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Report on the informal meeting of experts on enhancing coordination of capacity-building activities in relation to using the Intergovernmental Panel on Climate Change guidance and guidelines as a basis for estimating forest-related greenhouse gas emissions and removals, forest carbon stocks and forest area changes

Bonn, Germany, 25–26 May 2010

I. Introduction

A. Mandate

1. The Conference of the Parties (COP), in paragraph 6 of its decision 4/CP.15, requested the secretariat to enhance coordination of capacity-building activities in relation to using the most recent Intergovernmental Panel on Climate Change (IPCC) guidance and guidelines, as adopted or encouraged by the COP, as appropriate, as a basis for estimating anthropogenic forest-related greenhouse gas (GHG) emissions by sources and removals by sinks, forest carbon stocks and forest area changes, in the context of existing initiatives.

2. The secretariat, in close consultation with the Chair of the Subsidiary Body for Scientific and Technological Advice (SBSTA), organized an informal meeting of experts as an initial activity towards fulfilling the request of the COP referred to in the paragraph 1 above.

3. The main objectives of this informal meeting of experts on the use of the most recent IPCC guidance and guidelines, as adopted or encouraged by the COP, were:

(a) To develop recommendations on how to enhance coordination among Parties, relevant organizations and other stakeholders in ongoing and planned capacity-building activities, in the context of existing initiatives;

(b) To identify products and/or activities that are ongoing and/or that could be developed to facilitate enhancement of coordination of capacity-building efforts.

B. Scope of the note

4. Chapter II of this document contains a description of the proceedings of the informal meeting of experts, while chapter III summarizes the presentations that were made and chapter IV presents the main points, outcomes and key recommendations of the discussions that took place during the meeting. Chapter V presents the consolidated key recommendations from the experts.

C. Action by the Subsidiary Body for Scientific and Technological Advice

5. The secretariat provided a brief oral report on the key recommendations identified by the experts at the informal meeting, during the first plenary meeting of the thirty-second session of the SBSTA. The SBSTA, in its conclusions on the agenda item "Reducing emissions from deforestation in developing countries: approaches to stimulate action", took note of those key recommendations.[1] It requested the secretariat, subject to the availability of supplementary resources, to organize several of the recommended activities as a follow-up to the mandate of the COP referred to in paragraph 1 above.[2]

II. Proceedings

6. The informal meeting of experts on enhancing coordination of capacity-building activities in relation to using the IPCC guidance and guidelines took place at the premises of the German Federal Ministry of Education and Research in Bonn, Germany, from 25 to 26 May 2010. Financial support for the meeting was provided by the Government of Norway.

7. In total, 43 experts participated in the meeting, representing 17 Parties not included in Annex I to the Convention (non-Annex I Parties), nine Parties included in Annex I to the Convention, one Party with economy in transition, four intergovernmental organizations (IGOs) and three non-governmental

[1] FCCC/SBSTA/2010/L.2, paragraph 2.
[2] FCCC/SBSTA/2010/L.2, paragraph 5.

organizations (NGOs).[3] The IGOs represented were the Group on Earth Observations (GEO), the IPCC Technical Support Unit for National GHG inventories (IPCC TSU), the United Nations Collaborative Programme on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries (UN-REDD) and the World Bank. Four resource persons from *El Colegio de la Frontera Sur*, in Villahermosa, Mexico, the Global Observation of Forest and Land Cover Dynamics (GOFC-GOLD) panel, Natural Resources Canada and the United States Environmental Protection Agency (USEPA) provided technical expertise.

8. The meeting was chaired by the Chair of the SBSTA, Mr. Mama Konaté (Mali). He was supported by Mr. Peter Graham (Canada) as chair of sessions II–IV of the meeting. The Chair, at the start of the meeting, appointed Mr. Bas Clabbers (Netherlands) and Ms. Pradeepa Goberdhan (Guyana) as rapporteurs to provide preliminary summaries of the discussions and key points raised at the end of the first day.

9. At the opening, Mr. Konaté introduced the mandate and objectives of the meeting and updated the experts on the progress thus far on this agenda item referred to in paragraph 5 above under the SBSTA, including the main aspects of decision 4/CP.15, recently adopted by the COP. He also thanked the Government of Germany and the Federal Ministry of Education and Research for providing the facilities for the meeting on a complimentary basis. A representative of the secretariat then delivered a statement.

10. The informal meeting of experts, which took place over one and a half days, was organized into four sessions:

(a) Session I: Technical presentations by experts from Parties and technical resource persons;

(b) Session II: Sharing of experiences in the use of the IPCC guidance and guidelines, and issues and challenges faced;

(c) Session III: Recommendations, opportunities, tools and activities for coordination of capacity-building;

(d) Session IV: Next steps and consolidated recommendations to enhance coordination of capacity-building activities.

11. The meeting provided an opportunity for the experts to identify issues and gaps, particularly technical and methodological issues and gaps, being faced by developing countries in relation to their use of the IPCC guidance and guidelines in the estimation of forest-related GHG emissions and removals, forest carbon stocks and forest area changes. During the discussions, experts from both developed and developing countries shared experiences gained and good practices learned from the use of the IPCC guidance and guidelines.

12. The first session comprised presentations by several experts and technical resource persons, followed by discussions.[4] These presentations, on experiences in the use of the IPCC guidance and guidelines, related capacity-building activities and programmes, lessons learned, gaps that need to be addressed and challenges faced, set the scene for the discussions in sessions II and III. While the experts engaged in plenary discussions during session II, they broke into two groups for session III. One group developed recommendations on how to enhance coordination of capacity-building, while the other identified products and/or activities that could enhance coordination of capacity-building activities.

[3] The three experts from civil society represented the following constituencies: environmental NGOs, research and development NGOs and indigenous peoples organizations.

[4] The presentations are made available under <http://unfccc.int/methods_science/redd/items/5603.php>.

13. During the second day, the experts first recapped on the discussions of the previous day. With regard to next steps, the chair of sessions II and III, Mr. Graham, listed the seven key recommendations provided by the experts, which included potential activities which the secretariat, sometimes in collaboration with other organizations, in particular the IPCC, could follow up on in fulfilling the request of the COP referred to in paragraph 1 above. The Chair of the SBSTA closed the meeting.

III. Summary of the presentations

14. Three experts representing Parties and two technical resource persons made presentations on countries' experiences. Another two technical resource persons gave presentations on ongoing capacity-building programmes on GHG inventories, and available tools and guidance on the use of the IPCC guidance and guidelines. A representative of the secretariat provided an overview of capacity-building activities on GHG inventories carried out by the secretariat with Parties.

15. An expert from Indonesia presented his country's experiences in the use of the IPCC guidance and guidelines for preparing its second national communication and national GHG inventory for the period 2000–2005. He identified several issues faced in the use of the *2006 IPCC Guidelines for National Greenhouse Gas Inventories* (hereinafter referred to as the 2006 IPCC Guidelines), including difficulties in producing the land-use change matrix, the lack of activity data and only few available local or national emission or removal factors for estimating emissions from deforestation and forest degradation. Institutional issues included the non-existence of specific institutions for preparing the national GHG inventory and the lack of resources to process and analyse global information systems and remote sensing data that cover the entire country. He noted that there is still a need for capacity-building on the use of the IPCC guidance and guidelines in Indonesia, either through workshops or in-house training.

16. The second presentation was given by the expert from Guyana, who spoke about her country's experiences in the development of a national monitoring, reporting and verification system for REDD-plus[5] activities that is consistent with the IPCC guidance and guidelines. Guyana has drawn up a capacity-development road map with the aim of ensuring sustained measurement, reporting and verification when implementing policies related to REDD-plus that lead to results-based compensation. She noted several technical, institutional and social challenges faced in the establishment of the aforementioned system. Lessons learned included the need for a strong institutional base, local capacity-building, the involvement of all stakeholder groups and the maintenance of partnerships and cooperation at all levels as an enabling framework.

17. One of the technical resource persons presented Mexico's experiences in the preparation of its national communications, including the improvement of its national forest GHG inventory over time. Mexico's fourth national GHG inventory (in 2009) was based on a new national forest inventory, revised, quality-controlled land-use maps and estimates of emissions and removals calculated using IPCC tier 2 and 3 approaches and national emission factors. Improvements to the country's next national forest GHG inventory will include measurement of all five carbon pools, land-use changes classified using the IPCC approach 3, spatially explicit data obtained from remote sensing, and calculation of estimates using tier 3 approaches based on a combination of remote sensing and ground-based inventory.

18. The technical resource person from Canada presented the carbon budget model (CBM) of the Canadian forest sector. It is the core model of Canada's National Forest Carbon Monitoring, Accounting and Reporting System. The model is science-based, built upon evolving knowledge on forest management and forest inventory information, and is designed to comply with the IPCC *Good Practice*

[5] In accordance with paragraph 1 (b) (iii) of decision 1/CP.13, REDD-plus activities refer to reducing emissions from deforestation and forest degradation; and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries.

Guidance for Land Use, Land-Use Change and Forestry (hereinafter referred to as IPCC good practice guidance for LULUCF) and the 2006 IPCC Guidelines. The suitability of CBM is also being tested in pilot studies in several countries, such as Russia, Mexico, Tasmania (Australia), the Republic of Korea and Spain. Several challenges exist in these international applications, owing mainly to the need for country-specific data as input to the model, such as volume to biomass conversion parameters and ground plot data with complete carbon estimates. The model is undergoing scientific and technical improvements.

19. The technical resource person from the United States of America provided an overview of the efforts made by USEPA in relation to capacity-building on agriculture and land-use (ALU) GHG inventories in developing countries. He identified several challenges with regard to inventory compilation in developing countries, such as limited human resources and difficulty in retaining expertise, incomplete or non-existent activity data and lack of documentation. Two major components of successful capacity-building were highlighted: improving institutional capacity and providing technical assistance on methods for preparing inventories and data collection, including supporting software. The overall goal is to help developing countries to develop a solid IPCC tier 1 or 2 agriculture, forestry and land-use inventory. At present, USEPA is providing technical assistance and training to several developing countries in Latin America, Africa and Asia-Pacific.

20. An expert from France presented an overview of the land use, land-use change and forestry (LULUCF) inventory of French Guyana as part of France's reporting under the Convention and its Kyoto Protocol. In 2006, the French Ministry of Agriculture tested a new LULUCF inventory for French Guyana for the period 1990–2006. The goal was to produce the first global cloudless SPOT mosaic over the country for 2006. The approach was compliant with the 2006 IPCC Guidelines and methods for preparing national forest inventories. It also overcame the challenges posed by cloud cover and quick shifts in land uses. The study showed the potential of optical satellite imaging for monitoring deforestation in tropical countries. The expert suggested that there was potential for regional and/or South–South cooperation on the use of this approach.

21. A technical resource person representing the GOFC-GOLD panel presented issues faced in the coordination of the measurement, reporting and verification of REDD-plus activities. The establishment of a monitoring system requires a coordinated approach at the international and regional levels and also at the national and subnational levels. A national monitoring system should build sustained in-country capacity, ensure coordination among multiple donors, address priorities and targets, and link national and local activities. He noted the potential for regional cooperation, particularly on data collection and analysis, which would reduce costs, increase availability of useful data, foster South–South cooperation and enhance the sharing of experiences.

22. A staff member of the secretariat provided an overview of the draft programme of work for 2010–2012 of the Consultative Group of Experts on National Communications from Parties not included in Annex I to the Convention, and of the regional capacity-building project on GHG inventories in South-East Asia. In 2006–2007, the secretariat was requested to strengthen the capacity of countries in South-East Asia to improve the quality of their national GHG inventories for the development of sustainable inventory management systems. The resultant project was a collaborative effort between the countries, relevant organizations and regional networks, and the secretariat. Lessons learned from this pilot initiative are expected to facilitate further assistance provided to (and potential replication in) non-Annex I Parties in other regions (e.g. Africa).

23. The expert from the IPCC TSU delivered information on the outcomes of a recent IPCC expert meeting on national forest GHG inventories. The experts at that meeting identified several areas where additional guidance may be useful, such as guidance on the design of forest monitoring systems and inventories, on the combination of ground-based inventories with remote sensing and modelling approaches, and in relation to selectively logged forests in developing countries. Areas where more

assistance may be needed include use of the IPCC good practice guidance, improvement of emission factors for specific forest types or countries (IPCC tier 2), uncertainty estimation, and use of tier 3 models. The expert informed the meeting participants that software relating to the use of the 2006 IPCC Guidelines is being developed, with completion of an initial version planned for the end of 2010. The IPCC also provides other forms of support to users, such as by organizing expert meetings on specific topics of interest, enabling use of the Emission Factor Database (EFDB), providing training courses, and publishing brochures, frequently asked questions and primers. This presentation set the scene for the discussions in session II.

IV. Main outcomes of the discussions

A. Issues and challenges faced in the use of the Intergovernmental Panel on Climate Change guidance and guidelines

24. The experts raised a number of issues relating to the use of the IPCC guidance and guidelines, including in relation to the use of forest definitions, data availability and interpretation, and tools and methodologies for estimating emissions and removals.

25. Lack of data was raised as an issue and a challenge for many developing countries, particularly when using the IPCC guidelines and methodologies. It was pointed out that data on rates of deforestation were difficult to collect. Observing changes in forest cover is a long way from deriving rates of deforestation. It is necessary to determine whether such changes are temporary or rather constitute a real land-use change to non-forest land. In addition, past events or land-use related activities may influence the level of and changes in carbon stocks.

26. It was noted that the IPCC tier 1 approach is a good starting point for estimating emissions and removals from REDD-plus activities, particularly at the readiness phase and as long as conservativeness of data and estimates is maintained. Although tier 1 approaches have minimum data requirements, in some countries there is almost no activity data available, particularly on forest degradation and rates or incidences of illegal logging.

27. However, for the purposes of results-based payments for REDD-plus activities, some degree of confidence in the estimates of emissions and removals is needed. In such a case, therefore, higher-tier estimation approaches may be necessary.

28. The present strong focus on the use of remote sensing to monitor loss of forest cover and land-use changes was also noted by the experts. They noted several limitations to remote sensing, such as cloud cover, the capacity of countries to process and interpret remotely sensed data, and in relation to the monitoring of forest degradation.

29. Several experts suggested that regional cooperation could enhance the sharing and exchange of data, particularly across similar regions. Although tools such as the ALU programme of USEPA, the GOFC-GOLD sourcebook and the Canadian CBM provide guidance for or facilitate the implementation of the IPCC guidelines and methodologies, capacity-building on the use of such tools and more experience in their use in different circumstances (for example, depending on type of forest and national circumstances) is still required. A few experts suggested that the development of a road map may facilitate the step-by-step building of capacity to estimate and monitor emissions and removals and the development of a monitoring, reporting and verification system for REDD-plus activities.

30. Another issue raised during the discussions was whether there is a need for a single definition of forest in order to implement REDD-plus activities and to estimate emission reductions and removals. One view was that a strict definition of forest would complicate rather than simplify these estimations. The “Guidelines for the preparation of national communications from Parties not included in Annex I to the Convention” allow flexibility for countries to define their forests and to report on emissions and

removals from them. Although a country may choose to define its forests according to its national circumstances, it is important that the chosen definition be applied consistently in all of its national reporting. It is also important that countries use a consistent approach to estimating and monitoring emissions and removals, thus ensuring comparability even when definitions differ from country to country. Inconsistent definitions may also result in the inability to make use of historic data.

31. In the discussions on the definition of forest, the need for a clearer understanding of what forest degradation is was also brought up. Questions were raised as to whether forest degradation is a change in forest carbon stocks (as defined by the IPCC) or a reversible process; and, in the case of the latter, whether such a process can be considered as forest degradation under REDD-plus.

B. Recommendations and proposals on how to enhance coordination of capacity-building activities in relation to using the Intergovernmental Panel on Climate Change guidance and guidelines

32. The first breakout group discussed and provided recommendations and proposals on how to enhance coordination of capacity-building activities among Parties, relevant organizations and stakeholders in their efforts to strengthen capacity and implement the IPCC guidance and guidelines, with the aim of developing robust and transparent forest GHG inventories and forest monitoring systems. The key points and issues discussed by the group are summarized below.

33. The group provided a number of recommendations, which could be taken up from the national to the international level over the short, medium and long terms. Experts recommended a few short-term measures that could be taken, mainly at the national level, with the aim of enhancing coordination of capacity-building and implementation of REDD-plus actions and activities over the long term. These included:

(a) That national agencies should establish a mechanism that aims to promote better institutional coordination and cooperation to avoid duplication of efforts and ensure continuity of implementation;

(b) That both national agencies and international organizations should promote and strengthen regional cooperation on and coordination of REDD-plus related projects and activities, donors and initiatives;

(c) That both national agencies and international organizations could make an assessment of the impacts of decisions on definitions, methodological approaches and tiers applied and key variables used in the measurement, reporting and verification of emissions and removals.

34. The experts in this group also recommended several medium- to long-term actions which could be taken by the IPCC, organizations and countries, which included the following:

(a) Although the IPCC provides methodologies for estimating changes in forest carbon stocks resulting from forest degradation, there is still a need to explore ways to make monitoring of forest degradation more practical for developing countries and to identify the types of data needed in IPCC methodologies for monitoring forest degradation;

(b) The IPCC to produce a workbook (or operational guidebook) relating to the IPCC good practice guidance for LULUCF, outlining the minimum data required to implement the approaches and methodologies contained therein. Such a workbook could also help developing countries to reach a certain standard in estimating and monitoring emissions and removals;

(c) The IPCC to explore new areas of work relating to forests, and also to focus on methodologies for REDD-plus activities, including providing guidance on the setting of reference levels;

(d) To encourage the sharing of data sources, especially global sources of activity data;

(e) To encourage the sharing of lessons learned via the web platform,[6] particularly in relation to demonstration activities through which gaps in capacity could be identified.

35. Experts recommended several activities which should be carried out on a continuous basis rather than as one-off actions, which included the following:

(a) The continuous engagement of international technical organizations (e.g. the IPCC, the GOFC-GOLD panel and GEO) that have expertise in the application of the IPCC guidance and guidelines;

(b) Enhancing the IPCC EFDB with more forest-related parameters;

(c) Sharing of experiences in relation to the development of a monitoring, reporting and verification system at the regional and international levels. This sharing of experiences and dissemination of information could be undertaken by national entities, donors and international organizations.

36. Other issues highlighted by the group included the need to: promote an institutional memory of capacity-building received, which could be addressed through regional cooperation and the twinning of projects; distinguish between compiling inventories for national communications and inventories for REDD-plus, which is forest-focused; and improve the operational side of the IPCC guidance and guidelines (e.g. how to interpret remotely sensed data) and make the guidelines more user-friendly.

C. Products and/or activities to facilitate and enhance coordination of capacity-building efforts and activities

37. The second breakout group discussed and identified products and/or activities that are ongoing and/or that could be developed to facilitate and enhance coordination of capacity-building activities, in particular in relation to the use of the IPCC guidance and guidelines. The key points and issues discussed by the group are summarized below.

38. The group recommended several activities which the secretariat could undertake to enhance coordination of capacity-building on the use of the IPCC guidance and guidelines. These included:

(a) Encouraging regional cooperation, especially in the sharing of data such as biomass expansion factors and allometric equations. The secretariat could work with institutes or organizations which could function as regional coordinators, and together they could organize training of trainers activities. At the same time, the IPCC TSU should continue to provide assistance in explaining the IPCC guidance and guidelines;

(b) Taking on a facilitative role by connecting organizations that can provide support on the use of the IPCC guidance and guidelines with Parties needing such support. The secretariat could provide relevant information on the activities of these organizations to Parties;

[6] The web platform is available at <http://unfccc.int/methods_science/redd/items/4531.php>.

(c) Continuing to use the web platform referred to in paragraph 34 (e) above as a clearing house, and developing an interactive discussion forum on the web platform to facilitate the exchange of experiences and the discussion of issues.

39. The experts also identified several activities which the secretariat could undertake together with the IPCC TSU. The activities proposed were:

(a) To organize joint workshops/meetings to inform Parties on how they can contribute to the IPCC EFDB;

(b) To check the consistency of existing tools (e.g. the GOFC-GOLD sourcebook) with the IPCC guidance and guidelines;

(c) In the longer term, to improve Parties' understanding of the application of tools and methodologies for developing GHG inventories and to evaluate such tools and methodologies with generic data sets to assess comparability of results. These assessments could help improve the consistency of monitoring and reporting.

40. Furthermore, the group noted that mechanisms for coordination of capacity-building activities were already in place, and stressed that the efficiency of such mechanisms needed to be improved and that the role of NGOs and indigenous peoples organizations should be recognized when implementing capacity-building activities and considering the coordination of such activities.

V. Consolidated recommendations and possible next steps

41. From the various proposals and recommendations that arose from the discussions, reflected in chapter IV above, the experts identified several concrete key recommendations which the secretariat and the IPCC could implement over the short to medium term.

42. Key recommended activities that could be undertaken in the short term are as follows:

(a) Stimulation and enhancement of regional cooperation in order to facilitate the sharing of experiences gained and lessons learned from demonstration activities and use of the IPCC guidance and guidelines, as well as the sharing and exchange of data sources. Regional cooperation could also facilitate the building of critical mass within those regions in relation to the use of the IPCC guidance and guidelines. It was suggested that the secretariat work together with or rely on regional coordinators or regional organizations for organizing activities such as training of trainers, as the latter could provide links to expertise in the region and disseminate the outcomes of such activities;

(b) Sharing of information and experiences gained, particularly from demonstration activities, through the web platform on the UNFCCC website. It was proposed that an interactive discussion forum in which experts and users could discuss and seek expertise on methodological issues relating to the use of the IPCC guidance and guidelines could be developed;

(c) Strengthening of the IPCC EFDB with more forest-related parameters. It was recommended that the secretariat work together with the IPCC, through workshops or meetings, to promote input by Parties on relevant parameters for use in the estimation of changes in forest carbon stocks and emissions and removals in the forest land category;

(d) Preparation of a workbook or tutorial guide by the IPCC on the IPCC guidance and guidelines for estimating forest-related GHG emissions and removals, forest carbon stocks and forest area changes. This workbook or guide would facilitate new users' understanding and use of the guidelines.

43. The experts also provided several key recommendations for activities which the secretariat could consider promoting over the medium to long term:

(a) Enhancing coordination by matching countries that indicate a need for capacity-building in relation to their use of the IPCC guidance and guidelines with relevant bilateral and multilateral programmes and experts that could provide or support such capacity-building;

(b) Working jointly with the IPCC to provide criteria or recommendations on how Parties can assess the available tools used for the implementation of the IPCC guidance and guidelines, particularly in relation to the estimation of emissions and removals in the forest sector and changes in forest carbon stocks;

(c) Working jointly with the IPCC, over the long term, on the assessment of tools and methods used for the preparation of LULUCF inventories using a generic data set, to enhance understanding of these tools and methods and their implications for the estimations, and developing criteria for assessment of such tools.

44. The experts also voiced their views on the key recommendations identified during the meeting. Several of them expressed concern in relation to the recommendation that the secretariat work with the IPCC to review and assess tools and methods used for the preparation of GHG and REDD-plus inventories. They noted that it may not be practical or feasible for the secretariat and the IPCC to review and assess an ever increasing number of tools and methods. Instead, it was suggested that some standard tests could be developed for use in such assessments. However, defining standard or generic data sets and transforming them into suitable input for such tools and methods may be challenging and will require time.

45. With regard to regional cooperation and organizing activities such as training of trainers, it was pointed out that, in many developing countries, technical capacity already exists, but that often this expertise is not fully utilized. It was suggested that a link to such expertise be established when considering cooperative activities.

46. Additional views were also expressed on the recommendation to enhance regional cooperation by working through regional organizations or coordinators. One view was that this should be ‘bottom-up’ coordination and be region- or country-driven. Another view called for capacity-building activities to focus on issues relevant or common to a group of countries within a region. It was pointed out that different issues require different expertise and since such expertise may be available in different institutes or countries, this could be challenging for a single coordinator. One suggestion was for countries to establish a list of experts and their contact details, or for the IPCC to provide such information. Advantages of engaging regional organizations are that such organizations can provide the contact details of relevant experts and that they are in a position to disseminate knowledge and outcomes regionally.

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