



## WORKSHOP ON LAND USE, LAND-USE CHANGE AND FORESTRY MONDAY, 10 JULY 2000

The workshop on land use, land-use change and forestry (LULUCF) began with opening speeches and an overview of key issues raised in the IPCC Special Report on LULUCF. Participants then considered afforestation, reforestation and deforestation (ARD) under Article 3.3 of the Kyoto Protocol in morning and afternoon sessions.

### OPENING PLENARY

Harald Dovland (Norway), Chair of the Subsidiary Body for Technological and Scientific Advice (SBSTA) of the United Nations Framework Convention on Climate Change (FCCC), opened the meeting and welcomed participants. He said the new IPCC Special Report on LULUCF marked a watershed in work on this issue and provided a strong scientific basis for deciding on the various policy options available. He noted the upcoming 1 August deadline for the submission of country-specific data and information on proposals by Annex I Parties for activities related to Article 3.3 (ARD) and 3.4 (additional activities) of the Kyoto Protocol. Noting that COP-6 was rapidly approaching, he informed participants that consultations on LULUCF had been tentatively scheduled for the second week of October.

Antoni Tokarczuk, Minister of the Environment of Poland, noted that this workshop was being held in response to a request by SBSTA to analyze the IPCC Special Report in the context of the requirements of Protocol Articles 3.3 and 3.4. He stressed the importance of wise land use and forestry policies in addressing climate change concerns, and outlined elements of Poland's National Sustainable Forestry Policy, including, *inter alia*: conservation of existing forest areas; promotion of natural forest regeneration; and reduction of clear-cutting. Stating that LULUCF is one of the most important issues addressed by the Protocol, he urged participants to work to achieve "concrete results" at this meeting that could support the Protocol's entry into force in 2002.

COP-5 President Jan Szyszko (Poland) stressed the opportunity provided by this workshop to make progress on LULUCF. He noted the carbon storage, biodiversity, socio-economic and other benefits of sound forestry policy.

Halldor Thorgeirsson (Iceland), Co-Chair of the SBSTA contact group on LULUCF, noted concerns expressed by a number of Parties regarding the agenda items relating to discussion of possible elements of decisions. He stressed that this workshop was not a forum for negotiating outcomes.

IPCC Chair Robert Watson highlighted key issues for decisions, including: defining a forest, including single or multiple thresholds of canopy cover, and aggradation and degradation; excluding or including the harvest-regeneration cycle and the problem of accurately reflecting changes in carbon in the atmosphere; addressing the question of permanence; differentiating between direct and indirect human-induced activities; identifying which pools to monitor, including issues related to costs, the need for precision and technical feasibility, and monitoring of project-based activities; addressing 1990-2008 incentives and disincentives; and determining quantitative potentials considering accounting approaches and the definition of a forest, including effects under a single threshold.

### PROTOCOL ARTICLE 3.3: AFFORESTATION, REFORESTATION AND DEFORESTATION

**PRESENTATIONS:** Bernard Schlamadinger, IPCC/Joanneum Research, Austria, provided an overview of ARD issues under the IPCC Special Report, focusing on the harvest-regeneration cycle, aggradation/degradation and the limit of forest-nonforest conversions. He said that, under the IPCC definitional scenario, ARD activities are based on transitions between forest and non-forest uses. Under the FAO definitional scenarios, the harvest-regeneration cycle is included and aggradation/degradation can be included, although this requires multiple thresholds in the definition of a forest. He demonstrated the implications of definitional and accounting options and noted that the accounted stock change generally would be different from the actual stock change during a commitment period, which would lead to artificial credits and debits. He concluded that the IPCC definitional scenario provided the highest consistency between reported and actual changes in stocks in land undergoing ARD activities, noting that this scenario is likely to result in debits in Annex I Parties overall, and that aggradation/degradation would be easier to cover under Article 3.4 than under Article 3.3.

Michael Gytarsky, Institute of Global Climate and Ecology, Roshydromet and Russian Academy of Sciences, made a presentation on definitions of ARD within the framework of Articles 3.3 and 3.4 of the Protocol, suggesting that these definitions be extended to include various human activities aimed at reducing greenhouse gas emissions and increasing sinks. He suggested considering the inclusion of fire prevention as a human-induced activity under Article 3.4.

Klas Österberg, Principal Technical Officer, Swedish Environmental Protection Agency, discussed Swedish carbon budgets in relation to the Protocol. He outlined calculations on above-ground biomass carbon and emphasized that Article 3.3 would not benefit



Sweden, as slow growth in early rotation cannot compensate for harvested carbon, and could instead create a significant carbon debit.

Yuji Kimura, Office of Research and Information, Environment Agency of Japan, made a presentation on ARD under Protocol Article 3.3. On selection of a definition and accounting framework for Article 3.3 activities, he stated that these should include incentives to promote sinks activities. He highlighted incentives to promote forest management in Annex I countries where the harvesting-regeneration cycle is the key factor, and said the definition and accounting framework should encourage carbon sequestration in the harvesting-regeneration cycle. He supported the FAO activity-based accounting method, as it can promote appropriate harvesting and regeneration.

Yeshey Penjor, National Greenhouse Gas Project Manager, National Environmental Commission of Bhutan, discussed LULUCF in a national context. He defined land-use planning as a means of supporting farmers and rural communities dependent on natural resources to increase their standard of living sustainably without diminishing the future resource base.

Kazimierz Rykowski, Professor of Forestry, Polish Forest Research Institute, highlighted the importance of developing a set of definitions and accounting procedures, as well as a measuring and monitoring system. Noting difficulties in reaching agreement on the definition of a forest, he suggested focusing instead on seeking definitions and descriptions of ARD and "forestry activities." While agreeing with the IPCC's Special Report that afforestation and reforestation should be classified as forestry activities, he said deforestation should not be, as it does not take place within forest management.

**DISCUSSION:** In the ensuing discussion, FRANCE, speaking on behalf of the EU, said its position is still under consideration. However, he highlighted the Council of Ministers' Decision of 23 June 2000, which notes that, *inter alia*: the inclusion of sinks should not undermine the incentives for emissions reductions or biodiversity conservation; a decision on inclusion of further activities under Article 3.4 should not apply until after the first commitment period, unless concerns relating to scale, uncertainty and risks are resolved; sinks should not be included under the CDM; and decisions should be consistent with sustainable forest management.

The UK called for a simple, environmentally-defensible framework for decisions and accounting approaches. WWF addressed the issue of control of forest fires, and questioned how a baseline could be established. On using a Leaf Area Index as a method for measuring carbon stocks, Robert Watson suggested that this was not a particularly useful approach.

On the definition of a forest, FINLAND called for the use of existing FAO definitions, which countries are already familiar with. BOLIVIA stressed that adopting a simple, single threshold definition of a forest would result in a loss of accuracy, and said the approach needs improvement. JAPAN called for the inclusion of the harvesting-regeneration cycle under Article 3.3 to provide incentives to fully utilize sinks, especially in countries with little opportunity for increasing forested areas. NORWAY opposed this suggestion, stressing the need to keep accounting simple. He supported the IPCC framework, but stressed the need to address the problem that increases in carbon stocks in boreal forests would generate debits under the accounting framework.

On ARD and forests, AUSTRALIA suggested including Article 3.3 and 3.4 in a single framework, reinforced by ARD definitions. He noted the differences between afforestation, reforestation and deforestation, highlighting that deforestation needs an accounting framework that ensures that the extent of land-use change is monitored. FAO emphasized the dynamism of forestry definitions and acknowledged that current FAO definitions may not

fully meet the needs of carbon accounting. He said FAO will continue revisiting the question of definitions and will seek input and suggestions. TUVALU, on behalf of AOSIS, suggested considering not only ecosystem accounting but also transactional accounting. He highlighted the varying levels of technical capability of Parties to make accounting measurements.

On transparency, GERMANY emphasized the importance of a transparent accounting system that allows those not involved in the Expert Review Teams to have access to areas of afforestation.

Several delegates addressed the issue of potential discrimination or loopholes relating to credits and debits due to the timing of the first commitment period and the relevant text in the Protocol. AUSTRALIA and FINLAND proposed that sub-rules or exclusions could be developed to avoid any unintended consequences – such as potential encouragement of deforestation prior to, rather than during, the first commitment period, in order to avoid debits. AOSIS said the implications of sub-rules would need to be considered. He stressed that commitment periods should run contiguously, and said policy-makers should take a longer-term perspective that accounts for the fact that disadvantages accrued during the first commitment period would be likely to disappear in the second or third period, depending on the length of the forestry rotation period. Co-Chair Thorgeirsson said exceptions or sub-rules should focus on the period prior to the first commitment period, and agreed with participants' comments that commitment periods should be contiguous.

On inclusion of non-CO<sub>2</sub> greenhouse gases, FINLAND stressed that not enough is known of the balances in activities under Article 3.3 for a well-informed decision. Emphasizing the need for simplicity, the UK and JAPAN argued against inclusion of non-CO<sub>2</sub> greenhouse gases. AUSTRALIA, with the NETHERLANDS, supported including all greenhouse gases, adding that the intent behind Article 3.3 was not to focus solely on CO<sub>2</sub>. He highlighted the risk of unintended effects if a comprehensive approach is not taken, citing the case of applying fertilizers to enhance CO<sub>2</sub> uptake and unintentionally increasing N<sub>2</sub>O emissions. IRELAND said including all greenhouse gases was a reasonable proposal, while cautioning that methodological issues would need to be resolved.

The US said activities under Article 3.4 could be used to address limitations in activities under Article 3.3. She said harvested wood products should be included as a managed pool within the accounting framework. She highlighted the idea that definitions could vary by Party, involving a review process to ensure technical credibility and consistency over time. On the definition of a forest, she said the FAO definitions have not been adopted for carbon accounting, and need to be considered more carefully. She preferred definitions to be made at the Party level. She questioned the role of sub-rules and whether their purpose was to provide incentives for future behavior or penalize and reward past behavior.

On soil carbon, AOSIS said presentations had addressed above-ground carbon stocks, but noted that they did not necessarily take carbon stocks below ground into consideration. GERMANY, opposed by JAPAN, supported inclusion of soil carbon under Article 3.3, saying it would give incentives for sustainable management, while cautioning against credits for carbon that has not been genuinely accumulated. The UK said accounting procedures should not be too detailed.

## THINGS TO LOOK FOR TODAY

**ARTICLE 3.4:** Participants will meet in morning, afternoon and evening sessions to consider additional human-induced activities under Protocol Article 3.4, beginning at 9:00 am.