# Japan's view on "Options and issues for consideration" of the treatment of land use, land-use change and forestry (LULUCF)

AWG-KP agreed, at the 1st part of its 5th session, that measures to 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)

AWG-KP also identified, at the 2nd part of its 5th session, "Options and issues for consideration" of the definitions, modalities, rules and guidelines for the treatment of LULUCF in the Annex IV of FCCC/KP/AWG/2008/3, based on the observations presented by the Parties at the session. These "Options and issues" are to be further considered at the forthcoming 1st part of AWG-KP6.

The following two elements are considered to be crucial with the proposed options for forest management under Article 3, paragraph 4 of the Kyoto Protocol in the "Options and issues for consideration":

- Activity-based approach (namely, an approach in which emissions and removals only from forests where anthropogenic activities have been implemented since the base-year would be accounted for), or land-based approach (namely, an approach in which emissions and removals from all land would be accounted for)
- Gross-net accounting, net-net-accounting, or baseline accounting

In order to share information for better assessment of the implications of the "Options and issues", Parties are invited to submit relevant information on a voluntary basis to the secretariat before the 1st part of AWG-KP6.

Japan has already submitted its view on the treatment of LULUCF as a part of its views and information, submitted in March, 2008, on the means to achieve mitigation objectives (FCCC/KP/AWG/MISC.1/Add.1). We welcome the opportunity to further present our view, and would like to submit the following based on the lessons learned from the experience of our efforts for the first commitment period in LULUCF sector.

#### 1. Basic idea

With the notable improvement of related scientific knowledge, it has been further proved that appropriate management of land such as forests and cropland contributes to the mitigation of climate change in the long term, as referred to in the IPCC's 3rd and 4th assessment report.

Therefore, the rules for the treatment of LULUCF in the second commitment period should be designed in a manner that incentives would be provided to activities which contribute to the optimization of emissions reduction and carbon sequestration in LULUCF sector, and those activities would not be hampered by the rules, in the long term.

As referred to in the IPCC's 4th assessment report, it is anticipated that carbon uptake by forests, i.e. forest growth, should be maintained through forest management which increases carbon stock associated with sustainable production and utilization of timber and woody biomass, contributing to removals and sequestration of CO2 from the atmosphere and reduction of fossil fuel consumption. This is no less the concept than sustainable forest management, and it is necessary for forest sinks to have rules which promote such practices of sustainable forest management.

Any kinds of biomass, which are under environment not boundless nor infinite, cannot grow infinitely. Consequently, the increase of forest carbon stock, i.e. forest growth, gradually decreases in the long term. This situation is the same when the carbon stock in harvested wood products (HWP) is considered in addition to the carbon stock in forests, because the carbon stock in HWP also could not be increased infinitely.

In order to promote mitigation measures of climate change in the forestry sector, it is considered necessary to have rules in which removals by sinks, which would decrease at certain point of time, would be accounted for according to the carbon volume actually removed from the atmosphere as far as forests keep removing. From this point of view, the most appropriate rule is gross-net accounting system.

Under net-net accounting, gradual decrease of removals would be regarded as emissions, even though forests still keep removing carbon from the atmosphere. As it is inevitable that removals would decline in the long term, net-net accounting, by which forestry activities contributing to mitigation through carbon sequestration could be negatively evaluated, might provide a misleading picture on the status of forest

management, and would hamper efforts in the forestry sector toward climate change mitigation. In this connection, our estimates based on the published data show that the removals by forest sinks in many Annex I countries would decrease in the long term. (See the annex to this submission.)

Baseline accounting is a way to account for the difference between the actual removals and the estimated removals as baseline where it is assumed that activities are not carried out. There is a possibility to reduce the shortcomings of the net-net accounting as mentioned earlier, however, there still remain various technical issues including methodology to establish baseline with avoiding arbitrariness and transparent verification method. It is therefore considered that as accounting rule which has substantial implication, the gross-net approach is superior with which methodologies on estimation and verification have already been established.

In addition, carbon storage in HWP should also be properly recognized, as harvesting is often a crucial element for maintaining forest growth, and harvesting itself dose not cause the increase of GHG concentration in the atmosphere. Accounting rule for this HWP should be considered along with that of forest carbon sink.

#### 2. Consideration on the cross-cutting issues

Japan would like to examine the implication of each option according to the cross-cutting issues identified in the above mentioned "Options and issues for consideration".

#### (1) Consistency, continuity from the current rules

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 according to the first period's 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 first commitment period's rules, continuity from the current rules is significantly important. If rules quite different from the current ones were adopted for the next commitment period during the current commitment period, implementation of sinks policy for the current commitment period would be seriously interfered. There should be due consideration to the consistency and continuity with the current rules in formulating the rules for the next commitment period.

From this point of view, it is considered that gross-net accounting, like the current rules, is the most appropriate. There would be no consistency with net-net accounting as removals would turn negative in countries whose forest growth is gradually decreasing.

# (2) Factoring out, including age structure and indirect climate change effects

Factoring out, a principle that only the removals resulting from the direct effects of additional anthropogenic activities are to be accounted for, was agreed as one of the principles governing the treatment of LULUCF in Decision 16/CMP.1.

For the first commitment period, as a practical means of factoring out, the activity-based approach, which allows the accounting of emissions and removals only from forests where additional anthropogenic activities have been implemented since the base-year, is adopted, and a cap is set to the each country's accounting of removals by forest management. IPCC has reported that scientifically factoring out is difficult.

With net-net accounting, removals in countries of age structure by which the peak of the forest growth will come after the base-year could be regarded as positive in the short-term. However, this is the very effect of age structure. Net-net accounting cannot factor out natural effects and that it is not a solution to this issue.

Strict application of the activity-based approach is considered the most appropriate, rather than net-net approach which might discourage incentives for long-term sustainable forest management, 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.

#### (3) Inter-annual variability

While countries may be in different situation of inter-annual variability of removals, its effect may not be so significant for many countries.

#### (4) Natural disturbances

In forests where the anthropogenic activities have been identified since the base-year,

measures should be implemented, as part of the forest management practices, to prevent emissions resulting from natural disturbances such as forest fire or pests and diseases.

# (5) Symmetry in the accounting of emissions and removals

It is important to keep the symmetry in the accounting of emissions and removals.

As for the forest management under Article 3, paragraph 4 of the Kyoto Protocol, both emissions and removals are to be accounted for. So there has already been the symmetry under the current rules.

### (6) Sustainable forest management

(Please see 1. above.)

# (7) Co-benefits, including biodiversity

Forests provide co-benefits other than climate change mitigation, such as biodiversity conservation. In general, these co-benefits of forests would be particularly demonstrated when the forest stock is maintained in high level.

In case that the forest stock is maintained in high level, forest growth often decreases. As mentioned above, the transition to this maturity stage would be regarded negative in net-net accounting.

## 3. Conclusions

As mentioned, it could be concluded that the gross-net accounting with strict application of the activity-based approach to realize the factoring out principle is considered the most appropriate for the treatment of forest management under Article 3, paragraph 4 of the Kyoto Protocol, like the current rules.

As for the HWP, we need to set up rules which are designed in a manner that utilization of HWP from sustainably managed forests would be further promoted and extended in a longer term, and application of woody biomass energy would not be discouraged. Accounting rule for HWP should be considered along with that of forest carbon sink.

As for the carbon sequestration through cropland management, there are various and potential management measures by nation or regions (e.g. application of rice straw

compost in Japan). The treatment rules which promote such activities should be designed. In addition, the consistency from the current treatment should be considered, including revegetation.

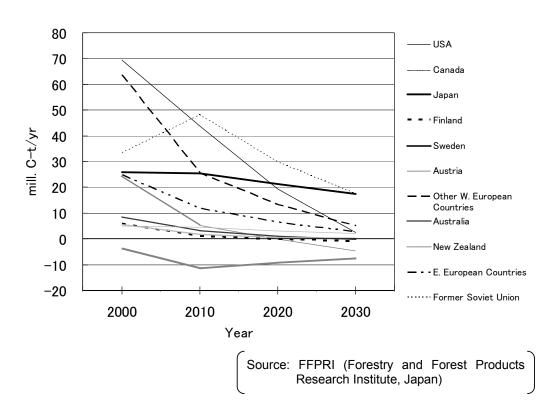
# 4. The way forward

In the future sessions we should strive for the earliest agreement on the definitions, modalities, rules and guidelines for the treatment of LULUCF. Japan would like to actively contribute to this way forward.

In this process, options for accounting packages of 3.4 activities and HWP should be considered, and the final conclusion should be reached through analyzing the following; 1) maximum utilization of mitigation potential by sinks, 2) incentive for sustainable forest management and appropriate cropland management, and 3) equity among Parties.

# Annex

# Estimates of Future Emissions and Removals by Forests based on the World Forest Products Model, FFPRI



- \* Emissions and removals by above- and belowground biomass pools
- \* Removals by HWP not included