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## Subsidiary Body for Scientific and Technological Advice

Fiftieth session

Bonn, 17–27 June 2019

Agenda item 6(b)

**Matters relating to science and review**

**Research and systematic observation**

### Research and systematic observation

#### Draft conclusions proposed by the Chair

1. The Subsidiary Body for Scientific and Technological Advice (SBSTA) noted with appreciation the activities and information reported in the statements delivered at SBSTA 49<sup>1</sup> by representatives of the European Organisation for the Exploitation of Meteorological Satellites (EUMETSAT) on behalf of the Committee on Earth Observation Satellites (CEOS) and the Coordination Group for Meteorological Satellites (CGMS), the Global Climate Observing System (GCOS), the Inter-American Institute for Global Change Research, the Intergovernmental Panel on Climate Change (IPCC), the World Climate Research Programme (WCRP) and the World Meteorological Organization (WMO); and at this session<sup>2</sup> by representatives of EUMETSAT on behalf of CEOS and CGMS, GCOS, the Intergovernmental Oceanographic Commission of the United Nations Educational, Scientific and Cultural Organization, the IPCC, UN-Oceans, WCRP and WMO.

2. The SBSTA welcomed the submissions received at SBSTA 49 from CEOS and CGMS, and WMO<sup>3</sup> and at this session from WMO.<sup>4</sup>

#### *Systematic observation*

3. The SBSTA, recalling its conclusions from SBSTA 45 on the Earth Information Day held in 2016,<sup>5</sup> noted the submissions from Parties containing their views on the Earth Information Day and the organization by the secretariat of similar events.<sup>6</sup>

4. The SBSTA invited the secretariat to organize similar events at future sessions of the SBSTA at which systematic observation is considered, as appropriate, starting at SBSTA 51 (December 2019), recognizing that this could be a valuable opportunity for exchanging information on the state of the global climate system and developments in

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<sup>1</sup> Available at <https://www4.unfccc.int/sites/submissionsstaging/Pages/Home.aspx> and <https://unfccc.int/node/820>.

<sup>2</sup> Available at <https://www4.unfccc.int/sites/submissionsstaging/Pages/Home.aspx> and <https://unfccc.int/node/17727>.

<sup>3</sup> As footnote 1 above.

<sup>4</sup> As footnote 2 above.

<sup>5</sup> FCCC/SBSTA/2016/4, para. 44.

<sup>6</sup> As footnote 1 above.



systematic observation. The SBSTA also invited Parties and relevant organizations to submit their views on possible themes for the next such event via the submission portal<sup>7</sup> by 5 September 2019.

5. The SBSTA welcomed the adoption by the WMO Executive Council at its seventieth session of the science implementation plan for a new Integrated Global Greenhouse Gas Information System (IG3IS).<sup>8</sup> The SBSTA recognized that IG3IS is an innovative science-based framework that supports the needs of a broad range of users by combining atmospheric observations with other sources of information to enhance understanding of greenhouse gas concentrations and fluxes at multiple spatial scales, and encouraged the use of the framework.<sup>9</sup>

6. The SBSTA noted the country support initiative contained in the WMO resolution on closing the capacity gap, scaling up the effective partnerships for investments in sustainable and cost-efficient infrastructure and service delivery.<sup>10</sup>

7. Recalling the conclusions of SBSTA 45<sup>11</sup> and 47,<sup>12</sup> the SBSTA:

(a) Welcomed the joint GCOS–WMO Integrated Global Observing System (WIGOS) Pacific region observing network plan and urged Parties and relevant organizations to support implementation of the plan;

(b) Also welcomed the joint GCOS–Copernicus–WIGOS–Global Framework for Climate Services (GFCS) regional workshop, organized in collaboration with the secretariat and held from 29 October to 2 November 2018 in Entebbe, Uganda, on improving the value chain from observations to climate services to support climate policy, adaptation and mitigation in East Africa, and noted the key messages from the workshop;<sup>13</sup>

(c) Further welcomed the training provided at the workshop by Copernicus on using the Climate Data Store;<sup>14</sup>

(d) Noted that GCOS plans to hold a regional workshop for the Caribbean in Belize in 2019.

8. The SBSTA recognized the value of providing free and open access to systematic observation data through the relevant international systems, such as WIGOS,<sup>15</sup> for improving, inter alia, national climate prediction and climate services. It urged Parties to make relevant data available through these systems.

9. The SBSTA noted the importance of the work of the observation community and the wider scientific community in line with the GCOS implementation plan on essential climate variables, which are fundamental to climate indicators, and climate services and decision-making on mitigation and adaptation. The SBSTA invited WMO and other relevant organizations to continue to support in a coordinated manner the development of climate services, taking into account the GFCS implementation plan.

<sup>7</sup> See <https://www4.unfccc.int/sites/submissionsstaging/Pages/Home.aspx>.

<sup>8</sup> See decision 8 (EC-70) of the WMO Executive Council, available at [https://library.wmo.int/index.php?lvl=notice\\_display&id=20626#.W-yYoTFryM8](https://library.wmo.int/index.php?lvl=notice_display&id=20626#.W-yYoTFryM8).

<sup>9</sup> See <https://ig3is.wmo.int>.

<sup>10</sup> See draft resolution 8.3, annex 2, of the eighteenth World Meteorological Congress, available at <http://meetings.wmo.int/cg-18/English/Forms/AllItems.aspx> (under “provisional report”).

<sup>11</sup> FCCC/SBSTA/2016/4, para. 39.

<sup>12</sup> FCCC/SBSTA/2017/7, para. 55(c), in regard to support available via the operating entities of the Financial Mechanism as well as other relevant organizations and channels to support the GCOS regional workshops and projects identified in the resulting implementation plans.

<sup>13</sup> See <https://gcoss.wmo.int/en/regional-workshops/east-africa-workshop>.

<sup>14</sup> See <https://cds.climate.copernicus.eu/#!/home>.

<sup>15</sup> Coordinated by WMO; see <https://public.wmo.int/en/about-us/vision-and-mission/wmo-integrated-global-observing-system>.

10. The SBSTA urged Parties to enhance the development of climate services, including by:

(a) Working with and supporting the ongoing activities of relevant organizations such as WMO and CEOS/CGMS, frameworks such as GFCS and programmes such as GCOS and WCRP, as well as other relevant initiatives;

(b) Addressing gaps and needs related to systematic observation;

(c) Making use of the value chain from observations to climate services to support and strengthen project development and decision-making on adaptation and mitigation, including by sharing knowledge and information through global, regional, national and local mechanisms.

11. The SBSTA encouraged Parties and relevant organizations to maintain, strengthen and enhance systematic observation through in situ as well as remote sensing observations, and archiving those data and information, in order to address gaps, needs and challenges in many domains, including in relation to oceans and as identified, inter alia, in the statements, submissions and reports referred to in paragraphs 1 and 2 above and the summary report on the tenth meeting of the research dialogue prepared by the SBSTA Chair.<sup>16</sup>

12. The SBSTA emphasized the continued need to secure funding to meet the essential needs for global climate observation under the Convention on a long-term basis.

#### *Research*

13. The SBSTA welcomed the provision of the summary report on the tenth meeting of the research dialogue prepared by the SBSTA Chair.<sup>17</sup>

14. The SBSTA noted the views submitted by Parties on possible topics and considerations for the eleventh and future meetings of the research dialogue.<sup>18</sup> It also noted the information note on the eleventh meeting of the research dialogue (RD 11) prepared by the SBSTA Chair.<sup>19</sup>

15. The SBSTA expressed its appreciation to the secretariat and the SBSTA Chair for organizing RD 11, held on 20 June 2019, on the topic of science for transformation, and for its aim to promote discussion at the science–policy interface.<sup>20</sup>

16. The SBSTA welcomed the four themes of RD 11:

(a) Transformation of energy and other sectoral systems to achieve the purpose and long-term goals of the Paris Agreement;

(b) Transformative adaptation and climate-resilient development;

(c) Changing levels of risk and the attribution of extreme climate events and impacts to climate change;

(d) Role of the ocean in the climate system.

17. The SBSTA expressed its appreciation to Parties and all participating research programmes and organizations and their representatives for their contributions to RD 11.<sup>21</sup>

18. The SBSTA welcomed the inclusion of breakout groups as a new format in the research dialogue, and the diverse and informative set of posters and presentations. It recognized the interesting exchanges of information and the value of the dialogue.

<sup>16</sup> See <https://unfccc.int/documents/183867>, inter alia, paras. 62 and 139–142.

<sup>17</sup> Available at <https://unfccc.int/documents/183867>.

<sup>18</sup> As footnote 2 above.

<sup>19</sup> Available at [https://unfccc.int/sites/default/files/resource/RD11\\_InformationNote.pdf](https://unfccc.int/sites/default/files/resource/RD11_InformationNote.pdf).

<sup>20</sup> The information note, agenda, presentations and other information related to RD 11 are available at <https://unfccc.int/node/196130>.

<sup>21</sup> Including the panellists, representing Belize, Chile, Climate-KIC, IDDRI, the Indigenous Peoples of Africa Co-ordinating Committee, the IPCC, Hokkaido University in Japan, the Potsdam Institute for Climate Impact Research, the SIKU team of the Arctic Eider Society and Inuit Circumpolar Council, South Africa and WCRP.

19. The SBSTA emphasized the importance of hearing directly from representatives of the IPCC and national, regional and international climate change research programmes and organizations for the enhancement of knowledge exchange, and noted the value of hearing directly from representatives of the communities and peoples most vulnerable to the current and projected impacts of climate change. It encouraged the secretariat to continue to invite a wide range of representatives, including from indigenous peoples and different scientific disciplines, to future meetings of the research dialogue.

20. The SBSTA noted the release of the *2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories*<sup>22</sup> and the SBSTA–IPCC special event held on the refinement at this session.

21. The SBSTA acknowledged the ongoing efforts of the IPCC in its sixth assessment cycle.<sup>23</sup>

22. Noting the value of multiple knowledge systems, which include traditional knowledge, and the importance of the co-production of knowledge for developing transformative solutions for addressing climate change, the SBSTA encouraged Parties, academia, research institutions and the wider scientific community, national and subnational institutions, local communities and indigenous peoples, and other communities of practice to work together, as applicable, to create such solutions for addressing climate change. The SBSTA noted that the co-production of knowledge may strengthen research related to addressing and responding to climate change, including through the possible engagement of the research community in the relevant activities of the Local Communities and Indigenous Peoples Platform.<sup>24</sup>

23. The SBSTA encouraged Parties, research programmes and organizations to continue to support research as identified under this and other agenda items<sup>25</sup> and as identified by constituted bodies under the Convention.

24. Noting the variety of local and sectoral research efforts presented during RD 11, the SBSTA invited Parties and relevant organizations to consider those efforts in relation to their response strategies to climate change.

25. The SBSTA requested its Chair to prepare, with the assistance of the secretariat, a summary report on RD 11, to be made available prior to SBSTA 51.

26. The SBSTA invited Parties to submit via the submission portal, by 31 January 2020, their views on possible topics and considerations for the meetings of the research dialogue to be held in conjunction with SBSTA 52 (June 2020) and beyond, taking into account previous themes and presentations, the outcomes of previous research dialogue meetings, and the themes suggested for future meetings.

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<sup>22</sup> Available at <https://www.ipcc.ch/report/2019-refinement-to-the-2006-ipcc-guidelines-for-national-greenhouse-gas-inventories>.

<sup>23</sup> Including on its Special Report on the Ocean and Cryosphere in a Changing Climate, Special Report on Climate Change and Land, and Sixth Assessment Report; see <https://www.ipcc.ch/>.

<sup>24</sup> See <https://unfccc.int/node/65106>.

<sup>25</sup> Such as under the Nairobi work programme on impacts, vulnerability and adaptation to climate change; see <https://unfccc.int/nwp>.