
4-2. Cooperative Projects with Member Countries

By utilizing the network among member countries, the ADRC has been identifying needs of Asian countries and providing support mainly in the form of technology and funds to disaster reduction projects applied by governments of member countries or international organizations

Through these collaborative projects, the ADRC has made efforts to improve capabilities of member countries to reduce disasters. Furthermore the dissemination of information regarding its achievement and knowledge gained through the projects has been implemented not only by member countries, but all over the world.

Collaborative project list follows.

Table 4-2-1 Lists of Joint Projects

Fiscal Year	Country	Contents of Project
1999	Papua New Guinea	Project for Public Awareness of India of Tsunami Disaster Reduction Awareness Project
2000	Cambodia	Disaster Management Training Project for Local Government Official
2000	Nepal	Project for Public Awareness of Disaster Reduction by Community Leaders
2000	Indonesia	Community-based Flood Disaster Mitigation Project
2001	India	Multinational Investigation of India Earthquake
2001	Sri Lanka	Disaster Management Training Project for Local Government Official
2001	Singapore	Urban Search-and-Rescue Training Project
2001	Philippines	School Educational Program for Disaster Reduction

4-2-1. Multinational Investigation of India Earthquake

1) Background

On January 26, 2001, at 8:46 am, a large scale earthquake measuring 6.9 on the Richter scale with the epicenter 20 km north-east of the city of Bhuj in Gujarat occurred, and more than 20,000 were reported killed. Damage was centered on the epicenter of the Kachchha district, which accounted for 90% of the total deaths and 80% of the injuries. Ahmadabad, the densely overpopulated center of commerce in the state suffered major damage, it lies 300 km from the epicenter.

In Asian regions, it is difficult to freely cross borders due to political or religious reasons. Even for the aim of research for disasters, it's sometimes difficult to obtain a visa. Also there are many countries that cannot dispatch their inspection teams even if they want to, because of their government's financial situation.

On the other hand, for the disaster stricken area, it's very troublesome to receive investigation teams dispatched from different countries.

Considering these backgrounds, the ADRC proposed to send multi-national mission to the stricken area in India partially at the ADRC's expense. The Indian government accepted this proposal and invited personnel in charge of disaster reduction from member countries of the ADRC.



Table 4-2-1-1 Epicenter of Gujarat, India

2) Purposes

By directly inspecting the stricken area, disaster reduction specialists from member countries could learn lessons from the earthquake which actually hit India, and will be able to utilize and reflect on these lessons to plan for disaster reduction in their own countries

In return, member countries will propose knowledge of and experiences in their countries to restore stricken areas or to reduce disasters.

3) Itinerary

- June 4, 2001 Briefing of Earthquake hit Gujarat at National DisasterReduction Institute of Indian Ministry of Agriculture
- June 5 Briefing of countermeasure taken by state government at Bhuj branch of Gujarat State government
- June 6- 7 Inspect the stricken area in Gujarat State
- June 8 Wrap-up meetings among participants and the Indian Ministry of Agriculture

4)Participant countries

Participants included India, Armenia, Australia, China (two persons), Japan, Malaysia and Russia, for a total of seven countries. They visited the Kachchha district of Gujarat State, which experienced the highest incidence of damage among the stricken areas. Participants were as follows.

Table 4-2-1-1 Lists of Participants

Country	Name	Title/Organization
Australia	Mr. Dudley McArdle	Director, Australian Emergency Management Institute
Japan	Mr. Masanori Uno	Deputy Director for Post-Disaster Recovery and Restruction, Cabinet Office
Malaysia	Mr. Major Suhaimi	Assistant Director, Crisis and Disaster Management Unit
China	Prof. Zhang	Institute of Engineering Mechanics,

	Minzhen	China Seismological Bureau
China	Prof. Gao Mengtan	Deputy Director, Institute of Geophysics
Armenia	Mr. Simon Papyan	First Vice President, National Survey for Seismic Protection
Russia	Mr. Vladimir Boreyko	Chief of Desk, International Department, EMERCOM (Ministry of Russia)
ADRC	Mr. Yujiro Ogawa	Executive Director
ADRC	Mr. Masaru Arakida	Senior Researcher
ADRC	Mr. Fumiaki Yoshimura	Senior Researcher
ADRC	Ms. Sonoko Tanaka	Administrator

Table 4-2-1-2 Lists of participants from Indian government

Name	Title/Organization
Shri. Naved Masood	Joint Secretary, Ministry of Agriculture
Shri. S. K. Swami	Director, Department of Agriculture & Cooperation, Ministry of Agriculture
Shri. V. P. Pasrija	Assistant Director, Department of Agriculture & Cooperation, Ministry of Agriculture
Shri. S. Janakiraman	Under Secretary, Department of Agriculture & Cooperation, Ministry of Agriculture
Shri. Om Prakash	Technical Officer, Department of Agriculture & Cooperation, Ministry of Agriculture
Prof. Vinod K Sharma	Professor, NCDM
Dr. Alok Gupta	Research Associate, NCDM
Shri. Amir Ali Khan	Researcher Officer, NCDM



The scene of investigation

5) Results

The participants concluded the following comments on lessons learnt from the earthquake in India. Furthermore, after this project was implemented, joint investigations and workshops were conducted between China and India, and between Armenia and India.

(1) Disaster Reduction Plans

To enhance the preparation for disaster and to minimize damages, the following plans should be enacted.

- Secure the capability to manage risks accompanied by all kinds of disasters among all the governments and various organizations.
- Improve management plan in the case of an emergency and develop its capability.
- Plan to train personnel at all levels including community.
- Prepare for risk reduction management by local governments in times of an earthquake.
- Set up a task force consisting of various specialists for the swift management of the emergency situations.
- Prepare plans for the emergency management at regional or city/town levels.
- Reinforce preparedness in the medical field

(2) Educational programs

The following dissemination and awareness activities are indispensable to minimize disaster damages.

- Raise public awareness and educate them about vulnerability to the natural disaster, restoration capability, technology for disaster reduction, etc.
- Increase public interests in the issues related to earthquake and other risks.

(3) Plans for utilization of lands and zoning

In order to develop towns resistant to disaster, it is necessary to identify hazards, scheme plans to utilize lands, and zone under the strong initiative of governments.

- Implement earthquake risk assessment and earthquake micro zoning prior to restoration of the area.
- It is indispensable to make specific land use plan for utilizing lands especially in the urban areas or big cities. Construction of houses or apartments around the dislocation or bad soil must be avoided.
- Reassessment of risk in cities, towns or villages

(4) Structure and residence

- Introduce strict regulation on land use plan and construction of buildings, which includes earthquake resistance under strict regulation of construction materials and its methods.
- Improve earthquake-resistance of existing buildings
- Enhance laws regarding buildings

(5) Infrastructure

- Governmental system, public utility works, reinforcement of quake-resistance of transportation system
- Improve standard of quake-resistant design for existing infrastructure and life line system

(6) Surveillance and Early Warning System

- Introduction of earthquake surveillance system in the areas where earthquake is active
- Development of Early Warning System
- Establishment of National Center to reduce risks accompanied by earthquake