action Plan can be part of Sub-National Operational/Work Plan of FOLU net-sink 2030, however, it shall comply with REDD+ guidance. In the case REDD+ Action Plan is a separate document from Sub-National Operational/Work Plan of FOLU net-sink 2030, ensuring consistency between the two documents is crucial to avoid double counting and double claiming of mitigation results.

In terms of scope of activities, there is overlapping activities between FOLU net-sink 2030, NDC for FOLU sector and REDD+. Reducing deforestation and forest degradation which are part of activities under NDC and FOLU net-sink 2030 are REDD+ activities as defined in the Cancun Agreement Paragraph 70. Consistent with the guidance for FREL/FRL establishment (Decision 12/CP. 17), Indonesia also included peat decomposition in the establishment of the 1st and 2nd FREL-REDD+ considering its significant contribution to the total emissions from FOLU.

Scope of REDD+ activities can be dynamic overtime depending on the activities to be included in the establishment of FREL/FRL at the first period and the activities to be included in its revisions in subsequent periods. Depending on actions to be taken to reduce forest degradation and sustainable forest management, it is possible that reducing emissions through sustainable forest management which currently falls

under category of reducing emissions from forest degradation could be as separate categorization. Similarly, it applies to conservation of forest carbon stocks, under existing REDD+ activities, it is covered under reducing emissions from deforestation and forest degradation.

In the NDC Road Map, Indonesia has categorized mitigation actions in FOLU sector which is in line with the five REDD+ activities based on Decision 1/CP. 16 (Cancun Agreement). And so, referring to forest transition curve when deforestation and forest degradation are no longer significant, there is opportunity in future FREL/FRL construction to define natural forest that will be categorized under 'conservation of forest carbon stocks' rather than under deforestation and forest degradation, similarly for sustainable management of forest. Enhancement of forest carbon stocks has significant potential for future REDD+ in Indonesia through forest and land rehabilitation. The NDC Road Map defines two types of forest and land rehabilitation namely rehabilitation with rotation (for production function) and rehabilitation without rotation (for protection/conservation function) including revegetation of degraded peatland. These two activities can be the candidate of enhancement of forest carbon stocks under REDD+.

As a party of three closely related Conventions – UNFCCC, CBD, UNCCD – Indonesia has significant potential for synergizing the implementation of the three conventions. Enhanced REDD+ implementation will be used as an entry point for materializing synergy in implementing the three conventions, and linked to SDGs.

The following actions will be the key for successful implementation of REDD+ and overall mitigation action in FOLU : (i) enhancing contribution of REDD+ to NDC achievement through enhanced management of forest and land; (ii) aligning REDD+ with NDC target on FOLU in the implementation of Carbon Pricing (NEK) scheme; (iii) improve REDD+ architecture overtime: (iv) enhance forest and land governance - horizontal and vertical coordination; (v) Strengthening livelihood of forest dwellers; (vi) aligning REDD+ with FOLU Net-sink 2030 target and; (vii) materializing synergy between implementation of UNFCCC-UNCCD-CBD in REDD+ implementation :

3.2.1. Enhancing contribution of REDD+ to NDC achievement through enhanced management of forest and land.

Enhancing forest and land management through the following activities will reduce forest cover loss/reduce emissions including emission from peatland and increase removals : (i) reducing emission from deforestation; (ii) reducing emission from forest degradation; (iii) conservation of forest carbon stocks and biodiversity; (iv) sustainable forest management; (v) enhancement of forest carbon stocks: and (vi) peat land management; as well as (vii) addressing drivers of emissions from forest and land and biodiversity loss and drivers of enhanced removals and biodiversity conservation.

Furthermore, coherent policies, consistent law enforcement and compliance relating to spatial planning and programmes that reduce pressure to natural forest and increase forest cover will be among enabling factors which are needed for the implementation of these activities, which eventually contribute positively to the achievement of NDC target from forestry sector and FOLU net-sink 2030.

3.2.2. Aligning implementation of REDD+ with NDC target on FOLU in the implementation of NEK scheme

The issuance of Presidential Regulation (PERPRES) No. 98/2021 brings consequences on the need for adjustment to the existing institutional setting in order to support implementation of the Carbon Pricing (NEK) and NDC, which may affect REDD+ implementation in the future.

NEK scheme basically is aimed at supporting the implementation of NDC commitment. Implementation of different schemes under NEK scheme need to be safeguarded with related instruments both international instrument (COP decisions) and national instrument (related regulations). Review and improvement of this alignment over time will be part of the implementation of this strategy.

3.2.3. Improving REDD+ architecture overtime.

Along with institutional and human resources capacity enhancement as well as technology development, both REDD+ architecture and SRN need to be reviewed and improved overtime. Periodic review and consistent implementation of updated REDD+ architecture and SRN road map will lead to their effective functioning vigorously.

Furthermore, sufficient capacity of key institutions and actors involved in REDD+, MRV and SRN to perform their tasks are overriding factors for the effectiveness of the REDD+ architecture and SRN functions, supported by conducive policies for continuous improvement for both of them.

3.2.4. Enhancing Forest and Land Governance: Enhance horizontal and vertical coordination.

Coordination, synergy and stakeholder engagement are the key factors in good governance. Enhancing horizontal and vertical coordination and stakeholder engagement, awareness raising, campaign and capacity building, will increase awareness and commitment of related institutions and stakeholders at national and sub-national levels. These interventions will ultimately lead to better forest and land governance. Furthermore, the existence of mechanisms for coordination and stakeholder engagement as well as incentive and disincentive scheme will also influence the effectiveness of efforts towards a better forest and land governance.

3.2.5. Strengthening Livelihood of forest dwellers

Livelihood of forest dependent people is one of key factors to be taken into account in planning and implementing REDD+. Enhancement of access to forest resources, capacity building and oversight, provision of access to relevant information such as information on technology and market, access to finance, and protection of ecosystem services are among interventions for addressing livelihood issues. These interventions will result in increased ability of communities to obtain social forestry permits in line with government policies and the objectives on social forestry, improved provision of capacity building, oversight and access to relevant information, and increased awareness on the importance of ensuring protection of ecosystem services in social forestry implementation. Hence, more land tenure security, capacity and access to necessary information in social forestry programme will lead to improved livelihood of forest dwellers. This need to be supported by coherent policies, enforcement and compliant of regulations and standards, starting from 'on farm' to 'off farm' and 'market' of social forestry products and services.

3.2.6. Aligning REDD+ with FOLU Net-sink 2030 target.

LTS – LCCR 2050 of Indonesia suggested the needs to significantly reduce emission from energy sector to close to zero and increase removals in forestry and land uses. To achieve this target, forestry and land-uses (FOLU) need to reach net sink in 2030. Considerable efforts to maintain increasing trend of net-sink after 2030 will also be required in forestry sector, supported by agriculture sector.

An Operational Plan for implementing policy and programme interventions has been developed in order to achieve FOLU net-sink 2030 target, with Ministerial (MoEF) Decree No. 168/2022 as the legal basis. Eight interventions for generating emissions reduction and removals to achieve the target have been defined as follows : (i) prevention of deforestation; (ii) prevention of natural forests degradation; (iii) prevention of forest degradation in concessions (Forest Utilization Business Permit); (iv) plantation forest development in plantation forest concession; (v) sustainable forest management; (vi) enhancement of forest carbon stock; (vii) peatland restoration and mangrove rehabilitation and management; and (viii) natural forest/biodiversity conservation.

Scope of REDD+ activities are defined based on activities which are included in the corresponding FREL document with area coverage that may falls within and outside the areas of FOLU net-sink 2030 target. Alignment of REDD+ and FOLU net-sink 2030 target will be important for avoiding double counting and double reporting on both REDD+ and FOLU net-sink performance; this will help in reporting NDC performance through BTR, and in demonstrating the contribution of REDD+ with RBP to the achievement of NDC in forestry sector. In methodological aspect, REDD+ methodology is guided by COP decisions, the alignment of both REDD+ and FOLU net-sink 2030 target in terms of methodology is directed for increasing clarity, transparency, understanding, and comparability of the reported results.

3.2.7. Materializing synergy between implementation of UNFCCC-UNCCD-CBD in REDD+ implementation,

Three Rio Conventions – UNFCCC, CBD, UNCCD – have complementary benefits to forest and other land use sectors in their implementation. However, synergy effects of the implementation of these three Conventions have been overlooked. Differences in

their targets, criteria and indicators to measure performance pose certain challenges in synergizing the three Conventions in their implementation. REDD+ implementation which deliver co-benefits in terms of avoiding/reducing/restoring land degradation as well as avoiding/reducing biodiversity loss may be used as an entry point for materializing synergy in the implementation of the three conventions.

3.3. Paradigm Shift in the New Normal

Year 2021 marked the start of NDC implementation and REDD+ has continued its full implementation which generate both carbon benefit (emission reduction) and non-carbon benefits. Year 2021 also the momentum for transformational changes as an ambitious pathway to achieve low emissions and climate resilience 2050 was set up and LTS-LCCR 2050 document that stated Indonesia's ambition to achieve net-zero emission (NZE) in 2060 or sooner was submitted to the UNFCCC Secretariat. Transformational changes will also be needed for REDD+ implementation post 2020 to align with FOLU Net-Sink 2030 target, taking into account consequences of the issuance of PERPRES No. 98/2021 which put pricing of carbon to support NDC target achievement including resilient target.

The year 2021 also marked the start of promising recovery process from Covid-19 pandemic. Science has suggested a strong relation between climate actions and Covid-19 sustainable recovery. Relevant lessons from Covid-19 pandemic should be drawn, including opportunity for digital transformation in managing and implementing REDD+ and potential synergy between efforts in reducing deforestation and halting biodiversity loss. An evolving process of awareness raising, outreach and campaign, and capacity building will be part of the transformation in REDD+ implementation, including effective use of digital-based training/learning.

3.4. Stakeholder Engagement and Benefit Sharing

Engagement of relevant stakeholders is a key for implementing all strategy pillars. Furthermore, awareness and commitment of related institutions and stakeholders at national and sub-national levels are also required.

Various approaches, channels and media including digital-based platform will be used to engage stakeholders at all possible process in REDD+ implementation. Increasing awareness and strengthening commitment of related institutions and stakeholders, as

well as strengthening approaches for conflict resolution and its implementation, at national and sub-national levels will be part of overall process in REDD+ implementation.

Benefit sharing from REDD+ results will be guided by PERMEN LHK P. 70/2017 and Investment Framework for REDD+ in Indonesia, as well as PERPRES No. 98/2021 and its relevant Ministerial regulations.

4. DIRECTION FOR REDD+ NATIONAL STRATEGY IMPLEMENTATION

The National Strategy for REDD+ 2021-2030 is implemented in the context of NDC and FOLU Net-Sink 2030 target as part of LTS – LCCR 2050 with NZE in 2060 or sooner. The Strategy will be implemented in two phases namely Phase I (2021-2025) and Phase II (2026-2030). The implementation of the Strategy will be guided by PERPRES No. 98/2021 on Carbon Pricing (NEK) and NDC, Ministerial Regulation No. 70/2017 on REDD+, Investment Framework for REDD+ (MoEF, 2021), and other relevant regulations and documents.

The Cancun Agreement provides guidance for REDD+ countries that in the development and implementation of REDD+ strategy, it should address drivers of deforestation and forest degradation, land tenure, forest governance, gender and safeguard, and engaging stakeholders. These issues will be addressed under relevant programmes/pillars of the strategy, for example, drivers of deforestation and forest degradation will be addressed under 'policy and regulatory framework component', including through consistent law enforcement and compliance, and where appropriate, under other programmes/pillars.

The direction of the Strategy implementation covers four strategy pillars/programmes with description on actions to be taken in each phase as follows (see Table 2) :

1. Programme/Pillar 1. Strengthening REDD+ architecture, institutional aspect, and SRN, will include FREL/FRL, NFMS and MRV, Safeguards and SIS, Finance, SRN, policy and regulatory framework.

2. Programme/Pillar 2. Managing REDD+ implementation covers common interventions for national and sub-national, and specific for national level and sub-national level.

3. Programme/Pillar 3. Paradigm Shift post 2020 will need transformational changes for REDD+ implementation post 2020, taking into account strong relations between climate actions and Covid-19 sustainable recovery, awareness raising, outreach and campaign, and capacity building.

4. Programme/Pillar 4. Stakeholder Engagement will include increasing awareness and commitment of related institutions and stakeholders at the national and sub-national levels.

PROGRAMES/PILLARS			IMPLEMENTATION PHASE		LEAD INSTITUTION
			PHASE I (2021-2025)	PHASE II (2026-2030)	
		NFMS and MRV	• Improve forest cover data, including extension of forest cover classification to support expansion of scope of REDD+ activities • Improve existing emission factors/enhance development of site-specific emission factors • Methodological improvement to strengthen measurement/monitoring of forest cover, forest cover change and its associated carbon stocks • Strengthen reporting at national and sub-national levels • Strengthen verification, consistent with verification of national mitigation action. • Enhance research and methodological development to strengthen measurement of blue carbon • Enhance research and methodological development to strengthen measurement of emission from peatland. • Strengthen monitoring system of peatland to support robust MRV of peatland's emissions. • Elaborate the existing NCBs and define potential NCBs to be included in REDD+ activities. • Develop criteria and indicators for assessing NCBs in REDD+ activities, including adaptation co-benefits through PROKLIM in/surrounding forests areas. • Piloting NCBs assessment in REDD+ implementation (e.g. adaptation co-benefits through PROKLIM in/surrounding forests areas).		DG of Forestry Planning (PKTL) and DG of Climate Change

Table 2. Direction for REDD+ National Strategy Implementation

PROGRAMES/PILLARS			IMPLEMENTATION PHASE		LEAD INSTITUTION
			PHASE I (2021-2025)	PHASE II (2026-2030)	
I	STRENGTHENING REDD+ ARCHITECTURE AND NATIONAL REGISTRY SYSTEM	FREL/ FRL	• Review first FREL and develop 2nd FREL, taking into account: (a) outcomes of the review of the 1st FREL, and (b) opportunity to expand scope of REDD+ activities and carbon pools.	• Review existing FREL and develop consecutive FREL/FRL, including consideration to further expand the scope of REDD+ activities and carbon pools.	DG of Climate Change and DG of Forestry Planning (PKTL)
			• Disaggregate national FREL/FRL to provincial level as the basis for Provinces to calculate emission reduction for obtaining incentive from RBP of national scale REDD+.		
			• Construct sub-national/provincial FREL/FRL for REDD+ implementation in the respective Province/sub-national authority.		

PROGRAMES/PILLARS			IMPLEMENTATION PHASE		LEAD INSTITUTION
			PHASE I (2021-2025)	PHASE II (2026-2030)	
		Safeguards and SIS	• Synchronize main data in SIS-Web and SRN-Web	• Review effectiveness of SIS-SRN Webs link and improve as needed	DG of Climate Change
			• Improve the provision of information including summary of information on how all safeguards are addressed and respected • Review safeguards implementation, including APPS, identify gaps, and enhance PCI and APPS • Review and enhance SIS		
		Finance	• Strengthen implementation of funding distribution mechanism • Develop Investment Plan for Individual Funding Source, guided by Investment Framework • Review existing Investment Framework, taking into account finance needs for achieving FOLU-Net Sink 2030 target and guidance under PERPRES No. 98/2021 and its relevant Ministerial regulations (e.g. PERMEN LHK No. 21/2022)	• Enhance Investment Framework, in line with FOLU-Net Sink 2030 finance • Enhance mobilization of finance and strengthen its management	BPDLH and DG of Climate Change
			• Enhance the capacity of institution and human resources responsible for managing REDD+ finance.		

PROGRAMES/PILLARS			IMPLEMENTATION PHASE		LEAD INSTITUTION
			PHASE I (2021-2025)	PHASE II (2026-2030)	
			• Enhance synergy in the implementation of REDD+ safeguards under the Cancun Agreement and fiduciary safeguards under finance-related regulations and frameworks.		
		National Registry System (SRN)	• Strengthen implementation of One GHGs Data Policy, especially on agriculture, forestry and other land uses (AFOLU)		DG of Climate Change
			• Review existing SRN and its development, • Review SRN Road Map and develop strategy for enhancing SRN overtime, including to progress towards SRN full functioning by 2030, • Improve registration and reporting mechanism in SRN, • Strengthen Carbon Registry function in SRN, • Enhance role and capacity of institution and human resources in charge with SRN, including in the provision of data and information for NATCOM, BTR, and other reporting purposes,		
		Policy and regulatory framework	• Review existing regulations, amend or prepare new regulations as needed • Enhance policy coherence, including between REDD+, NDC, FOLU net-sink 2030. • Consistent law enforcement and compliance relating to spatial planning and programmes which can reduce pressure to natural forest and increase forest cover.		Secretariat General MoEF

PROGRAMES/PILLARS			IMPLEMENTATION PHASE		LEAD INSTITUTION
			PHASE I (2021-2025)	PHASE II (2026-2030)	
II	MANAGING REDD+ IMPLEMENTATION	National and Sub-national levels	• Enhance management of forest and land • Enhance contribution of REDD+ to the NDC achievement • Align the implementation of NEK scheme for REDD+ with NDC target on FOLU • Improve REDD+ architecture overtime • Strengthening livelihood of forest dependent people • Piloting synergy between implementation of UNFCCC-UNCCD-CBD in REDD+ activities • Develop and implement mechanisms for coordination and stakeholder engagement as well as incentive and disincentive scheme		DG of Climate Change and Provincial Governments
		National level	• Enhance horizontal and vertical coordination • Review existing REDD+ institutional set up to accommodate the consequences of the establishment of BPDLH and the entry into force of PERPRES No. 98/2021 and its relevant Ministerial regulations (e.g. PERMEN LHK No. 21/2022) • Align REDD+ with NDC and FOLU Net-sink 2030 target • Develop standard, criteria and indicators for assessing synergy effects in the implementation of UNFCCC-CBD-UNCCD in REDD+ activities, and review as needed.		• DG of Climate Change, DG of Natural Resources Conservation and Ecosystem, DG of Watershed Management and Forest Rehabilitation

PROGRAMES/PILLARS			IMPLEMENTATION PHASE		LEAD INSTITUTION
			PHASE I (2021-2025)	PHASE II (2026-2030)	
		Sub-national level	• Enhance horizontal and vertical coordination • Develop REDD+ Action Plan, in line with REDD+ National Strategy and implement the Action Plan accordingly • Implement the standard, criteria and indicators to assess synergy effects in the implementation of UNFCCC-UNCCD-CBD in REDD+ activities		• Provincial Governments
III	PARADIGM SHIFT IN THE NEW NORMAL		• Enhance awareness raising, outreach and campaign, and capacity building, including effective use of digital-based training/learning • Implement transformational changes for REDD+ implementation post 2020, taking into account strong relations between climate actions and Covid-19 sustainable recovery.		• DG of Climate Change
IV	STAKEHOLDER (STATE AND NON-STATE ACTORS) ENGAGEMENT AND BENEFIT SHARING		• Increase awareness and commitment of related institutions and stakeholders at national and sub-national levels. • Implementation of Free Prior and Informed Consent (FPIC) Principles • Establish digital-based platform for stakeholder communication. • Strengthen approaches for conflict resolution and its implementation in REDD+ activities. • Develop and implement guidance for benefit sharing		• DG of Climate Change

5. CLOSING REMARKS

In line with Indonesia's approach on REDD+ and REDD+ under the Cancun Agreement, REDD+ Strategy is developed at the national level (REDD+ National Strategy/STRANAS-REDD+). At the sub-national level, the provincial government intending to implement REDD+ shall develop Provincial Action Plan for REDD+ (RAP-REDD+) using REDD+ National Strategy (STRANAS-REDD+) as the basis. There should be a clear link between STRANAS REDD+, NDC Road Map for FOLU sectors, and Operational Plan/Work Plan for FOLU net-sink 2030; and between Investment Framework and Investment Plans for REDD+ and STRANAS-REDD+.

Currently, there are several documents related to REDD+ which serve different purposes and in certain cases at different scopes and levels. The important issue is ensuring the consistency of related substantive matters of the different documents.