# Summary of the Mutual Learning Sessions

17 July 2025, Phnom Penh, Cambodia
The 22nd Workshop on GHG Inventories in Asia

Greenhouse Gas Inventory Office of Japan (GIO)
National Institute for Environmental Studies (NIES)

# Mutual Learning in WGIA22

- Participants had exchanged the Q&A sheets with the partner countries through the WGIA secretariat in advance.
- In the sessions, participants discussed the sector-specific issues based on the Q&A sheets and additional comments.
- The sessions were held as a closed session~~s~~.

Participants in the ML sessions

| Sector | Country | Number of Participants (remote) |
|---|---|---|
| Energy | China | 3 |
| | Japan | 5 (3) |
| Waste | Bhutan | 3 |
| | Mongolia | 3 |

# Report on each session
# Overview of each country's inventory

## ■ Overview of each country's inventory

| Sector | Country | Inventory | Guidelines Applied | Estimation Methodology | Emission Factors | Activity Data |
|---|---|---|---|---|---|---|
| Energy | **China** | BTR1 (2024), BUR4 (2024) | 2006GL | Tier 1, 2, 3 | D, CS, M | NBS, Aviation Agency, relevant associations, etc. |
| | **Japan** | NIR2025 | 2006GL, 2019 Refinement | CS, Tier 1, 2, 3 | D, CR, CS | National statistics/surveys, data provided by industry |
| Waste | **Bhutan** | BTR1 (2024) | 2006GL | Tier 1 | D | NWIS-2019, PHCB 2017 |
| | **Mongolia** | BUR2 (2023) | 2006GL | Tier 1, 2 | D | Data from NSO |

NBS: National Bureau of Statistics,
NWIS-2019: National Waste Inventory Survey 2019,
PHCB 2017: Population and Housing Census of Bhutan 2017,
NSO: National Statistical Office,

# 1. Energy sector (1)
# (China and Japan)

■ **Issues and solutions / Outstanding issues**

- The issues identified during the previous ML remain. However, these issues are incorporated into future improvement plan. (China)
- The inventory description in BTR could be further enhanced, especially for the country-specific emission factors and the country-specific fuel categories. (China)
- Possibly increase the frequency of the update of some EF for fuel combustion. (Japan)

# 1. Energy sector (2) (China and Japan)

■ **Good practices**

**China**

- Inventory description in BTR1 is enhanced compared with the NC3 and BUR3.
- The data such as emission factors reported by companies in the national carbon market are used in the inventory.

**Japan**

- T3 method is applied for the fuel combustion and the fugitive emission.
- Specific reference is given for the CEF in NID.

# 2. Waste sector (1)
# (Bhutan and Mongolia)

■ **Issues and solutions / Outstanding issues**

- There is no national GHG inventory data repository system in place. (Bhutan)
- Inventory system was stable until 2022, but is currently unstable. (Mongolia)
- In Bhutan, septic tank sludge in rural areas is not connected to a centralized wastewater treatment system, whereas in Mongolia, it is transported to one. This distinction should be taken into account when applying activity data. (Both country)
- Waste separation and collection system is initiated but is not yet completed. This fact should be considered in activity data collection. (Mongolia)
- To support the activity data that forms the basis for estimating GHG emissions, waste statistics need to be compiled. (Mongolia)
- Historical GHG emission estimates, particularly those prior to 2018, are required. (Bhutan)
- Waste from areas outside major cities is excluded from the GHG emission estimates. (Mongolia)

# 2. Waste sector (2)
# (Bhutan and Mongolia)

■ **Good practices**

**Bhutan**

- On-time BTR1 submission
- Implementation of the "National waste inventory survey (2019)" to prepare activity data for waste sector GHG inventory

**Mongolia**

- NIR preparation, which describes GHG estimation methodology in detail
- GHG emission estimations for the whole timeseries from 1990 onward