



# General Assembly

Distr.: General  
22 November 2017

Original: English

---

## Committee on the Peaceful Uses of Outer Space

### Report on activities carried out in 2017 in the framework of the United Nations Platform for Space-based Information for Disaster Management and Emergency Response

#### I. Introduction

1. In its resolution [61/110](#), the General Assembly decided to establish a programme within the United Nations to provide universal access to all countries and all relevant international and regional organizations to all types of space-based information and services relevant to disaster management to support the full disaster management cycle by being a gateway to space information for disaster management support, serving as a bridge to connect the disaster management and space communities and being a facilitator of capacity-building and institutional strengthening, in particular for developing countries.
2. At its fiftieth session, the Committee on the Peaceful Uses of Outer Space agreed that progress reports on the United Nations Platform for Space-based Information for Disaster Management and Emergency Response (UN-SPIDER) and its future workplans should be considered by the Scientific and Technical Subcommittee under a regular agenda item on space-system-based disaster management support.
3. The present report contains a summary of activities carried out under the UN-SPIDER programme in 2017.

#### II. Organizational framework

4. As part of the responsibility of the Office for Outer Space Affairs for promoting international cooperation in the peaceful uses of outer space, UN-SPIDER fosters knowledge management, builds bridges between communities of providers of space-based information and users of services in the disaster risk management and emergency response communities, and provides technical advisory support to Member States. This section presents the team and the network of regional support offices which supported the implementation of the UN-SPIDER programme of activities in 2017.

##### A. Staff of the United Nations Platform for Space-based Information for Disaster Management and Emergency Response

5. The overall supervision of the UN-SPIDER programme is the responsibility of the Director of the Office for Outer Space Affairs. The Chief of the Space Applications



Section, assisted by a senior programme officer, is responsible for planning and coordinating the activities, with the support of a programme officer who leads the activities of the UN-SPIDER office in Bonn, Germany; a programme officer who leads the activities of the UN-SPIDER office in Beijing; and a programme officer in Vienna who supports outreach and capacity-building activities and advisory services provided by the programme.

6. In 2017, the Ministry of Civil Affairs of China and the Office for Outer Space Affairs signed a new funding agreement that offers support to the UN-SPIDER office in Beijing and provides funding for its activities from 2017 to 2020.

## **B. Network of regional support offices**

7. In its resolution [61/110](#), the General Assembly agreed that UN-SPIDER should work closely with regional and national centres of expertise in the use of space technology in disaster management to form a network of regional support offices for implementing the activities of the programme in their respective regions.

8. The 21 regional support offices of UN-SPIDER are hosted by national and regional organizations that specialize in Earth observation, disaster risk reduction and emergency response. The offices provide UN-SPIDER activities with regional coverage.

## **III. Activities carried out in 2017**

9. The work carried out by UN-SPIDER in 2017 was implemented with the resources allocated through the regular budget of the United Nations and with voluntary and in-kind contributions from Member States or collaborating entities.

10. The eighth annual meeting of UN-SPIDER regional support offices took place from 6 to 8 June 2017, in parallel to the sixtieth session of the Committee on the Peaceful Uses of Outer Space. Focal points from the 11 regional support offices attended the meeting, as did representatives from other partner institutions. The meeting was a follow-up to the recommendations of the “UN-SPIDER+10” conference organized on the margins of the fifty-ninth session of the Committee, held in June 2016 to commemorate the tenth anniversary of UN-SPIDER.

11. The meeting recommended that the Office for Outer Space Affairs should aim to align UN-SPIDER activities with the “Space2030” agenda. The meeting also reviewed the impacts of the advisory services offered to Member States, and explored ways to offer continuous support to those Member States and strengthen the contributions of the regional support offices. Participants also formulated concrete proposals for joint activities between the regional support offices and UN-SPIDER, taking into consideration the projects that were discussed during the conference in 2016 to mark the tenth anniversary of UN-SPIDER. A further focus was placed on fostering cooperation within the network through specific collaborations and programmes.

12. As part of the technical advisory support activities discussed below, UN-SPIDER conducted one technical advisory mission in Nepal and five follow-up activities in El Salvador, Guatemala, Myanmar, Solomon Islands and Sri Lanka.

13. The programme supported emergency relief efforts in six countries and promoted the universal access initiative of 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 “Space and Major Disasters”) to disaster management authorities of eight countries.

14. The outreach activities conducted by UN-SPIDER included eight workshops, conferences and training courses organized in China, Germany, Mexico, Myanmar, Nepal, Solomon Islands, Sri Lanka and Thailand.

15. In addition, the programme contributed to eight outreach activities, including inter-agency coordination and other outreach activities.

16. The programme serves as the secretariat of the Global Partnership using Space-based Technology Applications for Disaster Risk Reduction (GP-STAR), a multi-stakeholder, voluntary partnership launched at the Third World Conference on Disaster Risk Reduction, held in Sendai, Japan, on 15 March 2015. GP-STAR supports the implementation of the Sendai Framework for Disaster Risk Reduction 2015–2030 by, inter alia, providing advice to Governments, organizations and projects on the use of space technologies and applications in disaster risk reduction efforts, and through the provision of relevant publications. In its function as secretariat, the UN-SPIDER programme organized and conducted monthly videoconferences to ensure the implementation of the workplan, published a brochure providing an overview of GP-STAR, and prepared and conducted a side-event during the 2017 Global Platform for Disaster Risk Reduction, held in Cancun, Mexico, from 22 to 26 May 2017. The side event brought together 40 participants and contributed to the facilitation of the use of space-based technology applications, including Earth observation, global navigation satellite systems (GNSS) and satellite telecommunications, for application in the context of the Sendai Framework.

17. The UN-SPIDER programme contributed to the organization of the fourth international Multi-Hazard Early Warning Conference, held in Cancun, Mexico, on 22 and 23 May 2017. The conference brought together more than 400 experts involved in early warning efforts from national, regional and international organizations. The conference was a key activity of the International Network on Multi-Hazard Early Warning Systems, which was launched by the United Nations Office for Disaster Risk Reduction, the Office for Outer Space Affairs, the World Meteorological Organization and other organizations, at the Third World Conference on Disaster Risk Reduction. The Office co-chaired the first session of the Conference, and a side event was organized through by UN-SPIDER to raise awareness of a project on strengthening drought early warning systems. Conducted with nine international, regional and national partners, the project is aimed at incorporating the routine use of drought indices derived from satellite imagery into the decision-making apparatus used in drought early warning systems.

#### **A. Technical advisory support and follow-up activities**

18. Technical advisory support is one of the prime activities of the UN-SPIDER programme at the national level and is aimed at providing Member States with support that can include: technical advisory missions involving experts from space and disaster management agencies from other countries and relevant international and regional organizations and institutions; technical advice to national institutions by means of meetings, teleconferences, videoconferences, and so forth; facilitating direct cooperation between national institutions and providers of space-based information and solutions; and assistance in accessing space-based information to support emergency response.

19. The recommendations made by the technical advisory missions cover various issues related to policy and coordination, data access, data availability, data-sharing, capacity-building and institutional strengthening. Following most technical advisory missions, countries request additional support from UN-SPIDER for the implementation of recommendations. The support can cover needs in terms of capacity-building, institutional strengthening and developing partnerships to build the required data infrastructure or the analytical tools for the development of basic information for disaster risk reduction or emergency response.

20. The activities carried out in 2017, covered under the present subsection, include a technical advisory mission to Nepal and follow-up activities to technical advisory missions in El Salvador, Guatemala, Myanmar, Solomon Islands and Sri Lanka.

**1. Follow-up to the UN-SPIDER technical advisory mission to Solomon Islands, 27 February–2 March 2017**

21. UN-SPIDER carried out a follow-up activity to the technical advisory mission of 2012 with the objective of strengthening institutional coordination and technical capacity as relates to the use of space-based information in disaster management.

22. Conducted in collaboration with World Vision, the activity included a four-day workshop on information management in decision-making for disaster risk management and was co-organized by World Vision, Oxfam, the University of Auckland in New Zealand and the National Disaster Management Office of Solomon Islands. The National Disaster Management Office also hosted the event. A total of 65 persons, including representatives of government, non-governmental organizations, United Nations entities and stakeholder organizations, participated in the workshop.

**2. Follow-up to the UN-SPIDER technical advisory mission to Myanmar, 28 March–2 April 2017**

23. The activity was a follow-up to the technical advisory mission conducted in March 2012, which was aimed at improving the utilization of space-based and geospatial information in all stages of disaster management. In November 2012, UN-SPIDER visited Myanmar to disseminate the report of the technical advisory mission and offered a training course on geo-informatics for disaster risk management in collaboration with the International Centre for Integrated Mountain Development (ICIMOD). As a follow-up activity aimed at taking account of the progress realized since 2012, UN-SPIDER revisited Myanmar in June 2016 and held a high-level advocacy meeting of stakeholders and a training course on Earth observation technologies for landslide hazard and risk assessment.

24. The follow-up activity included a training programme that was jointly conducted with the United Nations Human Settlements Programme (UN-Habitat) and the Centre for Space Science and Technology Education in Asia and the Pacific in collaboration with the Ministry of Social Welfare, Relief and Resettlement of Myanmar; the Myanmar Engineering Society; and the Myanmar Earthquake Committee. It was hosted at Yangon Technological University and attended by 40 participants from various organizations.

25. The training course included theory-based and interactive sessions, which covered topics such as the role of Earth observation in providing critical information and rapid mapping during and following earthquakes; visual interpretation, object-oriented segmentation and classification to facilitate change detection based on very high-resolution satellite imagery; semi-automated techniques to extract information on buildings and other infrastructure and integrating it with population and risk data to evaluate casualties and losses; crowd-source platforms to use Earth observation to perform rapid assessment; and advanced techniques to access satellite images during emergencies.

**3. Follow-up to the UN-SPIDER technical advisory mission to Sri Lanka, 24–28 April 2017**

26. This activity was a follow-up to the technical advisory mission to Sri Lanka in 2011. Both the original mission and the follow-up activity were hosted by the Ministry of Disaster Management of Sri Lanka and its associated Disaster Management Centre. In addition to follow-up activities conducted in 2012 and 2014, UN-SPIDER and the Disaster Management Centre conducted a three-day training course at the recommendation of UN-SPIDER for the members of the rapid mapping inter-institutional team established by the Centre.

27. The mission also provided an opportunity to participate in the first meeting of the Advisory Board for the National Risk Assessment Project that the Disaster Management Centre was conducting. In addition, the mission enabled UN-SPIDER

to further its efforts to provide technical advisory support to Sri Lanka; to make government agencies, universities and non-governmental organizations aware of the UN-SPIDER knowledge portal and its contents, including specific recommended practices relevant to Sri Lanka; to raise awareness of the usefulness of the Standard Vegetation Index and the Vegetation Condition Index in drought early warning efforts.

28. Following the successful model of the Dominican Republic and countries in Central America, UN-SPIDER recommended the establishment of a technical inter-institutional team that could focus its efforts in the processing of satellite imagery to generate relevant and timely geospatial information.

#### **4. Follow-up to the UN-SPIDER technical advisory mission to El Salvador, 24–28 July 2017**

29. UN-SPIDER and the General Directorate of Civil Protection of El Salvador conducted a training course on the use of two of its recommended practices for floods and droughts. The training course was carried out at the Laboratory for Geographic Information Systems of the Faculty of Agriculture of the University of El Salvador. It was conducted by two experts, one from the Agustín Codazzi Geographic Institute of Colombia, in its role as a UN-SPIDER regional support office, and the second from the Federal University of Santa Maria of Brazil.

30. The training course was attended by 20 members of the technical inter-institutional team established by the Directorate of Civil Protection at the recommendation of UN-SPIDER to conduct mapping efforts using satellite imagery. One segment of the training course focused on the recommended practices developed by the Ukrainian Space Agency, which also functions as a regional support office of UN-SPIDER, on flood mapping using radar imagery and the European Space Agency Sentinel Application Platform. The other segment of the training course focused on recommended practices for the use of composite products related to the Moderate Resolution Imaging Spectroradiometer to generate two types of comparative drought indices: the Vegetation Condition Index and the Standard Vegetation Index. The training course was aimed at contributing to the institutionalization of the technical inter-institutional team.

#### **5. Technical advisory mission to Nepal, 31 July–4 August 2017**

31. UN-SPIDER carried out a technical advisory mission to Nepal in order to evaluate the current and potential use of space-derived information in all aspects of disaster management and to offer recommendations to strengthen the disaster risk management and emergency response efforts in that country. The mission was conducted at the request of the Ministry of Home Affairs of Nepal. Technical support was provided by ICIMOD.

32. The mission team comprised nine experts from UN-SPIDER, ICIMOD, the Chinese Academy of Sciences, the United Nations Office for the Coordination of Humanitarian Affairs, Delta State University, the Centre for Space Science and Technology Education in Asia and the Pacific and DigitalGlobe.

33. The mission team held bilateral meetings with key stakeholder agencies involved in disaster management in order to assess the following: current policies, the availability of geospatial information, the current use of space-derived information, data-sharing practices, applications of geospatial information, challenges and constraints, existing capacities and needs, institutional linkages and coordination, and applications to strengthen disaster risk reduction and emergency response. A national workshop on the use of space technology in disaster risk management was organized as part of the technical advisory mission. It was attended by 65 participants and provided diverse inputs to the mission team.

**6. Follow-up to the UN-SPIDER technical advisory mission to Guatemala, 31 July–2 August, and 16–19 October 2017**

34. A three-day training course was held for the members of the technical inter-institutional team being established by the executive secretariat of the National Coordinating Agency for Disaster Reduction of Guatemala (CONRED) at the recommendation of UN-SPIDER. The training was conducted by the National Council of Science and Technology of Guatemala, CONRED, and the Institute for Environmental and Agricultural Research of the Faculty of Agriculture of San Carlos University. The training course was held at the Laboratory for Geographic Information Systems of the Faculty of Agriculture of San Carlos University.

35. Two experts from the Agustín Codazzi Geographic Institute of Colombia and the Federal University of Santa Maria of Brazil conducted the training course. A total of 25 participants attended the training course, including staff members of 12 government agencies and faculty members from the Faculty of Agriculture of San Carlos University and its centre in Chiquimula, Guatemala.

36. The training course focused on the recommended practices for droughts and forest fires as a means of generating relevant and timely geospatial information for disaster risk reduction, preparedness and emergency response efforts.

37. In October 2017, a training course on flood mapping was held by the National Council of Science and Technology, CONRED, the National Authority for Sustainable Management of the Amatitlan Basin and the Institute for Environmental and Agricultural Research of the Faculty of Agriculture of San Carlos University. The training course focused on flood mapping using radar imagery, which is a UN-SPIDER recommendation practice developed by the Ukrainian Space Agency, and on the European Space Agency Sentinel Application Platform.

**B. Outreach and networking activities**

38. The present subsection summarizes the work of UN-SPIDER in two areas: events organized or co-organized by UN-SPIDER, and events organized by partner organizations with the participation of UN-SPIDER.

**1. Events organized or co-organized by UN-SPIDER**

**(a) Training course on synthetic aperture radar satellite imagery use in Gabon, 20–24 February 2017**

39. The third synthetic aperture radar workshop was coordinated by the Working Group on Capacity Development and Data Democracy of the Committee on Earth Observation Satellites and supported by the Office for Outer Space Affairs through UN-SPIDER, the European Earth Observation Programme (Copernicus) and the European Space Agency. The workshop was hosted by the Gabonese Space Agency and held in Libreville. Together with two previous such workshops, it was designed for participants from East Africa, West Africa and countries of the Southern African Development Community. All three training courses were aimed at building capacity and improving understanding related to processing and analysing synthetic aperture radar imagery.

40. Attended by 17 participants from Côte d'Ivoire, Gabon, Ghana, Kenya, Morocco, Nigeria, Senegal and Tunisia, the workshop was aimed at opening up new opportunities for the use of synthetic aperture radar technology for the participants and their institutions in the areas of disaster management, environment or food and water security.

**(b) Regional expert meeting on enhancing the use of space-based information in multi-hazard early warning systems, Mexico, 11–13 July 2017**

41. UN-SPIDER and the Mexican Space Agency (AEM) conducted a regional expert meeting with the support of the National Centre for Disaster Prevention of

Mexico (CENAPRED) and the Mexico campus of the Regional Centre for Space Science and Technology Education in Latin America and the Caribbean. The meeting was held at the premises of CENAPRED. It brought together more than 60 participants, including 20 women working in academia or in the areas of disaster risk reduction or remote sensing, and representatives of the private sector.

42. With the participation of experts from Argentina, Brazil, Colombia, Costa Rica, the Dominican Republic, El Salvador, Mexico and Peru, the meeting enabled the sharing of information on the use of space-based information in disaster management applications, lessons learned and ongoing efforts.

**(c) United Nations International Conference on Space-based Technologies for Disaster Risk Reduction: Building Resilience through Integrated Applications, Beijing, 23–25 October 2017**

43. The conference was organized with the Ministry of Civil Affairs of China, together with the Ministry of Foreign Affairs of China, the China National Space Administration, the Asia-Pacific Space Cooperation Organization, and the Regional Centre for Space Science and Technology Education in Asia and the Pacific.

44. A detailed account of the conference is available in its report ([A/AC.105/1156](#)).

**(d) Training course on the integration of multisource Earth observation data for disaster damage assessment, Beijing, 25–31 October 2017**

45. The training course was conducted back to back with the United Nations International Conference on Space-based Technologies for Disaster Risk Reduction on the theme of building resilience through integrated applications.

46. The training course was organized jointly with the Asia-Pacific Space Cooperation Organization and the National Disaster Reduction Centre of China and was hosted by the Regional Centre for Space Science and Technology Education in Asia and the Pacific. The training course was delivered by experts from UN-SPIDER, the National Disaster Reduction Centre, the Centre for Space Science and Technology Education in Asia and the Pacific and its regional centre. The training course was attended by 24 participants from Bangladesh, China, Fiji, Ghana, Indonesia, Iran (Islamic Republic of), Kenya, Mongolia, Mozambique, Nigeria, Pakistan, Peru, the Sudan, Thailand and Turkey. Approximately 15 students from Beihang University also participated in the training course remotely by video link.

**(e) United Nations/Germany International Conference on International Cooperation towards Low-Emission and Resilient Societies, Bonn, Germany, 22–24 November 2017**

47. In order to structure the inputs collected between 2015 and 2017 that were related to thematic priority 6 of the UNISPACE+50 process, the United Nations/Germany International Conference on International Cooperation towards Low-Emission and Resilient Societies was organized by the Office for Outer Space Affairs and the Government of Germany, through the Federal Ministry for Economic Affairs and Energy of Germany (BMWi) and the German Aerospace Centre (DLR). The Conference brought together nearly 100 persons, including experts from both the space and the development communities, as well as decision makers, researchers and practitioners, with a view to discussing the inputs collected and developing recommendations for the UNISPACE+50 process. The Conference enabled participants to address the objectives that the Committee defined for thematic priority 6.

48. A detailed account of the conference is available in its report ([A/AC.105/1181](#)).

(f) **Regional workshop, entitled “Building drought resilience in agriculture: partnerships and outreach”, Bangkok, 4 December 2017, and regional training course on Earth observation-based tools for drought monitoring in Sri Racha, Thailand, 5–8 December 2017**

49. The workshop and training course were jointly organized with the International Water Management Institute, with support from the Geo-Informatics and Space Technology Development Agency, and were held at the Research and Training Center for Space Technology and Applications of the Association of Southeast Asian Nations, in Sri Racha, Thailand.

50. The activities were attended by participants from Bangladesh, India, Indonesia, the Lao People’s Democratic Republic, Myanmar, Nepal, Sri Lanka, Thailand and Viet Nam. The training course provided theory-based and interactive sessions focused on Earth observation-based tools for drought monitoring. The topics and activities included demonstration and training in the use of various drought indices; comparison of drought indices, with in situ observation, including agrometeorological observation and crop yield information; procedural guidelines for the utilization of space-based information systems during emergency response; and accessing satellite data to monitor drought, flood and other disasters.

**2. Contributions to events organized under other initiatives**

**Workshop on Earth observation-based information products for drought risk on a national basis (EVIDENZ)**

51. The workshop was conducted in the framework of the project entitled “Earth observation-based information products for drought risk on a national basis (EVIDENZ)”, which was funded by the Federal Ministry for Economic Affairs and Energy of Germany. The project was aimed at developing Earth observation-based methods to support international initiatives and conventions, namely the Sendai Framework for Disaster Risk Reduction.

52. The workshop was co-organized by the Institute for Environment and Human Security of the United Nations University and the Centre for Remote Sensing of Land Surfaces (ZFL) of the University of Bonn. The event brought together 30 participants including project partners, scientists, policymakers, practitioners and representatives of governmental institutions and United Nations entities.

53. During the workshop, participants shared information, knowledge and methods related to drought risk assessment and reduction strategies using the example of case studies from South Africa and Ukraine.

**C. Knowledge management**

54. Knowledge management is at the core of UN-SPIDER activities. By systematically and continuously compiling the knowledge and available resources of individuals and institutions, UN-SPIDER aims to transfer lessons learned, point out innovations and foster collaborative practices. The communities involved in UN-SPIDER activities include many different actors: disaster responders, disaster risk specialists, policymakers, remote sensing experts, space technology providers, academics and researchers. The needs, prerequisites and capabilities of all these actors vary considerably.

**Knowledge portal**

55. The portal is one of the cornerstones of the UN-SPIDER programme, as it hosts information on all activities conducted by the programme and relevant activities conducted by the disaster-risk, emergency response and space communities. The portal is increasingly recognized as making a significant contribution to strengthening existing networks.



56. The number of visitors has increased consistently since the portal was launched. As of the date of the present report, the average monthly visits to the portal in 2017 had increased approximately 7 per cent, to over 15,000. The number of content items was expected to increase to nearly 7,800 by the end of 2017. The largest increases were seen in the sections dedicated to news, events, data sources and institutions.

57. In 2017, a procedure focusing on mapping the severity of areas burned by wildfires was published in the portal, and a procedure on flood mapping was translated into French. Pages related to GP-STAR, including 25 examples of relevant applications, were created.

58. The portal is to be migrated to the information technology services of the Secretariat in the near future in order to be able to offer round-the-clock access to the portal and to benefit from a highly secure environment.

## D. Support in emergencies

*Support to activation of the Charter on Cooperation to Achieve the Coordinated Use of Space Facilities in the Event of Natural or Technological Disasters (also known as the International Charter “Space and Major Disasters”) during floods in Sri Lanka, 26 May 2017*

59. UN-SPIDER played a critical role in supporting flood disaster relief in Sri Lanka. The International Charter “Space and Major Disasters” was activated by the United States Geological Survey on behalf of the Disaster Management Centre of Sri Lanka. The UN-SPIDER technical advisory mission to Sri Lanka in 2011 and further follow-up programmes successfully supported the Disaster Management Centre in becoming an authorized user of the Charter. The International Water Management Institute, a regional support office of UN-SPIDER, acted as the project manager.

*Activation of the International Charter “Space and Major Disasters” and the European Earth Observation Programme (Copernicus) emergency mapping service for floods in Nepal, 15 August 2017*

60. UN-SPIDER activated the International Charter “Space and Major Disasters” on behalf of the office of the United Nations Resident Coordinator in Kathmandu. The International Centre for Integrated Mountain Development, a regional support office of UN-SPIDER, acted as the project manager. The National Emergency Operation Centre of Nepal provided the coordinates of the area to be monitored, and emergency responders were directly involved in the exercise. The office also activated the European Earth Observation Programme (Copernicus) emergency mapping service for the floods in Nepal.

*Activation of the Charter for floods and landslides in Sierra Leone, 15 August 2017*

61. UN-SPIDER activated the Charter on behalf of the Food and Agriculture Organization of the United Nations and the United Nations Country Team in Sierra Leone. The United Nations Institute for Training and Research has acted as project manager. The Office also activated the Copernicus emergency mapping service for the floods and landslides in Sierra Leone.

*Copernicus emergency mapping service for floods in the Niger, 11 September 2017*

62. UN-SPIDER activated the Copernicus emergency mapping service in response to floods in the Niger. Heavy rains and serious flooding occurred at the end of August, destroying infrastructure and causing over 40 fatalities.

*Other activities related to improving emergency response*

63. The cooperation between the Charter and the Office for Outer Space Affairs was highlighted and detailed in statements and presentations at a number of international events and conferences during the reporting period. Every opportunity was used by

the Office to raise awareness of the opportunities offered by the Charter and its universal access initiative.

64. Activities conducted by UN-SPIDER included advocacy meetings at ministerial level and technical workshops. Stakeholders were informed about different data and service sources, with an important focus on the Charter. As a result, the following countries have become authorized users of the Charter: Colombia, Dominican Republic, El Salvador, Guatemala, Honduras, Myanmar, Sri Lanka and Uruguay.

65. To complement the emergency response efforts, the Office for Outer Space Affairs contributed to the International Working Group on Satellite-based Emergency Mapping, a voluntary group of organizations involved in satellite-based emergency mapping.

## IV. Conclusion

66. UN-SPIDER is working systematically to achieve its mission. It acts as a gateway to space information for disaster management; serves as a bridge between the disaster management, risk management and space communities; and acts as a facilitator of capacity-building and institutional strengthening, particularly for developing countries.

67. In the context of UNISPACE+50, the working methods and collaborative approach of UN-SPIDER, highlighted by the network of regional support offices, could serve as a model, in particular when addressing the thematic priorities most relevant to the work of UN-SPIDER, namely thematic priority 6 on international cooperation towards low-emission and resilient societies and thematic priority 7 on capacity-building for the twenty-first century.

68. Thematic priorities 6 and 7, and the “Space2030” agenda, will expand the reach of UN-SPIDER to additional countries, help provide support that is more consistent, and assist in implementing the full mandate, covering all types of disasters, including at the local level.

69. As the “Space2030” agenda evolves, UN-SPIDER continues to provide services to promote the use of space-based information, especially at the local level, and to emphasize the relevance of space-based information to realising the aims and goals of the Sendai Framework, the Paris Agreement on Climate Change and the 2030 Agenda for Sustainable Development.

---