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United Nations Platform for Space-based Information for Disaster Management and Emergency Response

Role of space based information in Disaster Risk Reduction: UN-SPIDER Interventions

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Earth Observation from Space

- Spatially extensive mapping**
- Beyond 'human eye' capability**
- Localised event detection**
- Access difficult or dangerous sites**
- Near real time response**
- Geo-referenced and calibrated**

More than 40 nations with imaging satellites -160 sensors

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- How important is space based information in disaster management?
- Does Space based OR geospatial information contribute enough in decision making in DRR?
- Are NDMOs/NDMAs prepared to leverage on wealth of geospatial information available in the country and region?
- What needs to be done?

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Context

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HFA – Priority Actions

Priority Actions: to guide the implementation of HFA and translate political commitment into action

- Priority 1:** Ensure that disaster risk reduction is a **national and local priority** with a strong institutional basis for implementation.
- Priority 2:** **Identify, assess and monitor disaster risks** and enhance **early warning**.
- Priority 3:** Use **knowledge, innovation and education** to build a **culture of safety and resilience** at all level.
- Priority 4:** Reduce the **underlying risk factors**.
- Priority 5:** **Strengthen disaster preparedness** for effective response at all levels.

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HFA Priority 1

Disaster risk reduction - national and local priority with a strong institutional basis for implementation.

UN-SPIDER Contribution

UN-SPIDER Technical Advisory Support & Missions

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UN-SPIDER Technical Advisory Support

ASIA

- Bangladesh
- India
- Indonesia
- Lao PDR
- Myanmar
- Sri Lanka
- Vietnam

Pacific

- Fiji
- Samoa
- Solomon Islands
- Tonga
- Vanuatu

Africa

- Burkina Faso
- Burundi
- Cameroon
- Cape Verde
- Chad
- Congo
- DR Congo
- Gabon
- Ghana
- Kenya
- Malawi
- Mozambique
- Nigeria
- Sudan

Support offered to more than 25 countries

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Technical Advisory Missions to Vietnam

Mission team

- UN-SPIDER
- UN OCHA
- CANEUS, Canada
- NDRCC, China
- ITC, Netherlands
- CNES-CNRS University, France
- Pacific Disaster Center, USA
- Chinese Academy of Sciences
- Delta State University, USA
- GERENDIS, Spain
- GREEN Mindanao, Philippines

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Technical Advisory Missions to Vietnam

Visits to following agencies

- Disaster Management Centre (DMC)
- Department of Dike Management
- Flood Control (Standing Office of Central Committee for Flood and Storm Control - CCFSC)
- National Institute of Agricultural Planning and Projection (NIAAP)
- Spatial Technology Institute (STI), Vietnam Academy of Science and Technology (VAST)
- National Remote Sensing Center (RSC), Ministry of Natural Resources and Environment
- Hydro-Meteorological Forecasting, Ministry of Natural Resources and Environment
- UN Disaster Risk Management team
- Department of Survey and Mapping
- General Department of Land Administration

**One day workshop:
Attended by over 60 officials**

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Technical Advisory Missions to Vietnam

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.

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Technical Advisory Missions to Vietnam

Follow up actions

- Wide dissemination of the TAM report and recommendations
- UNDP and UNRC offices in Vietnam to consider the recommendations
- High level intervention (at ministerial level) to encourage data sharing and Data Policy.
- Short term training programmes
- Institutional capacity building of DMC
- Familiarisation study tours to overseas operational "centres of excellence".
- Act as the bridge during emergencies to supply EO products
- Effective utilization of VinAWARE, a tool provided by PDC to facilitate the integration of geospatial and early warning information

After debriefing presentation to the Vice Minister of Agriculture & Rural Development

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HFA Priority 2

HFA Priority 2 & 3

- Identify, assess and monitor disaster risks and enhance early warning.
- Use knowledge, innovation and education to build a culture of safety and resilience

UN-SPIDER Contribution

- Follow-up of Advisory Mission outcomes
- Capacity building
- Knowledge management (www.un-spider.org)

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UN-SPIDER Capacity Building Efforts



National training programmes in 2013

Sri Lanka
Myanmar
Bangladesh

China
Cameroon, Mozambique, Sudan

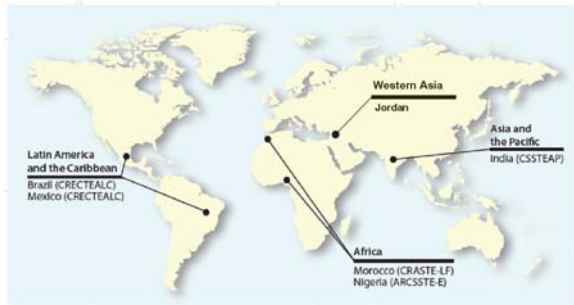
International training programmes in 2013

China- with NDRCC and APSCO
UN Affiliated Regional Centre in India (With ESCAP and IWMI)



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Centres for Space Science and Technology Education (affiliated to the United Nations)



Latin America and the Caribbean
Brazil (CRECTEALC)
Mexico (CRECTEALC)

Western Asia
Jordan

Africa
Morocco (CRASTE-LF)
Nigeria (ARCSSTE-E)

Asta and the Pacific
India (CSSTEAP)

Regional Centres offers training in wide range of space applications

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UN-SPIDER Knowledge Portal



www.un-spider.org

Geoinformation for Disaster and Risk Management
Examples and Best Practices

The Value of Geoinformation for Disaster and Risk Management (VALID)
Research Analysis and Stakeholder Assessments



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Upcoming publications

- **SUPARCO** - Booklet on 'Considerations for effective use of space based information to monitor massive flood disaster and its impact- Lessons learned from Pakistan floods in 2010
- **Iranian Space Agency** - Booklet on 'Considerations for effective use of space based information to assess drought and desertification at national level - Experiences from Iran'
- **Indonesia RSO (LAPAN)** - 'Space based information for Forest Fire Monitoring'

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HFA Priority 4

HFA Priority 4

UN-SPIDER Contribution

Reduce the underlying risk factors

UNOOSA covers wide range of thematic areas of space applications

- ✦ Disaster Management
- ✦ Natural Resources Management
- ✦ Environmental Monitoring (Climate Change)
- ✦ Tele-health/Tele-medicine
- ✦ Global Navigation Satellite Systems
- ✦ COSPAS-SARSAT
- ✦ Space Law
- ✦ Socio-Economic Benefit

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HFA Priority 5

HFA Priority 5

UN-SPIDER Contribution

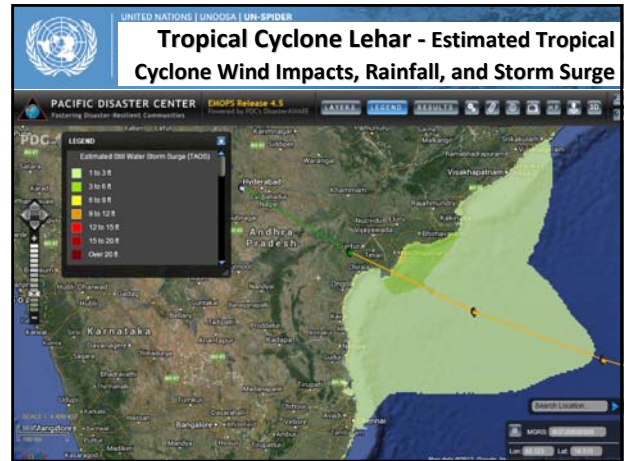
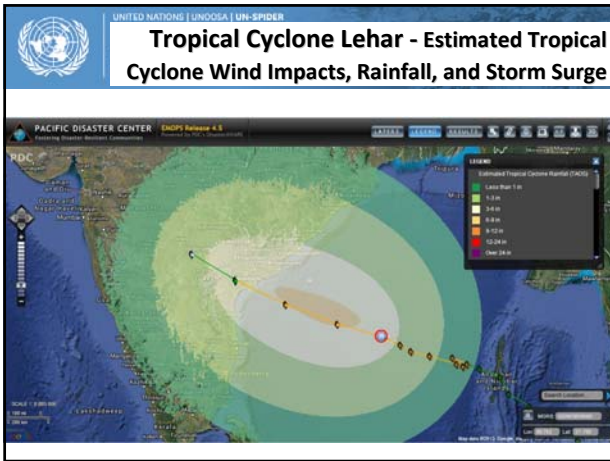
Strengthen disaster preparedness for effective response at all levels.



UN-SPIDER

Regional Support Offices

Partner Organisations
ESCAP, OCHA, UNOSAT, UNDP...



Geospatial information products – Increasing access and availability

GLCF

NOAA

Ushahidi

OpenStreetMap

OrbView, MODIS, NOAA, Landsat, SRTM, ASTER, TRMM, GIS data, -Base maps, -Thematic maps, LandScan, Crowdsourc

- Predictions of weather extremes
- Early warning
- Monitoring of disasters and risks

'Space' in Disaster Risk Management

Global scale

Local scale

Life Saving Products

Mitigation & Preparedness Planning

- Vulnerability and risk assessment
- Modelling impact
- Early warning

Emergency Response

- Specific event
- Rapid provision
- Map information
- Support crisis management

Recovery & Rehabilitation

- Situation maps
- Time series
- Monitoring

Hazard maps **Vulnerability maps** **Risk maps** **Response maps**

预览已结束，完整报告链接和二维码如下：

https://www.yunbaogao.cn/report/index/report?reportId=5_6104

