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

### **Report of the Inter-Agency Meeting on Outer Space Activities on its thirty-third session**\*

(Geneva, 12-14 March 2013)

### I. Introduction

1. The Inter-Agency Meeting on Outer Space Activities held its thirty-third session at the headquarters of the United Nations Office for Disaster Risk Reduction (UNISDR) in Geneva from 12 to 14 March 2013, under the chairmanship of Helena Molin-Valdés of UNISDR.

2. The Director of UNISDR, Elizabeth Longworth, in her welcoming address, noted the interlinkages between the work of UNISDR and the agenda of the Inter-Agency Meeting and called on the Meeting to contribute to the shared efforts of the United Nations system to implement the United Nations Action Plan on Disaster Risk Reduction for Resilience of March 2013 and to the development of the post-2015 disaster risk reduction framework.

3. The Secretary of the Inter-Agency Meeting, in his welcoming remarks, called on United Nations entities to consider ways of accentuating the role of space technology for socioeconomic development in the context of the outcome of the United Nations Conference on Sustainable Development ("Rio+20") and the emerging post-2015 development agenda.

4. The Chair, in her introductory remarks, recalled the success of the open informal session on the theme "Space and disaster risk reduction: planning for resilient human settlements" held on 12 March 2013 and expressed her hope that the discussion held in the framework of the Inter-Agency Meeting would contribute to substantive preparations for the fourth session of the Global Platform for Disaster Risk Reduction, to be held in Geneva from 19 to 23 May 2013.

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<sup>\*</sup> The present report was adopted by the Inter-Agency Meeting on Outer Space Activities at its thirty-third session, held from 12 to 14 March 2013.

5. The list of participants at the thirty-third session is contained in annex I to the present report, the agenda adopted by the Meeting is contained in annex II, and the agenda for the open informal session held on 12 March 2013 is contained in annex III.

#### **II.** Substantive issues considered by the Meeting

# A. Coordination of plans and programmes and exchange of views on current activities in the practical application of space technology and related areas

1. Current and future plans of common interest, including consideration of how the activities of organizations of the United Nations system in the area of space science and technology and its applications relate to their mandated programmes

6. The Office for Outer Space Affairs of the Secretariat, as the secretariat of the Inter-Agency Meeting, informed the Meeting about the work of the Committee on the Peaceful Uses of Outer Space and its subsidiary bodies, bringing to its attention matters relating to inter-agency coordination.

7. Representatives of participating United Nations entities reported on the current and future plans for which collaboration was required.

8. UNISDR underlined the endorsement of the United Nations Action Plan on Disaster Risk Reduction for Resilience by the Senior Management Group on Disaster Risk Reduction and Resilience of the High-level Committee on Programmes. In addition, the upcoming fourth session of the Global Platform for Disaster Risk Reduction would focus on the priorities and action areas for disaster risk reduction and resilience in the years following the period covered by the Hyogo Framework for Action (2005-2015), and welcomed further collaboration under both the Action Plan and the post-2015 development agenda.

9. The Office for Outer Space Affairs noted that it had made the promotion of wider use of space-based geospatial information one of its strategic objectives and was developing components of its workplan, including that of the United Nations Platform for Space-based Information for Disaster Management and Emergency Response (UN-SPIDER), on the basis of the Office's evolving geospatial information strategy. The Office outlined its willingness to cooperate, through UN-SPIDER, in developing joint activities in training on remote sensing and geographic information system (GIS) applications targeting the specific requirements of Member States requesting support in response to the recommendations of technical advisory missions of UN-SPIDER. UN-SPIDER would also increase its coordination with the World Food Programme (WFP) and UNISDR to develop a list of focal points of national disaster management authorities.

10. The United Nations Environment Programme (UNEP) expressed its strong interest in collaborating with other United Nations entities and other partners in further developing the UNEP-Live platform, to facilitate and streamline the preparation of future global and thematic environmental assessments. The International Telecommunication Union (ITU) recalled the results of the World

Radiocommunication Conference 2012 and highlighted the importance of using radio frequency bands for climate, weather and water monitoring and prediction and related warnings, natural disaster risk reduction, support of disaster relief operations and the planning of preventive measures for adapting to and mitigating the negative effects of climate change, and stressed that some radio frequency bands, because of their special characteristics and natural radiation, were a unique natural resource for the passive sensing of the atmosphere and the Earth surface and deserved protection.

11. The Economic and Social Commission for Asia and the Pacific described its efforts in using space technology and GIS for disaster risk reduction and sustainable development, as well as the Asia-Pacific Plan of Action for Applications of Space Technology and Geographic Information Systems for Disaster Risk Reduction and Sustainable Development (2012-2017), and proposed the following areas for inter-agency cooperation: (a) strengthening regional cooperation by enhancing networking among and harmonization of the relevant initiatives and efforts being made and by enlarging the base of stakeholders around a common theme; (b) concerting efforts by the secretariat of the Economic and Social Commission for Asia and the Pacific through its existing Regional Space Applications Programme for Sustainable Development and other United Nations programmes, particularly at the regional level, in order to foster synergies and reduce duplication; and (c) involving relevant United Nations entities and other stakeholders in capacity-building efforts.

The World Meteorological Organization (WMO) highlighted that, while 12. satellite imagery had been used for four decades to support weather monitoring. the use of satellite data in numerical weather prediction models had dramatically increased in the past 10 years with the systematic assimilation of measurements related to, for example, infrared and microwave soundings, radio-occultation bending angles, infrared radiance from sea or cloud surfaces, and scatterometer-derived ocean wind measurements, to the extent that satellite data now constituted about 95 per cent of the input data used in numerical weather prediction models and had greatly contributed to the improvement of forecasting skills, in particular for extreme hazardous weather events such as hurricanes. With the dramatic improvement in the capabilities of the current, new generation of systems, special attention was given to systematic projects for user preparedness, and guidelines had been defined in that respect by the WMO Commission for Basic Systems. WMO presented an online resource, the Observing Systems Capability Analysis and Review tool (OSCAR), which provided user-friendly access to Earth observation and space weather satellite programmes, with detailed technical characteristics of more than 500 satellites and 700 instruments. Furthermore, OSCAR included a first-level evaluation of the main variables that each instrument could observe and of the most relevant instruments for measuring each variable, based on expert assessments.

13. The Food and Agriculture Organization of the United Nations (FAO) outlined its activities in the use of remote sensing data for cartography, land cover and hydrological analysis. WFP informed the Meeting that it continued to review applications using remote sensing and partnership networks for serving beneficiaries, including in the areas of hazard mapping, risk mapping, early warning and food security monitoring for transition to recovery and development and resilience-building.

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14. The Operational Satellite Applications Programme (UNOSAT) of the United Nations Institute for Training and Research (UNITAR) presented its activities related to capacity development and mapping services, as well as its HumaNav service. The Meeting noted the involvement of UNITAR/UNOSAT in research projects, including projects on integrated solutions for space applications, use of unmanned aerial vehicles and crowdsourcing applications, including the UNITAR/UNOSAT free "UN-ASIGN" crowdsourcing application for Android and iOS platforms. The Meeting also noted that HumaNav, a public-private partnership with a French company, provided hardware and virtual platform solutions for improved vehicle fleet management. UNITAR/UNOSAT welcomed collaboration with the Office for Outer Space Affairs on technical advisory missions to Member States, in combination with technical training provided by UNITAR/UNOSAT.

15. The United Nations Institute for Disarmament Research (UNIDIR) noted the significant potential for cooperation in the area of identifying ways to use space applications to address security issues on Earth, in particular, the promotion of space applications to achieve environmental security and food security, and the role of space technology in neutralizing problems in those domains that could act as catalysts of conflict.

16. The World Bank Global Facility for Disaster Reduction and Recovery welcomed complementarities in the implementation of its disaster risk management strategy, which was based on the following five pillars: (a) disaster risk management, post-disaster needs assessment and emergency reconstruction and recovery; (b) projects for disaster risk mitigation and related investment programmes for climate adaptation, and mainstreaming of disaster risk management in multiple sectors; (c) innovation and application of new technologies; (d) global knowledge solutions and enhancing access to data; and (e) partnership development and donor coordination.

#### 2. Special report on the theme of space for agriculture and food security

17. The Meeting recalled that at its thirty-second session, in 2012, it had agreed that a special report addressing the use of space technology for agriculture and food security should be prepared under the leadership of the Office for Outer Space Affairs, in cooperation with WFP and FAO and with contributions from other United Nations entities.

18. The Meeting reviewed and endorsed the special report on space for agriculture development and food security, as amended (A/AC.105/1042), and agreed that the report should be submitted to the Committee on the Peaceful Uses of Outer Space at its fifty-sixth session, in 2013.

19. The Meeting recommended that the secretariat of the Inter-Agency Meeting prepare a publication drawing on the main elements of the special report in order to reach a broader community.

20. The Meeting noted that the subsequent special report of the Inter-Agency Meeting should be prepared for endorsement by the Meeting at its thirty-fifth session, in 2015. The Meeting agreed that the focus of that report would be discussed at its thirty-fourth session, in 2014.

# 3. Preparation of the report of the Secretary-General on the coordination of space-related activities within the United Nations system: directions and anticipated results for the period 2014-2015

21. The Meeting noted that the report of the Secretary-General on the coordination of space-related activities within the United Nations system: directions and anticipated results for the period 2014-2015 should be prepared for endorsement by the Meeting at its thirty-fourth session, in 2014, for submission to the Committee on the Peaceful Uses of Outer Space at its fifty-seventh session, in 2014.

The Meeting recalled that the previous report of the Secretary-General on the 22. coordination of space-related activities within the United Nations system: directions and anticipated results for the period 2012-2013 - the use of space-derived geospatial data for sustainable development (A/AC.105/1014) contained a recommendation, in its paragraph 86 (a)-(f), that as a means of strengthening inter-agency coordination and cooperation, the use of space-derived geospatial data within the United Nations system should be studied further and that such use could be increased by addressing gaps and bottlenecks by, inter alia, promoting understanding of and meeting the requirements of United Nations entities in terms of data discovery, data access and technical capabilities for information processing, and developing the overall capabilities of the United Nations entities relying on space-derived geospatial data in support of their operations. The Meeting considered it important to continue studying those areas for improved coordination and cooperation. The next report of the Secretary-General should therefore build upon those recommendations.

23. The Meeting had before it a conference room paper prepared by the secretariat entitled "Rio+20 and beyond" (IAM/2013/CRP.5), containing a note by the Secretariat submitted to the Scientific and Technical Subcommittee of the Committee on the Peaceful Uses of Outer Space at its fiftieth session.

24. The Meeting noted that the Subcommittee, at its fiftieth session in February 2013, had agreed to include on its agenda the consideration of the role of space technology for socioeconomic development in the context of the United Nations Conference on Sustainable Development and the post-2015 development agenda.

25. In that regard, the Meeting considered it important to address those global processes, through the report of the Secretary-General, in order to assist the Committee on the Peaceful Uses of Outer Space and its Scientific and Technical Subcommittee at their future sessions. The Meeting therefore agreed that the report of the Secretary-General on coordination of space-related activities within the United Nations system for the period 2014-2015 should address the post-2015 development agenda, giving attention to the issue of resilience and building on the previous reports of the Secretary-General. The secretariat was requested to prepare an outline for the report accordingly, integrate appropriate elements and circulate it to the focal points of the Inter-Agency Meeting, for contributions by United Nations entities.

# 4. Means of strengthening further inter-agency coordination and cooperation in space-related activities

26. The Meeting agreed to continue enhancing the website on the coordination of outer space activities (www.uncosa.unvienna.org) and agreed that the focal points of the Meeting should continue to provide the Office for Outer Space Affairs, on a regular basis, with updated information on their space-related programmes and activities. At the same time, the Meeting requested the secretariat to look into ways and means of making the website more transparent and up to date by making it possible for participating United Nations entities to upload to the website information on upcoming conferences, meetings and events and share other valuable information, including relevant website addresses, at short notice.

27. The Meeting agreed that the creation of an online directory of portals and other sources of space-based information should be studied, with a view to increasing awareness of and access to available data and information.

28. The Meeting recalled the recommendation made at its thirty-second session, in 2012, that efforts should be made with regard to the branding of the Inter-Agency Meeting on Outer Space Activities to enhance its visibility (see A/AC.105/1015, para. 22). In follow-up to that recommendation, the Meeting agreed that the title and acronym combination "Inter-Agency Meeting on Outer Space Activities (UN-Space)" should be used, and requested the secretariat to prepare for its implementation.

29. The Meeting recommended that the future reports of the Secretary-General and special reports on specific topics should be presented to the respective intergovernmental bodies governing the work of participating United Nations entities, as appropriate.

30. The Meeting noted the importance of further reporting on activities undertaken by WMO, the United Nations Educational, Scientific and Cultural Organization (UNESCO) Intergovernmental Oceanographic Commission, FAO, UNEP and the International Council for Science through the Inter-Agency Coordination and Planning Committee for GEO/GEOSS.

#### **B.** Use of spatial data and activities related to the United Nations Geographic Information Working Group and the United Nations Spatial Data Infrastructure

31. The Office for Outer Space Affairs, in its capacity as co-chair of the United Nations Geographic Information Working Group (UNGIWG) for the period 2014-2015 (which is jointly chaired with the Department of Safety and Security of the Secretariat) informed the Meeting about the ongoing work of UNGIWG. The Meeting noted that the main tasks of UNGIWG were to improve the coordination of geospatial activities in the United Nations system, such as those for standardizing and improving access to geographic data, including space-based data. The Meeting was also given an update on the work of the United Nations Spatial Data Infrastructure (UNSDI) Steering Committee, chaired by WFP, and the Centre of Excellence for UNSDI, established by the Office of Information and Communications Technology.

32. The Meeting had before it conference room papers containing the Istanbul Declaration of UNGIWG (IAM/2013/CRP.6), issued by UNGIWG at its 13th annual plenary meeting, held in Istanbul, Turkey, from 27 February to 1 March 2013, and the Doha Declaration on Advancing Global Geospatial Information Management (IAM/2013/CRP.7), issued by the second High-level Forum on Global Geospatial Information Management held in Doha from 4 to 6 February 2013.

33. The Meeting noted that, in addition to reaffirming its support to UNSDI as the mechanism to ensure that benefits from good geospatial information management accrue at the national level and within the stakeholder community, in its Istanbul Declaration, UNGIWG invited relevant actors to develop a governance structure that would integrate and strengthen the technical capacity and geospatial outputs of the United Nations Initiative on Global Geospatial Information Management (UN-GGIM), UNGIWG and UNSDI with the goal of "delivering as one".

34. The Meeting acknowledged and expressed appreciation for the efforts of the co-chairs of UNGIWG in establishing a dialogue with UN-GGIM so that any confusion about the respective goals and means of UN-GGIM, UNGIWG and UNSDI was cleared up as quickly as possible for the benefit of both the United Nations entities themselves and Member States, and noted that clarifying the overall governance should be made a priority.

35. The Meeting noted with appreciation that the Economic and Social Commission for Asia and the Pacific was implementing the United Nations Development Account project entitled "Improving disaster-risk preparedness in the ESCAP region" aimed at addressing the issue of non-interoperability of geo-reference/geospatial information and strengthening the capacity of countries with special needs in the Asia-Pacific region, in implementation of the Hyogo Framework for Action through the use of geo-referenced/geospatial information tools for disaster risk preparedness and timely early recovery.

36. The Meeting noted with satisfaction that a meeting on common utilization of a global high-resolution digital elevation model for the United Nations system was jointly organized by ITU and the Office for Outer Space Affairs on 11 March 2013 to review the use of digital elevation model data and experiences within the United Nations system, to identify data sources, data-sharing and access opportunities for such models and to discuss the prospects for a common shared data set.

37. The Meeting noted that UNITAR/UNOSAT was making available specific historical satellite image-derived flood extents, for which UNITAR/UNOSAT provided an analysis of imagery through its GeoPortal. Those GIS-ready data were served out from the information technology infrastructure shared by UNOSAT and the European Organization for Nuclear Research (CERN). In addition, a historical record of floods in Africa — images of coarse spatial resolution but providing continental coverage — was being made available through the same mechanism. Those initiatives were in direct support of UNGIWG and UNSDI.

#### C. Space and climate change

38. The Meeting noted the ongoing evolution of the global weather and climate monitoring satellite system coordinated by WMO. Over the past year, several spacecraft had been launched either to continue to extend current operational missions (FY-2F, Meteosat-120, Metop-B), to initiate a new operational spacecraft series (Suomi NPP) or as part of research and development programmes contributing to climate monitoring (GCOM-W1, SARAL).

39. WMO emphasized that one of its major strategic goals was the development of the Global Framework for Climate Services, in partnership with FAO, UNEP, UNESCO, UNISDR, WFP and the World Health Organization. The implementation plan for the Global Framework for Climate Services was adopted by the World Meteorological Congress in October 2012, and the Intergovernmental Board on Climate Services was to hold its first meeting in July 2013. Regional action plans were being developed and implemented in most regions. In that context, spacebased observations had an essential role to play in the four priority areas identified among climate application services, namely, health, agriculture and food security, water, and disaster risk reduction. Building on continued improvements in climate forecasts and climate change scenarios, the Global Framework sought to enable researchers, producers and users of information to join forces to improve the quality and quantity of climate services worldwide, particularly in developing countries, in support of climate resilience and adaptation plans by enhancing access to the best available climate data and information in user-friendly formats so that policymakers, planners, investors and vulnerable communities could take action on the basis of expected trends and changes.

40. WMO highlighted a strategy, developed jointly with the Committee on Earth Observation Satellites (CEOS) and the Coordination Group for Meteorological Satellites (CGMS), for an "Architecture for climate monitoring from space", encompassing not only the definition of which satellites and sensor constellations were appropriate but also the identification of processes for data calibration, processing, validation, stewardship and long-term preservation up to the delivery of satellite-based Thematic Climate Data Records and derived products for decision-makers.

41. The Meeting also noted that the United Nations/Indonesia International Conference on Integrated Space Technology Applications to Climate Change, in the framework of the United Nations Programme on Space Applications, would be organized by the Office, in Jakarta from 2 to 4 September 2013, hosted by the National Institute of Aeronautics and Space (LAPAN). The objective of the conference would be to bring together experts and decision-makers from the space and climate change community to discuss methods of using space-based applications to support the identification and implementation of adaptation and mitigation measures.

42. The Meeting further noted that UNITAR/UNOSAT had embarked on a new initiative, the Interplay, through which linkages between climate change, development and human security were explored. The Meeting noted that a key component of the Interplay initiative was geographic data-sharing and services.

43. The Meeting noted the long-standing collaboration and partnership between WMO and ITU and complementarities in their activities. While WMO focused its efforts on meeting the needs for environmental information and the corresponding radio frequency spectrum resources, ITU, as international steward of the spectrum, allocated the necessary radio frequencies to allow the interference-free operation of radio-based applications and radiocommunication systems (terrestrial and space) used for climate monitoring and prediction, weather forecasting and disaster early warning and detection.

44. The Meeting welcomed the cooperation among the International Civil Aviation Organization, ITU, WMO and the Office for Outer Space Affairs in the area of space weather.

# **D.** Use of space-based technologies for disaster risk reduction and emergency response

45. The Office for Outer Space Affairs informed the Meeting that in 2012 the UN-SPIDER programme had reached the benchmark of providing technical advisory support to 25 countries, in the form of technical advisory missions to 5 countries, continuing support for 11 countries supported in the previous biennium, and support for 9 new countries. In addition, 5 countries were supported during emergencies. In 2013, the workplan of UN-SPIDER provides for advisory support in Bangladesh, Gabon, Malawi, Mozambique, the Sudan and Viet Nam.

46. The Meeting noted with satisfaction that under the Charter on Cooperation to Achieve the Coordinated Use of Space Facilities in the Event of Natural or Technological Disasters (also called the International Charter on Space and Major Disasters) a universal access programme had been established to facilitate access to the imagery and products of the Charter for States Members of the United Nations. The Office for Outer Space Affairs and UNITAR/UNOSAT would increase their coordination for the activation of the Charter. The Meeting also noted that the Office would work closely with the secretariat of the Charter to provide universal access through the network of UN-SPIDER regional support offices.

47. The Economic and Social Commission for Asia and the Pacific informed the Meeting of initiatives to support its member States in implementing disaster risk reduction and management by providing near real-time satellite imagery, facilitating the exchange of information and good practices, providing capacity-building training and further technical assistance through the Commission's Regional Space Applications Programme for Sustainable Development. Those initiatives included support provided to the Philippines and the Association of Southeast Asian Nations in 2012 through the provision of near real-time satellite imagery and products in cooperation with UNITAR/UNOSAT, UN-SPIDER and Sentinel Asia. In addition, several steps have been taken towards operationalization of the Commission's Pacific Regional Cooperative Mechanism on Disaster Monitoring and Early Warning, Particularly Drought, including the setting-up of the service nodes for providing localized modelling through the use of space-based products for more effective drought monitoring, preparing the standard operation procedure at the regional level and encouraging member States and regional initiatives to share their existing satellite and technical resources and relevant services.

48. Other initiatives of the Economic and Social Commission for Asia and the Pacific included the maintenance of the compendium on space applications capacity and the needs of member States, and the provision of fellowships to participants from least developed and small island developing States for short training courses on remote sensing and GIS applications organized as part of the educational and training network of the Commission's Regional Space Applications Programme for Sustainable Development, in India and Indonesia. Such human resources development opportunities enhanced knowledge, understanding and practical experiences in those countries with respect to space applications for disaster risk management and sustainable development.

49. The Meeting noted that work by UNISDR related to disaster risk assessment was based on the compilation of disaster loss information, with over 60 countries developing disaster loss databases. The Meeting noted that specific space-based information and standards would support the monitoring of hazards, exposure and losses, in particular modelling hazards such as agricultural drought.

50. The Meeting also noted that in 2012 the rapid mapping service of UNITAR/UNOSAT had been activated 35 times. That service, which was made available at no cost to United Nations entities, Member States, international organizations and non-governmental organizations, provided satellite image-derived maps, reports, statistics and imagery-derived GIS-ready data for both natural disasters and complex emergencies/conflict situations. The Meeting further noted that approximately 30 per cent of satellite imagery used by UNITAR/UNOSAT during rapid mapping activations came from the International Charter on Space and Major Disasters, and the remaining 70 per cent were from in-kind contributions, free open source imagery and commercial purchases. The Meeting noted that UNITAR/UNOSAT included sister agencies and partners on licences for purchased images.

51. The Meeting noted the involvement of UNITAR/UNOSAT in capacity development and training focused on disaster risk reduction. The Meeting noted that those activities targeted improved water management through geological surveys and remote sensing assessments in Chad, and the development of regional capacity in the use of GIS and remote sensing for disaster risk reduction in East Africa and Asia, in cooperation with the Intergovernmental Authority on Development and the Asian Disaster Preparedness Center, respectively. The Meeting took note of the establishment of UNITAR/UNOSAT regional liaison offices in Nairobi and at the headquarters of the Economic and Social Commission for Asia and the Pacific in Bangkok.

52. WFP informed the Meeting that it had been extensively using space applications, in particular those using Earth observation data, to support emergency response activities and operations. As leader or co-leader of the clusters on global food security, global logistics and emergency telecommunications of the Inter-Agency Standing Committee, WFP coordinated responses to major emergencies in the Sahel, South Sudan and the Syrian Arab Republic.

#### **III.** Other matters

#### A. Open informal session

53. On Tuesday, 12 March 2013, a full-day open informal session with the participation of 37 Member States, United Nations entities and other stakeholders was organized on the theme "Space and disaster risk reduction: planning for resilient human settlements". The open informal session was aimed at promoting dialogue among participants by providing examples of how the United Nations system responded to that overall theme. The programme of the open informal session is contained in annex III of the present report.

54. The session, involving two panel discussions, focused on central concepts of resilience in human settlement — namely, urban planning, land use planning and rural development — and looked at common perspectives with respect to the development of sustainable spatial data infrastructure. The morning panel discussion addressed a wider use of geospatial data in urban planning for the enhanced resilience of cities. At the afternoon panel discussion, participants reviewed challenges and opportunities in mainstreaming space technology in land use planning and rural development strategies for effective disaster management.

55. The open informal session provided a forum to draw upon the "Making cities resilient" campaign founded by UNISDR in 2010 in collaboration with 20 partners and an opportunity to reflect on the views of the United Nations system in the light of the preparation for the fourth session of the Global Platform for Disaster Risk Reduction. The aim of the fourth session of the Global Platform was to convert existing momentum into a durable and sustained effort by all actors (governments, non-governmental organizations and civil society, international agencies and organizations, academic and technical institutions and the private sector) to take shared responsibility in reducing risks and reinforcing resilience in communities.

56. The focus on the use of space technology and its applications to enhance resilience to disasters in the context of land use and urban planning, as the theme for the open informal session, reflected a mounting recognition of the important role of space-derived data and information in making informed decisions for disaster risk reduction and sustainable development. The theme of the open informal session was also in line with the outcome of the United Nations Conference on Sustainable Development (Rio+20), in which Member States recognized the economic and social significance of good land management, including soil, particularly its contribution to economic growth, biodiversity, sustainable agriculture and food security, eradicating poverty, women's empowerment, addressing climate change and improving water availability.

#### **B.** Future programme of work

57. The Meeting agreed on the following provisional agenda for its thirty-fourth session:

- 1. Opening of the session.
- 2. Adoption of the agenda.

- 3. Coordination of future plans and programmes of common interest for cooperation and exchange of views on current activities in the practical application of space technology and related areas.
- 4. Contribution of space-based technology for climate change adaptation and mitigation.
- 5. Use of space-based technology for disaster risk reduction and emergency response.
- 6. Use of spatial data and activities related to the United Nations Geographic Information Working Group and the United Nations Spatial Data Infrastructure.
- 7. Report of the Secretary-General on the coordination of space-related activities within the United Nations system: directions and anticipated results for the period 2014-2015.
- 8. Preparation of a special report on initiatives and applications for space-related inter-agency cooperation.
- 9. Means of strengthening the role of the Inter-Agency Meeting on Outer Space Activities.
- 10. Other matters.

58. The Meeting expressed its gratitude to UNISDR for hosting its thirty-third session and for the excellent arrangements made for the session.

59. The Meeting agreed that its thirty-fourth session should be held in March 2014, in conjunction with a meeting of UNGIWG, in view of the synergies between the two inter-agency coordination mechanisms. The Meeting agreed that a full-day open informal session should be held at its next session, with the theme to be determined. The host of the thirty-fourth session should be identified by the secretariat in the inter-sessional period, in consultation with the co-chairs of UNGIWG.

60. The Meeting noted with appreciation the offer of the Economic and Social Commission for Asia and the Pacific to host a session in the near future. In that regard, the Meeting requested the Commission and the secretariat to study the feasibility of organizing the Meeting's session to be held in 2015 in conjunction with the proposed ministerial conference on space applications for disaster risk reduction and management and sustainable development in Asia and the Pacific and look into the possibility of focusing its next special report on Asia and the Pacific, using a format similar to the past special report entitled "Space benefits for Africa: contribution of the United Nations system" (A/AC.105/941).

## Annex I

# List of participants at the thirty-third session of the Inter-Agency Meeting on Outer Space Activities, held in Geneva from 12 to 14 March 2013

Chair:	H. Molin-Valdés (United Risk Reduction)	l Nations Office for Disaster
Secretary: N. Hedman (Office for		Outer Space Affairs)
Assistant Secretary: A. Duysenhanova (Offi		e for Outer Space Affairs)
United Nations Secretariat		
Economic and Social Commission for Asia and the Pacific		K. Wang
United Nations Office for Disaster Risk Reduction		E. Longworth J. Harding
Office for Outer Space Affairs		L. StPierre
United Nations programmes a	und funds	
United Nations Environment Programme		R. Witt
United Nations Operational Satellite Applications Programme of the United Nations Institute for Training and Research		E. Bjorgo O. van Damme R. Dave
United Nations Institute for Disarmament Research (observer)		T. Hitchens B. Baseley-Walker D. Porras
Specialized agencies and other organizations of the United Nations system		
Food and Agriculture Organization of the United Nations		C. Trincia
International Telecommunication Union		A. Matas
World Food Programme		D. Kaatrud
World Meteorological Organization		J. Lafeuille
Other entities		
Global Facility for Disaster Reduction and		K. Saito

Recovery of the World Bank

#### Annex II

### Agenda for the thirty-third session of the Inter-Agency Meeting on Outer Space Activities, held in Geneva from 12 to 14 March 2013

- 1. Opening of the session.
- 2. Adoption of the agenda.
- 3. Coordination of plans and programmes and exchange of views on current activities in the practical application of space technology and related areas:
  - (a) Current and future plans of common interest, including consideration of how the activities of organizations of the United Nations system in the area of space science and technology and its applications relate to their mandated programmes;
  - (b) Special report on the theme of space for agriculture and food security;
  - (c) Preparation of the report of the Secretary-General on the coordination of space-related activities within the United Nations system: directions and anticipated results for the period 2014-2015;
  - (d) Follow-up on activities and means of strengthening further inter-agency coordination and cooperation in space-related activities.
- 4. Use of spatial data and activities related to the United Nations Geographic Information Working Group and the United Nations Spatial Data Infrastructure.
- 5. Space and climate change.
- 6. Use of space-based technologies for disaster risk reduction and emergency response.
- 7. Other matters.

### Annex III

## Agenda for the open informal session of the Inter-Agency Meeting on Outer Space Activities, held in Geneva on 12 March 2013

# Theme: "Space and disaster risk reduction: planning for resilient human settlements"

Introductory remarks	Margareta Wahlström (United Nations Office for Disaster Risk Reduction)
	Niklas Hedman (Office for Outer Space Affairs)
Panel A: Towards resilient cities: a wider	use of geospatial data in urban planning
Presentations:	
From outer space to underground space: helping cities become more resilient	Han Admiraal and Antonia Cornaro (Committee on Underground Space of the International Tunnelling and Underground Space Association)
Space-based terrestrial technologies and resilience towards a sustainable city: an academic point of view	Youssef Diab (Université Marne-la-Vallee, Paris Est, France)
Perspective on integrated urban planning processes for disaster risk reduction and adaptation	Esteban Leon (United Nations Human Settlements Programme)
"Making cities resilient" campaign	Helena Molin-Valdés (United Nations Office for Disaster Risk Reduction)

# Panel B: Mainstreaming space technology in land use planning and rural development strategies for effective disaster management

Presentations:

Mainstreaming space techno for effective disaster manage towards resilient societies	
Mainstreaming space techno for effective disaster manage	
Space and disaster risk reduc planning for resilient human settlements	tion: Juan-Carlos Villagran (United Nations Platform for Space-based Information for Disaster Management and Emergency Response of the Office for Outer Space Affairs)
Copernicus: overview and emergency management serv	Frédéric Bastide (European Earth Observation ice Programme (Copernicus))
Concluding remarks	Helena Molin-Valdés, moderator of Panel A, and Luc StPierre, moderator of Panel B