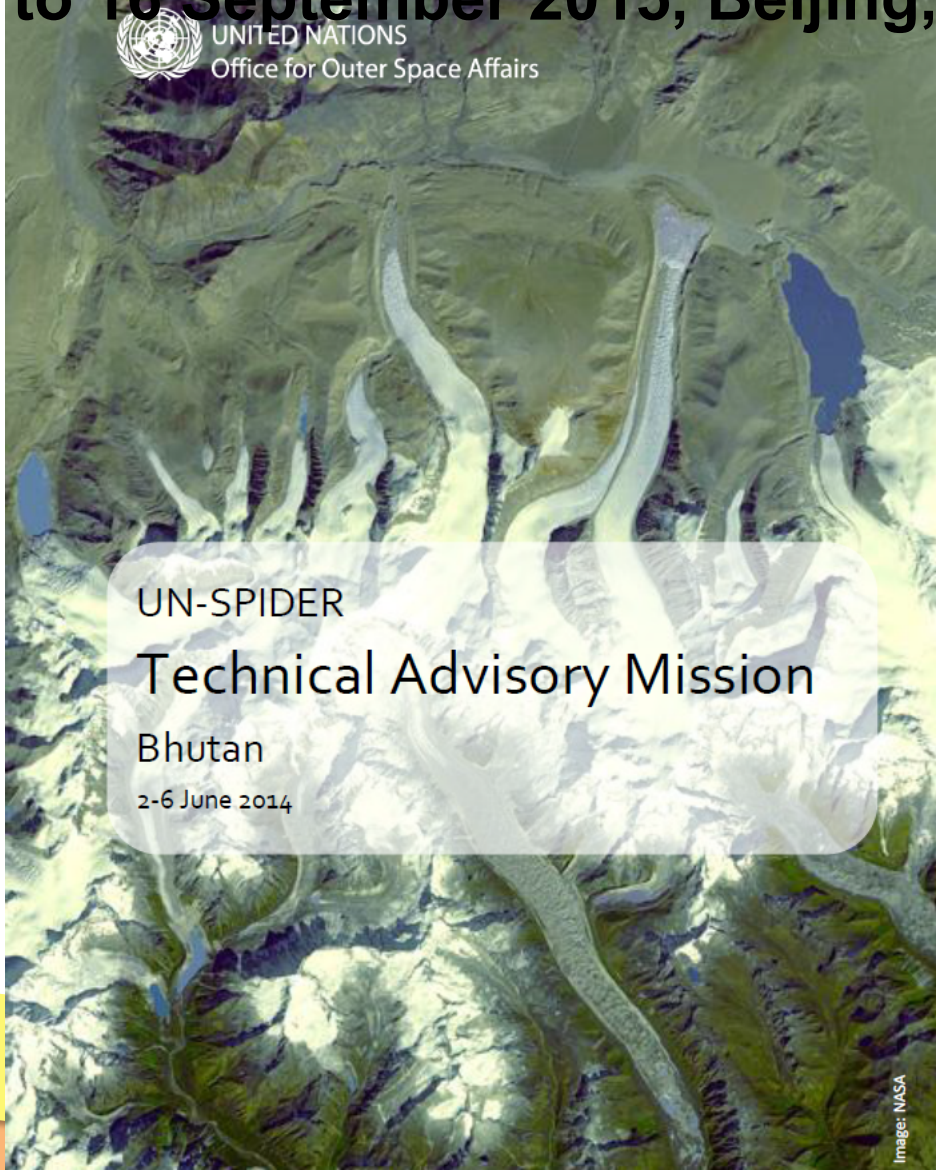


UN International Conference on Space-based Technologies for DM

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UNITED NATIONS
Office for Outer Space Affairs



UN-SPIDER

Technical Advisory Mission

Bhutan

2-6 June 2014



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Ministry of Home and Cultural Affairs

Bhutan

<http://www.ddm.gov.bt>

<http://www.mohca.gov.bt>

Image: NASA

"Reducing Disaster Risk for a Safe and Happy

Contents

- 1 Bhutan at a Glance
- 2 Technical Advisory Mission (Background)
- 3 Objectives of the Mission
- 4 Mission activities at a glance
- 5 Observations and Assessment by the Mission
- 6 Recommendations
- 7 Follow-up activities
- 8 Impacts of the TAM



1. Bhutan at a Glance



- ✓ Area: 38,394 sq.km
- ✓ 170 KM north-south and 340 KM east-west
- ✓ Altitude: 100 to 7500 m above sea level
- ✓ Population 634,982
 - (*Population & Housing Census 2005*)
- ✓ Forest cover: 72%
- ✓ Country is divided into:
 - 20 Dzongkhag (Districts)
 - 205 Gewog (Blocks)



2. Technical Advisory Mission (TAM)

Background

The DDM, MoHCA requested UN-SPIDER to organize TAM in Bhutan
The TAM visited Bhutan from 2-6 June 2014.

TAM mission team comprises members from:

1. UN-SPIDER/UNOOSA,
2. UNDP, Bhutan
3. International Centre for Integrated Mountain Development (ICIMOD)
4. National Disaster Reduction Centre of India (NDRCC)
5. University of Salzburg, Austria
6. Asian Disaster Preparedness Centre
7. Village Resource Centre of Indian Research Organization – NGO, India



3. Objectives of the Mission

- i. To review policies, procedures and mechanisms of geospatial information and make recommendations.
- ii. To engage key stakeholders in the disaster risk management.
- iii. To develop an institutional strengthening strategy for stakeholder agencies (individuals, institutions and infrastructure)
- iv. To develop a long-term association with UN-SPIDER to take advantage of outreach activities, institutional strengthening programmes and resources available through the UN-SPIDER network.



4. Mission Activities at a Glance

- i. Conducted meetings with the key government agencies/institutions (10 agencies) and UN agencies on their role in DM and use of space-based information and challenges and constraints in using space technology.
- ii. Organized workshop on Space Technology Application on DRR in Bhutan



5. Observations and Assessment by the Mission

- i. Policy and coordination
- ii. Data availability and information sharing
- iii. Capacity building and institutional strengthening
- iv. Space-based information in preparedness, early warning and emergency response for better DM



6. Recommendations

- i. Policy and coordination
- ii. Data access, availability and sharing
- iii. Capacity building and institutional strengthening
- iv. Strengthening DRR Decision making
- v. Strengthening early warning and preparedness
- vi. Strengthening emergency res



7. Follow-up Activities

- i. Preparation and implementation of geospatial strategy and NSDI
- ii. Institutional capacity development strategy
- iii. Develop risk, hazard and vulnerability mapping methods appropriate for different scale levels in Bhutan
- iv. Get coverage of remote sensing data for entire country on adequate resolution and use it for generating baseline and operational geospatial data required for disaster management and development in line with GNH
- v. Seek high-level intervention to establish mechanism for data sharing for the purpose of



8. Impact of the TAM

- CGISC drafted National Geo Information Policy of Bhutan 2015
- Capacity building:
 - Training on Earth Observation for Disaster Response and Recovery Preparedness , IIRS, Dehradun, India, 13 to 17 April 2015



Bhutan –
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Thank You

