

**Japan's view on the implication of possible options  
for the treatment of land use, land-use change and forestry (LULUCF)**

The AWG-KP agreed, at the first part of its fifth session, that measures to limit or reduce greenhouse gas emissions and to enhance removals resulting from land use, land-use change and forestry (LULUCF) activities should continue to be available to Annex I Parties as means to reach their emission reduction targets (FCCC/KP/AWG/2008/2, paragraph 19).

The AWG-KP also identified, at the resumed fifth session, "options and issues for consideration" of the definitions, modalities, rules and guidelines for the treatment of LULUCF in the second commitment period of the Kyoto Protocol, based on views and observations presented by Parties at the session. These "options and issues" were to be further considered at the first part of the sixth session (FCCC/KP/AWG/2008/3, paragraphs 23-27 and Annex IV).

The AWG-KP then compiled, at the first part of its sixth session, the result of the discussion on Article 3.3 and forest management under Article 3.4 of the Kyoto Protocol as four options for amendments to decision 16/CMP.1 to be further considered at the second part of its sixth session. The options are 1) gross-net accounting, 2) net-net accounting, 3) forward-looking baseline accounting, and 4) land-based accounting. In order to share information to enhance understanding of the implications of possible options for the treatment of LULUCF, Parties are invited to submit relevant information on a voluntary basis to the secretariat before the second part of the sixth session. In addition, activities under Article 3.4 of the Kyoto Protocol other than forest management will be considered in due course (FCCC/KP/AWG/2008/5, paragraphs 27-29 and Annex III).

Japan has already submitted in March, 2008 its view on the treatment of LULUCF as part of its views and information on the means to achieve mitigation objectives (FCCC/KP/AWG/MISC.1/Add.1), and in August, 2008 its more detailed view on "Options and issues for consideration" of the treatment of LULUCF ([http://unfccc.int/files/kyoto\\_protocol/application/pdf/japan.pdf](http://unfccc.int/files/kyoto_protocol/application/pdf/japan.pdf)). Japan welcomes the opportunity to further present our view and would like to submit the following.

**1. Basic ideas**

The rules for the treatment of LULUCF in the second commitment period of the Kyoto Protocol should be designed in a manner that incentives would be provided to activities which will contribute to facilitating carbon sequestration and emissions reduction in the long term

on land such as forests and cropland, and that these activities should not be hampered by the rules.

As referred to in the IPCC's 4th Assessment Report (AR4), in the long term, a sustainable forest management strategy aimed at maintaining or increasing forest carbon stocks, while producing an annual sustained yield of timber, fibre or energy from the forest, will generate the largest sustained mitigation benefit. Therefore, it is necessary to ensure that the rules related to forest sinks promote such practices of sustainable forest management.

Since increase of any kinds of biomass has limitation under limited environment, increase of forest carbon stock, or forest growth, will inevitably become slower in the long term in any countries or regions (Fig.1). The same applies to the case where the carbon stock in harvested wood products (HWPs) is added to the forest carbon stock, since the carbon stock in HWPs also could not be increased infinitely.

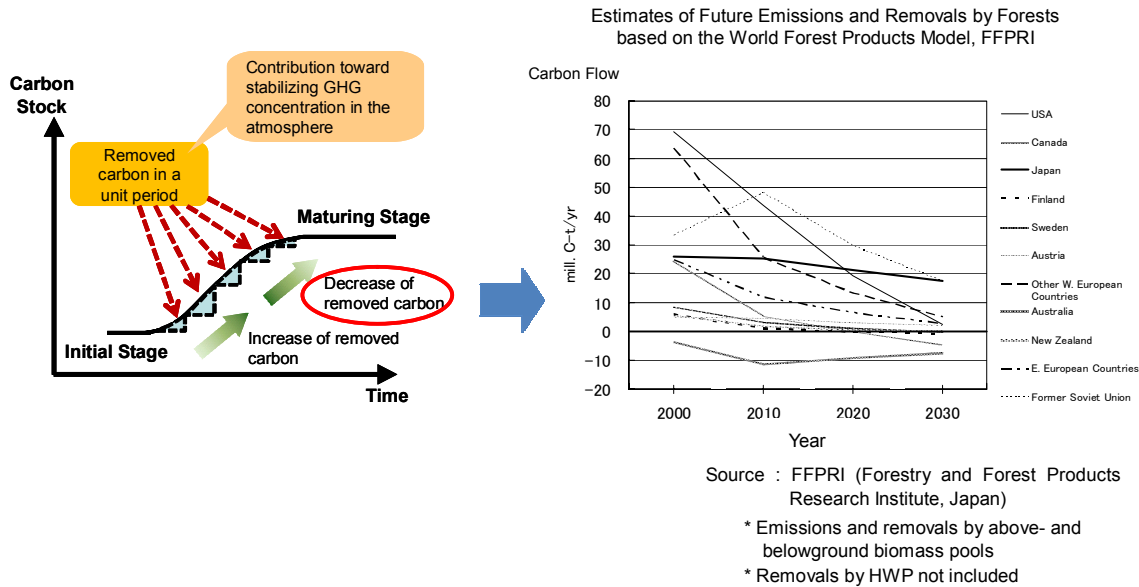


Fig.1

There should be continuity with the rules for the treatment of forests, because forests grow over many decades and forest/forestry policy needs continuity through decades. For a country which has already been implementing forest/forestry policy in accordance with the rules of the first commitment period, significant change of the rules would bring unclear policy perspectives and cause serious confusion. If discontinuity in the rules has negative impacts on the implementation of the long-term forest/forestry policy, voluntary selection of forest management should be maintained even for a Party which has selected forest management accounting under Article 3.4 of the Kyoto Protocol during the first commitment period.

The rules for the treatment of HWPs which encompass the notion of "emissions from wood

removed from an area of forest" discussed in the first part of the AWG-KP sixth session should have consistency with the accounting rules for forest carbon sinks under Article 3.3 and 3.4, and should contribute to promotion of sustainable forest management.

HWP's contribution to climate change mitigation is not negligible because of their characteristics of storing carbon for a long term and of consuming less energy than other materials during processing. Therefore, the rules for HWPs should be designed in a manner that long and multistage use of HWPs would be promoted.

In considering the HWP rules, there are several points to which due attention should be paid, i.e. to secure equity between timber exporting countries and importing countries, not to promote unsustainable logging in non-Annex I countries, and not to generate excessive credits merely by changing the accounting method.

Where the different levels of data accuracy among countries significantly affect the results of HWPs accounting, an option to allow delaying the accounting for emissions from wood removed from forests according to the categories of wood products should be examined as a practical accounting method under the limited data availability, considering that data of such removed wood generally have higher accuracy.

## **2. Implication of respective options**

Based on the basic ideas described in 1 above, Japan would like to present our views on the implication of each of the four options compiled at the first part of the sixth session of the AWG-KP on mitigation measures by the forest sector.

### **(1) Option 1 (gross-net accounting)**

Under the gross-net accounting, the carbon actually removed from the atmosphere is accounted for as far as forests keep growing, even if removals start decreasing in the long run. This accounting method would provide an incentive for sustainable forest management at any growth stage of the forest since the degree of contribution to climate change mitigation is assessed and accounted for.

Japan is promoting forest management practices such as thinning, which is vital to keep forests sound, as a means to achieve our reduction target for the first commitment period under the current rules. It should be noted that the present rules have been providing incentives to promote sustainable forest management, and Japanese citizens also expect the forestry sector to contribute to the mitigation of climate change. For a country which is promoting enhancement of sinks under the rules of the first commitment period, continuity of

the current rules is significantly important. If rules for the next commitment period substantially different from the current ones were adopted, incentives for implementation of sinks policy for the current commitment period would be undermined, in addition to the possible confusion for the promotion of forest/forestry policy in future. With gross-net accounting, continuity of the current rules would be maintained.

On the sub option of change of caps, setting caps well below removal potentials of forest management would undermine incentive for carbon sequestration and emissions reduction through forest management in each country. Indeed, during the first commitment period, the overall cap of Annex I Parties is only a part of the actual removal volumes or removal potentials shown in the AR4 of the IPCC due to the imposition of excessively limited caps upon many Annex I Parties. This might be one of the main reasons that several countries have pointed out that the current rules do not provide incentives for sustainable forest management.

On the other hand, in a case a country achieves carbon removal substantially larger than its removal potential from forest management estimated beforehand, it is likely that the necessity for the effort to reduce emissions from fossil fuels might be diminished. Establishment of a proper cap corresponding to the potential for removals by forest management is supposed to be effective for avoiding such situation.

With regard to a discount factor(s), it is assumed that this option is to deal with factoring out that only removals caused directly by anthropogenic activities should be accounted for. This is part of the principles governing the treatment of LULUCF sector listed in the decision 16/CMP 1. However, it should be noted that the IPCC has reported that "The scientific community cannot currently provide a practicable methodology for factoring out." (Expert Meeting Report of "IPCC Meeting on Current Scientific Understanding of the Processes Affecting Terrestrial Carbon Stocks and Human Influences upon Them", July, 2003)

The activity-based approach is therefore considered the most appropriate as a practical means to deal with the issue of factoring out, which allows the accounting of emissions and removals only from forests where anthropogenic activities have been implemented since the base year.

## **(2) Option 2 (net-net accounting)**

This accounting method is applied to activities of Article 3.4 other than forest management and there is an argument that natural and indirect anthropogenic effects such as those of age structure could be excluded with this method. However, in countries where the forest growth hits its peak after the base year, the effect of age structure itself would generate substantial

removals in the short-term. It is therefore not appropriate to conclude that net-net accounting actually factors out natural effects.

Under net-net accounting, even if forests keep removing carbon from the atmosphere, gradual decrease of removals would be counted as emissions. As it is inevitable that removals by forest decline in the long term, net-net accounting might provide a misleading picture on the status of forest management and would hamper efforts in the forestry sector toward climate change mitigation from a long-term perspective, even though those activities contribute to climate change mitigation through carbon sequestration.

Forests provide co-benefits other than climate change mitigation such as biodiversity conservation. In general, these co-benefits of forests would be better demonstrated when the forest stock is maintained in high level. In case that the forest stock is maintained in high level, forest growth often becomes slower. As mentioned above, removals during and after transition to this maturing stage would be assessed negatively in net-net accounting.

In the light of consistency and continuity with the rules for the first commitment period, net-net accounting is not appropriate as removals would turn negative in countries whose forest growth is gradually decreasing.

Furthermore, net-net accounting would pose an issue of equity and objectivity since removals to be accounted for would vary significantly depending on the base-year setting.

### **(3) Option 3 (forward-looking baseline)**

With baseline accounting, where the difference between actual removals and projected baseline removals without anthropogenic activities is to be accounted for, it might be anticipated to reduce the shortcomings of net-net accounting such as the effect of age structure.

However, there are many technical problems left in setting baselines while eliminating arbitrariness in the prospect of future forestry practices.

Depending on the manner to establish the baseline, there is a risk to discourage incentives for continuing forest management activities currently-conducted, and continuity would not be maintained.

Furthermore, in order to secure removals exceeding baseline in the commitment period, forest/forestry policy might be distorted which should be based on a long term perspective.

On revising baseline in response to natural disturbances as proposed in this option, measures should be implemented to prevent emissions resulting from natural disturbances such as forest fire or pests and diseases in forests where the anthropogenic activities have been identified since the base year. In addition, if the effect of natural disturbances is to be excluded, proper methods need to be duly explored.

If it is possible to exclude the effect of natural disturbances technically, this exclusion method will be applicable not only to forward-looking baseline accounting but also to gross-net or net-net accounting. Therefore, the exclusion of natural disturbances should be considered as a common issue among all the accounting methods.

#### **(4) Option 4 (land-based approach)**

Land-based approach covers all managed land and all emissions and removals in the whole LULUCF sector could be accounted for in theory. In addition, it is possible to take advantage of experiences in reporting under the current UNFCCC.

On the other hand, as shown in the reporting practices under the current UNFCCC, mandatory accounting of emissions and removals from all managed land by all the Annex I Parties is technically difficult, including from the aspect of poor data accessibility.

For some land use categories like wetland and settlement, methodologies and default values for accounting have not fully been established yet and accounting accuracy might vary significantly among countries.

It is assumed that under this option net-net accounting or forward-looking baseline (i.e. net-net accounting with forward-looking baseline) are a prerequisite, judging from the fact that land-based accounting is incorporated into Annex A to the Kyoto Protocol. In such a case, land-based approach will have the same shortcomings inherent in those two accounting as shown in (2) and (3) above.

It is needed first to present the structure of the accounting rule of this land-based option and then decide whether this option is adequate for consideration.

### **3. Conclusions**

As above-mentioned, Japan believes that the gross-net accounting with application of the activity-based approach to deal with the factoring out principle, which is the same as the current rules, is the most appropriate way for the treatment of forest management under Article 3.4 of the Kyoto Protocol.

As for the carbon sequestration through cropland management, there are various management measures by countries or regions (e.g. application of rice straw compost in Japan). Therefore, the rules for the treatment is needed which promote such activities and put emphasis on the consistency with the current rules.

Regarding revegetation, although the options of the accounting method have not been sorted out yet, we are open to discuss any good approaches including the continuation of the current rules.