Preparation of Japan's National Greenhouse Gas Inventory and Trends in GHG Emissions

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Abstract

Under Article 4 and 12 of the United Nations Framework Convention on Climate Change (hereinafter, Convention) and relevant decisions adopted by the Conference of the Parties, the Annex I parties including Japan (i.e. developed countries) are required to prepare national greenhouse gas (GHG) inventories and submit them to the Secretariat of the Convention. Moreover, Article 7 of the Act on Promotion of Global Warming Countermeasures, which provides for domestic measures under the Convention, requires the Government of Japan to annually estimate and make public Japan's GHG emissions and removals.

In accordance with these Articles, the Greenhouse Gas Inventory Office of Japan (GIO) develops the GHG inventory in cooperation with private consultant companies under a contract with the Ministry of the Environment. Before preparing GHG inventories, GIO collects data from relevant ministries, agencies and organizations to estimate emissions and removals. Based on these data together with other data from different publications, GIO then compiles the GHG inventory.

Japan's total GHG emissions in FY2016 were 1,307 million tonnes of carbon dioxide (CO_2) equivalents (Mt CO_2 eq.; the same shall apply hereafter).

This is a decrease of 1.2% (16 Mt CO_2 eq.) and 7.3% (103 Mt CO_2 eq.) when compared to the FY2015 and FY2013 emissions (1,323 Mt CO_2 eq. and 1,410 Mt CO_2 eq.), respectively, mainly because of the decrease in energy-related CO_2 emissions due to the decrease in energy consumption through energy conservation, and the increase in the share of non-fossil fuels within the domestic energy supply brought by the wider adoption of solar and wind power and resumption of nuclear power plant operation, despite the increase in hydrofluorocarbon emissions from refrigerants that substitute for ozone-depleting substances.

This is also a decrease of 5.2% (72 Mt CO_2 eq.) when compared to the FY2005 emissions (1,379 Mt CO_2 eq.), mainly due to the decrease in energy-related CO_2 emissions owing to the decrease in energy consumption through energy conservation, despite the increase in hydrofluorocarbon emissions from refrigerants that substitute for ozone-depleting substances.

Access to relevant information

http://www-gio.nies.go.jp/index-j.html