

Development and Operation for Greenhouse Gas Inventory Reporting System(GIRS) for Paris Agreement Implementation

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Abstract

According to MPGs¹⁾ of the Paris Agreement in the Annex to decision 18/CMA.1, all the parties are required to estimate and report National Greenhouse Gas(GHG) Inventories using 2006 IPCC Guidelines by December 31, 2024. To comply with it, “Greenhouse Gas Inventory and Research Center of Korea”(GIR) has been coordinating with relevant ministries since 2020 to develop IT system, GHG Inventory Reporting System(GIRS).

GIRS has the function of compiling and organizing emission sources, activity data, and emission factors in the Republic of Korea’s (ROK) own format. This format the GHG Inventory Format (GIRF) is used for reporting between compilers and the coordinator according to the annually updated MRV (Measurement, Reporting, and Verification) framework. Additionally, it compiles GHG inventory estimates by sector. Users can import data and conduct mutual reviews to identify calculation errors, ensure time-series consistency, and generate National Inventory Reports with QA/QC reports. It is designed to use the entry file of the Enhanced Transparency Framework (ETF) GHG inventory reporting tool to create Common Reporting Tables (CRT). The system is continuously being improved to enhance the calculation functions for GHG emissions and to include analysis and visualization features. through GIRS, It is expected that Transparency, Accuracy, Completeness, Consistency, and Comparability (TACCC) will be enhanced and work efficiency will be increased.

References/ Publications

- 1) Decision 18/CMA.1 Modalities, procedures and guidelines for the transparency framework for action and support referred to in Article 13 of the Paris Agreement, 2019, Report of the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement on the third part of its first session, held in Katowice from 2 to 15 December 2018, UNFCCC
- 2) Decision 18/CMA.1, Annex, Chapter II, E. Reporting guidance, 2019, Report of the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement on the third part of its first session, held in Katowice from 2 to 15 December 2018, UNFCCC
- 3) Decision 5/CMA.3, 2022, Report of the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement on its third session, held in Glasgow from 31 October to 13 November 2021, UNFCCC
- 4) Article 13 of the Paris Agreement, 2015, the Paris Agreement, UNFCCC
- 5) Fourth Biennial Update Report of the Republic of Korea, 2021, GHG Inventory and Research Center of Korea
- 6) Hands-on Training ETF GHG Inventory Reporting Tool, 2024, UNFCCC Secretariat