September, 2009

Japan's informal submission on information and data to facilitate further consideration of the LULUCF options

Japan informally submits information and data related to forest, taking into account the guidance "List of data/information that could facilitate further consideration of the LULUCF options" prepared by the UNFCCC secretariat in AWG-KP intersessional informal consultations held in Aug 2009.

This submission only addresses the forestry issue.

1. Net GHG emissions/removals from forest under the UNFCCC and Article 3.3 and 3.4 of the Kyoto Protocol to the UNFCCC.

The data presented in Attachment 1 are (1) Net GHG emissions/removals from forest land under the UNFCCC (5.A.) in 1990, 1995, 2000, 2005, 2006 and 2007, (2) Net GHG emissions/removals from "forest management" of Article 3.4 under the Kyoto Protocol from 2005 to 2007, (3) Net GHG emissions/removals from Afforestation and Reforestation of Article 3.3 of the Kyoto Protocol from 2005 to 2007, and (4) Net GHG emissions/removals from Deforestation of Article 3.3 of the Kyoto Protocol from 2005 to 2007.

Japan emphasizes that (1) Net GHG emissions/removals from forest land under the UNFCCC and (2) Net GHG emissions/removals from "forest management" of Article 3.4 under the Kyoto Protocol are different. The reason is that the former accounts for the emissions/removals from all "managed forests" (approximately all forests in Japan) and the latter accounts only for the emissions/removals of forest where "forest management" activities have been carried out since 1990. In accounting for the latter, Japan takes "narrow approach"[1] where forests subject to specific practices of forest management since 1990 are identified and exclusively accounted for, "Forest management" activities include thinning and other forest management practices, which are necessary to maintain the relevant ecological (including biodiversity), economic and social functions of the intensively-managed forests in the sustainable forest management. Japan has been accelerating these forest management practices including thinning in order to meet its commitments under the Kyoto Protocol. Removal from "forest management" was estimated for approximately half of that from "managed forests" in 2007.

2. Age class structure of Japan

The data presented in Attachment 2 are age class structure of intensively-managed forest and age of representative species (Japanese cedar and Hinoki cypress) when their

[1] See IPCC Good Practice Guideline for Land Use, Land-use Change and Forestry 4.2.7.1 about the explanation of "narrow approach".

average growth volume becomes maximum in Japan. The data is for the estimation of forest maturity, and Japan considers the data important to consider the accounting rule of “forest management” under Article 3.4 of the Kyoto Protocol, since the maturity of forest considerably affects the amount of removal from forest in the future.

Peak of age class structure is 8 to 10 age class, and the forest in Japan is in the maturing stage, because the conversion from natural forest to intensively-managed forest was carried out during 1950s and 1960s when the demand of wood was growing, which implies net GHG removals from forests have started declining and will continue to decline toward 2020.

Japan recommends other countries to submit similar data for considering the effect of forest maturity.

3. Other data

Japan is currently working on other data related to forestry including future projections, taking into account the availability of data, and may submit them in due course.

Attachment 1

Category/activities	1990	1995	2000	2005	2006	2007
Net GHG emissions/removals from forest land under the UNFCCC (5.A.) (Gg CO2equivalent) *Note 1 and 2	-80,768.68	-84,355.05	-84,041.86	-87,494.19	-83,389.58	-82,864.91
Net GHG emissions/removals from "forest management" of Article 3.4 under the Kyoto Protocol (Gg CO2equivalent) *Note1 and 3				-37,508.43	-39,515.90	-41,920.88
Net GHG emissions/removals from Afforestation and Reforestation of Article3.3 of Kyoto Protocol (Gg CO2equivalent)				-340.62	-385.51	-400.25
Net GHG emissions/removals from Deforestation of Article 3.3 of Kyoto Protocol (Gg CO2equivalent)				2,412.60	2,688.62	2,352.40

Note1: Net GHG emissions/removals from forest land under the UNFCCC and "forest management" of Article 3.4 under the Kyoto Protocol are different because the former accounts for the emissions/removals from all "managed forests" (approximately all forests in Japan), and the latter only accounts for the emissions/removals of forest where "forest management" activities have been carried out since 1990.(See Note 2 and 3 as well)

Note2: The definition of forest under the UNFCCC is "Forests under Forest Law Artilce 5 and 7.2", which is approximately the same as the whole forest of Japan.

Note3: Japan' s interpretations of the definitions of "forest management" are as follows: (1) in "Ikusei-rin" forest (anthropogenically regenerated forest), activities for "forest management" are appropriate forest practices including regeneration (land preparation, soil scarification, planting and etc.), tending (weeding, pre-commercial cutting and etc.), thinning and harvesting which have been carried out since 1990, (2) in "Tennensei-rin"forest (naturally regenerated forest), activities for "forest management"are practices for protection or conservation of forests controlling logging activities and land use chnage which have been carried out by laws.

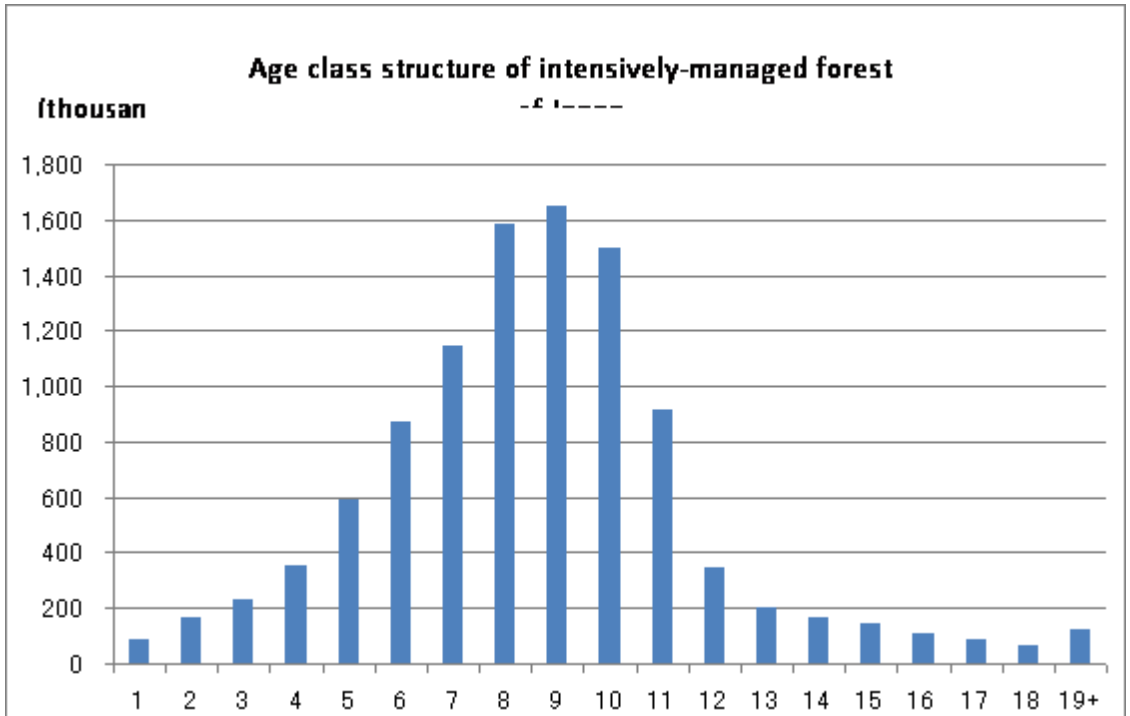
Note4: Negative sign = Removal, Positive sign = Emission

Attachment 2

(1) Age Class Structure of intensively-managed forest of Japan in 2007

Age class	1	2	3	4	5	6	7	8	9	10
Age	1-5	6-10	11-15	16-20	21-25	26-30	31-35	36-40	41-45	46-50
Area (thousand ha)	88	168	227	352	593	873	1,143	1,582	1,649	1,500

Age class	11	12	13	14	15	16	17	18	19+
Age	51-55	56-60	61-65	66-70	71-75	76-80	81-85	86-90	91-
Area (thousand ha)	918	345	200	168	141	106	90	62	120



(2) Age of representative species when their average growth volume* becomes maximum

- Japanese cedar: Age 24-39
- Hinoki cypress: Age 22-34

Note1: Japanese ceder and Hinoki cypress are two main species for intensively-managed forest. The area of Japanese ceder occupies around 44% of the intensively-managed forest area, and the area of Hinoki cypress occupies around 25% of the intensively-managed forest area.
Note2: (averge growth volume) = (volume) / (age)