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**Committee on the Peaceful
Uses of Outer Space**
Scientific and Technical Subcommittee
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Agenda item 8
Disaster management support

**United Nations Platform for Space-based Information
for Disaster Management and Emergency Response -
(UN-SPIDER): workplan for the biennium 2010-2011**

Note by the Secretariat

At its fiftieth session, the Committee on the Peaceful Uses of Outer Space agreed that progress reports on 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 and that the agenda item should be included in the list of issues to be considered by its Working Group of the Whole. The annex to this document contains the UN-SPIDER workplan for the biennium 2010-2011.



Annex

United Nations Platform for Space-based Information for Disaster Management and Emergency Response - (UN-SPIDER): workplan for the biennium 2010-2011

Mission Statement: Ensure that all countries and international and regional organizations have access to and develop the capacity to use all types of space-based information to support the full disaster management cycle.

Outreach and Capacity-Building

1. Awareness Raising

Awareness raising is a process of raising the level of understanding among the persons targeted, fostering change in attitudes and behaviour. In the framework of the UN-SPIDER Programme, awareness raising is designed as an ongoing process accompanying, facilitating and preparing activities, as new audiences are being addressed, new partnerships are being formed and new technological solutions are being developed, offering new opportunities for existing and new target groups of the programme.

The awareness raising activities to be carried out in 2010-2011 will follow the Awareness Raising Strategy developed in 2008 and which has as objective the need to increase the level of understanding by institutions and experts targeted by UN-SPIDER that applications of space-based technology and information for disaster management exist and are relevant to their work. Targeted audiences are expected to develop a positive attitude towards using space-based technologies and feel encouraged to find out how they can use it in their daily work.

This strategy, which is centered on awareness raising campaigns and specific target groups, includes the proposal to carry out three awareness-raising campaigns: one at the national level (aimed at end users), one for the Geneva-based community and one for news media. Each awareness raising campaign will include a definition of the specific target group, guidelines for developing campaign material, and an implementation strategy which will also identify potential partners (including the Regional Support Offices) for jointly developing and implementing the campaign.

2. Outreach Activities

Outreach activities contribute to involve practitioners and experts from the disaster management and space communities to participate in UN-SPIDER activities as well as in similar activities organized by partners promoting the use of space-based information to support the full disaster management cycle.

Outreach activities include 1) the organization of UN-SPIDER workshops, seminars and expert meetings in all regions; 2) support to related meetings organized by partners and which are relevant to UN-SPIDER objectives; 3) participation in relevant international policy-making and technical conferences, meetings and workshops through the provision of speakers and awareness raising materials; 4) supporting the participation of disaster management practitioners and experts in

regional technical and international seminars and workshops organized by UN-SPIDER or others.

The following workshops will form the core of UN-SPIDER's annual effort in the area of outreach: United Nations UN-SPIDER International Workshops focusing on bringing together experts and practitioners that will lead to enhancing horizontal cooperation and knowledge transfer and United Nations UN-SPIDER Regional Workshops, focusing on specific thematic issues and also on strengthening horizontal cooperation and vertical coordination.

For 2010-2011 activities will include:

Organization of at least four workshops, expert meetings and/or seminars: two of these workshops will be regional workshops bringing together National Focal Points and also contributing to bridging the gap between the disaster management and the space communities, and the other two will be international workshops promoting the coordination of initiatives and the strengthening of the Regional Support Offices.

Support to at least four regional and international seminars and workshops in the form of travel support for participants from developing countries.

Ensure participation, over the biennium, of expert speakers in at least six relevant conferences and meetings promoting UN-SPIDER activities.

Organization of at least one workshop, expert meeting or symposium for the benefit of the user community in Geneva.

The target audience in the case of outreach activities spans from agencies devoted to disaster management and space applications, academic and research centres, NGOs, private technology companies, and insurance companies.

Expected outcomes from outreach activities include an increasing demand for capacity-building activities, as well as the establishment of more formal links among space agencies and the disaster management and emergency response agencies.

3. Capacity-Building

Capacity-building and the strengthening of institutional arrangements at all levels is key to increasing the ability of organizations and individuals to effectively use space based services for disaster prevention, preparedness, response and recovery. In 2010-2011 the UN-SPIDER Programme will continue implementing the activities as defined in the Capacity Building Framework, developed in 2008, and which will be updated in 2009. It includes (a) the development and maintenance of a database of training opportunities that focus on space-based solutions in disaster management, (b) working with partners in the development and dissemination of training curricula that promote the use of space-based solutions for disaster management and emergency response, (c) the development and maintenance of e-learning opportunities that take into consideration the kind of facilities that exist at the United Nations and elsewhere, (d) the facilitation of the realization of short and long-term training in the centres of excellence, including training that will benefit the humanitarian and emergency response community, including the user community in Geneva, and (e) the provision of funding to support, to the extent possible, end-users interested in attending such training courses.

The framework emphasizes the need to work with the established regional centres for space science and technology education, affiliated to the United Nations, as well as other national and regional centres of excellence in the training of the end users and in the strengthening of national institutions.

The target audience will include practitioners from the disaster management and space communities working in government agencies or in the public and private sector and staff from academia and research centres devoted to exploring means to bridge the two communities through the development of methods and tools.

Expected outcomes for the biennium include the updating of curricula on the topic of using space-based information for disaster management and emergency response; the establishment of cooperation agreements with Regional Centres of Excellence and other training centres targeting their active role in training, thus fulfilling the role of UN-SPIDER as a facilitator of capacity-building; the launch of the e-learning component within the UN-SPIDER Knowledge Portal; and the facilitation of the realization of training programmes.

Horizontal Cooperation

4. Communities of Practice

Communities of practice (CoPs) are part of a recent approach to support knowledge management and transfer that is based on the theory of social learning. Communities of Practice are dynamic groups, associated by communication and learning processes, which are dedicated to issues of joint interest. The sharing of knowledge is the essential process that characterizes a CoP. Some of these communities cover a broad range of issues relevant to UN-SPIDER.

UN-SPIDER aims at fostering and supporting CoPs which focus on the issues related to the intersection of disaster management and space-based information and solutions. UN-SPIDER Workshops and Technical Advisory Missions provide an environment where disaster management practitioners meet space experts as well as each other, thus offering the organizational platform on which CoPs can be formed and developed further by way of personal contact.

UN-SPIDER so far has provided support to existing communities of practice and also contributed to the establishment of new ones, bringing together the space-based technology and disaster management communities.

Regarding the ICT support to the CoPs' continuous activities in the way of knowledge transfer and social learning, the UN-SPIDER Knowledge Portal will provide the web-based platform for spontaneous communication and quality-assured content generation and transfer. Thus, it can be expected that the Knowledge Portal will serve to motivate its users to become engaged in Communities of Practice.

The Programme will carry out in 2010-2011 specific activities to support the consolidation and/or establishment of CoPs, including ensuring the full use of the UN-SPIDER Knowledge Portal communication module. Specifically, the use of this communication module will comprise initiating, monitoring and the structuring of communication processes, as well as extending the portal's information and knowledge content and assuring its quality through on a controlled Wiki approach. The Programme will also provide and update the inventory of existing Communities of Practice (CoPs) from related fields that provide specific knowledge which can

help to bring together the space-based technology and disaster management communities.

5. Platform for Ensuring Cooperation

The need to ensure the harmonisation of the various initiatives, and the cooperation of the various partners involved is central to ensuring that countries and international and regional organizations are able to access and use space-based information to support disaster management activities.

UN-SPIDER contributes to such coordination efforts by ensuring the harmonization of initiatives that are contributing or are able to potentially contribute to helping developing countries access and use space-based technologies for disaster management and risk reduction: this is the Horizontal Coordination.

UN-SPIDER will continue to work together with and contribute to existing and planned international and regional initiatives of relevance to its programme of work, contributing directly to the implementation of such initiatives, including contributing to enhancing coordination among all UN initiatives that are related to humanitarian and emergency response, as well as those focusing on risk reduction and disaster management.

Building upon the work carried out in 2008-2009, the Programme in 2010-2011 will focus on the following activities:

(a) continue ensuring that the many available opportunities, including as an example those provided through the International Charter Space and Major Disasters, Sentinel Asia, the Mesoamerican Regional Visualization and Monitoring System (SERVIR), SERVIR Africa and the different European-funded multi-year projects in this domain (SAFER, eGARNET, etc.), are more readily accessible and well-used by the interested end-users, and that these opportunities cover the existing needs in a complementary way, with the aim of also reducing the risk of duplication in those activities and efforts;

(b) ensure programme coordination and the building of synergies with relevant regional organisations including the Group on Earth Observations (GEO), Asian Disaster Preparedness Center (ADPC), Asian Disaster Reduction Center (ADRC), Caribbean Disaster Emergency Response Agency (CDERA), the Pacific Islands Applied Geoscience Commission (SOPAC), the South Asian Association for Regional Cooperation (SAARC) Disaster Management Centre, the Centro de Coordinación para la Prevención de los Desastres Naturales en América Central – CEPREDENAC as well as others;

(c) maintain a continuously-updated set of vertical coordination guidelines aimed at guiding relevant end-users, including the UN-SPIDER National Focal Points, on how to take advantage of all existing initiatives and on how to ensure the coordination and interaction among relevant national authorities, scientific institutions, organizations implementing and/or providing space-based solutions, humanitarian, environmental and civil protection actors and the space community;

(d) implement the SpaceAID service as initiated in 2008-2009, ensuring that it becomes a service capable of providing rapid information and support to the entire disaster management cycle on a 24/7 basis;

(e) continue working with all relevant United Nations entities to ensure coordination of actions with regard to accessing and using space-based information for risk and disaster management and emergency response. This includes organizing the annual United Nations-wide meetings on the Use of Space Technologies for Emergency Response and Humanitarian Assistance which should contribute to increasing the understanding of the evolving operational environment and to the closer coordination among members of the United Nations community, ensuring also that more UN offices are able to participate in these meetings. The UNOOSA UNGIWG co-chairmanship for the 2009-2010 period will also contribute to this effort;

(f) continue contributing to disseminating and integrating the work of the programme within the disaster reduction and humanitarian response communities in Geneva. This will include holding regular meetings and consultations, facilitating better access of this community to space data, resources and products in general, identifying capacity-building needs of this community, carrying out a specific awareness raising campaign targeting the community, especially the staff of different Geneva-based UN offices, and organizing at least one joint GEO-UN workshop or expert meeting in Geneva.

6. Knowledge Management and Transfer

The acquisition, processing and transfer of knowledge should be seen as central to the success of UN-SPIDER. This includes managing tacit knowledge (held in an individual's brain in the form of know-how and experience) and explicit knowledge (recorded in a variety of media). By building a knowledge base on how space-based information and solutions can support risk and disaster management and emergency response available knowledge can be made available through the knowledge portal (Activity 7) as well as available to support capacity-building (Activity 3).

In 2010-2011 the Programme will continue identifying and compiling all relevant information on a continuous basis, including on-going and planned initiatives, case studies and best practices, archived data for disaster studies and capacity-building opportunities, working closely with the Regional Support Offices at the regional level.

The development of a knowledge base will also include the refinement of user requirements and definition of best practices. This activity should include also the development of knowledge management and transfer actions that will support the needs of the humanitarian and emergency response community, including the user community in Geneva.

7. Knowledge Portal

The Knowledge Portal (Portal) will remain central to all other activities of the UN-SPIDER Programme, as in essence it will provide the hosting environment and dissemination tool for all these activities and the resulting outputs and products. The Portal development will aim to integrate all useful information, knowledge and resources identified and available to support the Programme's mandate, including those contributed by relevant user communities, and serve as a platform for sharing space-based information in the disaster management cycle in general, as a contribution to strengthening horizontal cooperation.

Efforts will be made to enable the Portal to provide support for interaction among communities of practice, and capturing related knowledge in that process. At the end of 2009 the light version of the Portal will have been launched and work on full implementation will have started. In 2010-2011 the Programme will focus its efforts in further developing the full version of the Portal, while in parallel a content selection and publication effort will increase.

Another target for the Portal implementation is the continuation of mapping and linking of all relevant initiatives related to the activities of the Programme, given that numerous international, regional and bilateral initiatives already exist and do important work in this domain, but their results and effectiveness could be maximized if they are openly identified and known to the entire disaster management community.

Work will be done in the biennium to explore and test technological advances in web services development to successfully link to most if not all these projects and initiatives, with the support of the Regional Support Offices and other Centres of Excellence, as part of the Knowledge Portal efforts. In this effort to offer consolidated access to space-based information and knowledge for the disaster management cycle, the Programme will also work closely together with external partners such as private companies with expertise in internet technologies.

Work will be done in developing and improving an integrated “geographic” view of all the information offered by the Portal, using a map and 3D Earth interfaces in collaboration with relevant public and private sector partners. A related activity will be the continued development and improvement of an expert and institutional database of relevance for the UN-SPIDER activities, but also integrated with other UNOOSA contact database resources, and made accessible in a controlled way through the Knowledge Portal for user input and consultation.

Technical Advisory Support

8. Country Profiles

The development of country profiles ensures the systematic compilation of information on the current and planned status of access to and use of space-based solutions and information to support risk and disaster management in each country. Each profile is developed with the support of national experts identified through outreach activities and in collaboration with the ISDR secretariat. The country profiles provide information for UN-SPIDER, including the regional support offices, to develop thematic and regional strategies for technical advisory support.

The compilation of this information fulfils several functions: (a) the process of compiling relevant information both in disasters and space technologies helps bring together both communities; (b) it can be seen as a self-assessment tool for the national authorities to learn to what extent space-based technology is already used for disaster-related purposes; (c) the country profiles also provide valuable information to UN-SPIDER on the specific features of a country, its user needs and information on relevant stakeholders; (d) this information allows the development of appropriate technical advisory support activities at the national level, and; (e) the information from the country profiles also feeds into the Knowledge Portal and the compilation of contact information supports the further enhancement of the contact database of end-users and practitioners.

For the compilation of country profiles, the template developed in 2008 will continue to be used (currently available in English, French and Spanish).

The target for 2008-2009 is the completion of 30 country profiles. The target for 2010-2011 will be to maintain updated the country profiles already developed and begin and finalise an additional 10 country profiles, focusing on the most vulnerable countries.

9. Support at the National Level

The expected accomplishment of the UN-SPIDER Programme is the “Greater understanding, acceptance and commitment by countries and relevant international and regional organizations on ways at accessing and developing the capacity to use all types of space-based information to support the full disaster management cycle”.

The specific indicators will be:

- (i) Increased number of countries requesting assistance in the definition of disaster management plans and policies with regard to the use of space-based technologies;
- (ii) Increased number of countries requesting technical advisory support for implementing risk reduction and emergency response activities using space-based information.

This activity will ensure that this accomplishment is indeed met by the UN-SPIDER Programme.

The Programme will continue working with all Member States to ensure the nomination of National Focal Points (NFPs), and then working with these NFPs, or other relevant Government authorities when the NFP has not yet been nominated, to ensure the access and use of space-based solutions for disaster risk management and emergency response, including:

- (a) Assessing national capacity and evaluating disaster and risk reduction activities, policies and plans with regard to the use of space-based technologies. Indicator (i)
- (b) Assisting in the definition of risk and disaster management plans and policies with regard to the use of space-based technologies. Indicator (i)
- (c) Developing and customizing guidelines and templates for including space-based technologies into disaster risk reduction and emergency response. Indicator (i)
- (d) Facilitating access of national institutions to space-based information to support disaster risk reduction and emergency response activities. Indicator (ii)
- (e) Identifying training needs and facilitating the implementation of capacity-building activities. Indicator (ii)
- (f) Supporting the implementation of risk reduction and emergency response activities using space-based technologies. Indicator (ii)

The target for 2008-2009 is to assist 15 countries in the definition of disaster management plans and policies and support 15 countries that request specific

technical advisory support for implementing risk reduction and emergency response activities using space-based information.

The target for 2010-2011 is to continue assisting and supporting the countries that started receiving support in 2008-2009 and start providing such assistance and support to an additional 10 countries for each indicator.
