5-2. Dissemination of Earthquake Risk Reduction and Recovery Preparedness Model Programme

5-2-1. Background

Asian Region is the most disaster prone regions in the world. Many countries in the region are affected by natural disasters like Earthquake, Flood. Landslides, Mudslides, Tsunami and Drought in different scales. The devastating affect of these disasters hindered overall development effort of countries in the region. Governments and populations need to be aware of the risks and take concrete actions to prepare for and militate against the natural disasters affecting their areas. Therefore greater attention by governments, bilateral and multi-lateral donor communities and other stakeholders should be focused on identifying and reducing disaster risks within local communities.

Taking into account the negative impact of the natural hazards and disaster in the sub regional development in South Asian, which was seriously damaged by recent Earthquake (Pakistan etc.) and the Indian Ocean Tsunami, South Asian Association for Regional Cooperation (SAARC) has developed risk reduction strategies based on the recommendations of the HFA. In the 13th SAARC summit, leaders of the region recognize that cooperation among the region for effective disaster preparedness is essential. Japan, being the observer member of the SAARC acknowledges the idea of SAARC and share same perception based on their working experience in the region. The commitment of Japanese government to support SAARC initiatives, particularly on disaster risk reduction and preparedness was re-affirmed in the Japan-SAARC symposium held in Dhaka, Bangladesh on July 31, 2006.

In this context, the IRP Secretariat developed a model programme to reduce Earthquake Risk and make appropriate preparation for recovery against future large earthquakes.

This programme has been submitted to the UNDP/BCPR and authorized as an UNDP Project sponsored by the Government of Japan as the first grand aid project by the government of Japan making effective cooperation of UN agencies.

5-2-2. Problem-statement

The recent incidents of earthquake in Pakistan and India were the wake-up call for the disaster stakeholders of the region for a well coordinated Earthquake risk reduction initiatives for the region. Lack of awareness and poor capacities of the national governments and communities resulted huge damages to these countries. Most of the public buildings (schools, hospitals, community centres, etc..) and private houses in these countries are highly vulnerable to earthquake[i] which caused significant number of death of schools children and other vulnerable population during last earthquakes. Despite devastating affect of earthquakes in South Asia, limited efforts were undertaken for earthquake preparedness and mitigation to reduce the risk of future disasters. Besides, most of the post disaster recovery initiatives are re-building risks due to inappropriate recovery planning and programmes. Findings from various evaluations[ii] on earthquake recovery programs re-iterate these observations. There are significant knowledge and policy gaps among recovery stakeholders in the region on enhanced recovery operation.

(1) Despite many initiatives, Institutional capacity building (knowledge, facilities, basic equipment) issues are poorly focused at the national and local level.

(2) Most of the countries in the region have developed strategies to strengthen the disaster management capacity. These plans are mostly addressed to preparedness and emergency response. Poor focus on post disaster recovery issues.

(3) Lack of appropriate disaster specific guidelines for disaster preparedness and mitigation

(4) Lack of appropriate construction guidelines and supervision by the competent authorities (Municipalities and Ministry of Urban Development and Housing, etc...)

(5) Various post disaster recovery programs, implementing by the government and NGOs are not focusing risk reduction issues which lead to rebuilding of risks for the communities.

(6) There is no systematic thought and practice to link post disaster recovery into the disaster management cycle. Post disaster recovery seen as an isolated issue undertaken “as and when required” basis.

Rapid urbanization and expansion of settlements need appropriate Risk Reduction measures

5-2-3. Purpose of the Programme

The recent incidents of earthquake in Pakistan and India were the wake-up call for the disaster stakeholders of the region for a well coordinated Earthquake risk reduction initiatives for the region. Lack of awareness and poor capacities of the national governments and communities resulted huge

(1) General approach

The project will address earthquake ris issues in the high risk countries of regic government institutions and local commun preparedness, mitigation and post disaste project design will adapt TDRM approach disaster risk management cycle (Fig 5-2- planning and implementation of Earthquake defined needs, constraints and proposed s coordination through sharing of experience,

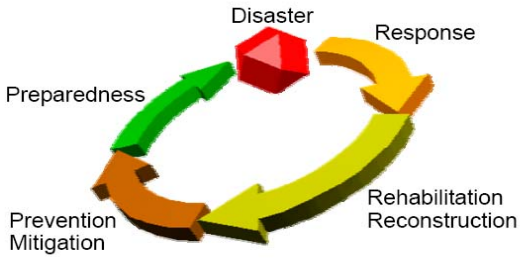

Fig.5-2-3 Disaster Risk management Cycle

(2) Goal of the Programme

To contribute to the process of establishing an earthquake safer community within the country and in the region.

(3) Purpose of the Programme

To strengthen the institutional and community capacity to plan and implement earthquake risk reduction strategies integrating disaster preparedness, mitigation and post disaster recovery for countries exposed to earthquake hazards following regional approach.

5-2-4 Description of Outputs and Activities

The project seeks to support an effective earthquake risk reduction and recovery initiatives, through the following expected core outputs:

(1) OUTPUT 1: To support Government and communities of the targeted countries identifying earthquake risks and vulnerability by conducting Earthquake Risks and Vulnerability Assessment

1) Earthquake hazard mapping in projects areas using national and international assessment method.

2) Assess seismic risks and vulnerability of the public constructions (schools, hospitals, etc..) and private housings jointly by local and Japanese technical experts.

3) Review the impact of settlement pattern, and land use practice and options in high risk areas.

4) Review the existing governmental and municipal policies on earthquake preparedness, response and post disaster recovery.

5) Review livelihood and socioeconomic condition in relation to earthquake hazards

(2) Output 2 : To support the capacity development of government Institutions and communities living in high risk to adapt and implement earthquake preparedness planning and safe housing practice using appropriate earthquake resistant construction guideline

1) Develop / modify appropriate guidelines for earthquake-resistant building design in collaboration with national, regional and international institutions. Guidelines will elaborate comparatively easy-to -adapt and low cost re-enforcement measures for the local builders. It will take in to considerations the country context (culture, topography, use of local materials, etc.) along with regional experiences (best practices).

2) Develop seismic vulnerability evaluation guidelines and tools for private and public buildings (for pre disaster vulnerability and post disaster damage assessment).

3) Delivery of awareness and skill training to construction professionals (government engineers, non government specialist, local masons, etc.) on building vulnerability assessment and earthquake safe construction practice using guidelines and shake table demonstration;

4) Public Education and Awareness (PEA) on earthquake preparedness and safe house construction to the local communities living in high risk areas including school demonstration, exercise, etc..

5) Implement local level earthquake safe model projects that would be identified using seismic vulnerability and capacity assessment tools and participatory planning process. These projects will follow the earthquake resistant construction guidelines for the implementation. These activities will facilitate the practical demonstration of the field testing guidelines and tools for the government official, local engineers and masons. Examples of model projects include;

- Provide seismological equipment to measure and monitor earthquake intensity to countries as needed to support capacity building
- Seismic safe construction/retrofitting of selected public buildings (e.g. schools, hospitals, Community/emergency shelters, etc..) on the high risk areas which do not meet seismic resistant standard

(3) Output 3: To strengthen the capacity of the Government in disaster recovery preparedness support to ensure enhanced recovery operation in post disaster situation.

Hyogo Framework for Action (HFA) recommended systematic incorporation of disaster risk reduction in disaster management cycle where post disaster recovery acknowledged as an integral part. It was emphasized that the enhanced post disaster recovery management help to build safer and better prepared communities for futures disasters. Project will initiate awareness raising program for national disaster practitioners on post disaster recovery issues by lessons learned exercise highlighting the regional good and bad practices. Project will use Recovery Information Kit "Learning from Disaster Recovery", produced by International Recovery Platform (IRP) for the awareness raising and policy advocacy for the national and local disaster managers involved in post disaster recovery. Key activities under this component are:

1) Conduct lessons learned exercise on past disasters recovery in high risk countries of the region

2) Development and incorporation of recovery principles and guidelines into National Disaster Management Plan

Lessons leaned workshop, seminars and planning exercise will help to build a platform for disaster recovery managers to review the regional and country specific experiences, policies and practices which would lead to modification/incorporation of policies and principles in to the National Disaster Management Plan.

(4) Output 4: To support locally appropriate solutions for earthquake risk reduction proposed by individual countries.

Programme will support country specific activities that are proposed by countries to address earthquake riskreduction issues. These activities may also compliment existing disaster initiatives of the country and could support national disaster management plan of these countries. Country specific proposals would identify specific solutions for earthquake risk reduction that will be validated during country level inception workshop for the project. Examples of country specific solutions are:

1) Guidelines for earthquake preparedness and mitigation for training/awareness and local planning

2) Establish emergency operations centre (EOC) to support emergency communication, preparedness and awareness for earthquake disaster

3) Establish municipal Disaster Management Authority support disaster preparedness, mitigation and recovery support.

4) Develop comprehensive catalogue/data set of all recorded historical earthquakes in countries and region

5) Establish a modern seismic monitoring network with Seismic Equipment that could accurately and quickly provide critical information about future earthquakes.

(5) Output 5: Facilitate sharing and exchange of national and regional information, lessons and best practice for Policy Feedback and advocacy

Programme will facilitate regional and national level sharing of lessons, practice and experience on earthquake risk reduction and recovery sharing of experience. It would facilitate countries in incorporating regional and national good practice, lesson to optimize the benefit of the project. Project will establish a regional and national network using the resources of SAARC regional centers (SMRC, SCDM,), NGOs, regional professional organizations, experts in the areas of earthquake risk management for effective sharing of experience, etc. and facilitating technical assistance for the projects. Major activities include;

1)Convene workshops and seminars on project activities would raise awareness amongst policy-makers and key development stakeholders to influence development planning at the national and regional level.

2)Lessons learned from these proposed interventions will be documented to identify models and experiences that can be replicated in other areas.

3) Field visits and exchanges between national and local officials and international institutions will promote the development of mechanisms for two-way flow of information and feedback.

(6) Address of cross cutting issues:

1) Gender issues

Every phase of the project will address gender issues to ensure the need of women will be met as well as men's. All training curricula will be designed to take account of gender differences. Special focus will be made to identify women participants for training as well as women trainers in a proportion of around 50%. It has been notice that regarding disaster mitigation issues, tie concerns of women were different then those of the men and since their role in the process is quite different, it is sometimes difficult to involve women in some activities, For that, reason, the project will be proactive at identifying capacity development activities that will reach the interest of both genders.

2) Environment :

Project will ensure environmental considerations at the every stage of the project implementation. Environmental impact assessment will be done following UN standard EIA process before implementation of structural projects to avoid environmental hazards at the project sites. Project monitoring and reporting system will incorporate environmental monitoring indicators. Project will build the capacity of the local level implementing agencies and officials by providing EIA training.

5-2-5 Project implementation Strategy

Following diagram explains project implementation strategy by components and horizontal and vertical linkage of the activities under each component of the project