



Geo-Science Application and Technology for DRM

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Building Resilience through Innovation and Partnership

Outline of Presentation

- ☐ Introduction to Asian Disaster Preparedness Center (ADPC)
- ☐ Strategic Partnerships
- ☐ Geo-Science Application for Disaster Risk Management (session 2.9.2)

HISTORY

A vertical strip of flags representing member countries: Myanmar, Cambodia, China, India, Nepal, Pakistan, Philippines, Sri Lanka, Thailand, and Vietnam.

1986

Established at the initiative of UNDP,
UNOCHA and WMO
Served as the Outreach Center of
Asian Institute of Technology (AIT),

1999

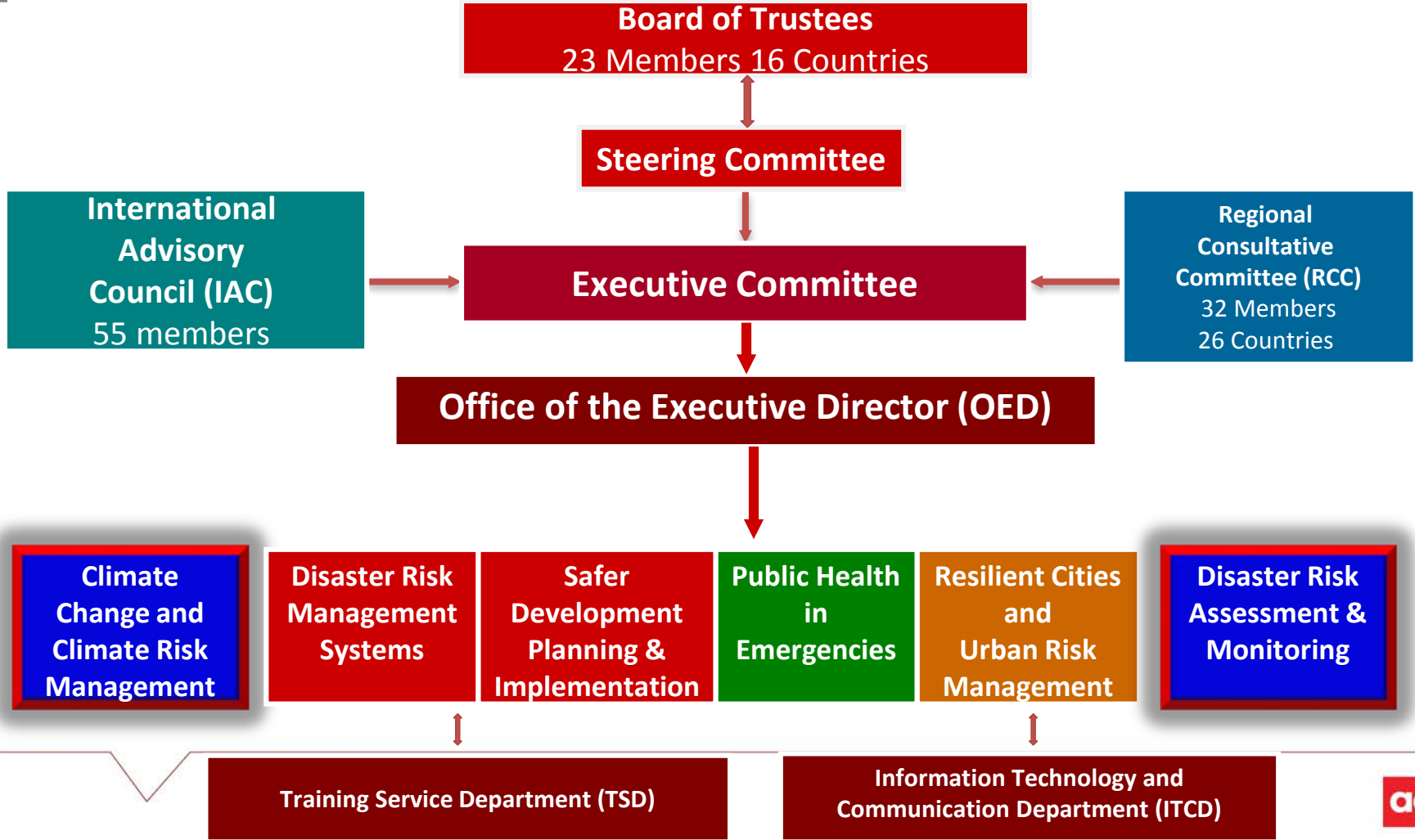
Independent international foundation
Implementing own programs & projects

2005

Inter-governmental charter signed
With 9 member countries

2011

Celebrating its 25 years of DRR works
Currently more than 60 staff



ADPC Country Offices



Myanmar
Yangon



ADPC Role in Supporting DRR in Asia



- Enhancing skills and capacities
- Imparting knowledge, experiences and innovative practices
- Providing technical advisory services
- Implementing pioneering regional programs
- Participating in global and regional initiatives
- Establishing new regional forms of association, mechanisms and cooperation
- Supporting inter-agency coherence and coordination

our **mission...**

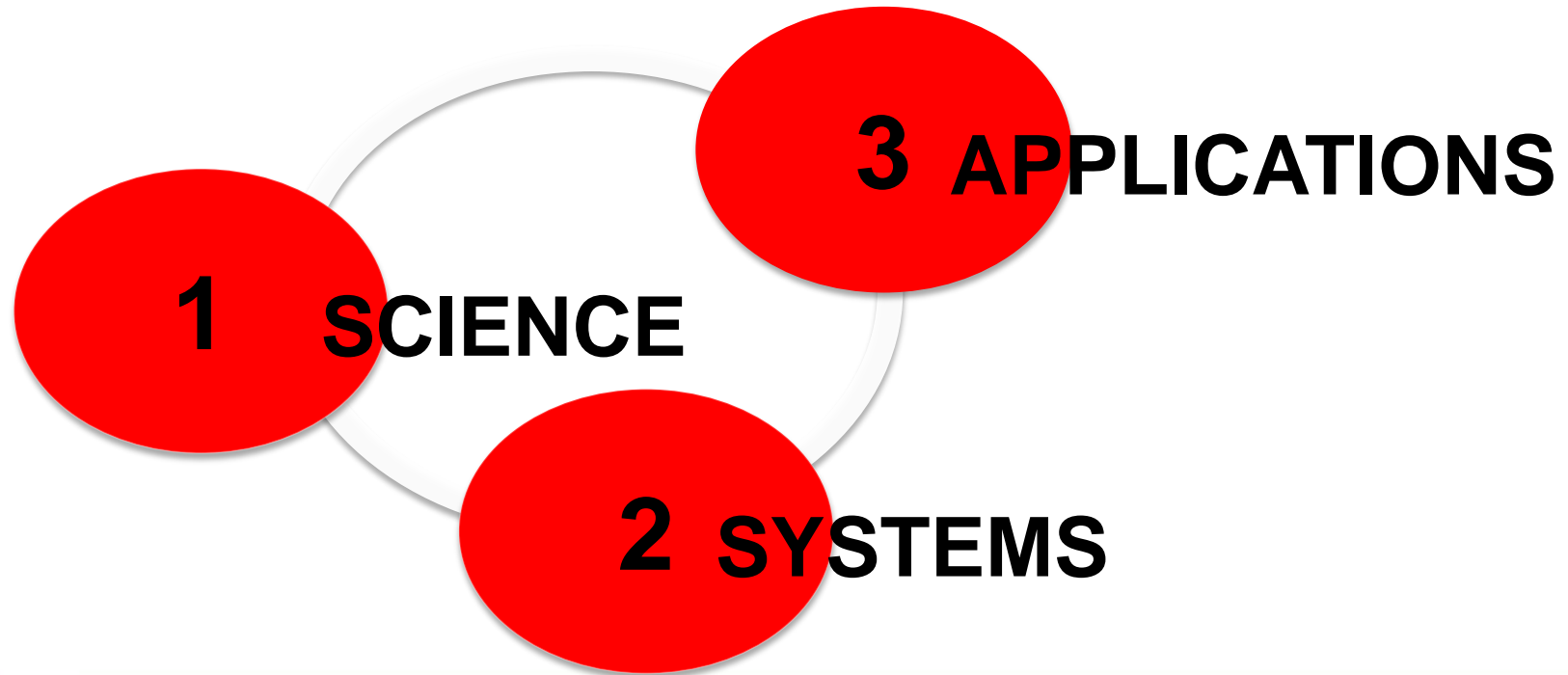
To **reduce** the impact of **disaster and climate risk** on communities and countries in the **Asia-Pacific** region by working with governments, development partners and stakeholders.

ADPC Thematic areas of focus

1. Good governance and Disaster Risk Management Systems Development
2. Urban Disaster Risk Management
3. Climate Variability and Change/Climate Risk Management
4. Community-Based Disaster Risk Reduction
5. Public Health in Emergencies/Health Risk Management
6. Emergency Preparedness and Response System Development
7. Geological Hazard Risk Management
8. End to End Multi Hazard Early Warning Systems
9. Mainstreaming Disaster Risk Reduction into Development
10. Disaster Recovery Planning and Implementation
11. Risk Assessment
12. Technological Hazard Risk Management

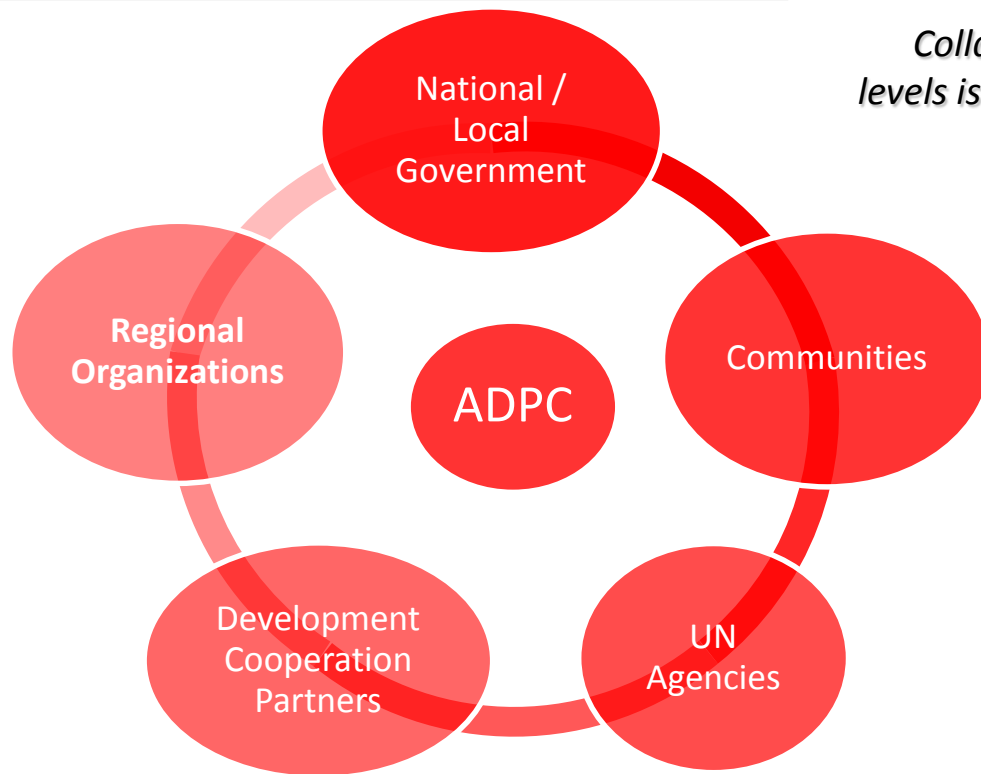


our **approach...**



ADPC Partnership

*Cooperation &
Collaboration at all
levels is key to the way
ADPC works*



Development Cooperation Partners

- Asian Development Bank (**ADB**)
- Australian Agency for International Development (**AusAID**)
- Canadian International Development Agency (**CIDA**)
- Danish International Development Agency (**DANIDA**)
- Department for International Development (**DFID**), UK
- Dutch Development Corporation (**SNV**)
- European Commission Humanitarian Aid department (**ECHO**)
- German Technical Cooperation (**GTZ**)
- Inter-American Development Bank (**IADB**)
- Italian Ministry for Environment and Territory (**IMET**)
- Japan International Cooperation Agency (**JICA**)
- National Oceanic and Atmospheric Administration – Office of Global Programs (**NOAA-OGP**)
- Swedish International Development Cooperation Agency (**SIDA**)
- United States Agency for International Development, Office of the Foreign Disaster Assistance (**USAID/OFDA**)
- World Bank



Partnerships with UN System partners

- Food and Agriculture Organization of the United Nations (FAO)
- International Organization for Migration (IOM)
- International Telecommunication Union (ITU)
- United Nations Assistance Mission in Afghanistan (UNAMA)
- United Nations Center for Human Settlements (UN-HABITAT)
- United Nations Center for Regional Development (UNCRD)
- United Nations Children's Fund (UNICEF)
- United Nations Development Fund for Women (UNIFEM)
- United Nations Development Program (UNDP)
- United Nations Economic and Social Commissions for Asia and the Pacific (ESCAP)
- United Nations Environment Program (UNEP)
- United Nations Educational, Scientific and Cultural Organization (UNESCO)
- United Nations Framework Convention for Climate Change (UNFCCC)
- United Nations High Commissioner for Refugees (UNHCR)
- United Nations International Strategy for Disaster Reduction (UNISDR)
- United Nations Mine Action Service (UNMAS)
- United Nations Millennium Campaign (UNMC)
- United Nations Office for the Coordination of Humanitarian Affairs (UNOCHA)
- United Nations Volunteers (UNV)
- World Food Program (WFP)
- World Health Organization (WHO)
- World Meteorological Organization (WMO)
- UNOSAT-UNITAR



Partnership with Regional Organizations

- **The Association of Southeast Asian Nations (ASEAN):**
 - Development of ASEAN Regional Program on Disaster Management
 - ASEAN's implementation of the Agreement on Disaster Management and Emergency Response (AADMER)
- **South Asian Association for Regional Cooperation (SAARC):** MOU with SAARC, Cooperation with SDMC
- **Mekong River Commission (MRC):** Partnering in MRC's Flood Management and Mitigation Program
- **Asian Ministerial Conference on DRR (AMCDRR):** Co-organizer, RCC as mechanism for follow up
- **ISDR Asia Partnership (IAP):** Founding Member (2003)



Utilizing remote sensing, GIS technology, and other advanced tools for disaster risk assessment

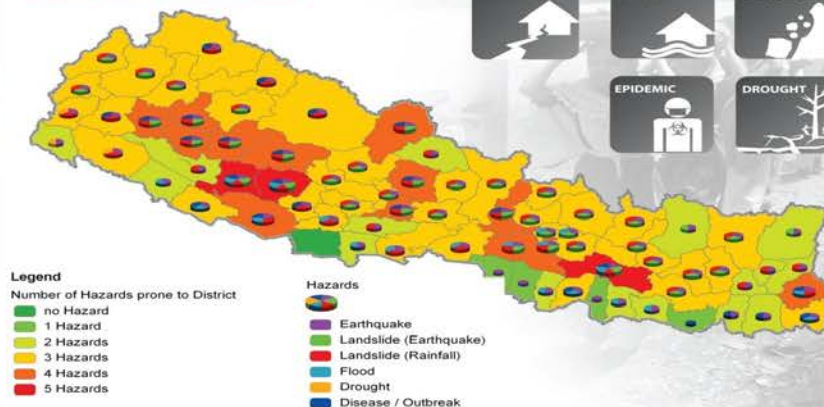


Satellite imagery of a tsunami-hit coast



Flooded areas extracted from satellite data using GIS

Multi-hazard Mapping for National Development Planning



Quantifying Earthquake Risk for Cities and Supporting Vulnerability Reduction Measures



Disaster Risk Assessment and Monitoring

Bringing sciences, society, and institution together for disaster risk reduction

- Developing advanced methodologies and tools for risk modeling
- Conducting hazard, vulnerability and risk assessments
- Profiling disaster risk for disaster management planning
- Assessing damages and economic losses from disasters, and estimating future loss given disaster scenarios.
- Promoting the use of risk assessment for risk mitigation and risk transfer
- Building capacities and promoting knowledge transfer

We can conduct risk assessments for a variety of hazards including: earthquakes, floods, storm surge, droughts, epidemics, and landslides.

Our risk assessments have been used for contingency planning, disaster mitigation planning, vulnerability reduction planning, and developmental planning.

DRAM

Our services focus on , but not limited to :

- ☐ Hazard Assessments
- ☐ Development of spatial database of buildings and infrastructures
- ☐ Vulnerability field surveys
- ☐ Derivation of risk indices for cities and provinces
- ☐ Damage estimation of hypothetical event scenarios
- ☐ Risk assessment at local , sub-national and national levels
- ☐ Training on risk assessment and its applications
- ☐ Training on geo-spatial technology and data sharing



Conclusion - future collaboration

We are looking forward to having collaborations with Sentinel Asia and providing active contributions to the DRM efforts through geo-science applications and technology .

THANK YOU

FOR YOUR ATTENTION



<http://www.adpc.net>



<http://www.drrprojects.net>



Group: Asian Disaster Preparedness Center



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