



# General Assembly

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**Committee on the Peaceful  
Uses of Outer Space**  
Fifty-ninth session  
Vienna, 8-17 June 2016

## Draft report

### Chapter II

#### Recommendations and decisions

##### F. Space and water

1. The Committee considered the agenda item entitled “Space and water”, in accordance with General Assembly resolution 70/82.
2. The representatives of Egypt, India, Indonesia, Japan, Mexico and Pakistan made statements under the item. A statement was also made by the observer for the Prince Sultan bin Abdulaziz International Prize for Water. During the general exchange of views, statements relating to the item were also made by other member States.
3. In the course of the discussion, delegations reviewed water-related cooperation activities, giving examples of national programmes and bilateral, regional and international cooperation.
4. The Committee noted that water and the issues related to it were becoming one of the most critical environmental problems facing humankind, often with political implications, and that the conservation and proper utilization of existing water resources were of paramount importance for sustaining life on Earth. In that connection, space-derived data could support policymakers in making informed decisions on water resources management.
5. The Committee noted that a large number of space-borne platforms addressed water-related issues and that space-derived data were used extensively in water management. The Committee also noted that space technology and applications, combined with non-space technologies, played an important role in addressing many water-related issues, including the observation and study of global water cycles and



unusual climate patterns, the mapping of water courses, the monitoring of glaciers, the estimation of snowmelt run-offs, the planning and management of reservoirs and irrigation projects, the monitoring and mitigation of the effects of floods, droughts and cyclones and the improvement of the timeliness and accuracy of forecasts.

6. The Committee noted that the Asian Water Cycle Initiative, an endeavour by the Group on Earth Observations (GEO), had continued developing an information system of systems to promote the implementation of integrated water resources management in 20 Asian countries through the integration and sharing of data as a basis for decision-making with regard to national water policies.

7. The view was expressed that it was imperative to facilitate greater knowledge-sharing and satellite data-sharing, and that stronger collaboration was needed between scientists and the space industry for the design, development and availability of Earth observation sensors that would fully meet end-user requirements.

## **G. Space and climate change**

8. The Committee considered the agenda item entitled “Space and climate change”, in accordance with General Assembly resolution 70/82.

9. The representatives of Chile, Egypt, India, Indonesia, Japan, Mexico, Pakistan and the United States made statements under the item. During the general exchange of views, statements relating to the item were also made by representatives of other member States.

10. The Committee heard a presentation entitled “Future space-borne observation of climate change processes”, by the representative of Germany.

11. The Committee noted with appreciation the commitment made by the global community to tackle climate change, as one of the most pressing issues for humankind and Earth, through the adoption of the Paris Agreement at the twenty-first session of the Conference of the Parties to the United Nations Framework Convention on Climate Change, held in Paris from 30 November to 12 December 2015. It also noted with appreciation the increasing recognition of the importance of space-based technology in providing critical climate data that could be used to understand and mitigate climate change and to monitor the implementation of the Paris Agreement.

12. In that regard, the Committee noted with appreciation that the declaration signed at the Heads of Space Agencies Summit on Climate Change and Disaster Management, held in Mexico City on 18 September 2015 and organized by the International Academy of Astronautics and the Mexican Space Agency, had been submitted to the twenty-first session of the Conference of the Parties to the United Nations Framework Convention on Climate Change. In the declaration, the heads of space agencies expressed their determination to enhance their efforts to strengthen the role of space in climate change studies and disaster management in support of political decisions taken at the sessions of the Conference of the Parties.

13. The Committee also noted with appreciation that, as a follow-up to the Paris Agreement and under the impetus of the Indian Space Research Organisation and

the French Space Agency (CNES), the space agencies of more than 60 countries had adopted the New Delhi Declaration on 3 April 2016, in which they agreed to work together to contribute to combating global warming and monitoring human-induced greenhouse gas emissions.

14. The Committee noted that Morocco would host the twenty-second session of the Conference of the Parties to the United Nations Framework Convention on Climate Change, which would be held from 7 to 18 November 2016 in Marrakech.

15. The Committee also noted the importance of international cooperation in tackling climate change among actors in the space arena, since space-derived data, together with ground-based observations, provided an integrated perspective on the changing environment of the Earth and no single nation had the scientific or financial resources to independently design, launch and operate every Earth-observation satellite system crucial for gaining an understanding of the implications of global climate change for humankind.

16. In that regard, the Committee underscored the importance of bilateral and multilateral partnerships in activities related to climate change and in the area of Earth observation, such as the efforts undertaken by the World Meteorological Organization, the Committee on Earth Observation Satellites, the Group on Earth Observations and the Global Earth Observation System of Systems.

17. The Committee also noted the importance of global initiatives aimed at providing support to combating climate change through the use of space tools, such as the Global Climate Observing System, the Global Agriculture Geo-Monitoring Initiative, the Global Forest Observations Initiative and the Coordination Group for Meteorological Satellites, through activities of the Intergovernmental Panel on Climate Change, under the mechanisms of the United Nations Framework Convention on Climate Change and the United Nations Collaborative Programme on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries and under the United Nations Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa, among others.

18. The Committee further noted that many States placed high priority on building, launching and operating Earth-observation satellite systems to track the manifestations and effects of climate change and the continued readiness on the part of spacefaring nations to share Earth observation data freely and openly.

19. The view was expressed that the full scope of climate research should include long-term surface-based (ground and/or sea) observations to complement, validate and enhance satellite data and that all members of the Committee could contribute to those datasets and implement open and transparent data-sharing policies.

20. The view was expressed that, although the crucial role of satellite-based global weather and climate observation data for observing climate change, mitigating its causes and adapting to its consequences had been recognized, more attention should be devoted to promoting the use of space applications for adaptation to climate change, in order to minimize its adverse impacts. The delegation expressing that view also expressed the view that long-term regional and global datasets of Earth observation systems were essential for climate research and that there was a need

for coordinated planning, production, improvement and availability of space-based data records on a global scale.

21. The view was expressed that introducing open data-sharing policies was a way to facilitate access to data generated by many satellites. Access to such data would facilitate their use to understand and model the manifestations of climate change and its effects worldwide.

22. The Committee noted with appreciation that the Conference on Climate Change 2016, organized by the German Aerospace Centre (DLR), in cooperation with the Office for Outer Space Affairs, had been held from 5 to 7 April 2016 in Cologne, Germany. At that conference, the need for an integrated Earth-observation system to better understand climate-related issues and to secure compliance with international agreements, such as those formulated at the twenty-first session of the Conference of the Parties to the United Nations Framework Convention on Climate Change, had been emphasized.

23. Some delegations expressed the view that joint efforts were necessary to be able to contain the rise of the global temperature below 2 degrees Celsius, pointing to the severe effects of climate change across countries with regard to changes in the rain cycle that negatively impacted irrigation and consequently crop production and the quality of soil, saline intrusion in coastal areas and the negative impacts of the El Niño Southern Oscillation phenomenon, which caused severe drought in affected areas. All those climate change-induced factors also had negative socioeconomic consequences, causing increased migration, lack of employment opportunities in affected areas and degradation of the standard of living of the population.

## **H. Use of space technology in the United Nations system**

24. The Committee considered the agenda item entitled “Use of space technology in the United Nations system”, in accordance with General Assembly resolution 70/82.

25. The representatives of India, Mexico, Pakistan and Switzerland made statements under the item. During the general exchange of views, statements relating to the item were also made by representatives of other member States.

26. The Committee heard the following presentations under the item:

(a) “IKUNS: a university nanosatellite in support of Italian-Kenyan cooperation in space activities”, by the representative of Italy;

(b) “Proposal to create an office for outreach activities on the UNOOSA platform”, by the representative of Costa Rica.

27. The Committee had before it the report of the Inter-Agency Meeting on Outer Space Activities (UN-Space) on its thirty-fifth and thirty-sixth sessions (A/AC.105/1114).

28. The Director of the Office for Outer Space Affairs, in her capacity as the Chair of UN-Space, made a statement informing the Committee about the outcome of the thirty-sixth session of UN-Space, held in New York on 3 March 2016, which had

been hosted by the Office for Outer Space Affairs and the Office for Disarmament Affairs of the Secretariat.

29. The Committee welcomed with appreciation the report of the Secretary-General entitled “Coordination of space-related activities within the United Nations system: directions and anticipated results for the period 2016-2017 — meeting the 2030 Agenda for Sustainable Development” (A/AC.105/1115). The Committee noted the instrumental role of the report in assisting the Committee in its preparations for the fiftieth anniversary of the United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE+50) by providing an overview of efforts by United Nations entities with regard to the peaceful uses of outer space.

30. The Committee noted with appreciation the publication of “Space for agriculture development and food security: use of space technology within the United Nations system” (ST/SPACE/69), which had been prepared by the Office for Outer Space Affairs and made available on its website.

31. The Committee took note of the special report by the Inter-Agency Meeting on Outer Space Activities on the implementation of the report of the Group of Governmental Experts on Transparency and Confidence-Building Measures in Outer Space Activities as pertaining to the United Nations system entitled “Role of United Nations entities in supporting Member States in the implementation of transparency and confidence-building measures in outer space activities” (A/AC.105/1116).

32. The Committee agreed that States members of the Committee should be invited to submit their views on transparency and confidence-building measures in outer space activities, on the report of the Group of Governmental Experts on Transparency and Confidence-Building Measures in Outer Space Activities (A/68/189) and on document A/AC.105/1116 to the sixtieth session of the Committee, in 2017, and that those matters should be addressed under the item on ways and means of maintaining outer space for peaceful purposes.

33. The Committee noted that, in his statement to the Committee, the United Nations High Representative for Disarmament Affairs, Kim Won-Soo, had stated that close collaboration between the Office for Outer Space Affairs and the Office for Disarmament Affairs would yield positive results for Member States in their pursuit of the effective implementation of transparency and confidence-building measures in outer space activities.

34. The Committee also noted the cooperative efforts between Member States and United Nations entities to promote the use of space technology to resolve global issues, including in drought and desertification monitoring and in disaster management and risk reduction.

35. The Committee further noted that the Office for Outer Space Affairs, in its capacity as the secretariat of UN-Space, would issue, for consideration by the Committee at its sixtieth session, a special report by UN-Space on space weather in the context of the preparations for UNISPACE+50, and would coordinate the preparation of that report with the relevant United Nations entities.

36. The Committee noted that the Office for Outer Space Affairs, in its capacity as the secretariat of UN-Space, would identify, in the intersessional period, the host for the thirty-seventh session of UN-Space. The Committee noted that an open,

informal session, to be organized in conjunction with the thirty-seventh session of UN-Space, could focus on the topic of space weather.

37. The Committee agreed that, if it were not possible to hold the thirty-seventh session of UN-Space before the holding of the sixtieth session of the Committee, in 2017, the report on the thirty-seventh session of UN-Space should be made available to the Committee at its session in 2018.

38. The Committee requested the Office for Outer Space Affairs to further promote, through United Nations entities, the increased practical application of space science and technology for development, in view of the catalytic role that such application could play for the implementation of the 2030 Agenda for Sustainable Development.

39. The view was expressed that United Nations entities should actively participate in the series of international workshops to be organized by the Office for Outer Space Affairs and should present specific plans and goals that could involve international participation by Governments, academia and the private sector, which could strengthen the implementation of future decisions of UNISPACE+50.