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**SUBSIDIARY BODY FOR SCIENTIFIC AND TECHNOLOGICAL ADVICE**

**Thirtieth session**

**Bonn, 1–10 June 2009**

**Agenda item 6**

**Research and systematic observation**

## **Research and systematic observation**

### **Draft conclusions proposed by the Chair**

1. The Subsidiary Body for Scientific and Technological Advice (SBSTA) expressed its appreciation to the regional and international climate change research programmes and organizations (hereinafter referred to as research programmes and organizations) and to the Intergovernmental Panel on Climate Change (IPCC) for the valuable updated information on developments in research activities and on emerging scientific findings relevant to the Convention. This information was provided during the meeting that took place during the thirtieth session of the SBSTA as part of the research dialogue in the context of decision 9/CP.11<sup>1</sup> and in the submissions compiled in document FCCC/SBSTA/2009/MISC.5. The SBSTA took note of a list prepared by the secretariat of international and regional programmes and organizations active in areas of research relevant to climate change.<sup>2</sup>

2. The SBSTA affirmed the valuable role of the research dialogue in providing new scientific information that emerges from climate change research in between publication of the IPCC Assessment Reports. It also noted the importance of such information for informing deliberations within the UNFCCC process. The SBSTA invited the research programmes and organizations to continue to provide, as part of the research dialogue, information on developments in the research activities outlined in document FCCC/SBSTA/2007/4, paragraph 47 (a–f). It requested the secretariat to make the presentations that are given as part of the dialogue available on the UNFCCC website in such a way that they can be reached by a wide audience.

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<sup>1</sup> Alongside the IPCC, the following research programmes and organizations were represented at the meeting: the Earth System Science Partnership, the World Climate Research Programme, the International Geosphere-Biosphere Programme, the International Human Dimensions Programme on Global Environmental Change, DIVERSITAS, the International Alliance of Research Universities, START (Global Change System for Analysis, Research and Training), the Inter-American Institute for Global Change Research, the Asia-Pacific Network for Global Change Research and the Seventh Framework Programme of the European Community and associated countries. Further information and presentations are available at <<http://unfccc.int/3461.php>>.

<sup>2</sup> Available at <<http://unfccc.int/3461.php>>.

3. The SBSTA agreed that meetings under this dialogue should be continued, during the thirty-second and subsequent sessions of the SBSTA, and organized in such a way that more time is devoted both to in-depth consideration by Parties of new scientific findings and developments in research activities and to presentations by Parties. The SBSTA requested the secretariat to make arrangements accordingly when organizing meetings under the dialogue.
4. The SBSTA invited Parties to provide to the secretariat, by 22 March 2010, their views on topics to be discussed at the dialogue meeting to take place during SBSTA 32, taking into account developments in research activities outlined in document FCCC/SBSTA/2007/4, paragraph 47 (a–f).
5. The SBSTA welcomed the information from the IPCC regarding its plans for the Fifth Assessment Report (AR5). It recalled its conclusions from its twenty-ninth session, which noted that Parties may provide information on scientific and technical questions that they wish to be considered in the AR5 process through their IPCC focal points.<sup>3</sup>
6. The SBSTA encouraged the research programmes and organizations to continue to undertake further studies to enhance the understanding of climate change and to address key uncertainties identified in the Fourth Assessment Report of the IPCC, and to enhance their efforts towards greater integration of climate-related research across all disciplines. It also encouraged the research programmes and organizations to further enhance their activities relating to developing countries.
7. The SBSTA encouraged Parties and research programmes and organizations to enhance their existing efforts to build capacity for research in developing countries, in particular those aimed at supporting adaptation efforts such as those identified as part of the ongoing activities of the Nairobi work programme on impacts, vulnerability and adaptation to climate change.
8. The SBSTA expressed its appreciation for the report on progress with the *Implementation Plan for the Global Observing System for Climate in Support of the UNFCCC* (hereinafter referred to as the GCOS implementation plan) prepared by the secretariat of the Global Climate Observing System (GCOS) under the guidance of the GCOS Steering Committee, and for the synthesis report on national information on systematic observations for climate.<sup>4</sup> It noted the significant progress made in the implementation of the various observing systems relevant to the Convention, but also noted that limited progress has been made in filling gaps in in-situ observing systems in developing countries and that the funding available for many important systems is small in relation to what is needed. The SBSTA noted that according to the GCOS progress report, priority should be given over the next five years to the following:
  - (a) The urgent need for funding support for implementation of the GCOS regional action plans developed during 2001–2006;
  - (b) Immediate attention to the design and implementation of the national and local-scale networks needed for impact assessment and adaptation to climate change;
  - (c) The appointment of GCOS national coordinators in many more than the present 14 countries that have well-established national coordination arrangements for climate observations;
  - (d) Much stronger and higher-level commitment of Parties to the GCOS cooperation mechanism for supporting GCOS implementation in developing countries;

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<sup>3</sup> FCCC/SBSTA/2008/13, paragraph 85.

<sup>4</sup> FCCC/SBSTA/2009/MISC.7 and Add.1.

- (e) Finding new mechanisms for ensuring sustained long-term operation of essential in situ networks, especially for the oceanic and terrestrial domains, that are presently supported by project-timescale research funding;
- (f) Strong support for the further development and promulgation of observational standards for the full range of terrestrial climate variables;
- (g) Continued encouragement for the coordinated implementation and long-term continuity of the cross-cutting space-based component of GCOS;
- (h) Strong support for the observational and research-based “Global Framework for Climate Services” proposed for endorsement by World Climate Conference-3;
- (i) Reaffirmation of the value of detailed national reports on systematic observations under the UNFCCC as a mechanism for fostering, focusing and guiding GCOS implementation at the national level.

9. The SBSTA urged Parties and invited relevant United Nations agencies and international organizations to take steps to address the priorities and gaps identified in the GCOS progress report, in particular the implementation of the GCOS regional action plans, and ensuring a sustained long term operation of in situ networks, especially for the oceanic and terrestrial domains.

10. The SBSTA stressed that addressing these priorities would help countries to adapt to climate change on a basis of sound data and information.

11. The SBSTA noted that an updated GCOS implementation plan that takes into account emerging priorities, such as the need for data for adaptation, may assist in continuing progress with GCOS implementation. It therefore invited the GCOS secretariat to prepare, under the guidance of the GCOS Steering Committee, an update of the GCOS implementation plan before its thirty-third session.

12. The SBSTA invited the GCOS secretariat to include, in this updated GCOS implementation plan, a breakdown of costs involved. The costs should be broken down by region, observing system and between developed and developing countries. The SBSTA invited the GCOS secretariat to provide a provisional updated implementation plan in conjunction with a provisional estimation of costs, before the fifteenth session of the Conference of the Parties, and requested the secretariat to make this information available as a miscellaneous document.

13. The SBSTA welcomed the support given to the GCOS secretariat. The SBSTA noted the overall expected increase in workload for the GCOS secretariat that would emerge from addressing the priorities and gaps identified in the GCOS progress report. It therefore invited all the GCOS sponsoring agencies<sup>5</sup> to consider ways to provide adequate resources for supporting this work.

14. The SBSTA expressed its appreciation for the updated progress report by the secretariat of the Global Terrestrial Observing System (GTOS) on progress made in assessing the status of the development of standards for each of the essential climate variables (ECVs) in the terrestrial domain and on the framework for the preparation of guidance materials, standards and reporting guidelines for terrestrial observing systems for climate<sup>6</sup> which was further developed following the guidance of the SBSTA at its twenty-seventh session.<sup>7</sup>

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<sup>5</sup> The World Meteorological Organization, the Intergovernmental Oceanographic Commission of the United Nations Educational, Scientific and Cultural Organization, the United Nations Environment Programme and the International Council for Science.

<sup>6</sup> FCCC/SBSTA/2009/MISC.8, which supersedes FCCC/SBSTA/2008/MISC.12.

<sup>7</sup> FCCC/SBSTA/2007/16, paragraph 40.

15. The SBSTA welcomed the proposal contained in the updated progress report for a joint terrestrial framework mechanism between relevant agencies of the United Nations and the International Organization for Standardization, and encouraged the GTOS secretariat and the GTOS sponsoring agencies to implement the framework. The SBSTA also invited the GTOS secretariat and the GTOS sponsoring agencies to elaborate a work plan for developing observational standards and protocols for the 13 terrestrial ECVs assessed. It invited the GTOS secretariat to report on the results of the implementation of the framework and its elaboration of the work plan at SBSTA 33.

16. The SBSTA expressed its appreciation for the updated report provided by the Committee on Earth Observation Satellites (CEOS), on behalf of Parties that support space agencies involved in global observations, to the SBSTA at its twenty-ninth session.<sup>8</sup> It welcomed the progress made by those agencies in responding to the GCOS implementation plan and the support of CEOS to the space-based observations of GCOS. The SBSTA further welcomed the commitment by CEOS Member agencies to work towards improved availability of current and future data for forest carbon monitoring, as expressed in a statement delivered by a representative of CEOS.

17. The SBSTA encouraged coordinated implementation of the cross-cutting space-based components of GCOS to continue over the long term, including the continued coordinated response to the needs identified in the GCOS implementation plan through CEOS. It also encouraged CEOS and the Parties that support space agencies involved in global observations to continue, and if possible accelerate development of methodologies, and validation and inter-comparison of satellite-based applications for the terrestrial domain. The SBSTA invited CEOS to report at its thirty-third session on progress made in its efforts to meet the relevant needs of the Convention.

18. The SBSTA invited the participants of the forthcoming World Climate Conference-3, to be held in Geneva, Switzerland, from 31 August to 4 September 2009, to take note of the needs of the Convention, in particular with respect to research and systematic observation. It invited the World Meteorological Organization to provide information on the outcome of the conference to inform the work under the Convention.

19. The SBSTA invited the Ad Hoc Working Group on Long-term Cooperative Action (AWG-LCA) to note the importance of research and systematic observation in underpinning the implementation of the Convention. The SBSTA also invited the AWG-LCA to note that such research and systematic observation needs to be strengthened, particularly in developing countries. The SBSTA emphasized that any enhanced action on adaptation should take into account the need to strengthen adaptation-related research and systematic observation. The AWG-LCA is invited to take into account such needs in its deliberations.

20. The SBSTA agreed to recommend a draft decision on this matter for adoption by the Conference of the Parties at its fifteenth session (for the text of the decision, see FCCC/SBSTA/2009/L.6/Add.1).

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<sup>8</sup> FCCC/SBSTA/2008/MISC.11.