

Global Climate Change Negotiation: Trends, Korea's Response, and Ongoing Efforts Contributions and Efforts on the National GHG in Forestry (REDD+)

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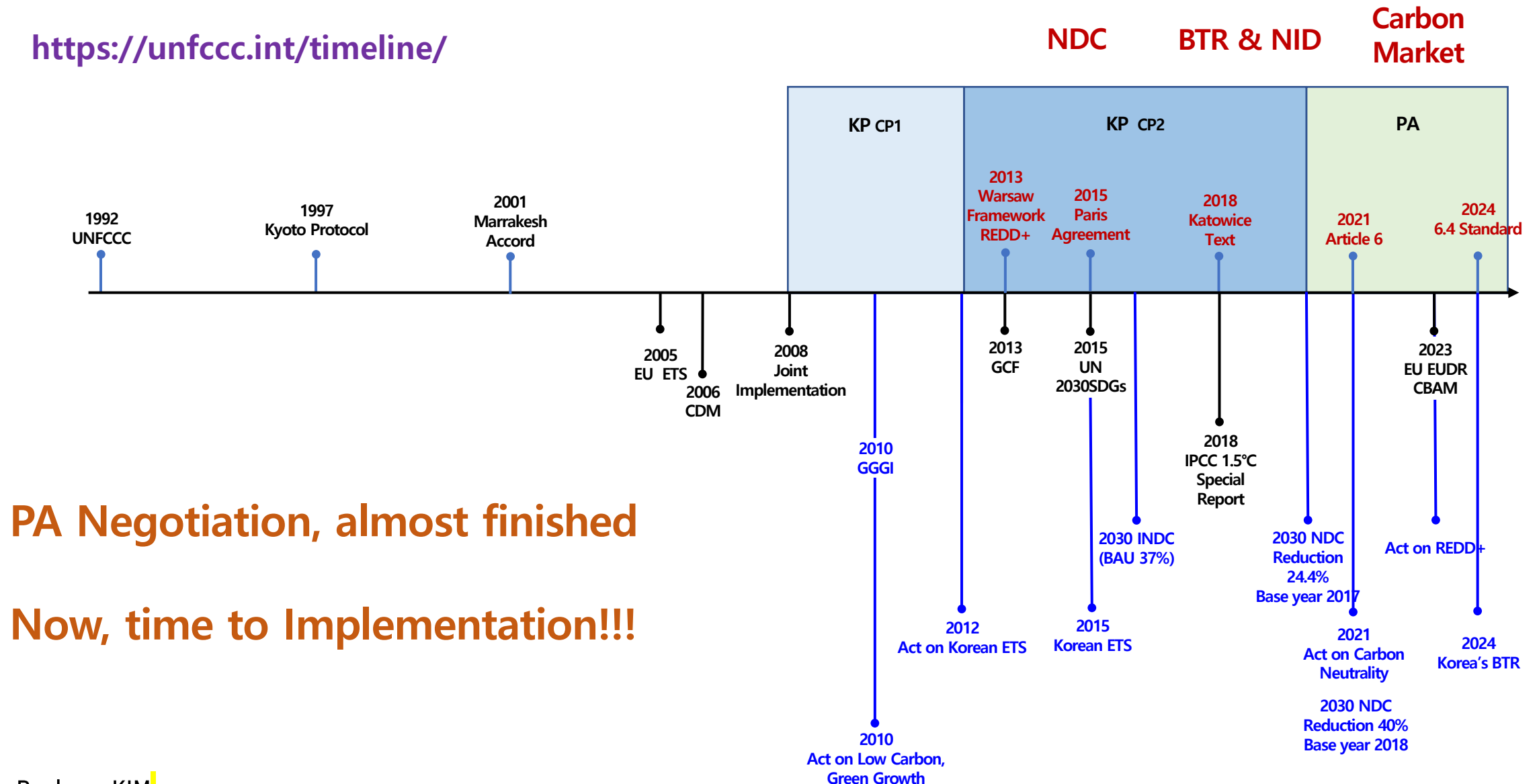
Article 5 & WFR

6

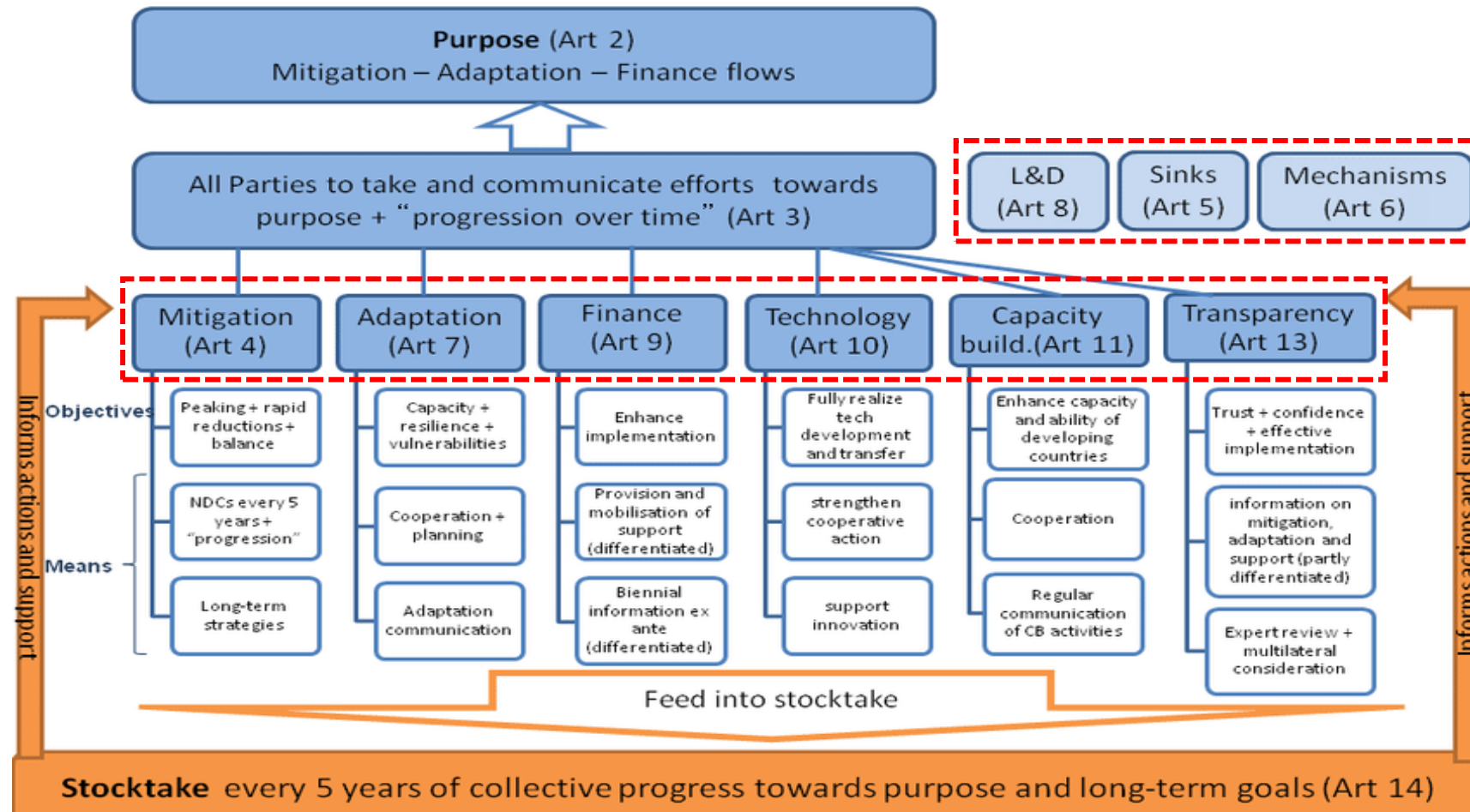
Article 6 &
IPCC CDR/CCUS

UNFCCC Negotiation Timeline

<https://unfccc.int/timeline/>



Structure of the Paris Agreement



Article 4

1. In order to achieve the long-term temperature goal set out in Article 2, Parties aim to reach global peaking of greenhouse gas emissions as soon as possible, recognizing that peaking will take longer for developing country Parties, and to undertake rapid reductions thereafter in accordance with best available science, so as to achieve a balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases in the second half of this century, on the basis of equity, and in the context of sustainable development and efforts to eradicate poverty.

2. Each Party shall prepare, communicate and maintain successive nationally determined contributions that it intends to achieve. Parties shall pursue domestic mitigation measures, with the aim of achieving the objectives of such contributions.

3. Each Party's successive nationally determined contribution will represent a progression beyond the Party's then current nationally determined contribution and reflect its highest possible ambition, reflecting its common but differentiated responsibilities and respective capabilities, in the light of different national circumstances.

9. Each Party shall communicate a nationally determined contribution every five years in accordance with decision 1/CP.21 and any relevant decisions of the Conference of the Parties serving as the meeting of the Parties to this Agreement and be informed by the outcomes of the global stocktake referred to in Article 14.

NDC Registry.

In accordance with Article 4, paragraph 12 of the Paris Agreement, NDCs communicated by Parties shall be recorded in a public registry maintained by the secretariat.



Credit: Axel Fassio/CIFOR

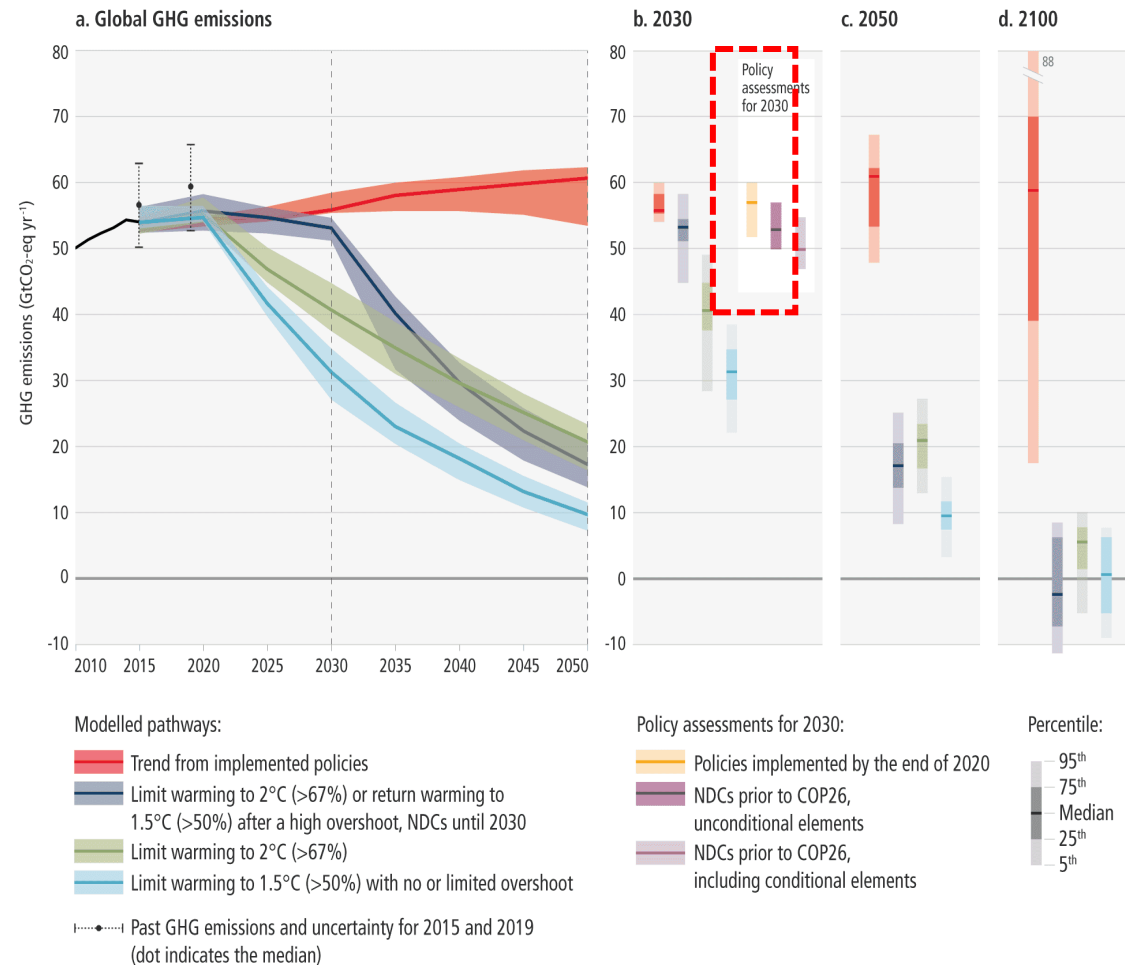
Showing 217 of 217 results

Party		Title	Language	Translation	Version	Status	Submission Date	Additional documents
	Republic of Korea	Republic of Korea First NDC (Updated submission)	English		3	Active	23/12/2021	
	Mongolia	Mongolia First NDC (Updated submission)	English		2	Active	13/10/2020	

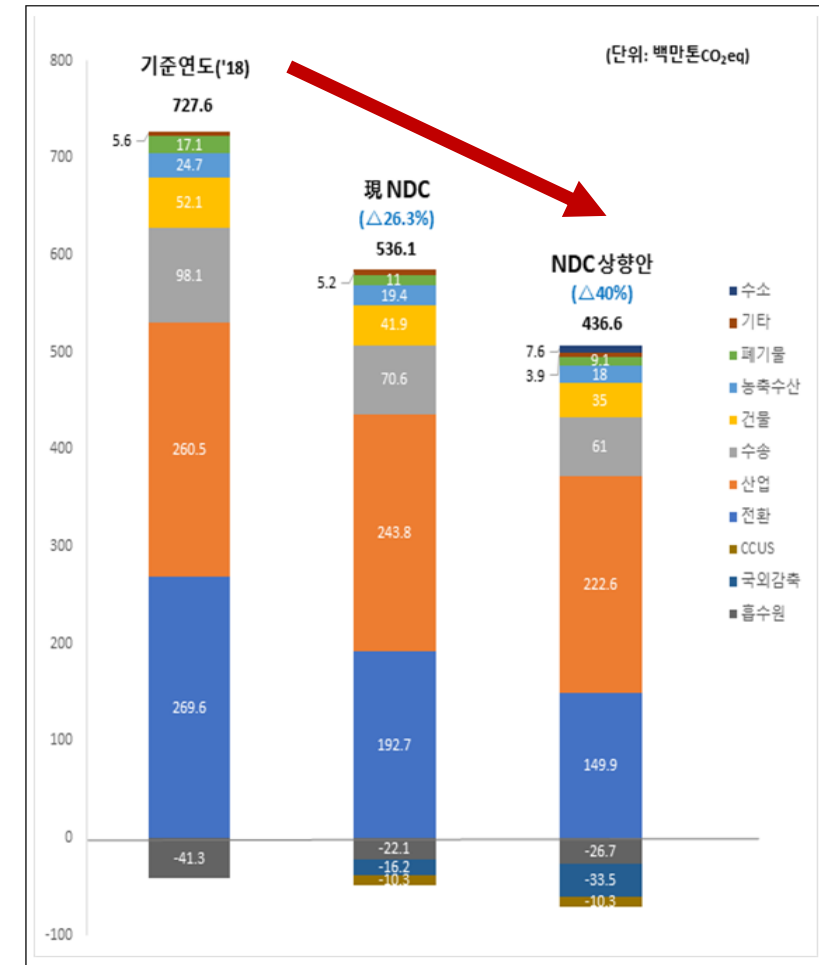
Korea's Response

Updated NDC

Projected global GHG emissions from NDCs announced prior to COP26 would make it likely that warming will exceed 1.5°C and also make it harder after 2030 to limit warming to below 2°C.

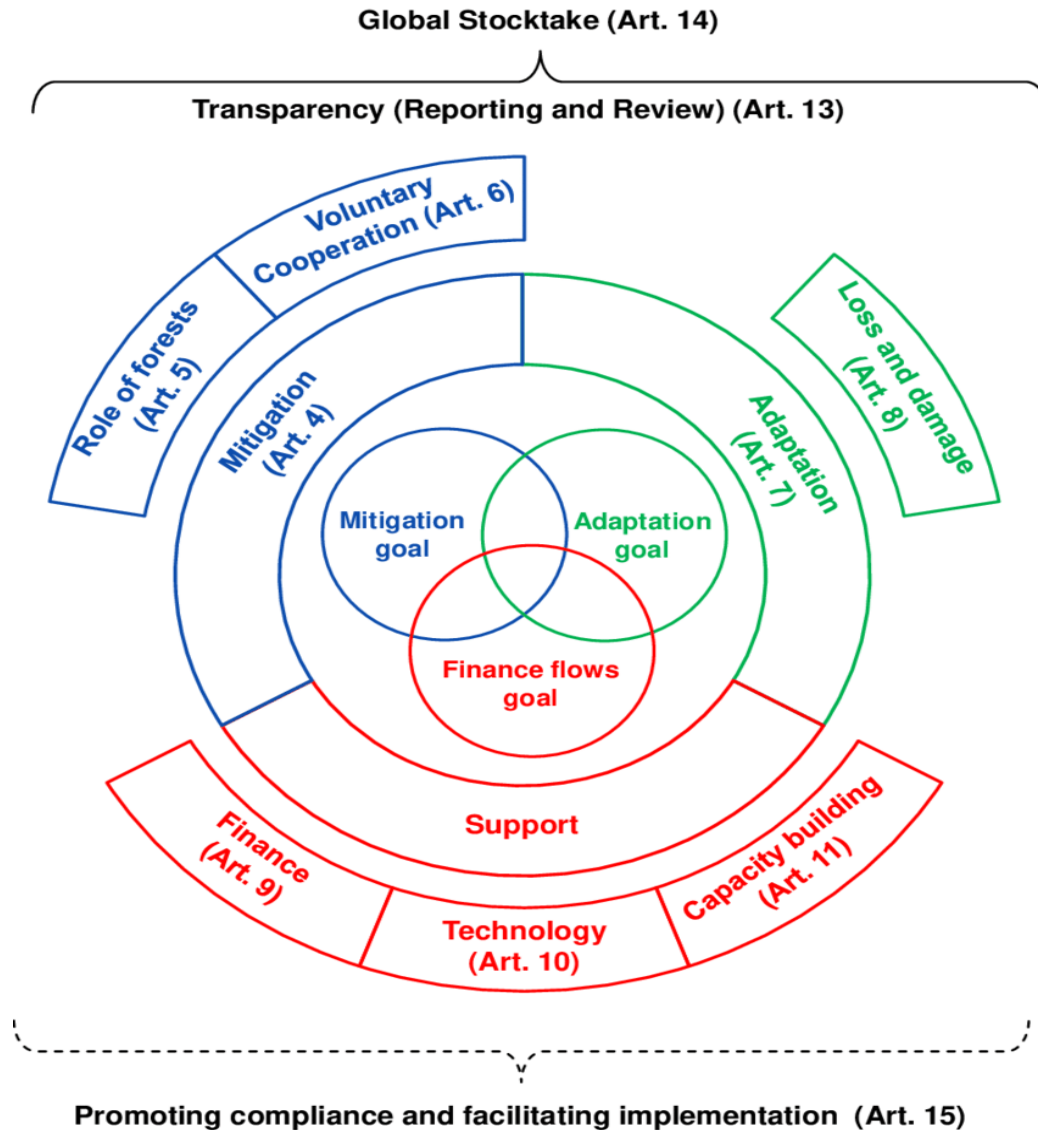


< NDC 상향안 모식도(직접배출량 기준) >



* 기준연도('18) 배출량은 총배출량, '30년 배출량은 순배출량(총배출량 - 흡수·제거량)

Source: Figure SPM.4: Global GHG emissions of modelled pathways (funnels in Panel a. and associated bars in Panels b,c,d) and projected emission outcomes from near-term policy assessments for 2030 (Panel b)



IPCC

Guidelines (1995, GPGs, 2006, 2013, 2019 etc.)
Assessment Report (AR1~6 and ongoing AR7)
Special Report (1.5°C, Land, Ocean etc.)

Carbon Pricing

Carbon Market (Compliance, VCM etc.)
Carbon Taxes

Sectoral approaches

ICAO CORSIA
IMO MBMs (coming soon)

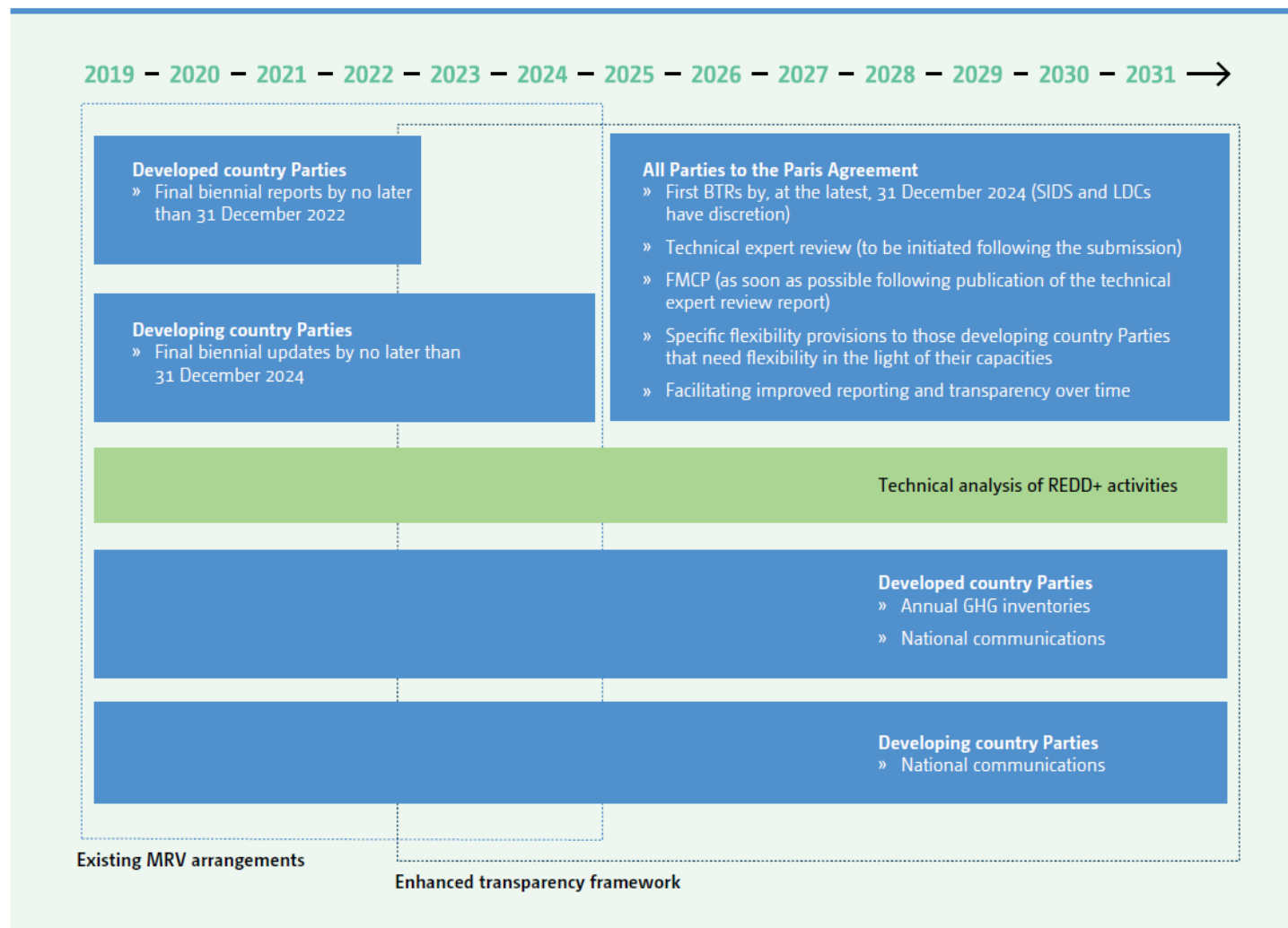
International Initiatives

Blue, Methane etc.

GCF, GEF, WB, UNEP, UNDP, FAO etc.

Article 13. BTR etc. as Enhanced Transparent Framework

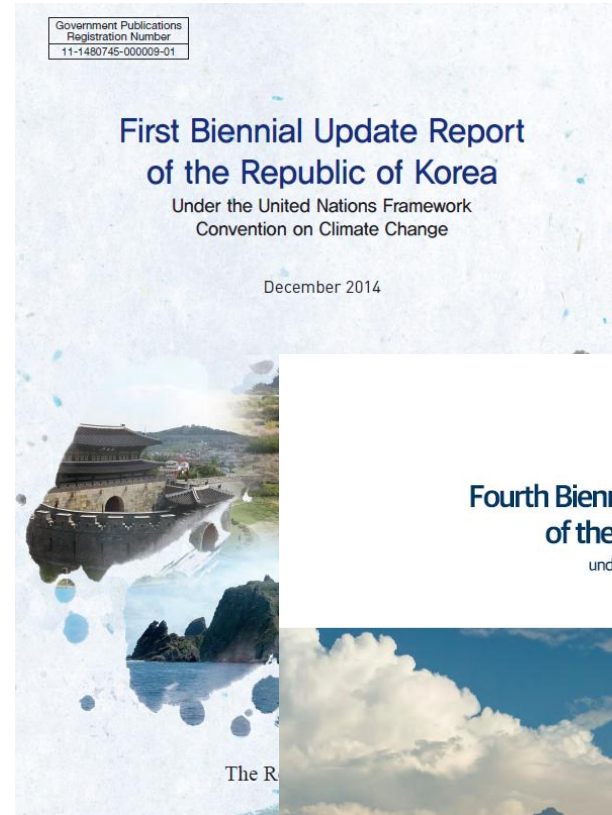
Figure 16
Moving towards the enhanced transparency framework



Article 13. BTR etc. as Enhanced Transparent Framework

The Republic of Korea's
First Biennial Transparency Report
and Fifth National Communication
under the United Nations Framework
Convention on Climate Change and the Paris Agreement

Government Publications
Registration Number
11-1480906-100004-11



Fourth Biennial Update Report
of the Republic of Korea
under the United Nations Framework
Convention on Climate Change

Government Publications
Registration Number
11-1480906-000009-11



2009년도
국가 온실가스
인벤토리 보고서
National Greenhouse Gas Inventory Report of Korea

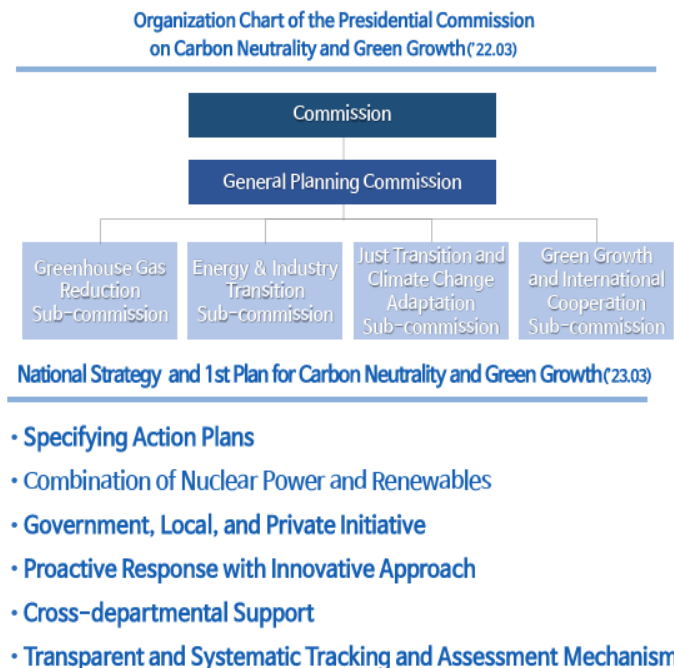
온실가스종합정보센터

2023
국가 온실가스
인벤토리 보고서
National Greenhouse Gas Inventory Report of Korea

온실가스종합정보센터

Article 13. BTR etc. as Enhanced Transparent Framework

Institutional Arrangement



Implementations

NC, BUR with ICA & FSV

Pre-learning: NIR (2010~)

Technical Assessment
Expert reviews, ICA

IPCC

Guidelines (2006, 2013, 2019)
Assessment Reports

International Supports

Mitigation, Adaptation, Financial
Technology & Capacity etc.

Article 13. BTR etc. as Enhanced Transparent Framework

1. National Context

2. GHG Inventory

3. Mitigation Actions
and Effect4. International Support and
Cooperation5. ETF Transition and
Implementation

Tracking and Assessment of GHG Reduction Progress

Progress Tracking Across Government Ministries and Offices

Central Government

- Define indexes and set goals by sector and task
- Collect and submit yearly performance data

Category	All	Transition	Industry	Building	Transport	Waste	Public	Agriculture & livestock	Forestry
Led by	MOE OPC	MOTIE	MOTIE	MOLIT MOTIE	MOLIT MOTIE	MOE	MOE	MAFRA	KFS
Supported by	Relevant ministries & offices	-	MAFRA, MOLIT, MOF	-	MOE MOF	-	MOLIT MOTIE	RDA KFS	-

GIR

- Supervise the drafting of Full-scope Assessment Report
 - Organize and operate an expert team to develop a Full-scope Assessment Report
 - Work in cooperation with national research institutes for the respective sectors including Korea Energy Economics Institute, Korea Institute of Construction Technology, and Korea Transport Institute
 - Invite the relevant ministries and offices to take part in developing the Report



Progress Tracking Across Government Ministries and Offices

- Manage the government's progress tracking mechanism
- Review the results of tracking and assessment, advise on policy strategy

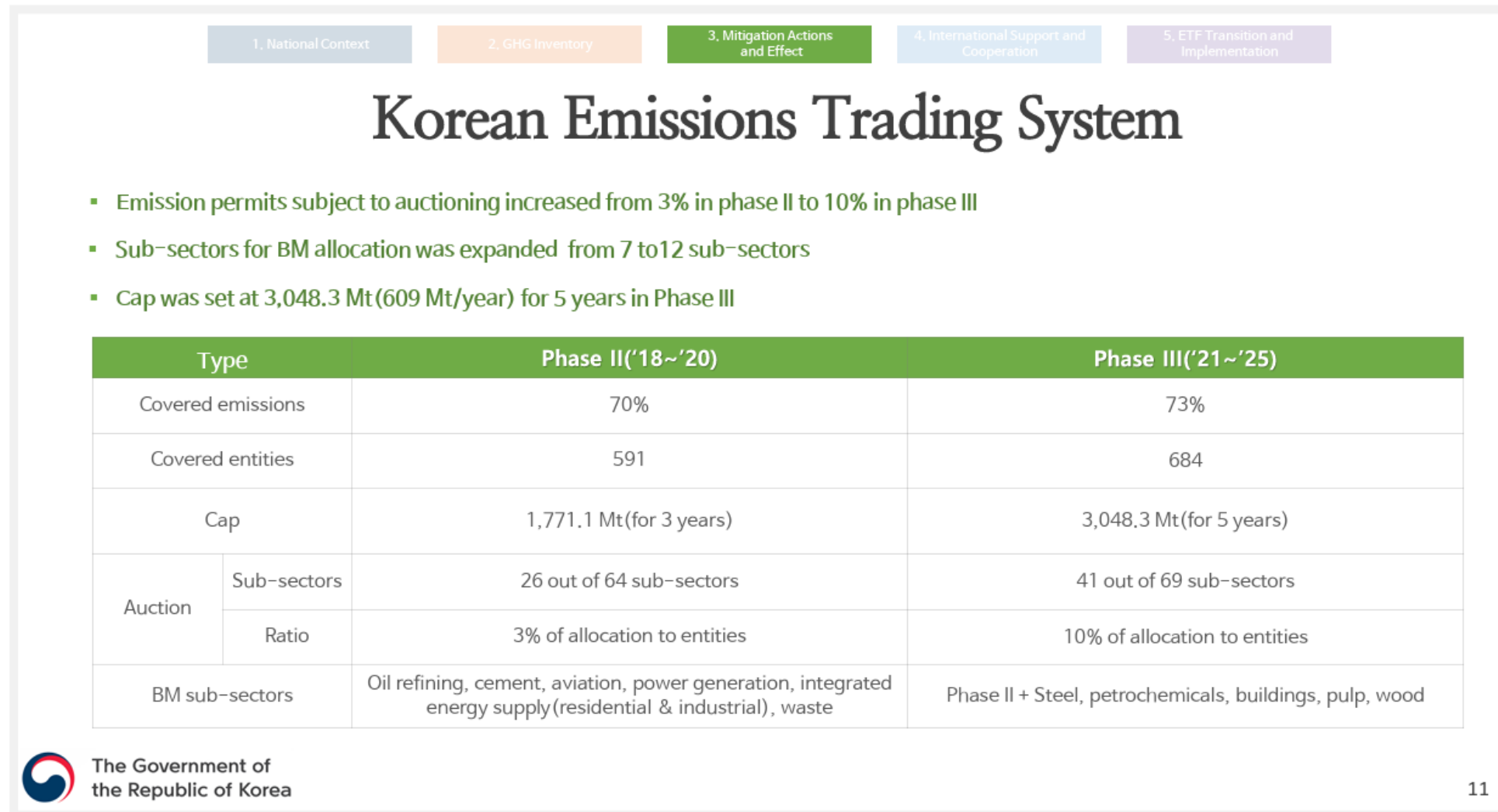
* Source: 4th Biennial Update Report of the Republic of Korea (Government of ROK, 2021)



The Government of
the Republic of Korea

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Article 13. BTR etc. as Enhanced Transparent Framework



Article 13. BTR etc. as Enhanced Transparent Framework

1. National Context
2. GHG Inventory
3. Mitigation Actions and Effect
4. International Support and Cooperation
5. ETF Transition and Implementation

Policies and Measures by Sector



Forest Carbon Sink

Key Reduction Policies for the Forest Carbon Sink Sector

- 2nd Climate Response Master Plan (Oct. 2019)
- 6th National Forest Master Plan 2018–2037 (Jan. 2018)
- 3rd Comprehensive Plan for Improvement of Carbon Sink (May. 2023)


Key Reduction Measures for the Forest Carbon Sink Sector

- Sustainable Forest Management
- Establishment of new carbon sinks including urban forests
- Utilization of forest biomass energy
- Utilization of domestic wood
- Forest Carbon Offset Scheme

► Assessment of Quantitative Indicators in the Forest Carbon Sink Sector

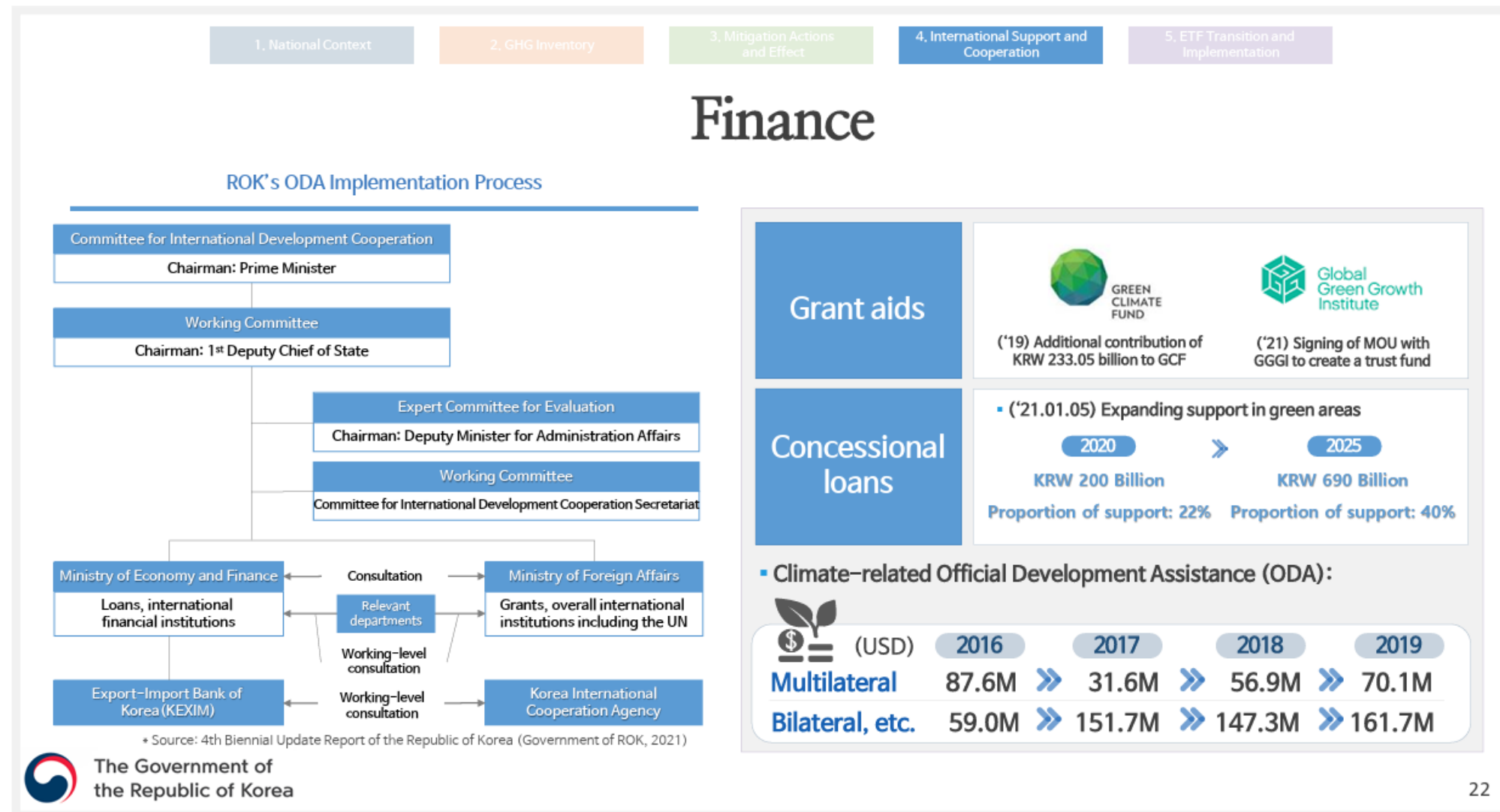
Category(Unit)		2019	2020	2021
Forest Nurturing	Area of forest nurturing (1,000 ha)	186	229	209
Establishment of new carbon sinks including urban forests	Area of newly created carbon sinks such as urban forest (1,000 ha, cumulative)	48	54	54.6
Utilization of forest biomass energy	Quantity of domestic pellets produced (1,000 tons)	243	331	658

* Source: 4th Biennial Update Report of the Republic of Korea (Government of ROK, 2021)



The Government of
the Republic of Korea

Article 13. BTR etc. as Enhanced Transparent Framework



Article 13. BTR etc. as Enhanced Transparent Framework

1. National Context

2. GHG Inventory

3. Mitigation Actions
and Effect4. International Support and
Cooperation5. ETF Transition and
Implementation

Technology Development & Transfer

Climate Technology and National R&D Investment in 2020

Category	Investment per Major Area of Climate Technology R&D			Total National R&D
	Reduction	Adaptation & Convergence	Climate Technology Total	
Total Investment (1million, USD)	1,542.2	738.9	2,281.6	17,861.1
No. of Research Projects (Case)	4,187	1,057	7,219	44,563

* Source: Report on the Survey and Analysis of National R&D Projects on Climate Technology (NIGT, 2021)

* Exchange rate applied USD: KRW (2023) 1,336.50

Policies and Strategies Regarding Climate Technology

- The Carbon Neutrality Technology Innovation Strategy (Mar. 2021)
- Presenting 10 major technologies for carbon neutrality in consideration of the level of contribution to GHG reduction and issue analysis per sub-sector based on LEDS
- Presenting Mid-to long-term innovation strategies
- Strategies on strengthening research capabilities that include enhanced international cooperation and capacity building

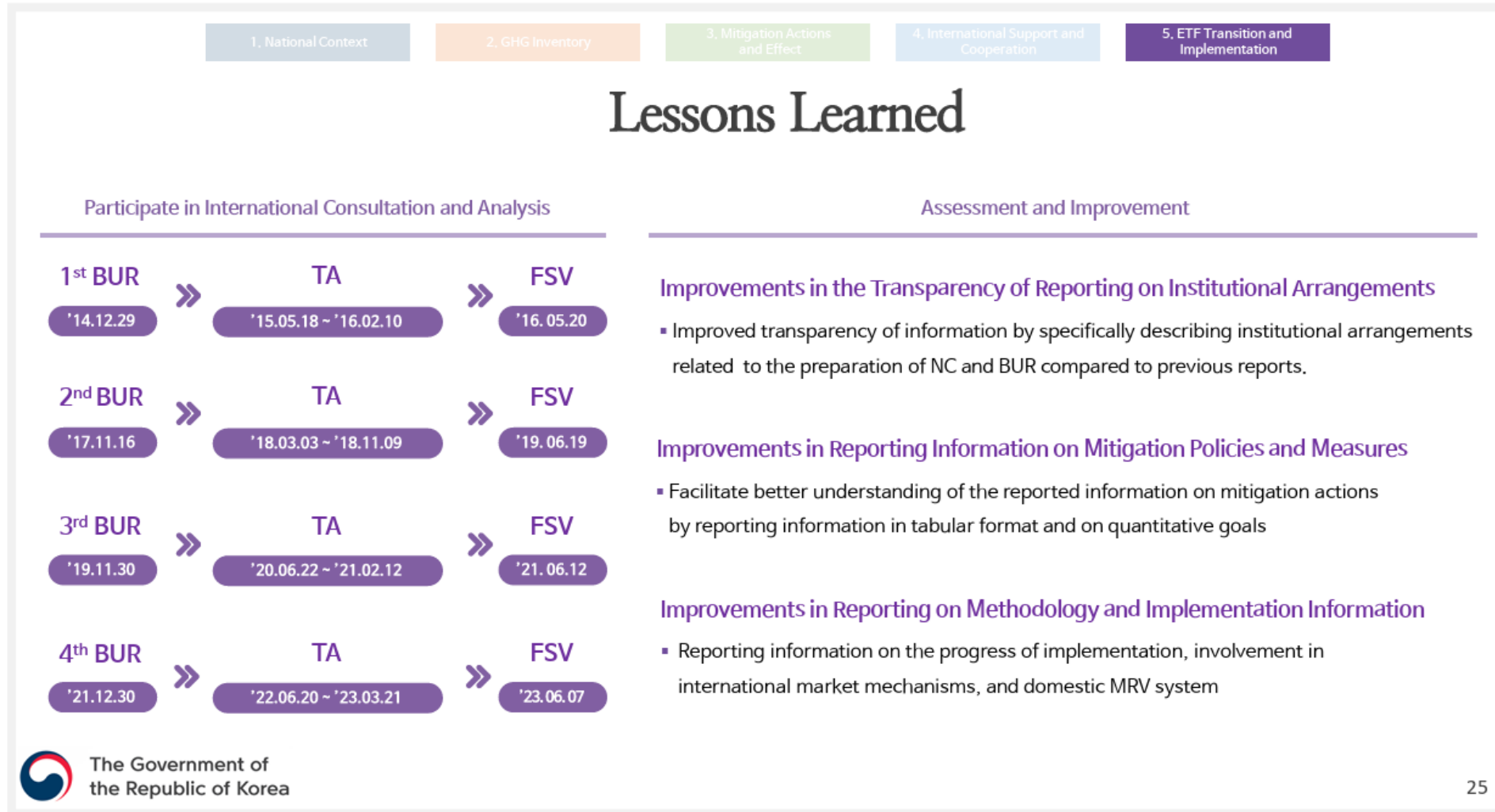
Climate Technology Centre & Network (CTCN)

- An organization for the implementation of technological mechanisms of the UNFCCC
- Cooperative projects are being promoted to support the demand for climate technology in 12 countries, and some are linked to other projects of ODA or GCF; thus enabling continued implementation
- CTIS (Climate Technology Information System) is an integrated information platform that systematically provides information focused on climate technology including international trends, statistical data, and climate technology demand based on a system that classifies climate technologies into 45 categories

Article 13. BTR etc. as Enhanced Transparent Framework



Article 13. BTR etc. as Enhanced Transparent Framework



UNFCCC Negotiation

Article 6. International Cooperation

PARIS AGREEMENT

2015

2021

2024

Article 6

1. Parties recognize that some Parties choose to pursue voluntary cooperation in the implementation of their nationally determined contributions to allow for higher ambition in their mitigation and adaptation actions and to promote sustainable development and environmental integrity.

2. Parties shall, where engaging on a voluntary cooperation approach that involve the use of internationally transferred mitigation outcomes, promote environmental integrity and transparency, including robust accounting to ensure, inter alia, the avoidance of double counting with guidance adopted by the Conference of the Parties to this Agreement.

3. The use of internationally transferred mitigation outcomes under this Article shall be subject to the guidance referred to in Article 6, paragraph 2, of the Paris Agreement.

Decision 3/CMA.3

Rules, modalities and procedures for the mechanism established by Article 6, paragraph 4, of the Paris Agreement

The Conference of the Parties serving as the meeting of the Parties to the Paris Agreement,

Recalling the Paris Agreement,

Also recalling the tenth preambular paragraph of the Paris Agreement, Parties take into account the imperative need to address climate change and development priorities,

Further recalling the eleventh preambular paragraph of the Paris Agreement, acknowledging that climate change is a common concern of humankind, Parties should, when taking action to address climate change, respect, promote and consider their respective obligations on human rights, the right to health, the rights of Indigenous Peoples, local communities, migrants, children, persons with disabilities and people in vulnerable situations and the right to development, as well as gender equality, empowerment of women and intergenerational equity,

Recalling the mechanism established by Article 6, paragraph 4, of the Paris Agreement and the aims referred to therein,

Also recalling Article 6, paragraph 1, of the Paris Agreement,

Further recalling the eleventh preambular paragraph of the Paris Agreement, according to which, acknowledging that climate change is a common concern of humankind, Parties should, when taking action to address climate change, respect, promote and consider their respective obligations on human rights, the right to health, the rights of Indigenous Peoples, local communities, migrants, children, persons with disabilities and people in vulnerable situations and the right to development, as well as gender equality, empowerment of women and intergenerational equity,

Recalling decision 3/CMA.3 and its annex and decision 7/CMA.4 and its annexes,

Also recalling decision 2/CMA.3, annex, paragraphs 1(g) and 2,

Decision -/CMA.6

Further guidance on the mechanism established by Article 6, paragraph 4, of the Paris Agreement

The Conference of the Parties serving as the meeting of the Parties to the Paris Agreement,

Recalling the mechanism established by Article 6, paragraph 4, of the Paris Agreement and the aims referred to therein,

Also recalling Article 6, paragraph 1, of the Paris Agreement,

Further recalling the eleventh preambular paragraph of the Paris Agreement, according to which, acknowledging that climate change is a common concern of humankind, Parties should, when taking action to address climate change, respect, promote and consider their respective obligations on human rights, the right to health, the rights of Indigenous Peoples, local communities, migrants, children, persons with disabilities and people in vulnerable situations and the right to development, as well as gender equality, empowerment of women and intergenerational equity,

Recalling decision 3/CMA.3 and its annex and decision 7/CMA.4 and its annexes,

Also recalling decision 2/CMA.3, annex, paragraphs 1(g) and 2,

1. Operation of the mechanism established by Article 6, paragraph 4, of the Paris Agreement

1. Requests the Supervisory Body for the mechanism established by Article¹ 6, paragraph 4, and the secretariat to ensure that adequate technical and scientific expertise is available to support their work on methodologies, removals and related operational elements;

Decision 2/CMA.3

Guidance on cooperative approaches referred to in Article 6, paragraph 2, of the Paris Agreement

The Conference of the Parties serving as the meeting of the Parties to the Paris Agreement,

Recalling the Paris Agreement,

Also recalling the tenth preambular paragraph of the Paris Agreement, Parties take into account the imperative need to address climate change and development priorities,

Further recalling the eleventh preambular paragraph of the Paris Agreement, acknowledging that climate change is a common concern of humankind, Parties should, when taking action to address climate change, respect, promote and consider their respective obligations on human rights, the right to health, the rights of Indigenous Peoples, local communities, migrants, children, persons with disabilities and people in vulnerable situations and the right to development, as well as gender equality, empowerment of women and intergenerational equity,

Recalling Article 2 of the Paris Agreement,

Also recalling Article 4, paragraph 1, of the Paris Agreement,

Further recalling Article 6 of the Paris Agreement, paragraph 36, 8/CMA.1 and 9/CMA.2,

Cognizant of decision 5/CMA.3,

1. Adopts the guidance on cooperative approaches referred to in Article 6, paragraph 2, of the Paris Agreement as contained in the annex;

2. Clarifies that the annex requires Parties to ensure that the use of internationally transferred mitigation outcomes is consistent with the Paris Agreement, including the principle of common but differentiated responsibilities and respective capabilities, in the light of different national circumstances.

Decision -/CMA.6

Matters relating to cooperative approaches referred to in Article 6, paragraph 2, of the Paris Agreement

The Conference of the Parties serving as the meeting of the Parties to the Paris Agreement,

Recalling decision 2/CMA.3 and its annex,

Also recalling decision 6/CMA.4 and its annexes,

1. Welcomes the report by the secretariat on its mandated tasks related to implementing the guidance on cooperative approaches referred to in Article 6, paragraph 2, of the Paris Agreement and in decisions 2/CMA.3 and 6/CMA.4;¹

I. Authorization

A. Process for and timing of the authorization

2. Notes that the authorization of the use of internationally transferred mitigation outcomes from a cooperative approach is the authorization referred to in decision 2/CMA.3, annex, paragraph 18, a copy of which is submitted as per paragraph 18(g) of the annex to that decision;

3. Also notes that there are three components of authorization, as applicable: authorization of the cooperative approach, authorization of internationally transferred mitigation outcomes and authorization of entities;

4. Further notes that participating Party arrangements for authorizing the use of mitigation outcomes referred to in decision 2/CMA.3, annex, paragraph 4(c), may involve a single consolidated authorization process that addresses, or sequential processes that entirely and collectively address, inter alia and as appropriate, the information referred to in paragraph 5 below;

UNFCCC Negotiation

Article 6. International Cooperation (6.4)

2024: SB 010 - SBM 014

Meeting	Date and venue	Documents under consideration	Report and related documents
14 th meeting (SBM 014) (Broadcast )	5 – 9 October 2024 Baku, Azerbaijan	Available >>	<p>A6.4-SBM014 – Meeting report (version 01.0)</p> <p>A6.4-SBM014-A01 – <i>Information note</i>: Preliminary workplan of the Supervisory Body 2025 (version 01.0)</p> <p>A6.4-SBM014-A02 – <i>Procedure</i>: Direct communication with stakeholders (version 01.0)</p> <p>A6.4-SBM014-A03 – <i>Procedure</i>: Performance monitoring of the Article 6.4 Designated Operational Entities (version 01.0)</p> <p>A6.4-SBM014-A04 – <i>Tool</i>: Article 6.4 sustainable development tool (version 01.0)</p> <p>A6.4-SBM014-A05 – <i>Standard</i>: Application of the requirements of Chapter V.B (Methodologies) for the development and assessment of Article 6.4 mechanism methodologies (version 01.0)</p> <p>A6.4-SBM014-A06 – <i>Standard</i>: Requirements for activities involving removals under the Article 6.4 mechanism (version 01.0)</p> <p>A6.4-SBM014-A07 – <i>Information note</i>: List of registered observers at the fourteenth meeting of the Supervisory Body (version 01.0)</p> <p>A6.4-SBM014-A08 – <i>Information note</i>: Tentative calendar of meeting for 2025 (version 01.0)</p> <p>A6.4-SBM014-A09 – <i>Provisional agenda</i>: Fifteenth meeting of the Supervisory Body (version 01.0)</p>

Governance & Meetings

Supervisory Body | Meetings

Accreditation Expert Panel | Meetings

Methodological Expert Panel | Meetings

National Authorities (DNAs)

Call for Experts



ARTICLE 6.4 MECHANISM

A6.4-SBM014-A05

Standard

Application of the requirements of Chapter V.B (Methodologies) for the development and assessment of Article 6.4 mechanism methodologies

Version 01.0

ARTICLE 6.4 MECHANISM

A6.4-SBM014-A06

Standard

Requirements for activities involving removals under the Article 6.4 mechanism

Version 01.0



United Nations
Framework Convention on
Climate Change

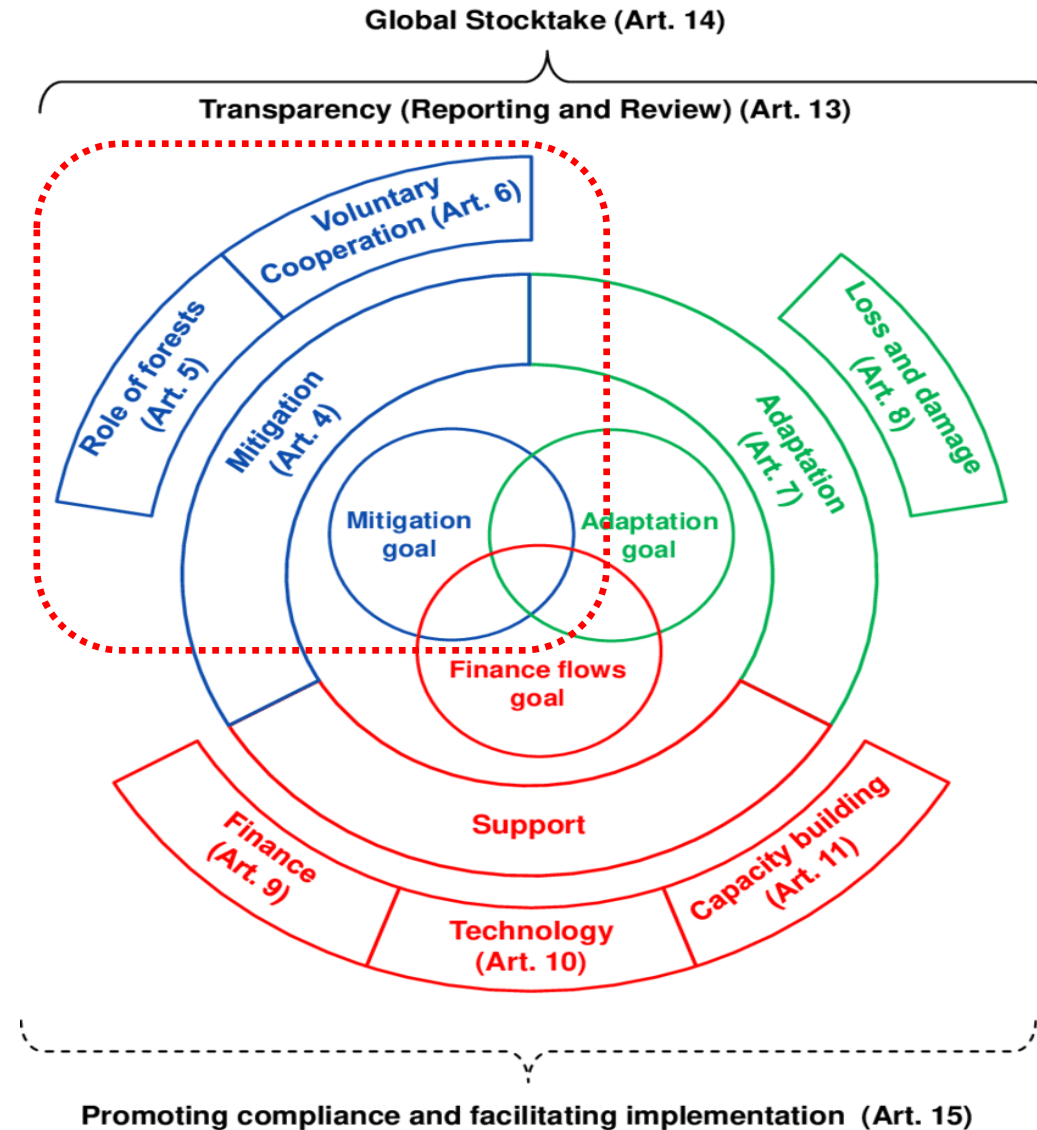


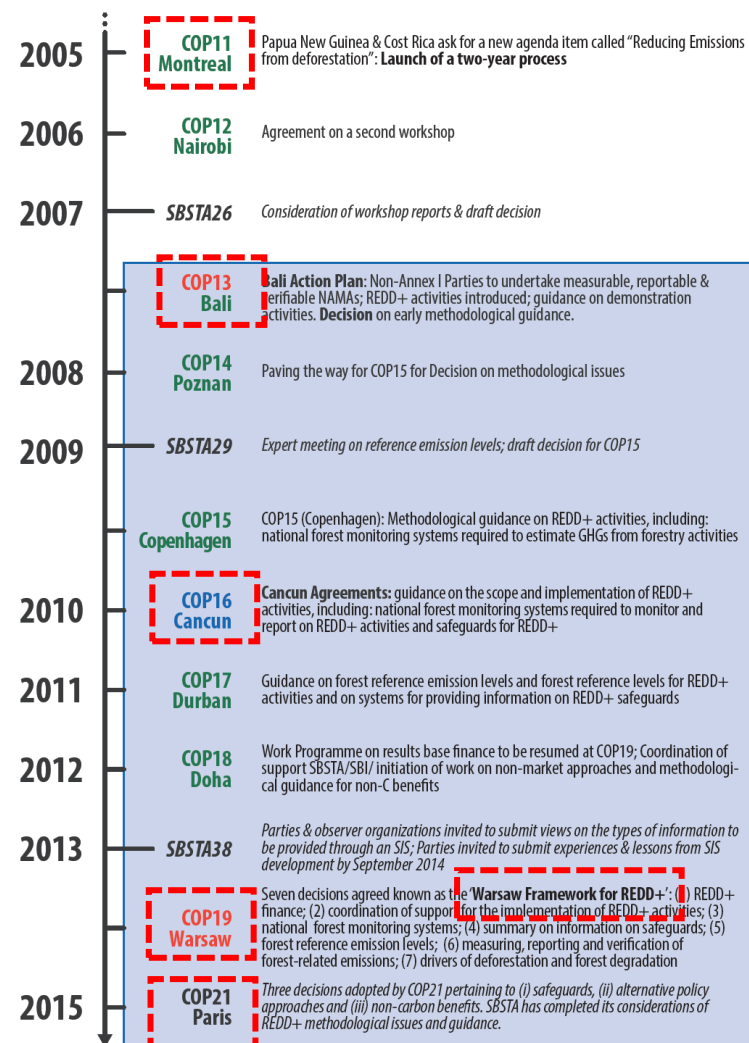
United Nations
Framework Convention on
Climate Change

2024

UNFCCC Negotiation

PA Article 4~6 Scheme





Article 5

1. Parties should take action to conserve and enhance, as appropriate, sinks and reservoirs of greenhouse gases as referred to in Article 4, paragraph 1 (d), of the Convention, including forests.

2. Parties are encouraged to take action to implement and support, including through results-based payments, the existing framework as set out in related guidance and decisions already agreed under the Convention for: policy approaches and positive incentives 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; and alternative policy approaches, such as joint mitigation and adaptation approaches for the integral and sustainable management of forests, while reaffirming the importance of incentivizing, as appropriate, non-carbon benefits associated with such approaches.

- 6 -

Call for input 2023 – structured public consultation: Further input – Removal activities under the Article 6.4 mechanism.

Background

The Article 6.4 mechanism Supervisory Body is seeking additional inputs regarding **removal activities under the Article 6.4 mechanism**.

This work is being carried out in response to a request of the CMA ([decision 3/CMA.3](#), paragraph 6(c)).

The Supervisory Body, at its sixth meeting, requested the secretariat to launch a call for public inputs with a view to soliciting views from stakeholders (see [SB006 meeting report](#), paragraphs 22).

Open Call

The public consultation process is open for a two-week period from 18th July to 1st August 2023.

Submission Details

Stakeholders are encouraged to provide **input by answering the questions included in the document Guidance and questions for consultation on recommendations for activities involving removals** available [here>>](#) and the presentation shown at the meeting of the Supervisory Body on 13 July 2023 available [here>>](#).

Please submit your input to the Supervisory Body via email at A6.4mechanism-info@unfccc.int. In the email subject line, please use: Structured Public Consultation – Removal Activities

The call is now closed. Please contact the secretariat at A6.4mechanism-info@unfccc.int for any queries. The received inputs are publicly available in the table below and will be considered by the Supervisory Body.

Date	Submission
8 August 2023	Puro.earth (late submission)
8 August 2023	National Institute of Forest Science (late submission)
4 August 2023	Carbon International (late submission)
3 August 2023	Climate Analytics
2 August 2023	Cella Mineral Storage

Submission by the National Institute of Forest Science, Republic of Korea August, 2023

Views on recommendations for activities involving removals under Article 6.4 mechanism

The NIFoS, as a research institute of Korea Forest Service, is pleased to submit our views on activities involving removals, including elements of monitoring, reporting and addressing reversals.

We believe that permanence is the most important concept in removal activities. In this context, reversal should be treated carefully as a cause of non-permanence. In this submission, NIFoS would like to express its views on questions of addressing reversals.

Responses on questions for structured call for inputs on recommendations for activities involving removals

2.2 Addressing reversals

2.2.1. General


11. What type of risk rating is used to calculate an activity's buffer contributions?

Fundamentally, it is difficult to create a method to objectively standardize risk ratings by individual type of removal activity or by country. NIFoS believes that it is not easy to reach a consensus on this within the time frame for SB to make recommendations on removals. Furthermore, there is currently no international standard for risk assessment of reversals.

Nevertheless, if we have to choose one of the three options, NIFoS think "(b) A standard rate determined by the 6.4SB" is the fastest way to agree in the current situation.

14. (a) How/would other tools to address reversals involving direct credit replacement (including use of insurance / guarantees) be used in combination with a buffer pool?

Even before the recent 6.4 supervisory body dealt with non-permanence measures in relation to removal activities, CMP7 requested SBSTA to develop non-permanence measures for LULUCF activities under the CDM and related modalities and procedures


SUBMISSION PORTAL
Login

Issue: Guidance on the mechanism established by Article 6, paragraph 4, of the Paris Agreement










Title: Parties and admitted observer organizations to submit their views on activities involving removals, including appropriate monitoring, reporting, accounting for removals and crediting periods, addressing reversals, avoidance of leakage, and avoidance of other negative environmental and social impacts, in addition to the activities referred to in chapter V of the rules, modalities and procedure

Mandate: FCCC/PA/CMA/2022/L.14, para. 19

Deadline: 15/03/2023

Session Name: SBSTA 58

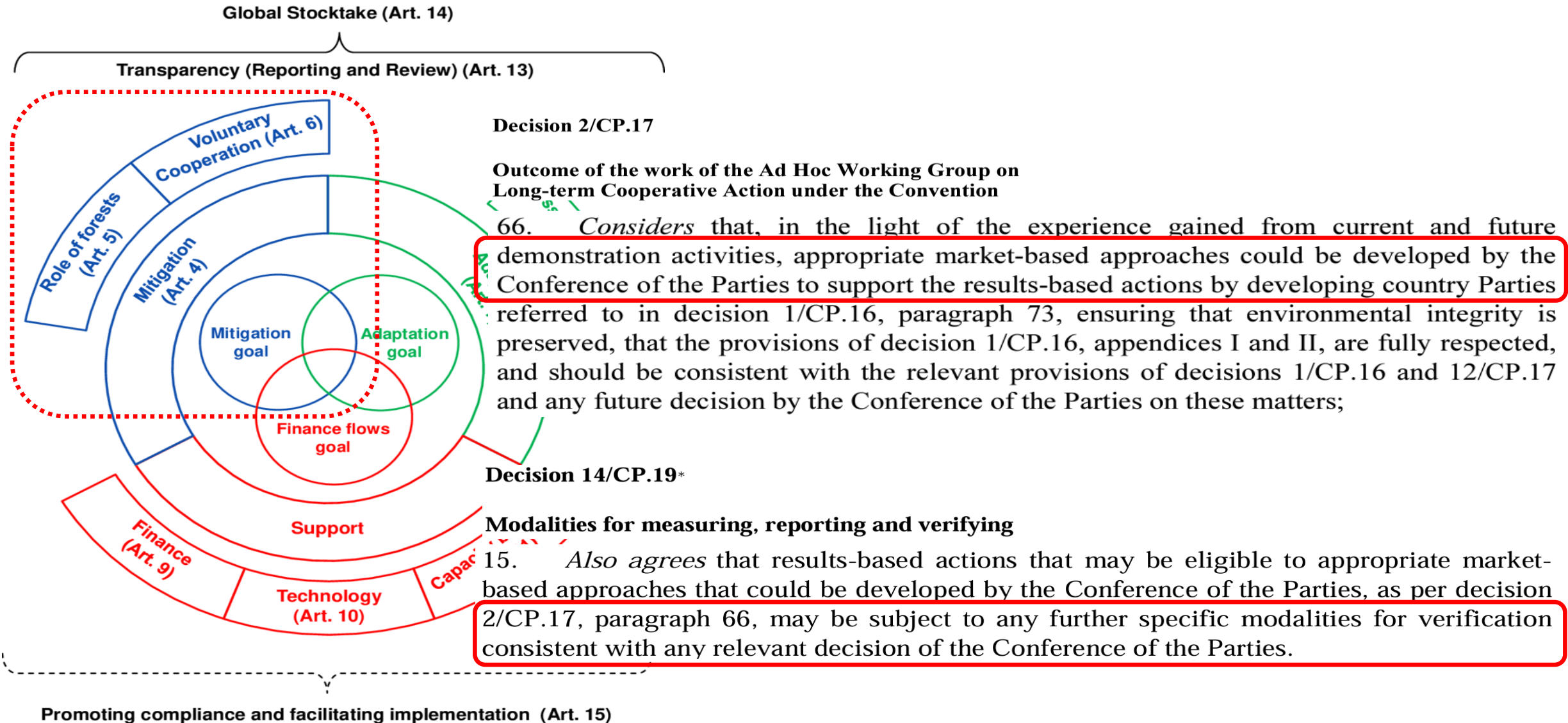
START SUBMISSION

Parties			Submission date
Brazil on behalf of Argentina, Brazil and Uruguay (ABU).	 ABU - Art. 6 - Removals	English	01/06/2023
Russian Federation	 RU_A6.4_Removals RU	Russian	22/05/2023
Russian Federation	 RU_A6.4_Removals EN	English	22/05/2023
United Kingdom	 UK Article 6.4 removal activities	English	10/05/2023
Papua New Guinea on behalf of Coalition for Rainforest Nations	 CfRN_SoV_6.4_Avoidance_and_Removals	English	02/05/2023
Norway	 Norway submission_article 6-4 removals	English	17/04/2023
Republic of Korea	 ROK_Submission_A6.4_removals	English	07/04/2023
Colombia on behalf of CHILE, COLOMBIA, GUATEMALA, PANAMA, PARAGUAY AND PERU	 Submission on removals A6.4 SB_CH,COL,PAN,PAR,PER	English	23/03/2023
European Union on behalf of EUROPEAN UNION	 SE-2023-03-15 EU 6.4 Supervisory Body submission Para 19	English	16/03/2023

1. Expanding Removal sector (add. Ocean, Engineering) & project type: not only A/R
2. Permanence issue: insurance + buffer etc. * Strongly oppose tCERs, lCERs

UNFCCC Negotiation

PA Article 4~6 Scheme



ARTICLE 6.4 MECHANISM

A6.4-SBM014-A05

Standard

Application of the requirements of Chapter V.B (Methodologies) for the development and assessment of Article 6.4 mechanism methodologies

Version 01.0

United Nations
Framework Convention on
Climate Change

6. Leakage

85. Leakage shall be avoided and, where not possible, minimized, or addressed, by, inter alia:
- (a) **Discounting credited volumes:** deducting emission reductions from credited volumes taking into account equipment lifetime, where applicable;
 - (b) **Scrapping of baseline equipment:** undertaking and evidencing the destruction/decommissioning/disposal of baseline equipment;
 - (c) **Application of higher-level elements:** applying a standardized baseline at a higher level of aggregation (or equivalent) that is regularly updated and any associated higher-level monitoring information and/or system;
 - (d) **Nesting:** Aligning relevant aspects of activity design and implementing activities together with an existing higher-level crediting programme;
 - (e) **Upscaling implementation:** implementing activities at a higher level (e.g. sectoral, subnational, or national).
86. For some types of activities, monitoring and use of a standardized baseline (or equivalent) at national scale or jurisdictional level is necessary to quantify and account for leakage.
87. For those activities falling under the scope of Article 5, paragraph 2, of the Paris Agreement, mechanism methodologies shall require, in addition to all relevant requirements adopted by the Supervisory Body³, demonstration that the activity is included in all the elements required of the host Party as per decision 1/CP.16, paragraph 71, noting this is consistent with the application of the approaches described in paragraph 85 (c) and (e).

Standard Operating Procedure for REDD+ between the ROK and A Party

- **REDD Act*** was enacted on 16 August, 2023 and enforced on 17 February 2024.
- According to the **REDD+ Act** and **Article 13** (Standard Operating Procedure for REDD+), the KFS should produce and notify the SOP to the public.
- The FCCC/NIFoS will make each Standard Operating Procedure (SOP) for the **Lao PDR** and Honduras **this year**.

개발도상국 산림을 통한 온실가스 배출 감축 및 탄소 축적 증진 지원에 관한 법률

개발도상국 산림을 통한 온실가스 배출 감축 및 탄소 축적 증진 지원에 관한 법률 (약칭: 국외산림탄소축적증진법)

[시행 2024. 2. 17.] [법률 제19636호, 2023. 8. 16. 제정]

산림청 (해외자원담당관실) 042-481-4088



제1조(목적) 이 법은 「파리협정」 제5조에서 정례하는 개발도상국에서의 산림전용과 산림훼손을 방지하기 위한 온실가스 배출 감축 관련 활동, 산림 보전, 지속가능한 산림 관리 및 탄소 축적 증진 활동을 지원하고 활성화하여 국가 온실가스 감축 목표 달성에 기여하고 기후변화 대응에 이바지하는 것을 목적으로 한다.

제2조(정의) 이 법에서 사용하는 용어의 뜻은 다음과 같다.

1. "개발도상국"이란 「국제개발협력기본법」 제2조제2호에 따른 국가를 말한다.
2. "국외산림탄소축적증진"이란 개발도상국에서 산림전용 및 산림훼손을 방지하기 위한 온실가스 배출 저감 활동, 산림의 보전 활동, 지속가능한 산림 관리 및 탄소 축적 증진 활동을 말한다.
3. "국외산림탄소축적증진 사업"이란 국외산림탄소축적증진을 목적으로 하는 다음 각 목의 사업을 말한다.
 - 가. 산림전용 방지에 관한 사업
 - 나. 산림의 황폐화 방지에 관한 사업
 - 다. 산림의 보전에 관한 사업
 - 라. 지속가능한 산림관리에 관한 사업
 - 마. 산림 탄소 축적 증진에 관한 사업
 - 바. 「탄소흡수원 유지 및 증진에 관한 법률」 제2조제2호에 따른 신규조림에 관한 사업
 - 사. 「탄소흡수원 유지 및 증진에 관한 법률」 제2조제3호에 따른 재조림에 관한 사업
4. "국외산림탄소축적증진 사업자"란 제9조에 따라 국외산림탄소축적증진 사업계획을 신고한 자를 말한다.

제3조(국가 등의 책무) ① 국가와 지방자치단체는 공공기관, 민간단체 및 기업과 국민이 국외산림탄소축적증진 활동을 자율적이고 적극적으로 수행할 수 있도록 장려하고 필요한 시책을 지원하여야 한다.

- ② 국가와 지방자치단체는 국외산림탄소축적증진의 이행 및 활성화를 위하여 「파리협정」 및 관련 국제규범에 따른 원칙을 고려하여야 한다.
- ③ 국가와 지방자치단체는 국외산림탄소축적증진 사업의 실적을 국가 온실가스 감축목표 달성률과 탄소 중립에 활용할 수 있도록 노력하여야 한다.
- ④ 국외산림탄소축적증진 사업자(이하 "사업자"라 한다)는 개발도상국 산림의 온실가스 감축 및 탄소 축적 증진을 위하여 노력하여야 한다.

제4조(다른 법률과의 관계) 국외산림탄소축적증진에 관하여는 다른 법률의 규정에도 불구하고 이 법에 따른다. 다만, 사업자가 국외산림탄소축적증진 사업을 하기 위하여 「외국환거래법」의 적용을 받는 행위나 거래 등을 하고자 하는 경우에는 「외국환거래법」에 따른다.

제5조(국외산림탄소축적증진 종합계획의 수립 등) ① 산림청장은 이 법의 목적을 효율적으로 달성하기 위하여 국외산림탄소축적증진 종합계획(이하 "종합계획"이라 한다)을 5년마다 수립·시행하여야 한다.

- ② 종합계획에는 다음 각 호의 사항이 포함되어야 한다.
 1. 국외산림탄소축적증진에 관한 목표와 기본방향
 2. 국외산림탄소축적증진에 관한 국내외 여건 및 전망에 관한 사항
 3. 국외산림탄소축적증진 관련 정보 및 통계 구축에 관한 사항
 4. 국외산림탄소축적증진의 평가 및 모니터링에 관한 사항

Act for REDD+ & REDD+ Standard based on WFR

- The Lao PDR **submitted four required elements document*** to the **UNFCCC**.
 - * ① National Strategy (NS) / Action Plan (AP), ② Forest Reference (Emission) Level, ③ National Forest Monitoring System (NFMS), ④ Safeguard Information Summary (SIS)
- As REDD+ is a phased approach (①Readiness – ②Implementation – ③Fully implementation), the Lao PDR is ready in accordance with the **Warsaw Framework for REDD+ (WFR)**.



REDD+ WEB PLATFORM

HOME	FACT SHEETS	SUBMISSIONS	INFO HUB	FORUM	MEETINGS	CONTACT
Date (Year)	Results (t CO ₂ eq/year)	Assessed forest reference level (t CO ₂ eq/year)	Links to documentation			
2015	2,680,944 (emission reductions) 468,325 (enhanced removals)	41,013,316 (FREL) -7,533,558 (FRL)	FCCC/SBI/ICA/2020/TATR.1/LAO Biennial update report with submission of REDD+ results (BUR 1) FCCC/TAR/2018/LAO Submission on proposed reference level Modified submission on proposed reference level Safeguards information summary Safeguard information system National REDD+ Strategy National Forest Monitoring System			
2016	2,680,944 (emission reductions) 468,325 (enhanced removals)	41,013,316 (FREL) -7,533,558 (FRL)				
2017	3,721,683 (emission reductions) 468,325 (enhanced removals)	41,013,316 (FREL) -7,533,558 (FRL)				
2018	3,721,683 (emission reductions) 468,325 (enhanced removals)	41,013,316 (FREL) -7,533,558 (FRL)				

Reference: UNFCCC REDD+ Web Platform

Act for REDD+ & REDD+ Standard based on WFR

Draft Standard Operating Procedure (SOP) for REDD+ by ROK

<ul style="list-style-type: none"> • Article 1 (Purpose) • Article 2 (Term Definition) • Article 3 (General Principles) • Article 4 (Relationship to Other Regulations) • Article 5 (Composition of Joint Committee) • Article 6 (Joint Committee Meetings) 	<ul style="list-style-type: none"> • Article 7 (Development of Intl. Mitigation Programs) • Article 8 (Submission of Intl. Mitigation Program Proposals) • Article 9 (Approval of Intl. Mitigation Programs) • Article 10 (Implementation of Intl. Mitigation Programs) • Article 11 (Registration of Information) • Article 12 (Development of Methodology) • Article 13 (Approval of Methodology)
<ul style="list-style-type: none"> • Article 14 (Monitoring Plan) • Article 15 (Monitoring Period) • Article 16 (Monitoring of Safeguard) • Article 17 (Measures to Address Reversal) • Article 18 (Validation of GHG ERs) • Article 19 (Designation of Validation Bodies) 	<ul style="list-style-type: none"> • Article 20 (Certification) • Article 21 (Registration Management of Programs and GHG ERs) • Article 22 (Implementation of Govt.'s Intl. Mitigation Programs) • Article 23 (Supports for Participants) • Article 24 (Partner Country's Relevant Decree and Institutional Supports) • Article 25 (Specific Guideline for SOP)

Act for REDD+ & REDD+ Standard based on WFR

Draft Standard Operating Procedure (SOP) for REDD+ by ROK

- In 2025, the research areas of the FCCC/NIFoS are ..
to make the (a) **SOP (KOR-LAO)** and analyze (b) **ITMO Policy of the Lao PDR**.
- The SOP will be customized thru negotiation between the NIFoS/KFS and Lao PDR.
 - The agreed SOP will be applied to the KOR-LAO Sub-National REDD+ Program for Implementation of Article 6 of the Paris Agreement.
- Does the Lao PDR have any **Decree or other regulations on Article 6 and ITMOs**?
 - Authorization, corresponding adjustment, registry, fee, benefit sharing, buffer etc.
- The planned schedule for 2025 will be as follows:
 - ✓ (~ Jul.) Draft the SOP between the ROK and Lao PDR
Share information on the domestic legal framework and others
 - ✓ (~ Oct.) Agree and finalize the SOP between both sides
 - ✓ (Oct. ~ Nov.) Negotiate and complete benefit sharing between both sides

Warsaw Framework for REDD-plus
















































































Operated by UNFCCC: 71 Parties



REDD+ WEB PLATFORM

HOME FACT SHEETS SUBMISSIONS INFO HUB FORUM MEETINGS CONTACT

See all countries in: Filter options: A B C D E F G H I J K L M N P S T U V Z All

 Argentina	 Australia	 Bangladesh	 Belize
 Benin	 Bhutan	 Bolivia (Plurinational State of)	 Brazil
 Burkina Faso	 Cambodia	 Central African Republic	 Chad
 Chile	 Colombia	 Congo	 Costa Rica
 Côte d'Ivoire	 Cuba	 Democratic Republic of the Congo	 Dominica
 Dominican Republic	 Ecuador	 El Salvador	 Equatorial Guinea
 Eswatini	 Ethiopia	 Fiji	 France
 Gabon	 Germany	 Ghana	 Guatemala
 Guinea-Bissau	 Guyana	 Honduras	 India
 Indonesia	 Japan	 Kenya	 Lao People's Democratic Republic
 Liberia	 Madagascar	 Malawi	 Malaysia
 Mali	 Mexico	 Mongolia	 Mozambique
 Myanmar	 Namibia	 Nepal	 Nicaragua
 Nigeria	 Norway	 Pakistan	 Panama
 Papua New Guinea	 Paraguay	 Peru	 Philippines
 Saint Lucia	 Samoa	 Solomon Islands	 Sri Lanka
 Sudan	 Suriname	 Switzerland	 Thailand
 Timor-Leste	 Togo	 Uganda	 United Kingdom of Great Britain and Northern Ireland
 United Republic of Tanzania	 United States of America	 Uruguay	 Vanuatu
 Viet Nam	 Zambia	 Zimbabwe	

Warsaw Framework for REDD-plus

Emission reduction potential of WFR

Total reductions: **1.9 G tCO₂**

Annual reductions: **0.9 G tCO₂**

	Parties	Total (Mt CO ₂)	Annual (Mt CO ₂)
1	Brazil	745	390
2	Indonesia	577	192
3	Malaysia	191	19
4	Argentina	101	55
5	Colombia	96	15
6	Gabon	95	21
7	Cambodia	79	41
8	Vietnam	60	18
9	Paraguay	59	13
10	Papua New Guinea	47	14
11	Ecuador	43	5
12	Lao PDR	41	6
13	Mexico	20	6
14	Surinam	15	3
15	Chile	13	4
16	Costa Rica	10	7
17	Uganda	8	4
18	Honduras	7	1
19	Belize	5	2

Warsaw Framework for REDD-plus

AFOLU: 13 GtCO₂-eq yr⁻¹

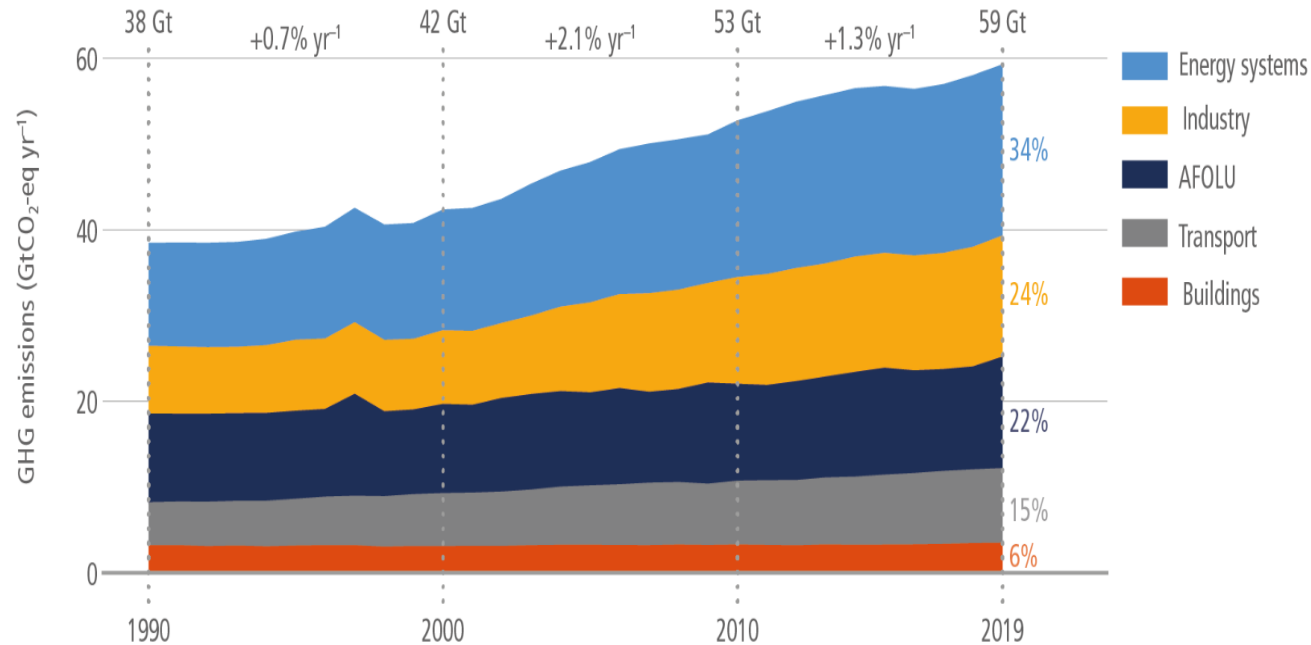
Global GHG Emission **22%**

REDD: 5.4 GtCO₂-eq yr⁻¹

Global GHG Emission **11.1%**

Source: IPCC, 2019. SRCCL SPM

(a) Total global GHG emission trends by sectors

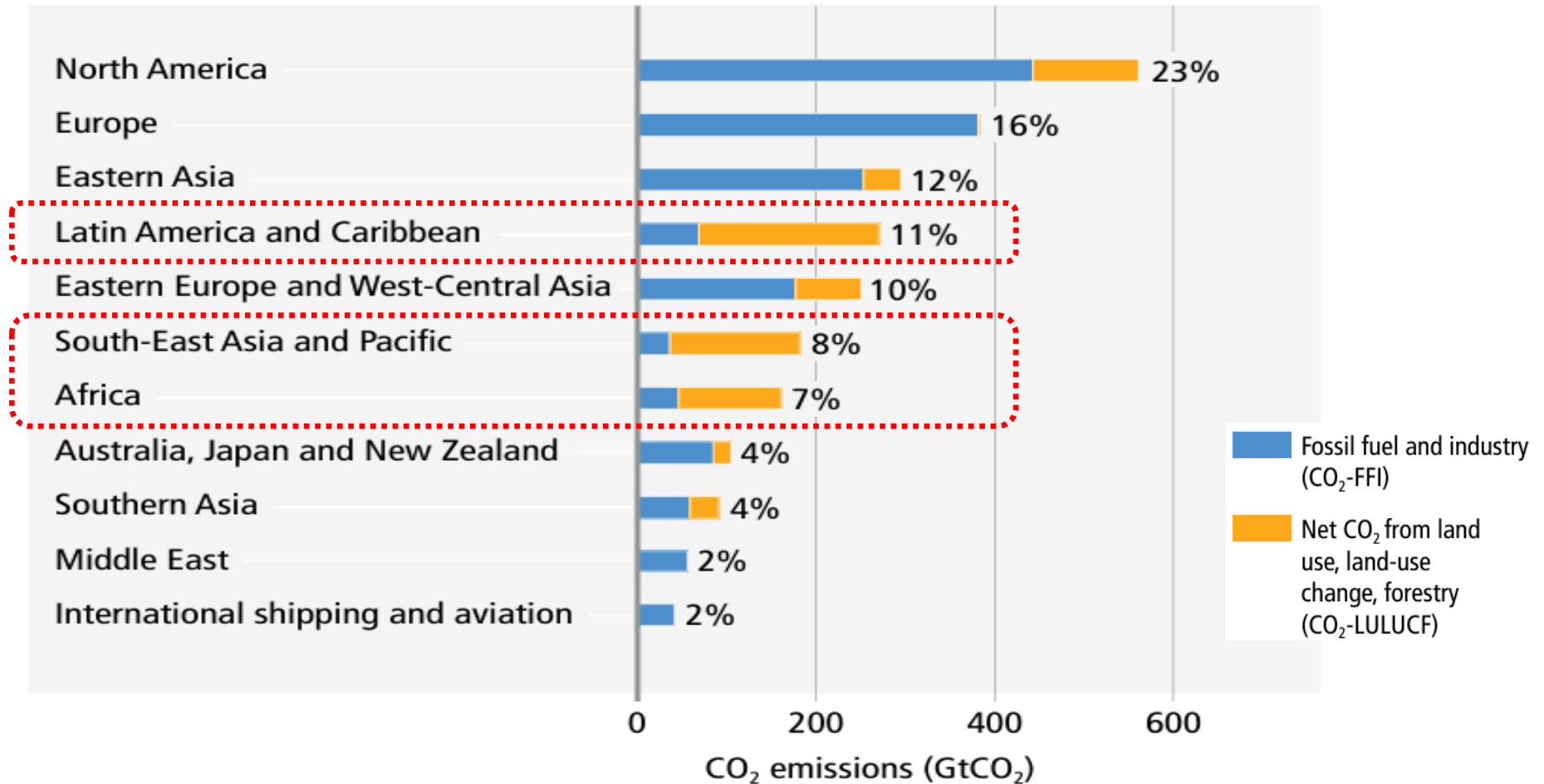


Source: IPCC, 2022. AR6 WGIII SPM



© Ulet Ifansasti / Greenpeace

b. Historical cumulative net anthropogenic CO₂ emissions per region (1850–2019)



Source: IPCC, 2022. AR6 WGIII SPM

Warsaw Framework for REDD-plus

Brazil's New President Vows to Save Amazon Forests

Luiz Inácio Lula da Silva says he'll stop illegal destruction of rain forests allowed under former president Jair Bolsonaro. Will Brazilians support him?

hiffman on November 9, 2022

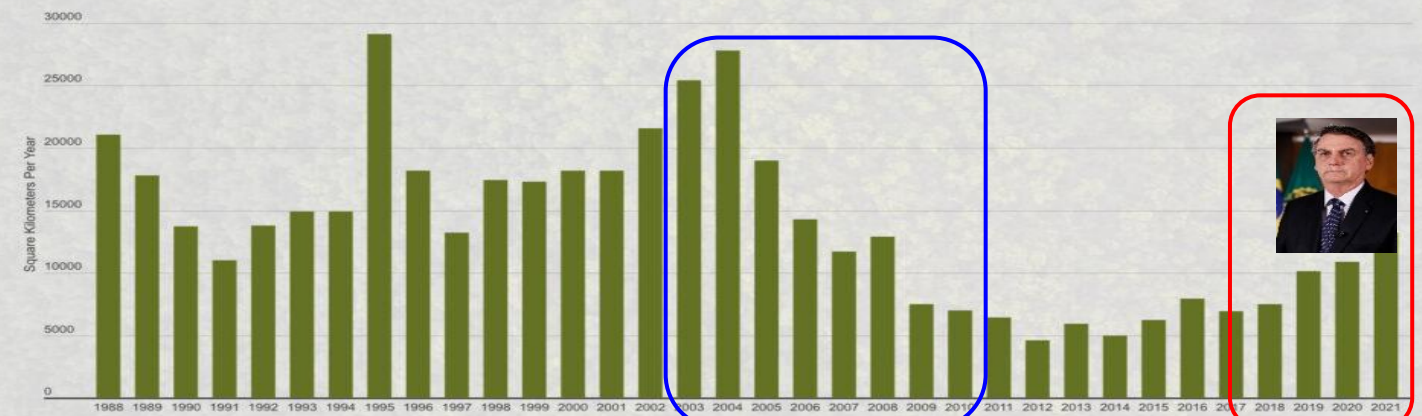


Brazil's presidential candidate and former Brazilian President Luiz Inacio Lula da Silva Party raises his fist during his first speech to the press after his victory over then-President Jair Bolsonaro in the city of São Paulo. Credit: Lincon Zarbietti/dpa/Alamy Stock Photo

Source: SCIENTIFIC AMERICAN

Deforestation in the Brazilian Amazon, 1988-2021

The Brazilian National Institute of Space Research (INPE) publishes annual Amazon deforestation reports via its PRODES satellite monitoring system. According to the agency's most recent report, deforestation in the Brazilian Amazon has reached a 15-year high after a 22% increase from 2020.



Data Source: Brazilian National Institute of Space Research PRODES System

NC STATE
UNIVERSITY

Source: NC STATE University/Brazilian National Institute of Space Research

Warsaw Framework for REDD-plus: Mongolia

Summary of the main features of the proposed forest reference level based on information provided by Mongolia

Main features of the FRL		Remarks
Proposed FRL (in t CO ₂ eq/year)	3 477 384.2	The proposed FRL covers the net emissions from the annual average CO ₂ emissions associated with gross deforestation and forest degradation and annual average removals from reforestation and afforestation (see paras. 10 and 11 of this document)
Type and duration of FRL	Historical emissions/removals over the period 2005–2015	The FRL proposed by Mongolia includes emissions from deforestation and forest degradation and removals from enhancement of forest carbon stocks (considered as afforestation/reforestation by Mongolia) (see para. 10 of this document)
Adjustment for national circumstances	No	Mongolia did not apply an adjustment to its FRL (see para. 14 of this document)
National/subnational	National	Mongolia stated that its FRL covers the entire national territory. However, saxaul forests and shrub were not included in the FRL calculation (see para. 18 of this document)
Activities included	Reducing emissions from deforestation; reducing emissions from forest degradation; and enhancement of forest carbon stocks	Mongolia did not report emissions or removals from the conservation of forest carbon stocks and the sustainable management of forests. However, the Party indicated that the impacts of these activities are considered to be covered by the activities reducing emissions from deforestation, reducing emissions from forest degradation and enhancement of forest carbon stocks (see para. 41 of this document)

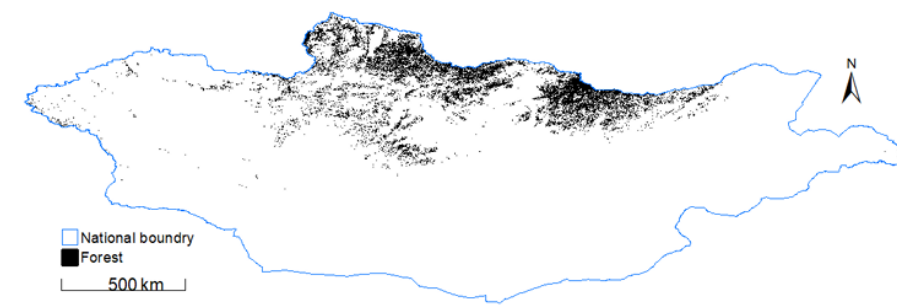


Figure 2.1. Forest cover map of the year 2005 from ERIS

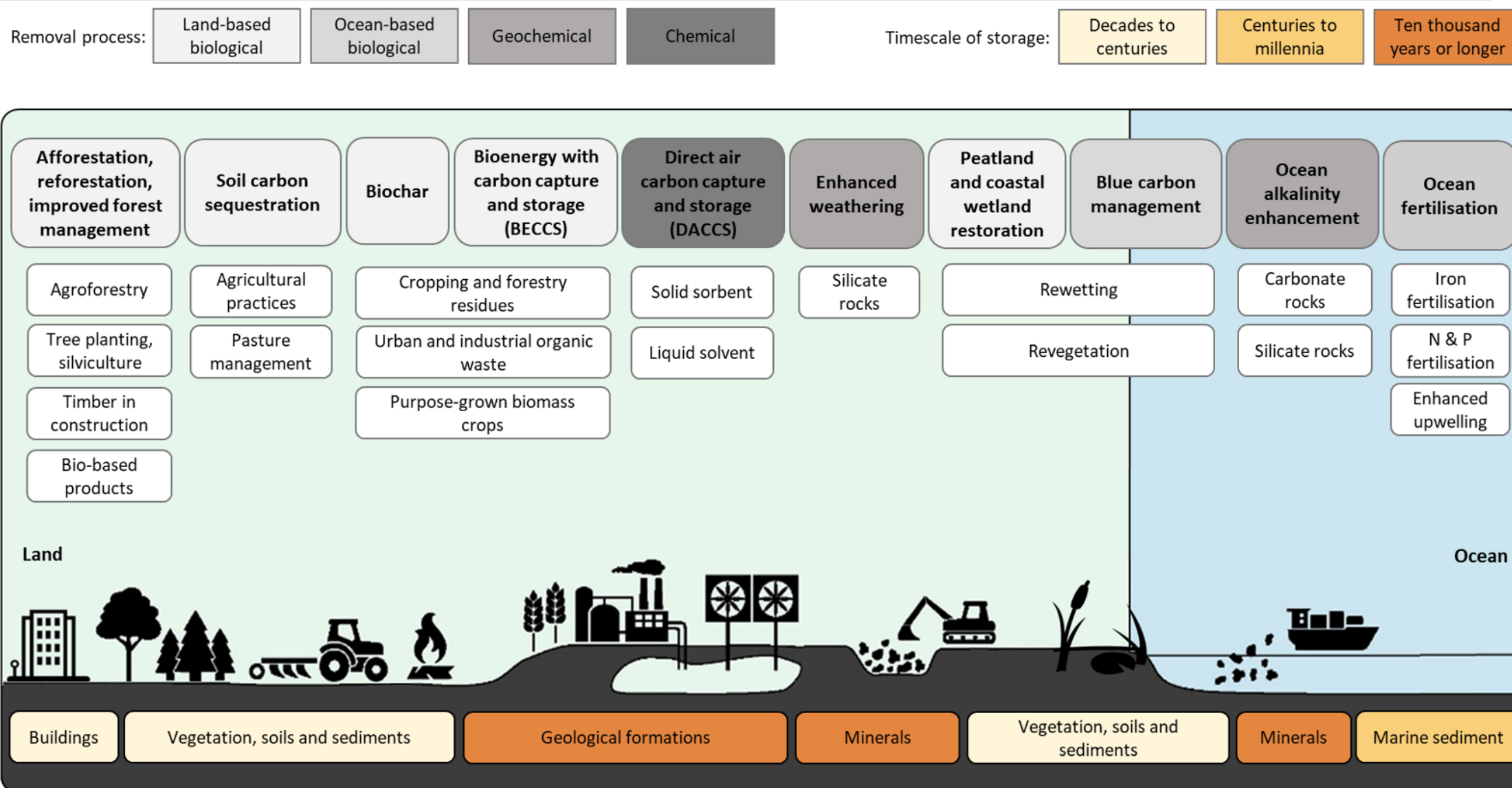
Pools included	Above-ground biomass, below-ground biomass, deadwood and litter	See paragraphs 37 and 38 of this document
Gases included	CO ₂	The inclusion of non-CO ₂ gases was identified as an area for future improvement (see para. 39 of this document)
Forest definition	Included	The definition of forest reported by Mongolia in its modified submission is “all land spanning of at least 1 ha covered by trees with a height of at least 2 m and with a canopy cover of at least 10 percent”. Mongolia clarified that this definition will be used in future national and international submissions (see para. 44 of this document)
Relationship with latest GHG inventory	Methods used for the FRL are not consistent with the latest GHG inventory (covering the period 2005–2014)	The activity data and emission factors used in the FRL and the GHG inventory reported in the first biennial update report of Mongolia are not consistent (see para. 28 of this document)
Description of relevant policies and plans	Included	See paragraph 35 of this document

PA 6.4 SB Article 6.4 Accreditation (A6.4-STAN-ACCR-001)

Sectoral scope	Technical area	Typical group of activities and greenhouse gas (GHG) emissions	Technical knowledge required
SS 14: Afforestation and reforestation	TA 14.1. Afforestation and reforestation	Typical activities: - Afforestation and reforestation projects. Typical GHG emissions/reservoirs: - Carbon stocks in biomass of trees, shrubs, dead wood, litter and soil carbon.	- Quantification of carbon stocks and change in carbon stocks in biomass of trees and shrubs, dead wood and litter, and soil organic carbon; - GHG emissions attributable to the displacement (shift) of pre-project agricultural activities; - Definition and identification of degraded and degrading lands in the context of Article 6.4 activities.

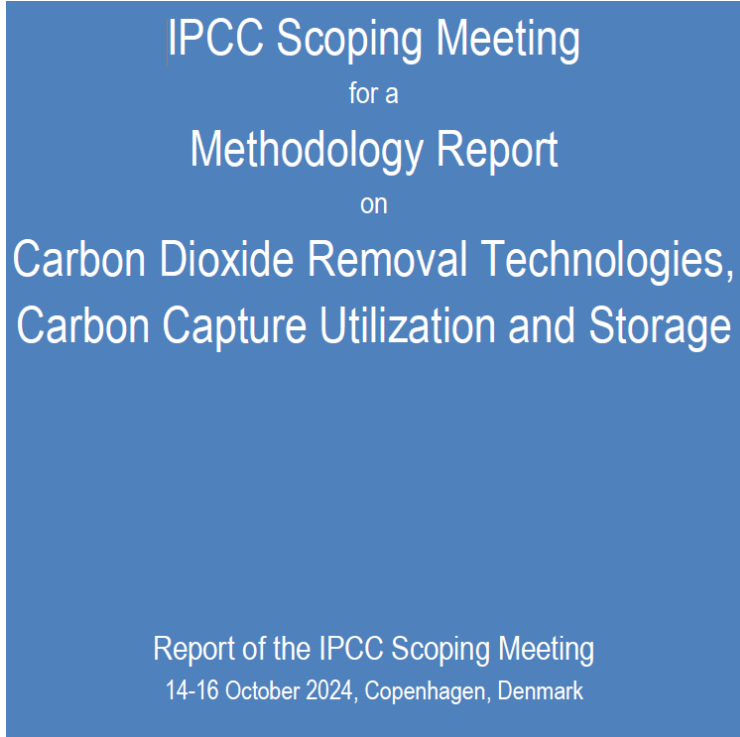
Sectoral scope	Technical area	Typical group of activities and greenhouse gas (GHG) emissions	Technical knowledge required
SS 17: Other activities involving removals	TA 17.1. Other activities involving removals	Typical activities: [This sectoral scope covers processes to remove greenhouse gases from the atmosphere through anthropogenic activities and durably store them.] [This sectoral scope covers anthropogenic activities removing CO ₂ from the atmosphere and durably storing it in geological, terrestrial, or ocean reservoirs, or in products. It includes existing and potential anthropogenic enhancement of biological, geochemical or chemical CO ₂ sinks, but excludes natural CO ₂ uptake not directly caused by human activities.]	- Carbon removal processes including nature based and engineering removals; - Non-permanence and reversal risks associated with the removal processes; - Approaches for remediation of reversals such as buffer pools, insurance, replacement of credits and temporary credits; - Potential sources of leakage associated with a removal activity; - Quantification and estimation of emission reductions or removals.

Carbon Dioxide Removal (CDR) taxonomy



UNFCCC Negotiation

Carbon Dioxide Removal (CDR) taxonomy



Appendix 2. Table of Contents (ToC)

Draft Table of Contents

2027 Methodology Report on Carbon Dioxide Removal Technologies, Carbon Capture, Utilization and Storage (Supplement to the 2006 IPCC Guidelines)

Introductory Note

2027 Methodology Report on Carbon Dioxide Removal Technologies, Carbon Capture, Utilization and Storage (Supplement to the 2006 IPCC Guidelines) will be a single Methodology Report comprising an Overview Chapter and seven volumes following the format of the 2006 IPCC Guidelines for National Greenhouse Gas Inventories (2006 IPCC Guidelines).

Overview Chapter

Volume 1: General Guidance and Reporting

Volume 2: Energy

Volume 3: Industrial Processes and Product Use

Volume 4: Agriculture, Forestry and Other Land Use

Volume 5: Waste

Volume 6: Carbon Dioxide Capture, Transport, Utilization and Storage

Volume 7: Direct Removal of CO₂ from Waterbodies. Alkalinity Enhancement of Waterbodies

The structure of the Methodology Report is the same as that of the 2006 IPCC Guidelines so as to make it easier for inventory compilers to use this Methodology Report with the 2006 IPCC Guidelines.

For those Chapters where update or new guidance is expected, a description is provided below.

Also, authors should develop modifications for Chapters, if deemed necessary to ensure consistency with the updates or new guidance made in the other Chapters.

In addition, authors should develop updates or produce new Worksheets, where necessary.

UNFCCC Negotiation

Carbon Dioxide Removal (CDR) taxonomy

Volume 4: Agriculture, Forestry and Other Land Use (Update and New)

Chapters 2, 4, 5, 6, 7, 8 and 9 Volume 4 the 2019 Refinement of the 2006 IPCC Guidelines - Generic Methodologies Applicable to Multiple Land-Use Categories, Forest Land, Cropland, Grassland, Wetlands, Settlements, Other Land (Update)

- *Enhancing soil carbon sinks in croplands and grasslands for CDR: Update in relation to reference stocks and default factors for soil organic carbon estimates.*
- *Enhancing soil carbon sinks on managed land for CDR: Update to add enhanced weathering into the Tier 3 soil inorganic carbon and relationship to soil organic carbon; update biochar application in soils to develop a Tier 1 method and update of the Tier 2 & 3 methods.*

Chapter 4 Volume 4 the 2006 IPCC Guidelines – Cropland [Rice Cultivation] (Update)

- *Enhancement of soil carbon for biochar amendments: Update Tier 1 default factors to estimate impact of biochar amendments on methane emissions from rice cultivation, and provide guidance for Tier 2 and Tier 3.*

Chapter 11 Volume 4 the 2006 IPCC Guidelines – N₂O Emissions from Managed Soils, and CO₂ Emissions from Lime and Urea Application (Update)

- *Enhancement of soil carbon for biochar amendments: Update Tier 1 default factors to estimate impact of biochar amendments on soil N₂O emissions from N inputs in managed soils, and provide guidance for Tier 2 and Tier 3.*

Chapters 2, 3, 4 of the Wetlands Supplement (New)

- *Enhancement of carbon stocks in organic soils for CDR: new guidance on carbon export from organic soils.*

Chapter 4 of the Wetlands Supplement – Coastal Wetlands (Update and New)

- *Enhancement of carbon sinks for CDR: Update factors in relation to mangroves, tidal marshes and seagrass in coastal waters.*
- *New guidance on other coastal wetland types not in previous IPCC Guidelines.*

Chapter 12 Volume 4 the 2006 IPCC Guidelines – HWP and other durable biomass products (New and Update)

- *Update in relation to other durable biomass products for CDR: Develop factors for other durable products (e.g., biochar products) and guidance for higher tier methods, and transfers from other pools.*

UNFCCC Negotiation

Carbon Dioxide Removal (CDR) taxonomy

Volume 6 Carbon Dioxide Capture, Transport, Utilization and Storage (IPCC Sector 5) (New and Update)

Chapter 1. Introduction (New)

- *The basic concepts and terms and definitions related to CCUS should be addressed inter alia: technology, removal, short- and long-term storage, "negative" emissions.*

Chapter 2 Carbon Dioxide Capture from process gases (Update)

Chapter 3 Direct Air Capture (New)

Chapter 4. Carbon Dioxide Utilization (New)

- *Possible ways of CO₂ utilization, e.g. enforced carbonation of industrial and mining wastes, critical mineral extraction, mineralisation (surface), synthetic fuels*
- *Tracking of captured CO₂, national carbon dioxide balance matrix (sources of captured CO₂ vs. final use and short- and long-term storage).*

Chapter 5. Carbon Dioxide Transport (Update)

- *Update in relation to all sub-categories (CO₂ transport (ship/rail/pipeline/truck) and cross-border transfers)*

Chapter 6. Carbon Dioxide Injection and Geological Storage (Update)

- *Update in relation to all sub-categories (injection, long term storage, other)*
- *Mineralisation (subsurface)*

Volume 7. Direct Removal of CO₂ from Waterbodies. Alkalinity Enhancement of Waterbodies (IPCC Sector 6) (New)

Chapter 1. Introduction

Chapter 2. Direct Removal of CO₂ from Waterbodies

- *New guidance on enhancing carbon sinks by capture of CO₂ from water with durable storage or other utilization.*

Chapter 3. Alkalinity Enhancement of Waterbodies

- *New guidance on enhancing carbon sinks by increasing alkalinity in waterbodies.*



감사합니다.

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Before it's too late. wwf.org

