

Inputs provided by: ASIAN DISASTER PREPAREDNESS CENTER, Bangkok, Thailand

1. General description of mandates and objective(s) of your organization / associated network with institutional structure

Asian Disaster Preparedness Center (ADPC) works towards the realization of disaster reduction for safer communities and sustainable development in Asia and the Pacific. It was established in 1986 and has since been recognized as the major independent regional center promoting disaster awareness and the development of local capabilities to foster institutionalized disaster management and mitigation policies. ADPC was originally established as an outreach center of the Asian Institute of Technology after a feasibility study conducted jointly by two agencies of the United Nations, the Office of the United Nations Disaster Relief Coordinator (currently the UN Office for the Coordination of Humanitarian Affairs) and the World Meteorological Organization in January 1986. The initial role conceived for the center was mandated by an expressed need to assist countries of the Asia and the Pacific region in formulating their policies and developing their capabilities in all aspects of disaster management.

Five core principles of ADPC includes:

- Disaster preparedness should be the safety of people most at risk, followed by the protection of critical property.
- Welfare and self-reliance of individuals, their families, and their communities during a disaster, even though intervention at the time calls for provincial, national, and international coordination.
- Disaster preparedness activities should be the responsibility of government and community based organizations and integrated into development planning.
- Disaster preparedness requires a multi-disciplinary, all-hazards approach to addressing the many issues involved, and collaboration among government and non-government organizations, research and training institutions, and the private sector.
- Access to current information on the causes and consequences of disasters is the basis of sound disaster management planning.

Objectives of the Organization

- To promote increased awareness, knowledge and adoption of disaster reduction practices as an integral part of the development process at community, national, sub-regional, regional and international levels of engagement.
- Helping countries, organizations, communities and individuals strengthen their own capacities in all respects to reduce the impacts of disasters.
- To translate scientific knowledge into cost effective and environmentally suited practices that are well understood by the communities concerned.
- Emphasis on promoting partnerships among the organizations with which it works and by means of networks with communities and other players in the field of disaster management.

2. Relevant operational framework(s)

ADPC promotes partnerships and networking across communities, countries, institutions and sectors, to facilitate the exchange of experiences and practices. Cooperation and collaboration at all levels are central to the way the organization work. In working with different partners, ADPC provides;

- Support to local and national organizations to enhance their capacities.

- Links to technical specialists worldwide to promote relevant cutting-edge technologies and strategies.
- Links to other similarly mandated organizations in the region with good practice.

As the practice of disaster risk reduction has both expanded in scope, ADPC has defined its thematic areas of interest and concern to build up institutional core competencies, technical expertise, and trusting external partnerships within these areas, while consolidating past achievements and experience gained through working on these areas. There are 12 thematic areas of focus for ADPC:

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. Post-disaster Recovery and Reconstruction
11. Risk Assessment
12. Technological Hazard Risk Management.

However, ADPC's activities demonstrate a wide diversity in application, address various types of natural hazard induced disaster risks, and cover all aspects of the disaster management spectrum from prevention and mitigation, through preparedness and response, to recovery responsibilities.

3. Focus areas of risk management for loss and damage associated with climate change impacts

Although ADPC has been working in the field of Disaster Risk Reduction and Disaster Management in Asia and the Pacific, it did work in developing framework or methodology for assessing damage and loss estimation in post disaster scenarios. However, it is not directly involved in any damage and loss assessment with regards to climate change impacts at the moment. A few example of ADPC's involvement with regards to damage and loss assessment in a post disaster scenario can be found below:

Past Involvement

1. ADPC has provided consulting services on developing a methodology for assessing damage and loss estimation in Gujarat, India during the year 2004. The aim was to assist the state government authorities in setting up of a comprehensive damage and loss assessment system through improvement and expansion of existing mechanisms and to provide initial steps towards its implementation through capacity building. It help the state government in developing a methodology for assessment of financial and economic losses and also helped in developing an integrated post disaster reporting format covering damage and loss assessment. It also developed a detailed training strategy on dissemination and use of this methodology.
2. It also carried out an economic impact study in 2004 after the Tsunami with a view to identifying common vulnerabilities and risks whose solution may be best approached in a cooperative fashion and thus generating significant economies of scale for the countries. As part of the regional study, ADPC first undertook the estimation of the total amount of damage and losses sustained by Thailand. In order to ensure the validity and accuracy of results in the comprehensive estimation for Thailand,

and their compatibility with the available assessment of the other countries, ADPC used the damage and loss assessment methodology developed by the United Nations Economic Commission for Latin America and the Caribbean (ECLAC) which was also used to a varying extent in the national assessments undertaken under the leadership of the World Bank.

3. In 2010, ADPC was also involved as a partner in the Post Ketsana Disaster Need Assessment in Cambodia along with the World Bank, GFDRR, UN System and ADB. The Post Disaster Needs Assessment (PDNA) was done to assess damages and post disaster recovery needs in a way that can provide a framework for the planning of coordinated recovery efforts across different sectors with a risk reduction focus. The approach for this assessment follows the Post Disaster Needs Assessment and Recovery Framework (PDNA/RF) methodology developed jointly by the World Bank, the United Nations Development Program (UNDP), and the European Commission (EC) to complement and enhance the Damage and Loss Assessment (DaLA) methodology, which is the backbone of most post disaster analyses. Originally designed by the UN Economic Commission for Latin America and the Caribbean (ECLAC) in the 1970s, the DaLA methodology has been used in post disaster analyses for Cambodia. The methodology was used to determine the value of lost assets and the magnitude of losses on economic flows, and to define reconstruction requirements for each sector.

Present Involvement

1. Presently, ADPC is also involved in developing a Pre-Disaster Loss Estimation Strategy. It is a regional program for Pre-disaster Natural Hazard Loss Estimation. The objective of this initiative is to develop a methodology to integrate disaster risk factors in to a macroeconomic model that can estimate the impacts of potential natural disasters as an exogenous shock to the economy. This initiative involves six Asian countries such as Bangladesh, China, Nepal, Philippines, Sri Lanka, and Viet Nam. Through this initiative, it is aimed to build the capacity of disaster management professionals, specialists in National planning departments/ ministries, Central Banks, sector-based development planning specialists, research institutes, development partners etc. from the aforementioned candidate countries, which are susceptible to frequent natural disasters.
2. With the launch of “Strengthening the Disaster Management System in Cambodia through Risk Assessment, Early Warning System and Developing Building Codes” in 2013, ADPC is also developing a methodology for carrying Damage and Loss Assessment and Post Disaster Need Assessment in Cambodia. The Damage and Need Assessment has remained a priority for National Committee for Disaster Management (NCDM) at the provincial, district and commune levels. The vast scale of damage that occurred in different places of the country during Ketsana Typhoon 2009 demanded an unparalleled level of baseline data collection spread over provinces, districts and communes covering different sectors of the economy especially agriculture, livestock and fisheries. The hazard assessment would include the following three costs: (i) Direct Damage; (ii) Indirect Losses; and (iii) Reconstruction Cost. Direct Damage which refers to the monetary value of completely or partially destroyed assets, such as social, physical and economic infrastructure calculated at the book value, or the depreciated value of lost immovable assets. Indirect Losses are income losses, and comprise both the change of flow of goods and services and other economic flows such as increased expenses, curtailed production and diminished revenue, which arise from the direct damage to production capacity and social and economic infrastructure. Reconstruction Costs to be calculated using the replacement value of assets and infrastructures. Extensive efforts are required to be made to maintain close coordination with different agencies for early recovery needs assessments in order to avoid overlaps or duplication. A subsequent use of the assessment results would estimate the requirements or needs of financial resources necessary for recovery and reconstruction activities. The value and the spatial, time and by-

sector distribution of losses would then be used to estimate the requirements of economic recovery, while the value and geographical and by-sector distribution of damage would be used to estimate the requirements of reconstruction.

It is to be mentioned here that apart from the above mentioned activities, ADPC is presently moving ahead making some efforts to develop a framework for initiating a damage and loss estimation study with regards to climate change impacts by assessing damage and loss associated with adverse effects of climate change and identifying areas for risk management strategies which could then be implemented based on a particular country's requirement.

4. Geographic coverage

As an important regional center, the geographical coverage of ADPC is mostly in Asia, South East Asia and the Pacific. However, in the recent years, ADPC has attained International recognition and is currently expanding its activities to different parts of the world in areas of disaster management, mitigation, recovery and response.

5. Key stakeholders

National governments and departmental partners, UN Organizations, World Bank, ASEAN, APEC, SAARC, MRC, ADB and others.

6. Implementation modality / delivery mechanisms

ADPC provides technical contributions to the partners and networks in this area with a flexible and innovative manner but more within the entry points from the Disaster Risk Reduction (DRR) perspective focusing on multifaceted needs expressed by the countries and national disaster management organizations. More lately ADPC's works in this area remain inclusive to the program implementation, increased coordination and strengthened partnerships for both DRR and CCA related activities. Based on the needs expressed by countries in the region, it develops and implements its activities accordingly. In view of the increasing disaster and climate risks in many Asian countries, there is an urgent need to profile hazards, with the associated exposure, vulnerability and risks to their populations. With ADPC's proven experience in conducting risk assessments, at different scales and with specific capacities in science and engineering (such as downscaling of future climate projections and seasonal weather forecasting), it is able to strengthen its relationship with Asia-Pacific countries to deliver systematic disaster and climate risk assessments that will allow countries to define and prioritize their mitigation, risk reduction and adaptation strategies and solutions.

In terms of the institutional support mechanism, ADPC over the years, have worked closely with national disaster management agencies, sectoral areas in strengthening their partnerships with line ministries, and with central ministries of planning and urban local bodies and others to mainstream DRR and CCA risk information and guidelines into development processes.

7. Key activities / outputs to date

Some of the key implementation activities developed under the following projects and initiatives (ongoing and completed initiatives to date) of ADPC are:

- Documentation and piloting the integration of risk information in economic modeling in Bangladesh, Vietnam and Nepal under the Norwegian Ministry of Foreign Affairs (MFA - Norway) project in collaboration with the Centre for Regional Economic and Public Policy (CREPP), Deakin University

Australia;

- The Damage and Need Assessment under the “Strengthening the Disaster Management System in Cambodia through Risk Assessment, Early Warning System and Developing Building Codes” project in Cambodia;
- Regional program for Pre-disaster Natural Hazard Loss Estimation (in six Asian countries such as Bangladesh, China, Nepal, Philippines, Sri Lanka, and Viet Nam);
- Philippines Catastrophe Risk Assessment and Modeling in collaboration with Air International USA;
- In 2010, ADPC was also involved as a partner in the Post Ketsana Disaster Need Assessment in Cambodia along with the World Bank, GFDRR, UN System and ADB. The Post Disaster Needs Assessment (PDNA);
- Technical support in assessing damage and loss estimation in Gujarat, India during the year 2004;
- Assessment of Economic impact study in 2004 after the Tsunami;
- And many more.

8. Any additional information and contact details

Further information on ADPC general activities and related information on ADPC website at www.adpc.net

A more dedicated and relevant paper on this issues can be found at in one of the recent ADPC Newsletter at: http://www.adpc.net/2012/download/newsletter_Risk_Financing.pdf