



# General Assembly

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**Committee on the Peaceful  
Uses of Outer Space**  
**Sixtieth session**  
Vienna, 7-16 June 2017

## 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 [71/90](#).
2. The representatives of Egypt, France, India, Israel, Japan, Mexico and South Africa made statements under the item. During the general exchange of views, other member States also made statements relating to the item.
3. The Committee heard a presentation entitled “Prince Sultan bin Abdulaziz International Prize for Water (PSIPW): meet the winners of the seventh award”, by the observer for PSIPW.
4. In the course of the discussion, delegations reviewed water-related cooperation activities, giving examples of national programmes and bilateral, regional and international cooperation.
5. 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.
6. 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 oceans and coastal aquifers, global water cycles and unusual climate patterns, the mapping of watercourses, aquatic weed and algal blooms, the rehabilitation of water systems, 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, the management of conventional and



non-conventional water resources, including fossil groundwater, the reuse of agricultural drainage water, the desalination of sea and brackish water, the reuse of municipal wastewater, the harvesting of rain and the improvement of the timeliness and accuracy of forecasts.

7. The view was expressed that space and water were linked in two ways, in that space technology was used for water monitoring on Earth and technological research and exploration focused on methods and means of detecting water in outer space, and that for that reason the exchange of views in the Committee held much potential and hence more time should be set aside for the agenda item.

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

8. The Committee considered the agenda item entitled “Space and climate change”, in accordance with General Assembly resolution [71/90](#).

9. The representatives of Egypt, India, France, Japan, Mexico, Pakistan, Portugal and the Russian Federation made statements under the item. During the general exchange of views, representatives of other member States also made statements relating to the item.

10. The Committee heard a presentation entitled “Adverse impacts of climate change on Egypt”, by the representative of Egypt.

11. The Committee underscored the importance of the global community’s commitment to tackling climate change as one of the most pressing issues for humankind and Earth, and of the increasing recognition of the value of space-based technology in providing critical climate data to better understand and mitigate climate change and to monitor the implementation of the Paris Agreement.

12. The Committee noted that the New Delhi Declaration had officially come into effect on 16 May 2017, giving shape to the intent of the world’s space agencies to support the Paris Agreement. By signing the New Delhi Declaration, more than 60 countries had committed themselves to working together to establish an international, independent system for estimating and curbing global greenhouse gas emissions based on internationally accepted data.

13. The Committee also noted that the New Delhi Declaration was the continuation of the declaration signed at the Heads of Space Agencies Summit on Climate Change and Disaster Management held in Mexico City on 18 September 2015, in which the participants in the Summit had recognized the tremendous contribution of satellites to climate change studies and disaster management support and expressed their determination to enhance their efforts to strengthen the role of space in these fields in support of political decisions to be taken at the Conference of the Parties to the United Nations Framework Convention on Climate Change in Paris.

14. The Committee noted that adequate monitoring of and adaptation to climate change were crucial to tackling its adverse effects, in particular the increased severity of droughts and flooding that further threatened fragile coastal aquifers, impacted marine ecosystems, forestry, levels of water, snow and glaciers, and agricultural productivity, among others, and consequently adversely affected large segments of the world population, in particular in developing countries.

15. The Committee further noted that those adverse effects of climate change had negative socioeconomic consequences, in particular the degradation of the standard of living of the population.

16. The Committee noted the importance of international cooperation in tackling climate change and, in that regard, of bilateral and multilateral partnerships in Earth observation activities related to climate change, 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 noted that it was necessary to strengthen basic research required for improving climate change models in order to better assess the effects of climate change, predict the severity of its impact and determine appropriate mitigation measures.

18. The Committee also noted that to gain an integrated perspective on the changing environment of the Earth, it was necessary to combine and complement space-derived data with ground- and/or sea-based observations.

19. The Committee further took note of a number of space programmes at the national level that placed high priority on building, launching and operating Earth observation satellite systems to track the manifestations and effects of climate change.

20. The view was expressed that contributions of outer space observation systems to the monitoring of, mitigation of and adaptation to climate change supported the attainment of the objectives of Sustainable Development Goal 13 and should also be emphasized at UNISPACE+50 in 2018.

21. The view was expressed that in order for developing countries to fulfil the commitments at the national level resulting from the Paris Agreement, it was necessary to strengthen capacity-building efforts relating to the mitigation of and adaptation to climate change, provide for the transfer of related technologies and facilitate greater participation on the part of the private sector.

22. The view was expressed that, in order to gain comprehensive understanding of all processes that may affect climate change, it was necessary to monitor processes in interplanetary space using not only low orbital satellite constellations, but also dedicated geostationary and extra-magnetospheric spacecraft. In that regard it was noted that the combination of space and terrestrial factors, in particular the impact of galactic cosmic rays and a shift of the Earth's magnetic pole, could cause climate change in polar regions and, hence, result in global climate change.

23. The view was expressed that global efforts to reduce carbon dioxide emissions had not yet been successful enough to avoid the potentially dangerous effects of climate change. The delegation expressing that view was also of the view that if mitigation efforts continued to be delayed or continued to be unsuccessful, additional actions to reduce global temperatures, such as geoengineering, might become necessary. The same delegation expressed the view that space science and technology and their applications could play a role in geoengineering in more than one way, for example through the use of remote-sensing from space to provide insights into the effectiveness and environmental impact of small-scale geoengineering experiments and carbon removal techniques, or, more actively, through the application of solar radiation management techniques to reduce the incoming solar radiation by modifying the reflectivity or albedo of the Earth.