

Expert Group on Telecommunication/ICT Indicators (EGTI)

Sub-group on National Greenhouse Gas Emission Monitoring Indicators

Terms of Reference - 2025

1. Introduction

At the 15th Meeting of EGTI (held in Geneva on 25-26 September 2024), Members agreed that a sub-group would be created on Environmental/sustainability of ICT sector indicators, specifically for monitoring national ICT sector greenhouse gas (GHG) emissions and energy use. The sub-group will be supported by ITU-D's [Climate Change and Emergency Telecommunication \(CET\) division](#) that has experience in the topic.

The ITU is tasked with assessing the environmental impact of its industry. In its 2024–2027 strategic plan, Target 2.5 focuses on boosting the role of ICT in climate and environmental action, measured by indicators such as the contribution of telecommunications/ICTs to global GHG emissions.

Reliable data on the ICT sector's climate impact is largely unavailable, unlike in transport and energy sectors with well-established measurement frameworks. This lack of data hinders informed decision making and targeted policy and regulatory action. Few countries monitor their national ICT sector's climate impact, resulting in significant data gaps.

2. Objective

The sub-group is expected to produce a concise document (approximately 10-15 pages) that outlines the scope and definition of environmental indicators for the ICT sector, specifically for monitoring national ICT sector greenhouse gas (GHG) emissions and energy use at the country level. This document should propose a set of harmonized indicators to measure the environmental impact of the ICT sector, including, but not limited to, Scope 1, 2, and 3 GHG emissions¹, total energy consumption, renewable energy usage, and climate-related targets. Indicators should cover data from different sub-sectors of the industry (e.g., telecom

¹ Most digital companies follow the GHG Protocol Corporate Accounting and Reporting Standard for calculating with CO₂ equivalent emissions. This standard identifies three scopes in reference to GHG emissions: Scope 1 are direct emissions from sources owned or controlled by a company. Scope 2 are indirect emissions from purchased electricity, heat, or steam consumed by the company. Scope 3 are indirect emissions from a company's value chain, including both upstream (e.g., supplier activities) and downstream (e.g., product usage) emissions. See ITU and World Benchmarking Alliance. 2024. Greening Digital Companies Report 2024. <https://www.itu.int/hub/publication/d-str-digital-04-2024/> and World Business Council for Sustainable Development and World Resources Institute. 2004. A Corporate Accounting and Reporting Standard (Revised Edition). <https://ghgprotocol.org/corporate-standard>

Reference to ISO 14064 and ITU L.1420 Recommendation used to report GHG emissions at organizational level are also relevant

operators, data centers²). The group should consider the feasibility of collecting data at the national level, taking into consideration the capacity of countries to collect and verify/validate data, and companies to produce and report on this data. The group should further consider frequency of data collection, and data quality and comparability. The main focus of the deliverable is on the identification of indicators that can be collected by administrations at the national level and reported to ITU. It will take into account existing efforts to identify indicators to monitor national GHG emissions and energy use, including the work undertaken by the ITU-T Recommendations either existing (such as ITU-T L.1450, ITU-T, ITU-T L.1472 (draft)) or planned (ITU-T L. Database countries recommendation to be finalized at the end of 2025).

The document should synthesize current practices in environmental data collection for the ICT sector, drawing on examples of what regulators are currently working on, and propose a harmonized measurement approach that is adaptable across diverse national contexts. This approach should detail how ICT regulators, in collaboration with national energy and environmental authorities, can effectively collect and report data and monitor impact. It should also identify existing data gaps and propose strategies for capacity building and collaboration to enhance data accuracy and coverage. Additionally, the document should define the minimum data requirements necessary for international comparability and specify potential responsible agencies for data collection (e.g., ICT regulators, national statistics offices, environmental agencies). The end view of the proposal is to facilitate the future collection of this new set of indicators.

3. Membership/composition

The work of the sub-group will be coordinated by Ms Loïs Ponce from Arcep France, who will act as chair/rapporteur. ITU-D's CET team will also support the coordination efforts. The sub-group will be open to all interested EGTI members, as well as external experts, and experts from both developed and developing countries are encouraged to participate. The Chair will send a message to the EGTI members, respectively, to ask for volunteers for the sub-group. Members are expected to contribute actively to the work of the sub-group and, preferably, share their experience in the collection of environmental indicators or be planning to engage in the collection of these indicators in the near future.

4. Methods of work

The sub-group will operate primarily online through Microsoft Teams or any other preferred online collaboration tool to facilitate the exchange of information and discussions. A collaborative document platform will be used for drafting and refining documents. This setup will enable the participation of interested members from EGTI. The coordinator/rapporteur will organise regular online meetings to address specific aspects of the work.

² A tiered approach would show a progressive escalation in terms of complexity (full coverage of the ICT sector) and reliability of collected indicators and make the deliverable “flexible” and in line with countries capacity building

To inform its work, the sub-group will actively share and exchange country and industry experiences in monitoring ICT sector GHG emissions and energy use. This includes taking into account existing research by ITU with partners such as the World Bank, the World Benchmarking Alliance, and Arcep France to leverage common indicators and best practices to harmonize climate data collection for the ICT sector.

The sub-group will draw on the experiences of countries already collecting environmental data for the ICT sector to develop a common and feasible set of indicators applicable internationally. Additionally, the sub-group will coordinate with other international organizations (e.g., OECD, UN ECE, World Bank) and ITU-T experts, and Study Groups to clarify technical questions and align methodologies especially ITU-T standards. Member countries and experts may be invited to present their data collection methods, results obtained, and challenges encountered. Member countries are encouraged to respond to these requests to support the group's efforts.

This report will effectively require strong support from other members of the group particularly to explain variations between regions, to explain how regulators can collaborate with other entities to share data, to synthesize environmental data collection practices and to propose collaborative strategies to improve data accuracy and coverage.

The outcomes of discussions will be posted on dedicated sections of the EGTI forums, accessible exclusively to sub-group members.

Regular updates and findings will be shared within the group to ensure transparency and collaborative progress toward developing standardized environmental indicators for the ICT sector. The final report will be shared with all EGTI Members.

5. Duration of work

The sub-group will start its work in February 2025, with initial discussion and drafting between February and May 2025, with a view to having a draft proposal ready by June 2025. The draft will then be shared with all EGTI members, who will provide their comments. The sub-group will integrate these comments and produce a final draft by the end of July 2025. The final sub-group report will be posted on the EGTI Forum by mid-August and presented at the 16th Meeting of EGTI taking place in Geneva from the 23-25 September 2025 and potentially at the WTIS and the GSR scheduled for 1 to 4 September.