

## Japan's National Greenhouse Gas Emissions in Fiscal Year 2012 (Final Figures)

The Ministry of the Environment summarized Japan's National Greenhouse Gas Emissions (final figures<sup>1</sup>) in fiscal year (FY) 2012 in accordance with the *Act on Promotion of Global Warming Countermeasures*.

Total emissions in FY2012 (final figures) were 1,343 million tonnes of carbon dioxide equivalents (Mt CO<sub>2</sub> eq.), a 6.5% increase<sup>2</sup> compared to those of the base year under the Kyoto Protocol. Compared to those of FY2011, the emissions increased by 2.8%.

The five-year average for total emissions during the first commitment period of the Kyoto Protocol (FY2008-FY2012) was 1,278 Mt CO<sub>2</sub> eq. (1.4% increase from base year), and the five-year average for removals by forest and other carbon sinks that can be used toward achieving the target was 48.7 Mt CO<sub>2</sub> eq. (3.9% of base year)

Consequently, if the Kyoto mechanisms credits<sup>3</sup> are taken into account, the five-year average shows an 8.4%<sup>4</sup> decrease compared to the base year; therefore, Japan will have achieved its target for the first commitment period of the Kyoto Protocol (-6 % below base year level).

Developed country parties, including Japan, are required to prepare national greenhouse gas (GHG) inventories and submit them to the United Nations Framework Convention on Climate Change Secretariat under Article 4 of the Convention and Article 7 of the Kyoto Protocol to the UNFCCC. Moreover, Article 7 of the *Act on Promotion of Global Warming Countermeasures*, which provides for domestic measures for the UNFCCC, requires the Government of Japan to annually estimate and make public Japan's GHG emissions and removals.

The results of the estimations of GHG emissions and removals for FY 2012 in accordance with the above articles are shown in the attached documents.

Japan's total greenhouse gas emissions in FY2012 (final figures<sup>1</sup>) were 1,343 Mt CO<sub>2</sub> eq. The emissions increased by 6.5 %<sup>2</sup> (81.8 Mt CO<sub>2</sub> eq.) compared to those of the base year under the Kyoto Protocol (FY1990 for CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, and calendar year (CY) 1995 for HFCs, PFCs, SF<sub>6</sub>).

Total emissions increased by 2.8% (36.6 Mt CO<sub>2</sub> eq.) when compared to those of FY2011 (1,307 Mt CO<sub>2</sub> eq.), mainly due to an increase in fossil fuel consumption in response to the expansion of thermal power generation triggered by the Great East Japan Earthquake, despite the decrease in manufacturing production and the further implementation of power saving measures in the residential sector.

The five-year average for total emissions during the first commitment period of the Kyoto Protocol (FY2008-FY2012) was 1,278 Mt CO<sub>2</sub> eq., a 1.4% increase from the base year.

Removals by forest and other carbon sink measures under the Kyoto Protocol in FY 2012 were 52.8 Mt CO<sub>2</sub> eq. (consisting of 51.7 Mt CO<sub>2</sub> eq. by forest carbon sink measures and 1.1 Mt CO<sub>2</sub> eq. by urban revegetation). The removals corresponded to 4.2% of the total emissions in the base year (of which 4.1% is from removals by forest carbon sink measures).

With this, the five-year average for removals by forest and other carbon sinks that can be used toward achieving the target for the first commitment period of the Kyoto Protocol was 48.7 Mt CO<sub>2</sub> eq. (consisting of 47.7 Mt CO<sub>2</sub> eq. by forest carbon sink measures<sup>5</sup> and 1.0 Mt CO<sub>2</sub> eq. by urban revegetation). The removals corresponded to 3.9% of the total emissions in the base year (of which 3.8% is from removals by forest carbon sink measures).

<sup>1</sup> Concerning the estimation of the final figures: “final figures” means the figures officially submitted to the UNFCCC secretariat as Japan’s GHG emissions and removals in a national GHG inventory. The final figures compiled at this time will be revised when annual values in statistical data are updated, and/or estimation methods are revised.

<sup>2</sup> Concerning the increase in actual total emissions compared to the base year: the value “6.5% increase” does not take into account either the promotion of forest carbon sink measures or the Kyoto mechanisms credits.

<sup>3</sup> Kyoto mechanisms credits:

Acquired by the Government: Total credits that were acquired as of FY2013 year-end through the Kyoto Mechanisms Credit Acquisition Program (97.493Mt).

Acquired by the private sector: The amount of credits that were acquired by the Federation of Electric Power Companies of Japan (according to the *Environmental Action Plan by the Japanese Electric Utility Industry* [FY2013])

<sup>4</sup> Total emissions and removals for the Kyoto Protocol target will be finalized after the technical review process under the Kyoto Protocol and the Convention to be conducted in FY2014. Also, the Kyoto mechanisms credits will be finalized after the true-up period for the first commitment period (expected to be completed in the second half of 2015 or later).

<sup>5</sup> The removals by forest carbon sink measures exceeded the upper limit (238.3 Mt-CO<sub>2</sub> for the five years) set for Japan for use toward achieving the target, therefore the value is the upper limit per year.

Attached File:

- Japan’s National Greenhouse Gas Emissions in Fiscal Year 2012 (Final Figures) <Executive Summary >

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Ministry of the Environment  
Government of Japan

Greenhouse Gas Inventory Office of Japan  
National Institute for Environmental Studies