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 GHG inventories in cooperation with private consultant companies on request by 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 a GHG inventory.

Japan's total GHG emissions in FY2015 were 1,325 million tonnes of carbon dioxide (CO_2) equivalents (Mt CO_2 eq.; the same shall apply hereafter).

This is a decrease of 2.9% (39 Mt CO_2 eq.) and 6.0% (84 Mt CO_2 eq.) when compared to the FY2014 and FY2013 emissions (1,364 Mt CO_2 eq. and 1,409 Mt CO_2 eq.), respectively, mainly because of the decreased energy-related CO_2 emissions owing to lowered CO_2 emissions from power generation, as a result of decreased electricity consumption (due to energy conservation, cool summer and mild winter, etc.) and the improvement of carbon intensity in power generation (due to greater adoption of renewable energy, resuming nuclear power operation, etc.).

This is also a decrease of 5.3% (74 Mt CO_2 eq.) when compared to the FY2005 emissions (1,399 Mt CO_2 eq.), mainly due to the decreased energy-related CO_2 emissions in the industrial and transport sectors, despite the increase in hydrofluorocarbon (HFC) emissions from refrigerants following their substitution in place of ozone-depleting substances.

Access to relevant information

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