

National GHG Inventory System in the Republic of Korea

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Abstract

In 2013, the total population of South Korea was estimated at approximately 50,220 thousand, about 0.7% of the world's total population. This ranked South Korea as the 25th most populous country in the world. The nominal gross domestic product (GDP) of South Korea showed a consistent increase since 1990, rising by an average annual rate of 207.6%. Energy consumption, vehicle registration, and waste generation surged as well.

The National GHG Inventory details national GHG emissions in energy, industrial processes, agriculture, LULUCF (land use, land-use change and forestry), and waste sectors in accordance with the Intergovernmental Panel on Climate Change's Guidelines (IPCC GL) from 1990 to 2013.

To enhance the transparency and accuracy of the national GHG inventory, South Korea keeps the measurement and verification processes separate while preparing the national GHG inventory. In the measurement process, relevant ministries review and submit inventory documents prepared by sectoral agencies to Greenhouse gas Inventory and Research Center (GIR). In the verification process, GIR reviews inventories from each sector and requests additional data and revisions if necessary before producing a verification report and the draft national inventory. After technical assessments and deliberations by the Technical Group and the Working Group, the Management Committee reviews and approves the final draft of the national GHG inventory.

The GHG emissions in South Korea in 2013 were 694.5 million tons of CO_{2eq}. (Excluding LULUCF). This represented a 137.6% increase from 292.3 million tons of CO_{2eq} in 1990 and a 1.5% increase from 684.3 million tons of CO_{2eq} in 2012. GHG Emission trends from 1990 to 1997 showed an annual increase of over 5% per year. Emissions in 1998 declined significantly due to the East Asian economic crisis but grew again thereafter as the regional economy stabilized and experienced renewed growth. The share of each sector in the total GHG emissions in 2013 is 87.3% for the energy sector, 7.6% for the industrial processes sector, 3.0% for the agriculture sector, and 2.2% for the waste sector, respectively. Looking into the emissions pathway by year, GHG emissions in South Korea were expected to reach their peak during 2013 to 2014 and begin to decline, resulting in the decoupling of GHG emissions from economic growth.

References

First Biennial Update Report of the Republic of Korea to UNFCCC

Access to relevant information

<http://www.gir.go.kr/eng/>