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**Committee on the Peaceful
Uses of Outer Space
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Draft report

Addendum

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 [73/91](#).
2. The representatives of Canada, France, India, Indonesia, Israel, Japan, the Russian Federation and the United States made statements under the item. During the general exchange of views, other member States also made statements relating to the item.
3. In the course of the discussion, delegations reviewed water-related cooperation activities, giving examples of national programmes and bilateral, regional and international cooperation that demonstrated the beneficial effect of international cooperation and policies on the sharing of remote sensing data.
4. The Committee noted that water-related issues were becoming one of the major challenges for humankind in the twenty-first century. The Committee also noted that to attain the Sustainable Development Goals, it was important to make use of space technologies and applications, as well as the practices and initiatives made possible through space-borne observations of water.
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 oceans and changing coastal features; global water cycles and unusual climate patterns; the mapping of watercourses and transboundary basins; the planning and management of reservoirs and irrigation projects; the monitoring and mitigation of the effects of floods, droughts, cyclones and lake outbursts; the management of conventional and non-conventional water resources; 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.

6. Some delegations expressed the view that climate change was linked to the issue of stable water management, because climate change had contributed to the deterioration of the global supply of potable water.

G. Space and climate change

7. The Committee considered the agenda item entitled “Space and climate change”, in accordance with General Assembly resolution 73/91.

8. The representatives of Brazil, Canada, China, Colombia, France, India, Indonesia, Israel, Japan, Pakistan, the Republic of Korea, the Russian Federation and the United States made statements under the item. The observer for WMO also made a statement. During the general exchange of views, statements relating to the item were also made by representatives of other member States.

9. The Committee heard the following presentations:

(a) “Republic of Korea remote sensing activities on the Arctic: collaboration between KOPRI and KARI”, by the representative of the Republic of Korea;

(b) “CANEUS contribution to the United Nations Framework Convention on Climate Change 2030 vision and the proposed role of space technology for a regenerative climate-resilient future”, by the observer for CANEUS International.

10. The Committee underscored the importance of continued commitment by the global community to tackling climate change as that was one of the most pressing issues for humankind and the Earth, and it adversely affected large segments of the world population and required coordination between policymakers at an international level to take leadership on that matter. In that regard, the Committee emphasized the growing value of space-based technology in providing critical climate data in order to better understand and mitigate climate change and monitor implementation of the Paris Agreement.

11. The Committee noted that space-based observations could contribute to understanding of climate change and could contribute to the achievement of Sustainable Development Goal 13, on climate action, by monitoring essential climate variables, and noted the benefits of using Earth observations to track changes in sea level, carbon dioxide concentrations, sea ice depletion and terrestrial snow mass and to gather data on remote areas such as deserts, oceans, the polar caps and glaciers.

12. The Committee noted the usefulness of satellite observations and Earth observation applications and noted that an integrated perspective on the changing environment of the Earth required combining and complementing space-derived data with ground-based, in situ observations (ground-based and sea-based observations).

13. The Committee also noted that global efforts to monitor climate change would benefit from the incorporation of open data policies, Earth observation applications that transformed raw data into information of critical importance for people and societies, and the sharing of data and information with the most vulnerable regions of the world.

14. The Committee noted the importance of bilateral partnerships in climate change-related activities in the area of Earth observation, such as the efforts undertaken by DLR and the Centre national d'études spatiales (CNES) in the MERLIN mission to track methane emissions; the CNES/UK Space Agency MicroCarb mission to map carbon dioxide sources; the CNES/ISRO SARAL mission to study ocean circulation and sea surface evaluation, the National Institute for Space Research (INPE)/CAST CBERS mission to collect images for various environmental applications, and the NASA/DLR/ESA collaboration to track the Earth's water

movement and to extend the data series related to the Gravity Recovery and Climate Experiment mission (GRACE).

15. The Committee further noted a number of space programmes at the national level that made it a high priority to build, launch and operate Earth-observation satellite systems to track the manifestations and effects of climate change.

16. The Committee noted that it was important to support international cooperation in the use of Earth observation, including long-established organizations such as WMO, CEOS, the Coordination Group for Meteorological Satellites, the Global Climate Observing System, the Group on Earth Observations and APSCO.

17. The Committee noted that the Space Climate Observatory, an initiative launched by CNES and agreed upon by a number of space agencies in the declaration entitled “Towards a space climate observatory”, adopted at the One Planet Summit held in Paris on 11 December 2017, had the primary objective of producing and distributing adequate, timely and reliable data, as well as information on the impacts of climate change at the national and regional levels through the use of space technologies, targeted measures and relevant models cross-referenced with socioeconomic indicators.

18. The Committee noted that at the Climate Action Summit to be held on 23 September 2019, hosted by the Secretary-General of the United Nations, Member States were expected to present concrete and realistic plans to reduce greenhouse gas emissions over the next decade with the goal of reaching zero emissions by 2050.

19. The view was expressed 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.
