



**Framework Convention on
Climate Change**

Distr.: General
5 May 2011

English only

Subsidiary Body for Scientific and Technological Advice

Thirty-fourth session

Bonn, 6–16 June 2011

Item 6 of the provisional agenda

Research and systematic observation

**Summary of proposed themes for the research dialogue
meeting and the related workshop to be held in
conjunction with SBSTA 34**

Note by the secretariat

Summary

The Subsidiary Body for Scientific and Technological Advice (SBSTA), at its thirty-second session, requested the secretariat to hold a workshop, in conjunction with the thirty-fourth session of the SBSTA, subject to the availability of resources and under the guidance of the Chair of the SBSTA, to allow further in-depth consideration to be given to issues addressed in the research dialogue being held under the SBSTA in the context of decision 9/CP.11. The SBSTA further requested the secretariat to provide information to Parties on the themes to be presented at the workshop and at the research dialogue meeting to be held at SBSTA 34. This document contains information on the approach to and the proposed three major groups of themes for the research dialogue meeting and the workshop, including the sources of information used in the identification of these themes.

Contents

	<i>Paragraphs</i>	<i>Page</i>
I. Introduction.....	1–11	3
A. Mandate.....	1–4	3
B. Background.....	5–11	3
II. Approach to and proposed themes for the workshop and the research dialogue meeting.....	12–28	5
A. Sources of information used in the identification of themes.....	15–22	5
B. Proposed themes.....	23–28	7
III. Next steps.....	29–30	7

I. Introduction

A. Mandate

1. The Subsidiary Body for Scientific and Technological Advice (SBSTA), at its thirty-second session, noted the need to further enhance interaction between the science and policy communities by strengthening the research dialogue between Parties and the regional and international climate change research programmes and organizations that is taking place under the SBSTA in the context of decision 9/CP.11. At the same session, the SBSTA identified possible ways to enhance the effectiveness of the dialogue in the future.¹

2. In this regard, the SBSTA requested the secretariat to organize a workshop, in conjunction with SBSTA 34, subject to availability of resources and under the guidance of the Chair of the SBSTA, to allow further in-depth consideration to be given to issues addressed in the research dialogue, and to prepare a report on the workshop to be made available for consideration by the SBSTA at its thirty-fourth session.²

3. At its thirty-second and thirty-third sessions, the SBSTA invited Parties to provide to the secretariat their views on issues related to the research dialogue, including possible ways to enhance its effectiveness, and on the workshop.³

4. At its thirty-second session, the SBSTA requested the secretariat to provide information to Parties prior to SBSTA 34 on the themes to be presented at the research dialogue meeting to be held at SBSTA 34 and at the workshop.⁴ This information note has been prepared in response to this request.

B. Background

5. The Conference of the Parties (COP), by its decision 9/CP.11 (“Research needs relating to the Convention”), requested the SBSTA to regularly consider research needs and systematic observation relating to the Convention in order to inform Parties about ongoing and planned activities of regional and international climate change research programmes, and to communicate Parties’ views on research needs and priorities to the scientific community, as necessary. It further invited national, regional and international climate change research programmes and organizations to consider research needs, as viewed by the Parties and communicated to the scientific community by the SBSTA, and to communicate to the SBSTA how these programmes and organizations are addressing the research needs of the Convention.

6. At its twenty-fourth session, the SBSTA agreed to explore how it might facilitate a more effective dialogue between Parties and the regional and international climate change research programmes and organizations, in the context of decision 9/CP.11.⁵ At its twenty-sixth session, the SBSTA agreed to develop and maintain such a dialogue, and invited relevant research programmes and organizations to regularly inform the SBSTA of developments in research activities relevant to the needs of the Convention, including:

- (a) Emerging scientific findings;

¹ FCCC/SBSTA/2010/6, paragraph 48.

² FCCC/SBSTA/2010/6, paragraph 49(a).

³ FCCC/SBSTA/2010/6, paragraph 50, and FCCC/SBSTA/2010/13, paragraph 59.

⁴ FCCC/SBSTA/2010/6, paragraph 50.

⁵ FCCC/SBSTA/2006/5, paragraph 46.

- (b) Research planning activities, including those undertaken in response to key uncertainties and research needs identified by the Intergovernmental Panel on Climate Change (IPCC) or raised by Parties;
- (c) Research priorities and gaps in the implementation of these priorities;
- (d) Research capacity-building activities, particularly in developing countries;
- (e) Regional climate change research networks;
- (f) Relevant communication issues.⁶

7. A regular dialogue with international and regional research programmes and organizations active in climate change research, and the IPCC, has taken place since then, addressing developments in research activities relevant to the needs of the Convention as outlined in paragraph 6 above. The SBSTA, on several occasions, noted the usefulness of maintaining and continuing the research dialogue in the future, and emphasized its valuable role in informing deliberations within the UNFCCC process, and in providing new scientific information emerging from climate change research in the periods between publication of the IPCC assessment reports.

8. At its thirty-second session, the SBSTA noted the need to further enhance interaction between the science and policy communities by strengthening the research dialogue, and identified possible ways to enhance its effectiveness in the future, which may include:

- (a) Better identification and communication of research themes and topics of interest to policymakers;
- (b) Greater opportunities for developing countries to present research results and related capacity-building activities;
- (c) Further activities to share information;
- (d) Identification of additional ways to communicate research outcomes and findings to Parties.⁷

9. In this regard, the SBSTA requested the secretariat to organize the workshop referred to in paragraph 2 above.

10. In addition, the SBSTA invited regional and international climate change research programmes and organizations to provide updated information on emerging scientific findings and research outcomes at SBSTA 33. To facilitate such provision of information, a side event on climate change research was organized by the secretariat during the United Nations Climate Change Conference held in Cancun, Mexico, in December 2010.

11. As part of the Cancun Agreements, the COP, by its decision 1/CP.16, decided to periodically review the adequacy of the long-term global goal referred to in paragraph 4 of that decision. It also decided that this review should take into account, inter alia, the best available scientific knowledge, including the assessment reports of the IPCC, and observed impacts of climate change.

⁶ FCCC/SBSTA/2007/4, paragraph 47(a-f).

⁷ FCCC/SBSTA/2010/6, paragraph 48(a-d).

II. Approach to and proposed themes for the workshop and the research dialogue meeting

12. In response to the mandate referred to in paragraph 2 above, the secretariat will organize a workshop⁸ in conjunction with SBSTA 34 and under the guidance of the Chair of the SBSTA, taking into account the availability of resources. Participants will include both Parties included in Annex I to the Convention and Parties not included in Annex I to the Convention, and representatives and experts from regional and international climate change research programmes and organizations, the IPCC and other relevant international organizations active in climate change research or the funding of such research.

13. In addition, following the practice established at previous sessions of the SBSTA, a regular research dialogue meeting will be held during SBSTA 34 as part of the agenda of the SBSTA, under the agenda item on research and systematic observation.

14. In line with its mandate, that is to give in-depth consideration to the issues addressed in the research dialogue, the participants at this workshop will have an opportunity for detailed consideration of policy-relevant scientific findings emerging from climate change research. At the same time, taking into account the need for further enhancing the interaction between the science and policy communities by strengthening the research dialogue, as noted by the SBSTA at its thirty-second session, the workshop will provide opportunities to identify and consider ways to enhance the effectiveness of the dialogue, taking into consideration the possible options listed in paragraph 8 above.

A. Sources of information used in the identification of themes

15. In response to the invitation by the SBSTA referred to in paragraph 3 above, the secretariat received four submissions, namely from Belize, the European Union and its member States, Sri Lanka and Uzbekistan,⁹ which have been taken into account in considering and identifying the possible themes for the workshop and research dialogue meeting.

16. In preparation for the workshop, consultations have also taken place with regional and international climate change research programmes and organizations and other relevant organizations, taking into account available information on ongoing research activities and experience gained in science-policy dialogues.

17. In their submissions, Parties expressed interest in a number of policy-relevant questions for consideration as part of the research dialogue. These relate to, inter alia, the importance of communicating emerging research findings and advances in scientific research that have occurred since the publication of the IPCC Fourth Assessment Report; addressing scientific uncertainties and gaps in knowledge; and discussing possible priorities for further research, including that feeding into the forthcoming Fifth Assessment Report of the IPCC.

18. In addition, Parties stressed the need to include themes that are highly relevant to issues under consideration within the UNFCCC process. In particular, submissions highlighted the need for scientific information to support the review of the adequacy of the long-term global goal in the light of the ultimate objective of the Convention. In addition,

⁸ The tentative date for the workshop is 2 to 3 June 2011. Please consult the UNFCCC website for updated information <<http://unfccc.int/3461.php>>.

⁹ These have been made available as documents FCCC/SBSTA/2010/MISC.12 and FCCC/SBSTA/2011/MISC.1.

the need to enhance research on matters relating to limiting the average global temperature increase to 1.5 °C has been stressed.

19. Issues identified by Parties as being of particular interest with regard to the policy-relevant scientific information include:

- (a) Emission reductions, trajectories and alternative pathways associated with different levels of global average temperature increase;
- (b) Vulnerabilities, risks and impacts associated with different greenhouse gas scenarios and levels of global average temperature increase, including:
 - (i) Effects and consequences of ocean acidification on the marine environment and ecosystems;
 - (ii) Sea level rise and its estimated impacts over time;
 - (iii) Climate variability and extremes;
 - (iv) Probabilities and estimated thresholds with regard to tipping points for abrupt or irreversible events;
 - (v) Avoided impacts resulting from alternative pathways;
 - (vi) Related methodologies and modelling;
- (c) Socio-economic aspects of climate change, including adaptation needs and estimates of costs and co-benefits associated with conjoined mitigation and adaptation measures, provided for different levels of average global temperature increase;
- (d) Technological and economic feasibility of greenhouse gas mitigation scenarios and policy implications over the short term, medium term and long term, including regional economic implications of mitigation pathways;
- (e) Scientific aspects related to the impact and cost of the mitigation of short- and long-lived greenhouse gas emissions and additional forcing agents, including ozone, aerosols and black carbon;
- (f) Relevant uncertainties, gaps in knowledge and research needs, including with regard to options for limiting the global average temperature increase to below 2 °C and the related review of the adequacy of this long-term global goal in the light of the ultimate objective of the Convention, and the strengthening of such a goal.

20. Submissions also highlighted the importance of systematic observation, for example the importance of regional climate monitoring to support the development of regional scale models. Proposed topics in this regard include information on new observations of changes in climate and atmospheric composition, including the current state of essential climate variables, impacts of climate change such as extreme hydrological events, the evolution of Arctic sea ice, permafrost and other cryospheric components, as well as other key regional phenomena.

21. As regards communication between the science and policy communities, it was emphasized that an interactive and reciprocal research–policy dialogue is important if the provision of scientific information in support of relevant policy questions is to be facilitated. Success stories at the national or regional level could help to promote innovative ways to communicate research outcomes and findings to Parties.

22. On research capacity-building, Parties noted the need to give special attention to issues relevant to developing countries and highly vulnerable regions. Developing countries could be invited to present research outcomes of their national and regional research efforts, and those linked to capacity-building programmes.

B. Proposed themes

23. Based on the submissions and the consultations mentioned above, it is proposed to organize the workshop around three major groups of themes, as follows:

1. Understanding the science: recent climate change research findings and uncertainty management

24. The purpose of this theme would be to give in-depth consideration to recent climate change research findings, focusing on:

(a) Information on studies regarding the temperature stabilization scenarios (including 1.5 °C above pre-industrial levels) and associated emission trajectories and responses of carbon sources and sinks, in particular in relation to the new approach taken by the IPCC for scenario development;

(b) Observed impacts of climate change (ecosystems; ocean acidification; sea level rise; the melting of Arctic sea ice) and the resulting impacts on society in the context of Article 2 of the Convention;

(c) Extreme events;

(d) Considering and managing uncertainties in relation to reviewing the adequacy of the long-term global goal to limit warming to 2 °C;

(e) Emerging issues, such as questions regarding existing information on the role of black carbon and the possibilities offered by geo-engineering.

2. Communicating climate change science

25. Deliberations under this theme would focus on possible ways to further strengthen the research dialogue.

26. Topics to be addressed under this theme may include:

(a) Further exploring good practices in communicating climate change research results from the scientific community to the policymakers;

(b) Existing challenges, and how they could be overcome.

3. Building capacity for research in developing countries

27. This theme would focus on the results of activities of the regional research programmes and collaboration with developing countries, including success stories of improved research capacity.

28. It would also allow deliberations on opportunities for developing countries to participate in regional and international climate change research, and to address funding opportunities for joint climate change research activities involving developing country Parties.

III. Next steps

29. As mandated by the SBSTA, the secretariat will prepare a report on the workshop, taking into account any recommendations emerging from the workshop. The report will be made available for consideration by the SBSTA at its thirty-fourth session.

30. The SBSTA may wish to take note of the information provided and consider the recommendations made during the workshop on possible follow-up actions, with a view to

further enhancing the availability of scientific information on climate change and ascertaining the relevance of such information to a broad range of issues under consideration within the UNFCCC process, such as the review of the adequacy of the long-term global goal.
