



# Introduction to WGIA23

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The 23<sup>rd</sup> Workshop on Greenhouse Gas Inventories in Asia

4<sup>th</sup> August 2026

# Workshop on Greenhouse Gas Inventories in Asia (WGIA)



|                   |                                                                                                                                                                           |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Workshop title:   | Workshop on Greenhouse Gas Inventories in Asia (WGIA)                                                                                                                     |
| Objective:        | To support countries in Asia to improve the quality of inventories via regional information exchange                                                                      |
| Organizers:       | Ministry of the Environment of Japan<br>National Institute for Environmental Studies                                                                                      |
| Member countries: | Bhutan, Brunei, Cambodia, China, India, Indonesia, Japan, Republic of Korea, Laos, Malaysia, Mongolia, Myanmar, Philippines, Singapore, Thailand, Viet Nam (16 countries) |
| Participants:     | Government officials, researchers and compilers                                                                                                                           |
| Style:            | Annual workshop since 2003                                                                                                                                                |
| Funds:            | Ministry of the Environment of Japan                                                                                                                                      |

# Necessity of GHG Inventory



- National GHG inventory for the Transparency Framework under the Paris Agreement
- Inventories form the basis of rational policy development because they can be used:
  - to identify the major sectors where abatement will have a real impact.
  - to predict and compare impacts of mitigation measures.
  - to choose efficient/ effective mitigation options.
- Inventories are essential to the monitoring of impacts of mitigation policies and measures.
  - Policy makers need to know if policies are working.
  - Inventory estimation methods should be chosen to reflect impacts of mitigation actions.

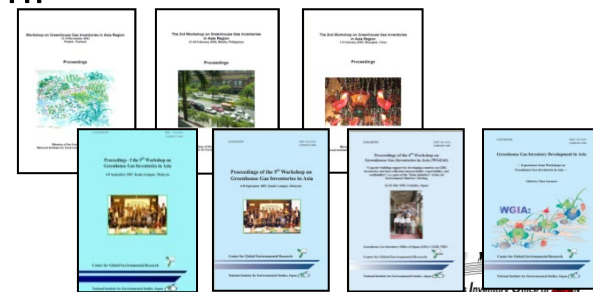


## What do we do to improve our inventories in WGIA?

- Updating inventory related information of each member country
- Sharing experiences concerning inventory development, and preparation
- Identifying common issues and discussing possible solutions
- Discussion on cross-cutting and sector-specific issues concerning inventories
- Mutual Learning since 2011: In-depth methodological discussion between 2 countries by inventory-compilers

## Network and products

- Development of a network for inventory experts
- Presentations made by the participants in the workshop are available on the below URL: <https://www.nies.go.jp/gio/en/wgia/index.html>
- Workshop proceedings are published



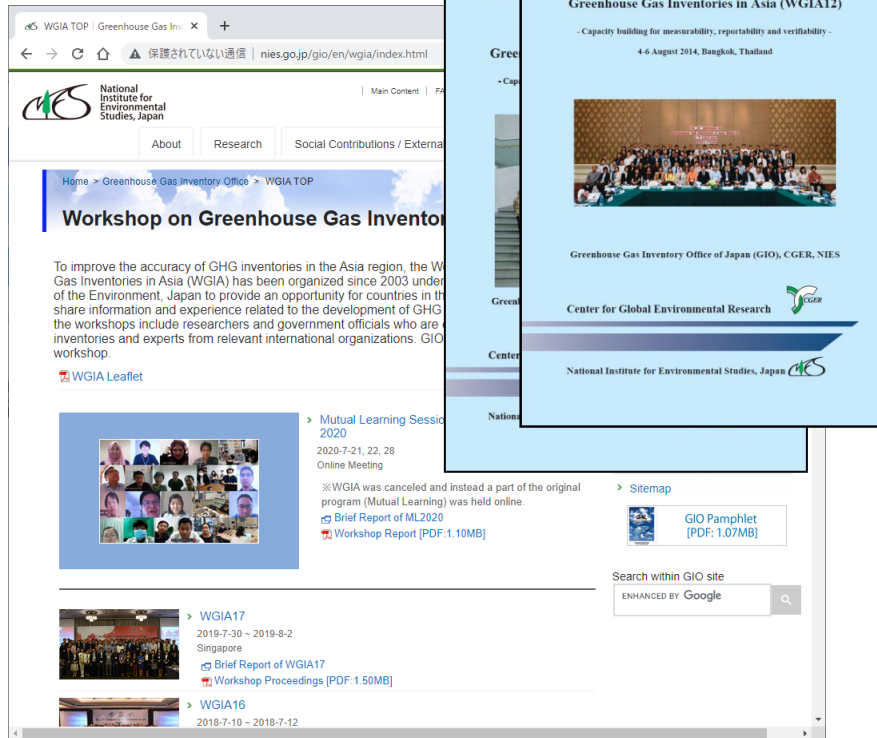
# WGIA History

|         |                                                         |                                                                                                                              |
|---------|---------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| WGIA1:  | Phuket, Thailand, 13-14 Nov. 2003                       | Starting with 11 countries, Identified problems and needs of support                                                         |
| WGIA2:  | Shanghai, China, 7-8 Feb. 2005                          | Shared information and experiences gained through inventory development                                                      |
| WGIA3:  | Manila, Philippines, 23-24 Feb. 2006                    | <b>Malaysia</b> becomes a member country<br>Discussed technical matters on each sector inventory                             |
| WGIA4:  | Jakarta, Indonesia, 14-15 Feb. 2007                     | <b>Singapore</b> and <b>Myanmar</b> become member countries<br>Organized working groups and discussed sector specific issues |
| WGIA5:  | Kuala Lumpur, Malaysia, 6-8 Sep. 2007                   | Identified needs for further inventory improvement                                                                           |
| WGIA6:  | Tsukuba, Japan, 16-18 July 2008                         | Reaffirmed the importance of inventory development                                                                           |
| WGIA7:  | Seoul, Republic of Korea, 7-10 July 2009                | Shared information and experiences/ Discussed sector specific and cross cutting issues                                       |
| WGIA8:  | Vientiane, Lao P.D.R., 13-16 July 2010                  |                                                                                                                              |
| WGIA9:  | Phnom Penh, Cambodia, 13-15 July 2011                   | Newly started "Mutual Learning"                                                                                              |
| WGIA10: | Hanoi, Viet Nam, 10-12 July 2012                        | Shared information and experiences/ Conduct <b>Mutual Learning</b>                                                           |
| WGIA11: | Tsukuba, Japan, 5-7 July 2013                           |                                                                                                                              |
| WGIA12: | Bangkok, Thailand, 4-6 August 2014                      |                                                                                                                              |
| WGIA13: | Bali, Indonesia, 4-6 August 2015                        | <b>Brunei</b> become a member country                                                                                        |
| WGIA14: | Ulaanbaatar, Mongolia, 26-28 July 2016                  | <b>Poster session (Sharing information on specific issues)</b>                                                               |
| WGIA15: | Nay Pyi Taw, Myanmar, 11-13 July 2017                   |                                                                                                                              |
| WGIA16: | New Delhi, India, 10-13 July 2018                       |                                                                                                                              |
| WGIA17: | Singapore, 30 July - 2 August 2019                      | <b>Bhutan</b> become a member country                                                                                        |
| 2020    | On-line, 21, 22, 28 July 2020                           | Only Mutual Learning                                                                                                         |
| WGIA18: | On-line, 8 – 14 July 2021                               | Mutual Learning and Plenary Session                                                                                          |
| WGIA19: | On-line, 7 – 13 July 2022                               | Mutual Learning and Plenary Session                                                                                          |
| WGIA20: | Tomakomai, Japan, 26 – 29 June 2023                     | Group discussion on <b>BTR readiness</b>                                                                                     |
| WGIA21: | Putrajaya, Malaysia, 9-12 July 2024                     | Hands-on Training on the ETF GHG Inventory Reporting Tool                                                                    |
| WGIA22: | Phnom Penh, Cambodia, 15-18 July 2025                   | Group discussion on the ETF GHG Inventory Reporting Tool                                                                     |
| WGIA23: | Bandar Seri Begawan, Brunei Darussalam, 3-6 August 2026 |                                                                                                                              |

# Achievements of WGIA

## Dissemination

- Website
- Proceedings



## Strengthened a network of regional experts



WGIA1 in Thailand (2003)



WGIA19 on-line (2022)



WGIA22 in Cambodia (2025)



# Welcome to WGIA23!

Participants from ...



15 Member  
Countries in  
Asia:

Government officials, researchers, compilers from:  
Bhutan, Brunei, Cambodia, China, India, Indonesia, Japan,  
Republic of Korea, Laos, Malaysia, Mongolia, Philippines,  
Singapore, Thailand, and Viet Nam.

Japan's  
Organizations:

- Ministry of the Environment (MOE),
  - National Institute for Environmental Studies (NIES),
  - Institute for Global Environmental Strategies (IGES),
- and so on...

International  
Organizations  
& observers:

- United Nations Framework Convention on Climate Change
  - Intergovernmental Panel on Climate Change, Task Force on National GHG Inventories,
  - International Energy Agency,
  - Maldives,
  - Turkey,
  - Uzbekistan,
  - Brazil,
- and so on...

# Workshop flow



## Day 1: 3<sup>rd</sup> August, Monday

- Mutual Learning (Closed Session), Agriculture, and IPPU
- Hands-on Training on IPCC Inventory Software

## Day 2: 4<sup>th</sup> August, Tuesday

- Opening Session
- Session I: Updates on the GHG Inventories in Biennial Transparency Reports (BTRs) and National Inventory Documents (NIDs)
- Session II: Estimation Methodology and Data for Energy Sector
- Session III: Towards Reducing the Use of Flexibility

## Day 3: 5<sup>th</sup> August, Wednesday

- Session IV: Technical Expert Review and Support Available
- Poster session
- Wrap-up Session
- Joint Meeting of the WGIA Organizing Committee (OC) and Advisory Board (AB) (Closed Session)

## Study tour: 6<sup>th</sup> August, Thursday

- 8 • Visit to Brunei Methanol Company (BMC)



# NC, BUR & BTR submission status in Asian countries

Submitted

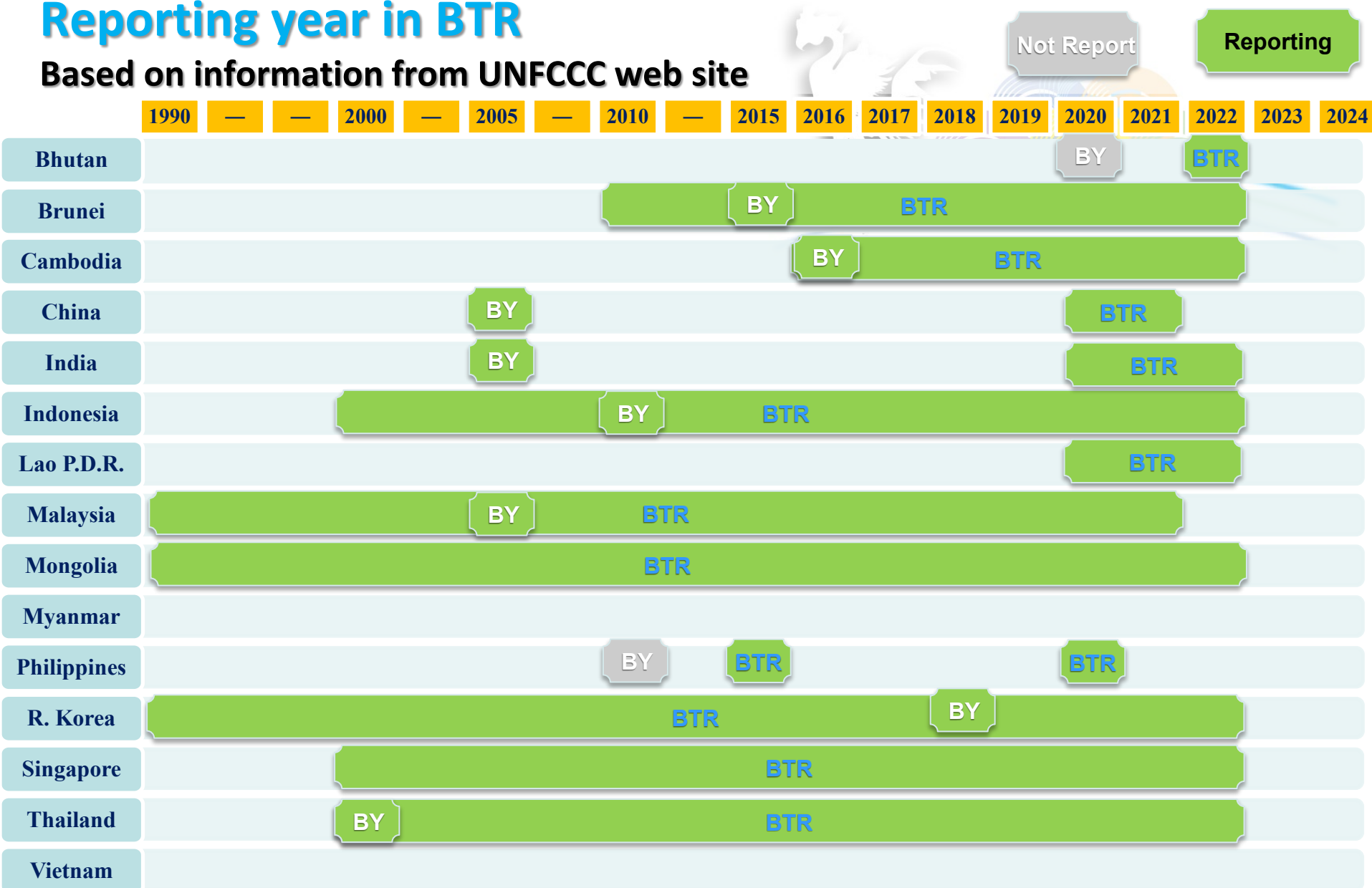
Based on information from UNFCCC web site

|             | 1998 | —   | 2010 | —           | 2015 | 2016 | 2017 | 2018        | 2019        | 2020 | 2021 | 2022        | 2023        | 2024        | 2025 | 2026 |
|-------------|------|-----|------|-------------|------|------|------|-------------|-------------|------|------|-------------|-------------|-------------|------|------|
| Bhutan      |      | NC1 |      | NC2         |      |      |      |             |             |      | NC3  | BUR1        |             | BTR         |      |      |
| Brunei      |      |     |      |             |      | NC1  | NC2  |             |             |      |      |             |             | BTR         |      |      |
| Cambodia    |      | NC1 |      |             |      | NC2  |      |             |             | BUR1 |      | NC3         |             | BTR         |      |      |
| China       |      | NC1 |      | NC2         |      |      | BUR1 |             | NC3<br>BUR2 |      |      |             | NC4<br>BUR3 | BUR4<br>BTR |      |      |
| India       |      | NC1 |      | NC2         |      | BUR1 |      | BUR2        |             |      | BUR3 |             | NC3         | BUR4        |      | BTR  |
| Indonesia   |      | NC1 |      | NC2         |      | BUR1 |      | NC3<br>BUR2 |             |      | BUR3 |             |             | BTR         |      |      |
| Lao P.D.R.  |      | NC1 |      | NC2         |      |      |      |             |             | BUR1 |      |             |             | NC3         | BTR  |      |
| Malaysia    |      | NC1 |      | NC2         |      | BUR1 |      | NC3<br>BUR2 |             | BUR3 |      | BUR4        |             | NC4<br>BTR  |      |      |
| Mongolia    |      | NC1 | NC2  |             |      |      | BUR1 | NC3         |             |      |      |             | BUR3        | NC4         | BTR  |      |
| Myanmar     |      |     |      | NC1         |      |      |      |             |             |      |      |             |             |             |      |      |
| Philippines |      | NC1 |      | NC2         |      |      |      |             |             |      |      |             |             |             |      | BTR  |
| R. Korea    | NC1  | NC2 |      | NC3         | BUR1 |      | BUR2 |             | NC4<br>BUR3 |      | BUR4 |             |             |             |      | BTR  |
| Singapore   |      | NC1 | NC2  | NC3<br>BUR1 |      | BUR2 |      | NC4<br>BUR3 |             | BUR4 |      | NC5<br>BUR  |             | BTR         |      |      |
| Thailand    |      | NC1 |      | NC2         | BUR1 |      | BUR2 | NC3         |             | BUR3 |      | NC4<br>BUR4 |             | BTR         |      |      |
| Vietnam     |      | NC1 | NC2  | BUR1        |      |      | BUR2 |             | NC3         |      | BUR3 |             |             |             |      |      |

NC: National Communication BUR: Biennial Update Report BTR: Biennial Transparency Report

# Reporting year in BTR

Based on information from UNFCCC web site



BY: Base Year BTR: Reporting in Biennial Transparency Report

# Expected outcomes of WGIA23



- Enhancement of the quality of GHG inventories for BTRs
  - Enhancement of understanding of the methodology of Energy sector
  - Enhancement of understanding of the current reporting status, including the application of flexibility provisions
  - Strengthening of the participants' understanding of the technical expert review (TER)
- Accurate GHG inventories will contribute to future planning and assessment of the progress towards emission reduction targets under the Paris Agreement.



# Thank you

Presentation Material:

<https://nies.box.com/s/sko9z12awzizua0d3jhg2m9sguacfnnn>

GIO website: <https://www.nies.go.jp/gio/en/index.html>

WGIA website: <https://www.nies.go.jp/gio/en/wgia/index.html>

# Virtual Participation Guidelines



- Sessions are **recorded** for the purpose of preparing proceedings.
- Please keep your **microphone muted** and your **camera switched off** during the meeting.
- Change your username as follows.

**<Country/Organization> <First Name> <Last Name>**

Click “Participants” > “More” > “Rename”.

- When requesting to speak,
  - Please **use the chat function** in order to be acknowledged.
- When you are given the floor,
  - Please unmute your microphone (and if able, turn your camera on)
  - Identify yourself