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Record of the facilitative sharing of views at the sixtieth session of the Subsidiary Body for Implementation: Singapore

Note by the secretariat

Abbreviations and acronyms

BTR	biennial transparency report
BUR	biennial update report
CO ₂ eq	carbon dioxide equivalent
COP	Conference of the Parties
ETF	enhanced transparency framework under the Paris Agreement
FSV	facilitative sharing of views
GHG	greenhouse gas
HFC	hydrofluorocarbon
ICA	international consultation and analysis
LULUCF	land use, land-use change and forestry
MRV	measurement, reporting and verification
NDC	nationally determined contribution
non-Annex I Party	Party not included in Annex I to the Convention
PV	photovoltaic
SBI	Subsidiary Body for Implementation

I. Background and mandate

1. COP 16 decided that ICA of BURs from non-Annex I Parties would be conducted under the SBI in a manner that is non-intrusive, non-punitive and respectful of national sovereignty, with the aim of increasing the transparency of mitigation actions and their effects reported by those Parties.¹

2. COP 17 adopted the ICA modalities and guidelines,² according to which the ICA process consists of two steps: technical analysis of non-Annex I Parties' BURs by teams of technical experts, resulting in a summary report for each Party; and FSV, to which the BURs and summary reports serve as input.³

¹ Decision 1/CP.16, para. 63.

² Decision 2/CP.17, annex IV.

³ Decision 2/CP.17, annex IV, para. 3.

3. Pursuant to the ICA modalities and guidelines, the sixteenth FSV workshop was convened at SBI 60 on 5 June 2024 in Bonn for the following eight non-Annex I Parties for which there was a BUR and final summary report⁴ by 3 April 2024: Bosnia and Herzegovina, Democratic Republic of the Congo, Gabon, Malaysia, Mexico, Sao Tome and Principe, Singapore and Somalia.
4. Two three-hour sessions were chaired by the SBI Rapporteur, Ayşin Turpanci, and open to all Parties.
5. As one of the participating Parties, Singapore received 14 written questions in advance of the FSV workshop⁵ from Australia, the European Union, Japan, New Zealand, the United Kingdom of Great Britain and Northern Ireland, and the United States of America and addressed them via the FSV portal. This FSV record for Singapore summarizes the proceedings and, together with the summary report on the technical analysis of its fifth BUR,⁶ constitutes the outcome of the fifth round of ICA for the Party.

II. Summary of proceedings

6. On 5 June 2024 Singapore made a brief presentation on its fifth BUR. The presentation was followed by a question and answer session.
7. Singapore was represented by Joseph Teo from the Ministry of Sustainability and the Environment of Singapore.
8. Singapore presented an overview of its national circumstances and institutional arrangements, national inventory of anthropogenic emissions by sources and removals by sinks of all GHGs not controlled by the Montreal Protocol, mitigation actions and their effects, and capacity-building support provided and preparations at the national level for implementing the ETF.
9. Singapore highlighted that its total GHG emissions in 2018 were 53,201.07 Gg CO₂ eq (including LULUCF), which increased between 1994 and 2018 by 89.6 per cent without emissions and removals from LULUCF and by 89.4 per cent with emissions and removals from LULUCF, owing mainly to increasing emissions from the energy sector. The Party explained that its GHG emissions grew at a significantly slower rate than real gross domestic product owing to a reduction in emission intensity (by 44.5 per cent between 1994 and 2018) and energy intensity (by 39.8 per cent between 1994 and 2018). Singapore presented inclusion of emissions from the agriculture sector, recalculation of GHG time series and inclusion of new sectoral reporting tables under the waste and agriculture, forestry and other land use sectors as improvements since its previous BUR.
10. Singapore presented its NDC target under the Paris Agreement, updated in 2022, which is to reduce annual emissions to 60 Mt CO₂ eq by 2030 following a peak in its emissions. The Party also has a long-term goal to achieve carbon neutrality by 2050. Singapore presented key policies and measures for achieving its NDC target, including by transitioning to a power grid that achieves net zero emissions by 2050 through increased efficiency of natural gas power generation, maximizing the deployment of solar PV systems, encouraging low-carbon electricity imports and low-carbon alternative energy sources and managing energy demand across all sectors, including household, through a whole-of-nation movement towards sustainable development and net zero emissions. In addition, the Party presented a carbon tax as a key enabler for shaping business decisions and consumer behaviours with a view to increasing the carbon tax to Singaporean Dollar (SGD) 50–80 (approximately USD 35–60)/t CO₂ eq by 2030.
11. Furthermore, Singapore provided information on capacity-building support to other developing countries as peer-learning opportunities, such as training workshops on

⁴ The BURs and summary reports for each ICA cycle are available at <https://unfccc.int/BURs> and <https://unfccc.int/ICA-reports> respectively.

⁵ As per decision 2/CP.17, annex IV, para. 6.

⁶ FCCC/SBI/ICA/2023/TASR.5/SGP.

transitioning to the ETF, tracking progress in implementing and achieving NDCs, and preparing BTRs.

12. Singapore presented information on its initiatives for enhancing its institutional arrangements for compliance with requirements under the ETF. The initiatives relate to workshops held to familiarize relevant government employees with the modalities, procedures and guidelines for BTRs with an aim to submit BTR1 by the end of 2024.

13. Following the presentation, the following Parties made interventions commending Singapore on its efforts and asked questions seeking further clarification: Australia, Canada, China, European Union, Germany, India, Japan, Malaysia, Netherlands (the Kingdom of), New Zealand, United Kingdom, and United States.

14. Questions on the GHG inventory related to the main drivers for the increase in emissions in the manufacturing and construction sectors, challenges in the refrigeration and air-conditioning sector, and use of satellite data in the LULUCF sector.

15. In response, Singapore explained that the increase in emissions in the manufacturing and construction sectors from 2000 to 2006 was driven by industrial growth and infrastructure development. Challenges in the refrigeration and air-conditioning sector include establishing national baselines for HFC consumption and emissions on the basis of the extensive subapplications of HFCs. To address these challenges, Singapore has implemented a HFC licensing regime and conducts surveys with companies. In the LULUCF sector, Singapore supplements satellite forestry data with proxy data from previous years to address issues with cloud cover and rapid development, procuring updated images every two years to ensure accurate tracking.

16. Questions on mitigation actions and their effects related to Singapore's energy-saving challenge, carbon pricing, policies on delivering the most significant emission reductions in the energy sector, and the impacts of floating solar PV systems on the quality of reservoir water and the environment.

17. In response, Singapore explained that its energy-saving challenge includes public outreach campaigns involving advertisements on television and social media to incentivize households to save energy, as reported in the fourth and fifth BURs. Singapore's approach to carbon pricing involves implementing a carbon tax as a form of revenue to support its transition towards a low-carbon economy, with time-limited support for emission-intensive, trade-exposed sectors, and allowing companies to use high-quality international carbon credits. Policies with the biggest impact in the energy sector include the SolarNova project, which accelerates solar PV deployment on government and social housing buildings, and the deployment of floating solar PV systems on reservoirs. Comprehensive studies conducted to assess and mitigate the impact of floating solar PV systems on water quality and flora and fauna have shown that appropriate planning and design have minimized their environmental impacts. Singapore expects to use revenue from carbon pricing to fund grants for energy-efficient projects.

18. Questions on constraints and gaps, and related needs pertained to the challenges in installing solar projects.

19. In response, Singapore explained that, as a small, highly urbanized city-state, it faces unique challenges in implementing large-scale renewable energy projects and maximizing land-use efficiency. Limited space and high population density make it difficult to install extensive renewable energy infrastructure while maintaining environmental sustainability and quality of life for its residents.

20. Other questions related to mechanisms to monitor and evaluate the progress of NDC implementation, research and development projects for climate solutions, and the involvement of government agencies in MRV processes. In response, Singapore explained that the monitoring and evaluation of NDC implementation are led by the National Climate Change Secretariat under the Prime Minister's Office, which coordinates plans and abatement strategies across government agencies. Singapore has committed nearly USD 20 billion from 2021 to 2025 for research and development, including for floating energy storage systems, solar PV technologies, and low-carbon hydrogen and carbon capture and storage. The MRV task force, co-chaired by the National Climate Change Secretariat and the Ministry

of Sustainability and the Environment, coordinates inputs from various government agencies to ensure accurate and comprehensive reporting.

21. The presentation and subsequent interventions including the questions asked and the answers provided during the FSV workshop are accessible via the webcast of the workshop.⁷

22. In closing the workshop, the SBI Chair congratulated Singapore for successfully undergoing FSV and completing the fifth round of the ICA process. He thanked Singapore and all other participating Parties for engaging in the workshop in a facilitative manner. He also thanked the secretariat for its support.

⁷ Available at https://unfccc-events.azureedge.net/SB60_99842/agenda.