Space-based Information for Disaster Management and Emergency Response

“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.”

• Especially 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 (A/RES/61/110).
The Office for Outer Space Affairs (UNOOSA)

SECRETARIAT

- Committee, Policy and Legal Affairs Section
- Space Applications Section

PSA  UN-SPIDER
The Office for Outer Space Affairs (UNOOSA)

ITS MISSION STATEMENT:

The core business of the Office is to promote international cooperation in the use of outer space to achieve development goals for the benefit of humankind.
Questions about „Space-based Information“ from the user perspective

What information exists?
Where to find?
How to access?
What are the costs?
What is the timeliness?
What is the quality?
Space Technologies for Disaster Risk Management and Emergency Response

Images from earth observing satellites help assess the damage caused by disasters and assess vulnerability to hazards.

Satellite communications help warn people who are at risk, especially in remote areas. They help connect a disaster zone to the outside world.

Global navigation satellite systems enable us to obtain positional information on events that have to be mapped.
Activities

• Knowledge Management
• Technical Advisory Support
• Capacity Building
• Fostering Cooperation

Knowledge Portal
The UN-SPIDER Knowledge Portal is a web-based tool for information, communication and process support. Users can find and share case studies, guides and products through the portal.

UN-SPIDER Activities

Fostering Cooperation
UN-SPIDER bridges the gap between the space and disaster management communities. UN-SPIDER fosters alliances and creates forums where both communities can meet.

Technical Advisory Support
UN-SPIDER provides support to countries in assessing national capacity and in evaluating disaster and risk reduction activities, policies and plans with regard to the use of space-based technologies.

Capacity Building
UN-SPIDER facilitates capacity building and institutional strengthening, including the development of curricula and an e-learning platform (e-SPIDER).

…and many more
The UN-SPIDER Programme

UN-SPIDER Team

Network of Regional Support Offices (RSOs, 16)

National Focal Points (45)
Network of Regional Support Offices
Knowledge Portal

A web portal for information, communication, and process support. A platform which supports knowledge management, capacity building, technical advisory support and support to emergency and humanitarian assistance. http://www.un-spid.org
Knowledge Portal content

Space Application Guides

Scientific and technical papers, best practices and case studies, etc.

News and Events from the space and the disaster/risk management community

Guides on technologies, institutions and organizational mechanisms

Links to data and information sources

Repository of freely available Earth observation data and products

- Hazard-specific datasets
- Digital Elevation Models
- Land use and land cover maps
- Satellite data
- Search engines for geospatial data

Recommended practices on the use of archived imagery

Lessons learned from drought in Iran, floods in Pakistan and earthquakes in Japan

Best practices on geo-information for disaster and risk management
Technical Advisory Support

• What **national capacity exists** to use space-based information?
• How are institutions **working together** to support disaster risk management through space-based information?
• Where are **constraints/gaps** which restrain the use of space-based information for disaster risk management?
Countries receiving Technical Advisory Support (2009 - 2012)
UN-SPIDER Technical Advisory Missions

- Meetings, Brainstorms and Workshop
- Mission Team (Multi-disciplinary, multi-organisation)
- Internal Report Observations and Recommendations
  - Policy
  - Coordination
  - Capacity Building
  - Awareness
  - Information Sharing
  - Data standards
  - Data access

- Government Main stakeholders

- Recommendations
- Action Plan
- Cooperation
- Emergency support
- Long-term support

- Improved DRR and ER practices involving Space Technology
“Technical Advisory Mission”

“Generic” classes of recommendations

- Policy and Coordination
- Data access, availability and sharing
- Capacity Building and Institutional Strengthening
- Specific recommendations to address various stages of disaster management (risk reduction, early warning, emergency response etc.)
Activities in 2013

- Technical Advisory Mission to Ghana, Nov/Dec 2013
- Technical Advisory Mission to Malawi, 14 – 18 October 2013
- Technical Advisory Support (training) to Bangladesh, 12-16 May 2013
- Technical Advisory Support (training) to Sudan, 5 – 9 May 2013
- Technical Advisory Support (training) to Dominican Republic, 13 - 17 May 2013
- Technical Advisory Support (training) to Mozambique, 4 – 8 November
- Technical Advisory Support to Indonesia, 5 – 6 September
- UN/Germany Early Warning Expert Meeting, Bonn, Germany, 25 – 26 June 2013
- SPIDER/NDRCC training, Beijing, China, 21-22 October
- UN/China International Conference, Beijing, China, 23 – 25 October
- Beijing Training: Flood Risk Mapping, Modeling and Assessment using Space technology, Beijing, China, 27-31 October
Thank you!

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