

The 12th Workshop on GHG Inventories in Asia (WGIA12)
-Capacity building for measurability, reportability and verifiability
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Experience on Quality Assurance/Quality Control (QA/QC) activities in preparation of the Second National Communication (SNC)



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Outline

- Overview of National GHG Inventory
- Quality Assurance, Quality Control and Completeness
- Barriers

Overview of National GHG Inventory

- The national greenhouse gas inventory (GHGI) is a key element of the national communication on climate change. The GHGI for the first national communication (FNC) of Lao PDR was conducted in 1997 using 1990 as the base year as mandated. The inventory was completed and compiled in the FNC and submission to UNFCCC in 2000.
- In the Second National Communication (SNC), the GHGI was prepared using year 2000 as the base year and submission to UNFCCC in 2013.
- The inventory examines the emission by sources and removal by sinks of Greenhouse Gases (GHGs) of the following five sectors, namely energy, industrial process, agriculture, land use change and forestry, and waste.
- The national GHGI preparation follows the technical guidance of the IPCC

National GHG Emissions in CO₂ Equivalent

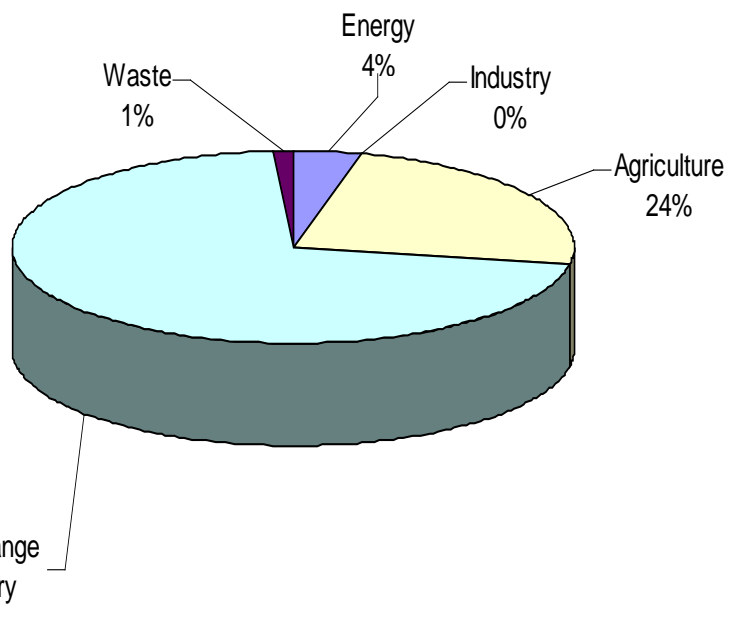


Figure 1: Total emission by sector in CO₂ equivalent, 1990, Lao PDR

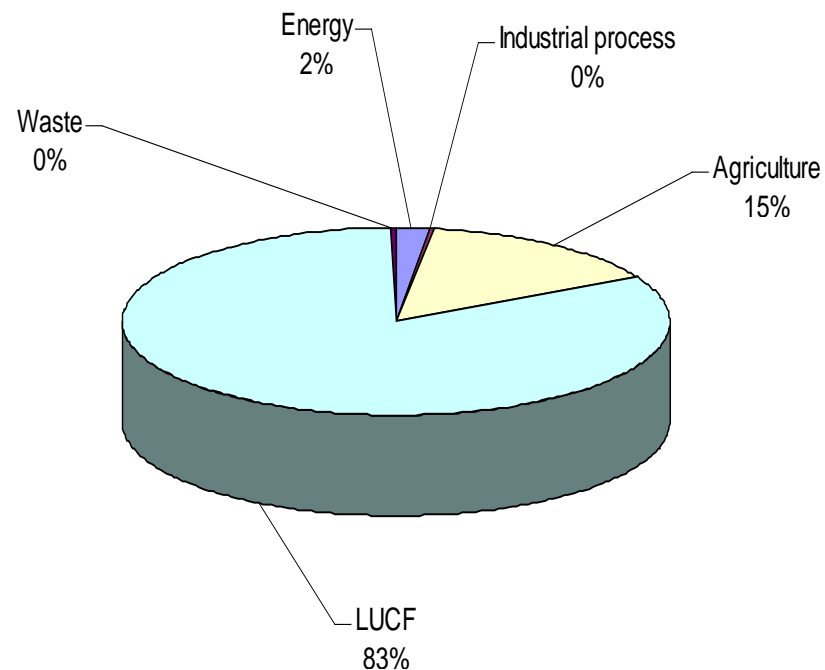


Figure 2: Total emission by sector in CO₂ equivalent, 2000, Lao PDR

National GHG Emissions in CO₂ Equivalent (cont..)

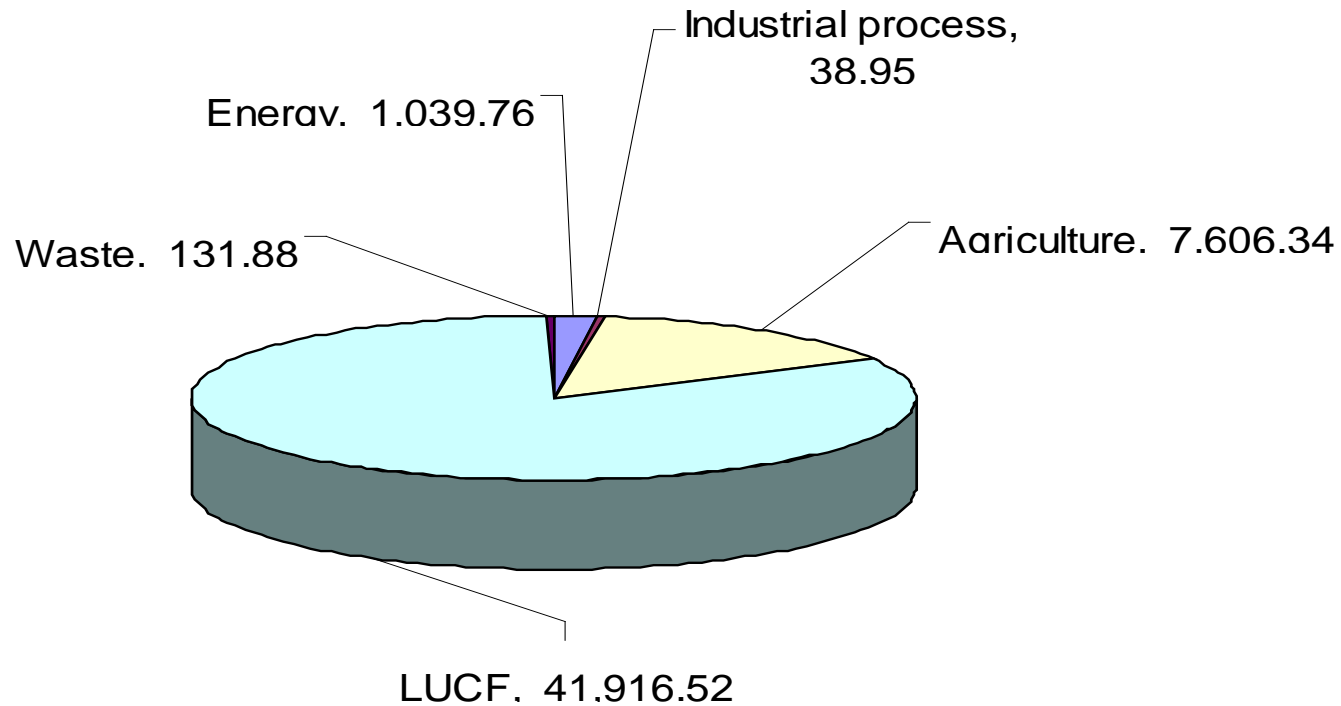


Figure 3: Total emission by sector in Gg of CO₂ equivalent

Quality Assurance, Quality Control and Completeness

- Currently, there is no system in place in the Lao PDR for QA/QC for GHG emissions. In the future, sectors that are responsible for activity data for inventory will develop QA/QC systems.
- The system should be centralized and sustainable. This inventory, following IPCC recommendations the Good Practice Guidance (GPG) (IPCC, 2000) has been developed in a transparent, consistent, comparable and complete as far as the capacity of Lao PDR allowed.

Quality Assurance, Quality Control and Completeness (Cont..)

Further more the following approaches were also used to ensure good quality of inventory:

- *Re-calculation:* in the final stage of the draft report, the inventory team revisited and re-calculated LULUCF and agriculture, the key sources of emissions and removal. The result of calculation was shared amongst all stakeholders including the technical working groups, participants and stakeholders in various national and international workshops and meetings where comments were considered and consistency and cross check were performed.
- *Peer Review:* Laos conducted the mutual learning program with emphasis on the peer review of the LULUCF with the Greenhouse Gas Inventory Office (GIO)/National Institute for Environmental Studies (NIES) of JAPAN. This enhanced accuracy and completeness of the inventory of the LULUCF sector of the Lao PDR;

Quality Assurance, Quality Control and Completeness (Cont..)

- *External expert review:* This inventory was reviewed by experts from UNDP and international experts on GHGI through UNDP's National Communications Support Program in New York. The review process enhanced QA/QC of the inventory. The final draft report was also shared with the Thai GHGI experts for technical review.
- *National Steering Committee Review:* The GHGI report was also reviewed by the NEC that has a system of review procedures. Prior to submission to the UNFCCC, the draft was review by independent experts that were not directly involved in the inventory compilation and preparation.

Barriers

The main barriers are:

- Inadequate and inaccurate information and activity data for GHG inventory.
- Lack of local emission factors. Paddy cultivation and domestic animal raising in the Lao PDR are more subsistence.
- Insufficient coherence and coordination.
- Inadequate capacities of local researchers among related agencies.
- Poor database to support inventory activities. At present, system of database has not been developed.
- Development of regular inventory preparation program.
- Limited national expert for inventory



Thank You