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INVITED PAPERS

AN OVERVIEW OF UNESCAP’S SPACE APPLICATIONS PROGRAMME AND ACTIVITIES ON DISASTER REDUCTION

Submitted by Information, Communication and Space Technology Division, United Nations Economic and Social Commission for Asia and the Pacific (ICSTD/UNESCAP)**

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An Overview of UNESCAP’s Space Applications Program and activities on disaster reduction

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Regional arm of the UN Secretariat in the Asia-Pacific

Priorities of ESCAP
- Poverty alleviation
- Emerging social issues
- Manage globalization
  - Information, Communication and Space Technology Division (ICSTD) established in 2002
  - Space Technology Applications Section

Regional Space Applications Programme (RESAP)
RESAP - first phase

- Initiated by Ministerial Conference on Space Applications for Development, 1994, Beijing
- Objective: Promote applications of emerging space technologies for development through regional cooperation
- At regional level
  - Focused on networking, awareness and human resource development focused capacity building
  - Established a three-tiered network
RESAP structure...

- Intergovernmental Consultative Committee (ICC)
  - Legislative body comprising National Focal Points

- Regional Working Groups on:
  - Remote sensing, GIS and satellite-based positioning
  - Meteorological satellite applications and natural hazards monitoring
  - Satellite communication applications
  - Space science and technology applications

- Regional information service and education and training network
Second Phase of RESAP...

- Initiated by 2nd Ministerial Conference on Space Applications for Sustainable Development, 1999, New Delhi, India
- Focused on operational applications of space technology
  - Technical cooperation projects in priority fields
  - Studying on policy frameworks of
    - Convergence of space technology with other information and communication technologies
    - Disaster management products and services
    - Regional cooperative mechanisms
  - Harmonizing regional cooperation initiatives
Space Applications in A-P region

- Enhanced national capacity
  - Most countries set up relevant facilities and capacities
  - Many countries established space agencies
  - Many countries established space application policies
  - Human resources development became normal activities in many universities and research institutions

- Operational applications in many fields
  - National programmes and centers
  - Application models, products and services
  - Operational services by public and private providers

- Space technology development programmes
Regional space capacity supporting disaster management

- Space infrastructures developed by many countries
  - Earth observation satellites
  - Communication satellites

- Regional cooperation initiatives
  - Asia-Pacific Multilateral Cooperation on Space Technology Applications
    - Multi-mission small satellite
    - Satellite constellation for disaster monitoring
  - Asia-Pacific Regional Space Agency Forum
  - Sentinel-Asia project
  - National initiatives of China, India, Iran, ...
Regional cooperative mechanism on space technology for disaster management

- Based on existing and planned regional and national initiatives
- To create a scientifically sound, diplomatically acceptable and politically relevant Harmonized platform
- For less capable countries’ affordable access to space information products and services
- For operational use of space technology in
  - Risk assessment; preparedness and risk reduction; multi-hazard national and regional warning and response systems; community based disaster reduction
ESCAP’s experiences

- Successfully established regional mechanisms:
  - Asian Development Bank (ADB)
  - Mekong River Commission
  - Typhoon Committee and Panel on Tropical Cyclones
  - Asian Highway & Railway networks
- 12 years implementation of the RESAP
- Has been promoting regional cooperative mechanisms since 2002
Mechanisms under development

- **Sentinel-Asia project**
  - Promoted by Japan and supported by many countries
  - Focused on forest fire and flood

- **Regional mechanism on drought disaster management**
  - Supported by China and India

- **Small satellite constellation for disaster management**
  - Promoted by China

- **Mechanism to be developed**
  - Satellite communications for
    - Networking information nodes in a knowledge-based disaster management system
    - Supporting emergency response
Modalities of the mechanisms

- Explore commitments of both contributory and beneficiary countries/organizations
- Networking information providers, local service providers and disaster management authorities
- Developing operational application models
- Developing relevant products and services
- Extension of national services to less capable countries
- Developing data policies to ensure sustainability and affordability
- Help national/ subregional/ regional institutional arrangement
# Role of interim P/S and local service providers

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- **System-corrected images**
- **Information extracted Images or thematic maps**
- **Other processes (by-less capable LSP)**
- **Use of the information: Decision supporting tools**
Third Ministerial Conference

- To be held on 5-10 February 2007 in Malaysia
- Discuss major issues on operational use of space technology for assist achieving internationally agreed development goals
- MDGs, WSIS, WSSD
- World Conference on Disaster Reduction
- Recommend strategies and actions at both national and regional levels
- Disaster management will be a major issue to be addressed
- Regional cooperative mechanism on use of space technology for disaster reduction will be one major topic to be discussed
Thank you for attention

For more information, please contact

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