UNITED NATIONS ECONOMIC AND SOCIAL COMMISSION FOR ASIA AND THE PACIFIC

The 20th Session of the Intergovernmental Consultative Committee (ICC) on the Regional Space Applications Programme for Sustainable Development for Asia and the Pacific (RESAP)

31 October – 1 November 2016
New Delhi, India

Summary Meeting Report

Prepared by the Secretariat

*This document has been issued without formal editing

I. Conclusions and Recommendations

Space applications for the 2030 Agenda for Sustainable Development

1.   The Committee recognizes the critical role of space technology applications for providing evidence-based decision making to effectively manage disasters in the Asia-Pacific region.

2.   The Committee emphasizes that the applications of space technologies can provide an important means of implementation for achieving the Sustainable Development Goals (SDGs) and the Sendai Framework for Disaster Risk Reduction (DRR) 2015-2030.

3.   The committee identifies that many of the SDGs are interrelated and that the applications of space technologies and geospatial information cut across many of global goals and related targets.

4.   The Committee acknowledges that good progress has been made in RESAP member countries through the advancement of space applications in supporting sustainable development, and strengthening regional cooperation in relevant fields.

5.   The committee notes that specific thematic priority areas can work towards addressing several SDGs through regional cooperation, particularly those that are a common priority among many countries and present a potential transboundary concern.

6.   The Committee commends the cooperative efforts made by RESAP members in providing support to disaster-affected countries with timely response and damage assessment, including the development of procedural guidelines for sharing geospatial information during emergency response and associated capacity building. The Committee expresses appreciation to the secretariat for facilitating this through its partnerships and programme of work.

7.   The Committee requests the secretariat to promote the use of the International Charter on Space and Major Disasters among Asia-Pacific countries. In this regard, the Committee recommends that the secretariat encourage countries to become Authorized Users of the Disaster Charter and that the secretariat collaborate with other UN agencies in the region, to develop mechanisms and procedures for triggering the Disaster Charter which ensure coordination with the affected country, the most relevant Authorised User of the Disaster Charter and UN agencies.

8.   The Committee notes the work being undertaken by the National Remote Sensing Centre of India on flood management and the potential for this to be extended to cover transboundary river basins and shared with neighbouring countries.

9.   The Committee commends the work undertaken by the secretariat and pilot countries such as Mongolia and Sri Lanka in operationalizing the Regional Drought Mechanism. The Committee notes the progress in Cambodia and Myanmar and requests that work continue in these countries continue.

10.   The Committee expresses appreciation to the Regional Service Nodes in China, India and Thailand for their generous support in providing satellite-derived data, products, services and capacity building for pilot countries, and for their commitment towards providing requisite support to ESCAP in implementing the Regional Drought Mechanism.

11.   The Committee requests the secretariat to strengthen the technical support it provides to other pilot countries such as Cambodia, Myanmar and Nepal, and to further expand the Mechanism to Bangladesh and Central Asia, starting with Kyrgyzstan.

12.   The Committee recommends that work on the Regional Drought Mechanism in support of SDG2 continues to be strengthened.   It recognizes that many other institutions are undertaking work that will ultimately complement and benefit from the work of the Regional Drought Mechanism, and recommends partnerships be developed further with relevant organizations.

13.   The Committee encourages the secretariat to continue to undertake analytical and normative work on drought in countries of the region, in collaboration with national focal points, international institutions, partners and experts. The committee further requests that the secretariat expands its work from drought monitoring to drought impact assessment, crop health/yield monitoring on a pilot scale and in collaboration with other partners.

14.   The committee acknowledges the significant progress in the application of space technology in the global numeric prediction including the provision of products on extreme hazard identification which made by the global centres, regional centres and regional office of World Meteorological Organization (WMO) such as the European Centre for Medium-Range Weather Forecasts (ECMWF), and the Regional Specialized Meteorological Center (RSMCs) in Tokyo, Beijing and New Delhi. The committee encourages the secretariat to strengthen collaboration with these centres and further development of the regional Multi-Hazard Early Warning System (MHEWS) services. The Committee recognizes that SDG 2 on zero hunger is a cross-cutting theme that relates to agriculture, SDG 14 on fisheries and ocean resources, SDG 6 on water management and SDG 15 related to land resources.

15.   The Committee also notes the importance of freshwater resources as a priority in Asia and the Pacific, as many people lack access to clean drinking water, the agriculture sector, and therefore food security, is highly reliant on water resources, and considerable pressures are already placed on this resource.   It notes that space applications can support the monitoring and mapping of these resources, including ice and snow as an integral part of water catchments.

16.   The Committee notes that coastal resources and fisheries are also important for food security for many member States, particularly small island developing States, and that management of these resources can benefit substantially from space technology applications.

17.   In this regard, the Committee notes the potential for ESCAP and RESAP to conduct research or analytical work in relation to space applications to support the implementation of the SIDS regional strategy for sustainable development, which was

adopted at the UN Conference on SIDS in Samoa on 4 September 2014, as well as the ESCAP resolution 71/13 "Regional cooperation for building resilience to disasters in Asia and the Pacific".

18.   The Committee notes that urbanization is rapid in Asia-Pacific, resulting in benefits for society, but also creating challenges under other SDGs. It notes the potential in mapping urbanization on a regular basis in support of SDG 11 and various urban management programmes, including those that can contribute to existing work undertaken by ESCAP and UN agencies, such as the report on The State of Asian and Pacific Cities

19.   The Committee also notes that land and forestry management is a critical area which cuts across many SDGs. The Committee recognizes ongoing work undertaken by various agencies in monitoring changes in land resources, and suggests that the secretariat foster partnerships to support the work of member States by linking technical experts and policy makers relevant to these sectors.

20.   The Committee reminds the secretariat that persistent gaps and needs remain in the effective use of space applications and geospatial information to support the implementation of the SDGs and the Sendai Framework for disaster risk reduction (DRR), including in countries with special needs.

21.   The Committee notes that many member States lack the capacity to effectively utilize and analyse satellite-derived data and geospatial information and that there are still gaps in the institutional arrangements as well as the critical mass of human resources necessary to fully utilise space applications including procedures, standards and guidelines.

22.   The Committee calls on ESCAP member States to work with each other through the RESAP framework and requests the secretariat to expand the RESAP network beyond the space community to include, as maybe reasonably required, end-users, the private sector and other stakeholders.

23.   The Committee expresses appreciation to the training partners of ESCAP and RESAP, such as the Asia-Pacific Regional Space Agency Forum (APRSAF) and Sentinel Asia, the Centre for Space Science and Technology Education in Asia and the Pacific (CSSTEAP), the Chinese University of Hong Kong, the Geo-Informatics and Space Technology Development Agency of Thailand (GISTDA), the ASEAN Regional Training Center for Space Technology and Applications (ARTSA), the National Disaster Management Institute of the Republic of Korea (NDMI), the Agency for Meteorology, Climatology and Geophysics of Indonesia, the United Nations Institute for Training and Research's (UNITAR's) Operational Satellite Applications Programme (UNOSAT), the United Nations Platform for Space-based Information for Disaster Management and Emergency Response (UNSPIDER), and the United Nations Office for Outer Space Affairs (UNOOSA).

24.   The Committee requests further support for institutional and human resource capacity building on the use of space technology applications and geospatial information, particularly for countries with special needs.

25.   The Committee acknowledges the importance of geospatial information as the backbone of space applications and encourages all members to develop a form of National Spatial Data Infrastructure (NSDI). In this regard, the Committee notes that ESCAP has a responsibility to bring all countries to a certain level of capacity so that countries can implement some level of geospatial information infrastructure.

26.   The Committee identifies the importance of governance with regard to data and information sharing at the regional, national and local levels and the use of people-centric application for data and information collection on a large scale. In this regard, the Committee acknowledges the need for data and information sharing policies where the necessary institutional mechanism should be in place for coordinating geospatial information at the national level.

27.   With regard to geospatial information, the Committee notes the importance of specific geospatial information management policies as well as data quality and data sensitivities especially when considering sharing information at the regional level.

28.   The Committee encourages the secretariat to further enhance the RESAP network for knowledge and technology sharing, including through collaboration with UN-SPIDER; UNOSAT; the Asia-Pacific branch of the United Nations Committee of Experts on Global Geospatial Information Management (UNGGIM-AP); WMO's Integrated Global Observing System (WIGO), Severe Weather Forecasting Demonstration Project (SWFDP), Coastal Inundation Forecasting Demonstration Project (CIFDP), Asia/Oceania Meteorological Satellite Users' Conference (AMOSUC), and International Network for Multi-Hazard Early Warning Systems (IN-MHEWS); Sentinel Asia; CSSTEAP; the Asian Institute of Technology (AIT); and other regional initiatives including the newly established Asian and Pacific Centre for the Development of Disaster Information Management (APDIM), and ASEAN Research and Training Centre for Space Technology and Applications (ARTSA).

29.   The Committee encourages all RESAP member countries to provide guidance to the secretariat on the development of the Asia-Pacific Plan of Action on Space Applications for Sustainable Development 2018-2030, and requests the secretariat to begin work on an initial draft.

30.   The Committee recommends that a Plan of Action for 2018-2030 be drafted, in consideration of the end-user needs, in close collaboration with RESAP members and presented at the 21st ICC on RESAP.

31.   The Committee invites RESAP member countries to work towards hosting the Ministerial Conference on Space Applications for Sustainable Development in Asia and the Pacific in 2018.

32.   The Committee requests the secretariat to continue preparations for the 2017 Asia Pacific Disaster Report and called on RESAP members to support the secretariat in this regard.

33.   The Committee requests the secretariat to inform RESAP members regularly on the progress of its work and to also collect information on space applications from

RESAP members and other international/regional organizations in order to harmonize activities and share information.

34.   The Committee expresses appreciation to the Indian Space Research Organization (ISRO) and the Government of India for hosting the Asia-Pacific Space Leaders Forum as a pre-conference event to the 7th Asian Ministerial Conference on Disaster Risk Reduction (AMCDRR).

35.   The Committee requests the Chairperson of the 20th ICC of RESAP to present these outcomes and recommendations to the Asia-Pacific Space Leaders Forum on 2 November 2016.

II. PROCEEDINGS

A.   Organization of the Meeting

1.   The Twentieth Session of the Intergovernmental Consultative Committee (ICC) on the Regional Space Applications Programme for Sustainable Development in Asia and the Pacific (RESAP) was held at in New Delhi, India from 31 October to 1 November 2016. The meeting was organized by the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP).

B.   Attendance

2.   The meeting was attended by the National Focal Points (NFPs) of RESAP or their representatives from the following ESCAP member States: Bangladesh, Bhutan, India, Indonesia, the Islamic Republic of Iran, Japan, Mongolia, Myanmar, Nepal, Sri Lanka, Thailand, Vanuatu and Viet Nam. The WMO also attended as a participating specialized agency. The complete list of the participants is included in Annex 2 of this report.

C.   Opening of the meeting

3.   The opening session of the twentieth session of the ICC commenced with opening speeches from Mr. Nagesh Kumar, Head, UN-ESCAP South and South-West Asia Office. In his speech, Mr. Kumar highlighted that a new integrated global development agenda has been set with the adoption of the 2030 Agenda for Sustainable Development, along with the Sendai Framework for Disaster Risk Reduction and the Paris Agreement in 2015. He also spoke about the benefits of space technology applications and its progress over the years which include improved spatial resolution, particularly through the use of UAVs, reduced commercial prices for satellite data, the launch of more satellites with better sensors, all provide more frequent imagery and data, on a larger scale, at a lower cost. Mr. Kumar specifically highlighted that space applications can benefit many areas of development. Besides disaster risk management, they can be valuable tools for agriculture, urban planning, natural resource management, environmental management and conservation, social development and education, just to name a few. Mr. Kumar emphasized the relevance of RESAP with the support of ESCAP, in operating as a regional hub for harnessing the latest advances in innovative

technologies by bringing together space agencies and other sectoral stakeholders and enhancing their access to space applications and GIS for disaster management and sustainable development. To end his speech, Mr. Kumar called on all members to take this unique opportunity to seize this new development focus, together with the exponential growth in space technology applications, to align space applications to the SDGs and set forth a practical course for a sustainable future.

4. Through a video presentation, Mr. Nikhil Seth, Executive Director, UNITAR expressed the importance of satellite applications in providing implementation solutions to each one of the Sustainable Development Goals (SDGs). Mr. Seth also expressed support in building capacity in the region. He also called on all members to strengthen partnerships in the efforts that lie ahead.

5. Further, Dr.P.G. Diwakar, Scientific Secretary, Indian Space Research Organization (ISRO), introduced participants to India, provided an overview of how they were supporting the work towards attaining the SDGs both nationally and across the region.

6. The bureau of the session comprised of Dr. Diwakar as Chairperson, Mr. Sanath Panawennage, Director & CEO, Arthur C. Clarke Institute for Modern Technologies Ministry of Technology & Research as Vice-Chairperson and Mr. Masanobu Tsuji, Director, JAXA as Rapporteur. In his opening remarks to the meeting, the Chairperson outlined the agenda and proposed outcomes from the meeting, including key recommendations for further work towards a new Plan of Action for Space Applications, 2018-2030.

D. Adoption of the agenda

7. The meeting adopted the agenda. Refer to Annex 3 of this report.

E. Agenda Item 6: Review of the progress of implementation of the Regional Space Applications Programme for Sustainable Development in Asia and the Pacific

8. The Committee had before it the Working Paper prepared by the secretariat on the progress made in the four focus areas of RESAP's work to date. The four focus areas included:

   a) The timely provision of near real-time satellite imagery to countries affected by severe disasters. These were all provided free of charge by ESCAP member States, through networks such as RESAP and partnerships with other UN agencies and international/regional initiatives;
   b) The Regional Drought Mechanism, to building resilience of agrarian communities in developing countries that are perennially affected by drought;
   c) Capacity building initiatives in partnership with other UN agencies, such as UNOSAT, and regional training institutes such as the Centre of Space Science, Technology and Education for Asia and the Pacific (CSSTEAP) in India and the

Institute of Space and Earth Information Science of the Chinese University of Hong Kong;

d) Institutional development through knowledge products, standards and procedures. The secretariat highlighted a number of manuals and guidelines that is has developed in order to institutionalize good practices from the region and from member States.

F. Agenda Item 7: Space, innovation, and integration: Review of the Regional strategy for RESAP and Asia-Pacific Plan of Action (2018-2030) – issues, vision, challenge and opportunities.

9. The Committee had before it the Working Paper prepared by the secretariat on the forward looking agenda which highlights potential new areas of work for RESAP which could be prioritized by member States. The document aimed to stimulate discussion on the potential areas of work under a new Asia-Pacific Plan of Action for Space Applications 2018-2030.

10. The committee acknowledged that many of the SDGs are interrelated and that the applications of space technologies and geospatial information cut across many of global goals and related targets. The Committee recognized that SDG 2 on zero hunger is a cross-cutting theme that relates to agriculture, SDG 14 on fisheries and ocean resources, SDG 6 on water management and SDG 15 related to land resources.

11. The committee identified specific thematic priority areas that can work towards addressing several SDGs through regional cooperation, particularly those that are a common priority among many countries and present a potential transboundary concern.

12. In reviewing to 2030 Agenda, and the role of space applications for implementing the SDGs, the following three pillars were identified as priority areas with relevant thematic areas under each pillar: (i) disaster risk reduction and resilience, (ii) environment and natural resources, and (iii) geo-spatial information for infrastructure and services.

13. Pillar One: On Disaster Risk Reduction and Resilience:

a. The committee recommended the secretariat encourage countries to become