



The National GHG inventory under the First Biennial Transparency Report (BTR1) Preparation for Lao PDR

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Outline



1. Background

2. Preparation of BTR1 for Lao PDR

3. Result of GHG Inventory under BTR1

4. Challenges

5. Lesson learned

1. Background



1995

Lao PDR ratified the UNs Framework Convention on Climate Change (UNFCCC)

2003

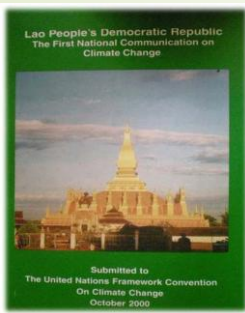
Lao PDR ratified the Kyoto Protocol in 2003

2016

Lao PDR made a ratification in the Paris Agreement in 2016

2000

FNC



2013

SNC



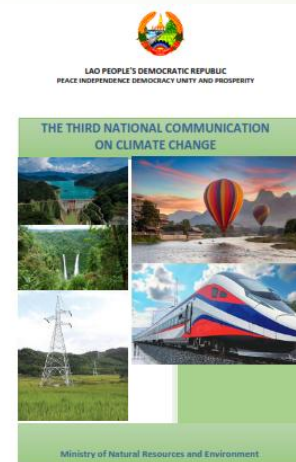
2020

BUR



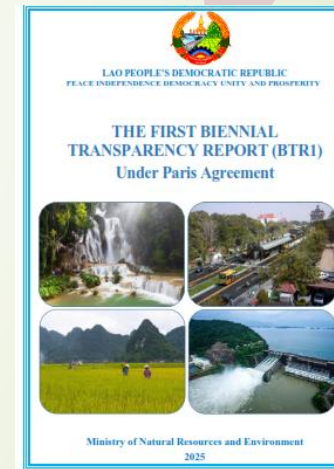
2024

TNC



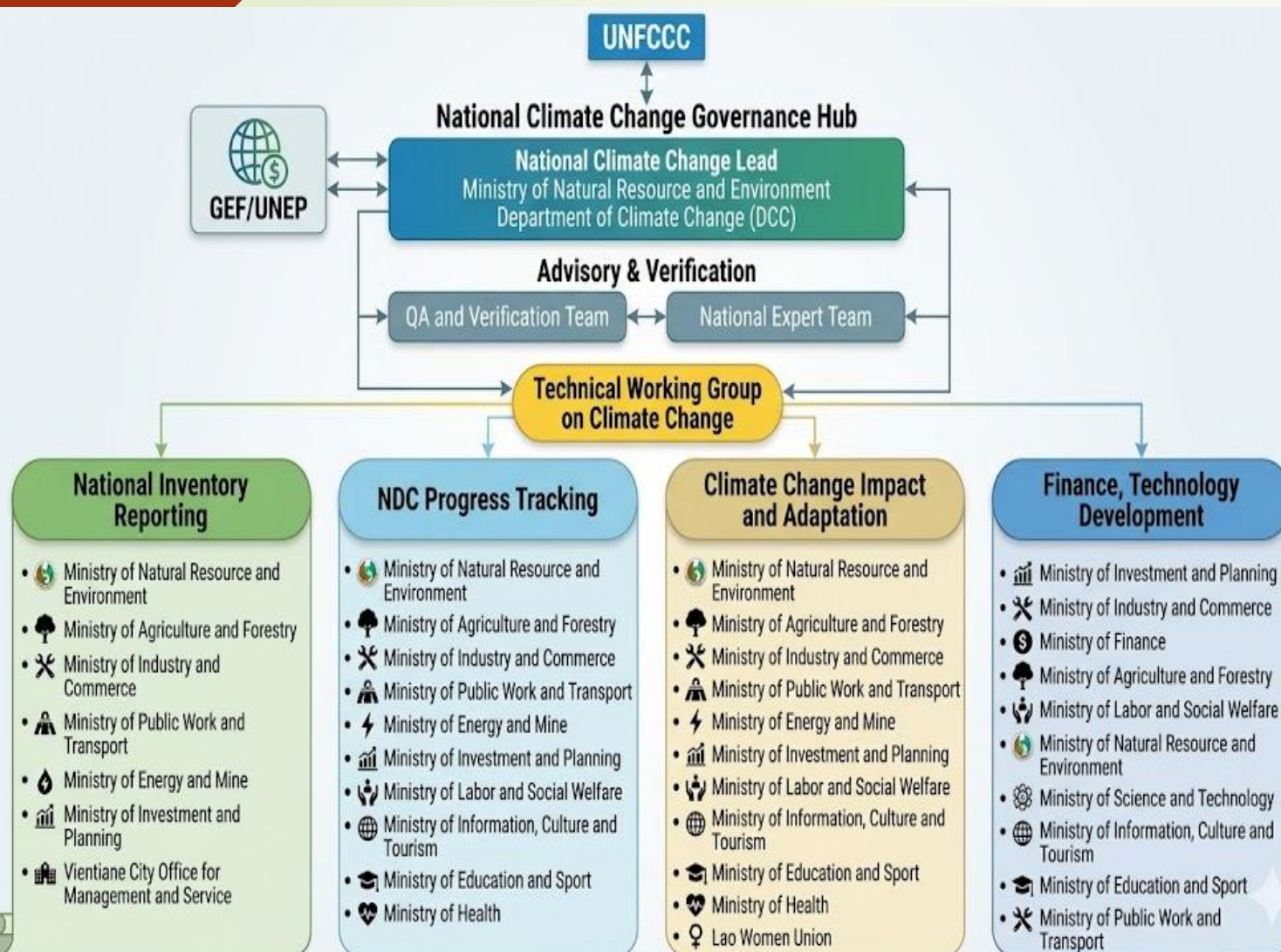
2025

BTR1



1. Background

Institutional Arrangement



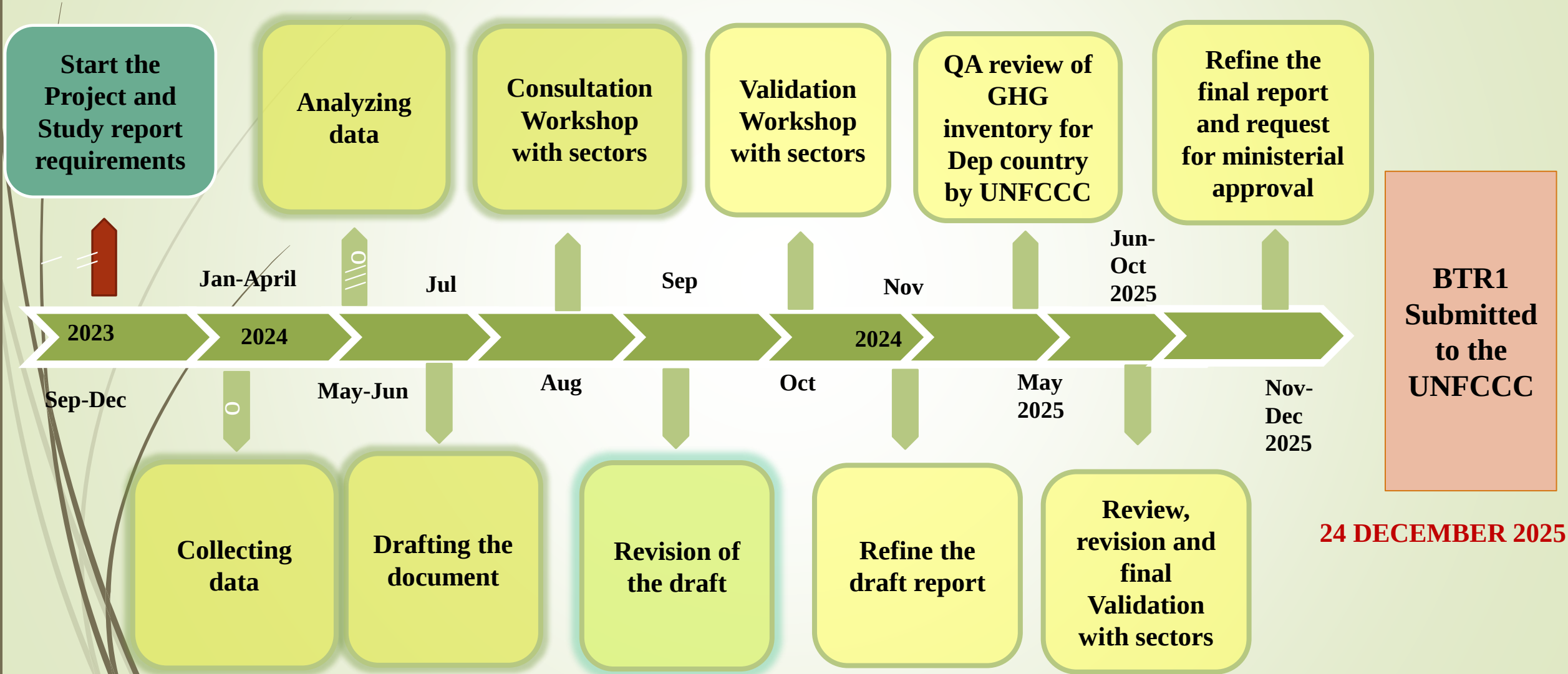
The Lao PDR government had designated the Department of Climate Change (DCC) within the Ministry of Natural Resources and Environment (MONRE) as the national focal point for climate change. According to the resolution from the National Assembly on approving the restructure of the government's organization (No.05/NA, dated 20 March 2025) to merge some Ministries together.

The Department of Climate Change continues its role and responsibilities as a coordinating agency for climate change and in spearheading the development of relevant policies.

During the technical preparation of Lao PDR's BTR1, the DCC worked with the cross-ministerial, Technical Working Group on Climate Change, key stakeholders, and Development Partners. Key ministries that contributed to the BTR's development process (specifically from August 2023 to May 2025)



2. Preparation of BTR1 for Lao PDR





3. The result of GHG Inventory under BTR1

✓ The GHG inventory in Laos the key method was based on the IPCC Guidelines 2006 IPCC Software and the principle of Transparency, Accuracy, Completeness, Comparability, and Consistency (TACCC)

✓ Basically, it has been carried out in accordance with the guidelines of the United Nations Framework Convention on Climate Change (UNFCCC) (MPGs) and the guidelines of the Intergovernmental Panel on Climate Change (IPCC)



SUMMARY OF INFORMATION ON GREENHOUSE GAS (GHG) EMISSIONS AND REMOVALS (LAO PDR)

TOTAL GHG EMISSIONS BY SECTOR



* LULUCF has removals, value is negative

TOTAL GHG EMISSIONS & REMOVALS

TOTAL GHG EMISSIONS & REMOVALS (EXCLUDING LULUCF)
38,844.04 Gg CO₂e

$$(\text{TOTAL EMISSIONS}) - (\text{NET LULUCF REMOVALS}) = (\text{NET VALUE})$$

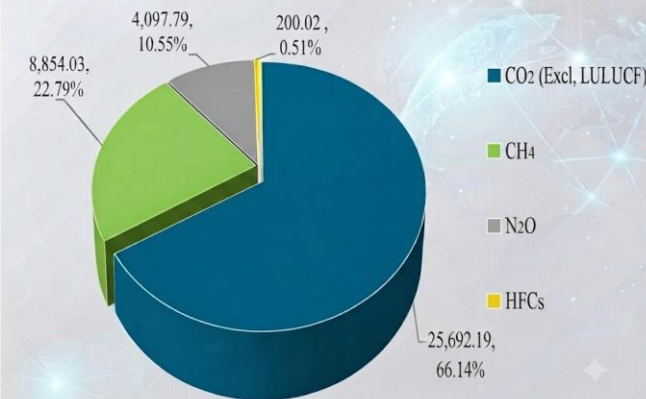
TOTAL NET GHG REMOVALS & SINKS
-21,453.47 Gg CO₂e

KEY CATEGORIES FOR 2022 (EXCLUDING LULUCF)



Gg = GIGAGRAM

Emissions by Gas



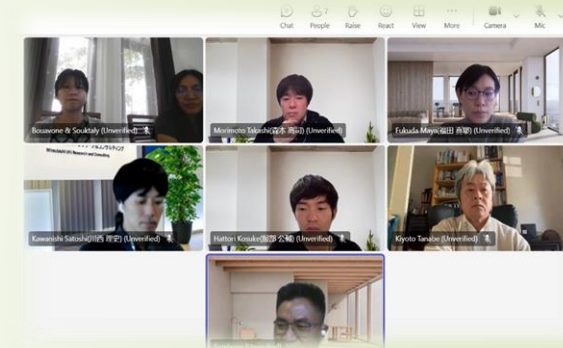
The Activities during preparation BTR1 and Capacity Building



Organizing numerous Consultation and Validation workshop to gather feedback and input in collaboration with relevant central-level sectors, including researching institutes



Received support and technical assistance from Japanese experts (**Mitsubishi UFJ Research and Consulting and Ministry of Environment of Japan**), specifically in preparing the content of the national greenhouse gas inventory section, such as data analysis and the calculation of greenhouse gas emission volumes, verifying the accuracy of the sectors' technical data.



Participation the WGIA 22, July 2025 in Cambodia



Organized Workshop on Quality Assurance of the National Greenhouse Gas Inventory Management System and National Greenhouse Gas Inventories for Lao PDR, May 2025, in Vientiane Capital, Lao PDR.



DOE, MAE
Collaboration
with the
UNFCCC
Secretariat



Organized a Workshop on Improving Methane Emissions Data and Projections in Agriculture and Waste Sectors for Effective Implementation of the ETF under the Paris Agreement for Lao PDR, in June 2026, Vientiane Capital, Lao PDR



4. Key Challenges for the NGHGI of the BTR1



- 1) **Resources and Time:** BTR1 preparation required significant time, coordination, and financial/human/technical resources due to MPG complexity.
- 2) **Institutional Arrangements:** Reporting remains project-based (ad hoc) rather than permanent, with unclear roles and a lack of legal mandates for regular data provision.
- 3) **Improvement Plan:** Absence of a clear plan to reduce reliance on the MPG flexibility provisions.
- 4) **Technical Capacity:** Limited capacity to consistently manage activity data, apply higher-tier methodologies, conduct uncertainty analysis and QA/QC, complete CRTs, and develop GHG projections.
- 5) **Data Quality and Standards:** Inconsistent data collection across authorities, lack of standardization, significant sector data gaps, and misalignment with the 2006 IPCC Guidelines.
- 6) **Software and Reporting Tools:** Difficulties using IPCC software and ETF tools due to inconsistent category names, limited expertise/human resources, lack of interoperability, and frequent ETF tool updates.





5. Lessons Learned from preparing the NGHGI for BTR1

- Institutional Frameworks:** Effective ETF implementation requires formalized structures, clearly defined responsibilities, and sustained institutional capacity through legal and procedural arrangements.
- Planning and Support:** It is crucial to initiate BTR preparation early, establish clear timelines, and secure predictable financial and technical support to ensure reporting continuity and avoid ad hoc arrangements.
- Technical Capacity:** The process of developing the BTR directly enhanced technical understanding of international reporting requirements and ETF tools.
- International Partnerships:** International support and strategic partnerships were critical and decisive factors in the successful preparation of BTR1.
- Strategic Alignment:** Preparing BTR1 deepened understanding of how ETF reporting contributes to the Global Stocktake, tracks NDC implementation progress, and strengthens national monitoring systems.



Thank you very much