

Asian Urban Disaster Mitigation Program

M & E: Half-Year Program Performance Report
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First half 2002



Asian Disaster Preparedness Center

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B. PROGRAM OVERVIEW

A. PROGRAM ACCOMPLISHMENTS

1) National Demonstration Projects

Activities lead specifically towards progress on:

- **Program Objective: Establishment of sustainable public and private mechanisms for disaster mitigation in Asia**
- **Result No. 1: Improved capacity of municipal officials to manage risk and apply mitigation skills and technologies.**

BANGLADESH Bangladesh Urban Flood Mitigation Project

Site(s): Tongi and Gaibbanda

Hazard(s): Floods

Lead Institution: CARE-Bangladesh

Bangladesh Disaster Management Unit

Gana Unnayan Kendra (GUK)

Committed Organization for Development Extension Services (CODES)

Accomplishments:

Scheme Implementation Committees

On the eve of the commencement of work on structural mitigation measures in two municipalities, namely Tongi and Gaibandha, CARE-Bangladesh organized a two-day training exclusively for the Scheme Implementation Committees (SICs) and direct project beneficiaries in order to navigate them towards a better understanding of structural mitigation measures implementation.

The training was implemented at the community level through courtyard meetings in a hope to enrich more community involvement in the mitigation measures. A total of 208 participants from 7 batches in Gaibandha and 71 from 2 batches in Tongi attended the training.

The SICs, who are expected to oversee the implementation of structural mitigation measures, were formed during the preparation of engineering estimate of structural mitigation initiatives in June and July last year. Their duties include management of all structural mitigation activities, maintenance of records on expenditure and disbursement of funds. They are also encouraged to mobilize the communities in affected areas to ensure active participation in implementation of structural mitigation measures and to increase the component of counterpart contributions.

Structural Mitigation Measures Implementation

The structural mitigation measures under BUDMP began in March 2002. By end of June, 21 structural interventions (flood shelter, individual homestead raising, cluster households above flood level, culvert construction, etc) were completed and five were in progress in two working municipalities.

Partner NGO in Tongi

In order to ensue a smooth implementation of Phase II activities in Tongi Municipality, an MOU between CARE-Bangladesh and the Committed Organization for Development Extension Services

(CODES) was signed. CODES is also the partner NGO of SHAHAR project in Tongi Municipality area. CARE-Bangladesh has decided to cancel the MOU between CARE and the previous partner NGO as per a policy decision taken by the management.

CAMBODIA Community-Based Flood Mitigation and Preparedness Project

Site(s): Provinces of Kampong Cham, Prey Veng, and Kandal
Hazard(s): Floods
Lead Institution(s): PACT-Cambodia, International Federation of the Red Cross (IFRC) and the Cambodian Red Cross (CRC)

Accomplishments:

Completion of the Project

A 33-month project in Cambodia ended in November 2001 but CBFMP's innovation contributed to sustaining its impact. Highlights of their achievements included:

- Institutionalization into the Community Based Disaster Preparedness (CBDP) Program of Cambodia Red Cross;
- The training of Red Cross Volunteers in community based disaster management and community organizing; and
- The work with communities in Kampong Cham, Kandal and Prey Veng through a participatory process to develop preparedness plans and mitigation solutions.

These activities are being replicated in seven other provinces in Cambodia through funding from DIPECHO.

INDIA Gujarat Cities Disaster Mitigation Project

Site(s): Ahmedabad and Gujarat
Hazard(s): Earthquakes
Lead Institution(s): Centre for Environmental Planning & Technology, Ahmedabad Municipal Corporation, Ahmedabad Urban Development Authority and Environmental Planning Collaborative

Project's Redesign

It was decided at the AUDMP 7th Working Group Meeting in Ahmedabad, India last year that the India project would be redesigned to address the earthquake risk in urban areas of Gujarat through the development of a disaster mitigation and management plan for Ahmedabad. CEPT had discussions with the government and non-government organizations of Gujarat to obtain comments for revising the draft proposal. ADPC has forwarded its comments to CEPT. However, due to the violence in Gujarat, the planned meeting between AUDMP and CEPT was postponed. The project's proposal is now under review.

INDONESIA Indonesian Urban Disaster Mitigation Program

Site(s): Bandung
Hazard(s): Earthquakes
Lead Institution(s): Institute for Research, Institute of Technology Bandung (ITB)

Accomplishments:

National Policy for Urban Disaster Mitigation

The National Coordinating Board for Disaster Management in Indonesia (BAKORNAS PBP) in collaboration with the Indonesian Urban Disaster Mitigation Program (IUDMP) conducted a workshop on the “Development of National Policy for Urban Disaster Mitigation in Indonesia” on 14 February 2002 in Jakarta. It is the third in a series of workshops on this theme since 1998. The draft policy document discussed at the workshop was prepared by the Institute of Technology Bandung (ITB) under the IUDMP, based on the results derived from the previous workshop on 18 April 2000.

The workshop’s objectives were to discuss the concept of the national strategies on urban disaster mitigation and to prepare the national strategies document for inter-ministerial approval. Thirty-nine representatives from fifteen national institutions related to disaster management attended the workshop.

One of the important roles of BAKORNAS PBP is the formulation of policies for disaster and refugees management. Mr. Buda Atmadi, Deputy Secretary of BAKORNAS PBP, expressed his appreciation to the ITB for preparing the draft document. He then presented the highlights of the draft to the participants. They recognized the absence of appropriate disaster mitigation efforts in Indonesia and emphasized the need to focus on pre-disaster management.

During the workshop, the participants provided new inputs on development of hazard monitoring, prediction and early warning systems, and the integration of existing sectoral policies on disaster mitigation. Based on recent disaster experiences, the workshop also raised the need for institutionalized strategies within local government organizations for disaster management.

The workshop encouraged the BAKORNAS PBP to adopt the draft policy document. As a followup of this workshop, an inter-ministerial meeting will be held by BAKORNAS PBP to seek approval and adoption of the urban disaster mitigation strategies proposed in the draft document as national policy.

Rapid Risk Assessment

After conducting the seismic hazard assessment in Denpasar last year, Institute of Technology Bandung (ITB) has accelerated its task under the IUDMP replication phase in three other identified cities, namely Palu, Manado and Bengkulu. It recently completed seismic hazard assessment in two more cities, Palu and Manado, respectively, and signed a contract agreement with the Provincial Government of Bengkulu to conduct a rapid risk assessment for Bengkulu.

The completion of seismic hazard assessment in Palu and Manado was a result of the survey visit to these two cities during 19-26 January 2002. The plan to conduct the rapid risk assessment in the respective cities is strongly supported by their local governments, following the wide interest towards rapid risk assessment raised during the workshop on “Increasing the Safety of Indonesian Cities from Earthquake Disaster Threat” held by ITB in October last year.

As for the city of Bengkulu, data collection for rapid risk assessment conducted by the Rapid Risk Assessment (RRA) team is underway.

The RRA team completed the model for rapid risk assessment study in June 2001. The model includes the data needs, methodology, output of the assessment and questionnaire to collect secondary data. The model will be used to conduct rapid risk assessment in the four selected cities.

LAO PDR Lao PDR Urban Disaster Mitigation Project

Site(s) Vientiane
Hazard(s): Fire and other urban hazards
Lead Institution(s): The National Disaster Management Office (NDMO) and the Urban Research Institute (URI)

Accomplishments:

MOU Signing

A Memorandum of Understanding (MOU) signing ceremony took place at the Ministry of Labor and Social Welfare in Vientiane, Lao PDR on March 7 between ADPC and the Social Welfare Department for the implementation of the Lao PDR Urban Disaster Mitigation Project.

ADPC was represented by Dr. Suvit Yodmani, ADPC's Executive Director. Mr. Khammoune Souphanthong, Director of the Department of Social Welfare represented the department. The ceremony was witnessed by Ms. Susan M. Sutton, Deputy Chief of Mission, American Embassy, Dr. Khamphay Rasmy, Vice Minister of Labor and Social Welfare, Mr. Phetsavang Sounnalath, Director of National Disaster Management Office, Dr. Keo, Director of Urban Research Institute, and ADPC staff: Mr. Josh Moga, AUDMP Program Manager, Ms Suthira Suwanarpa, AUDMP Project Manager and Dr. Apichai Thirathon, Project Manager of Disaster Reduction Project for Cambodia, Lao and Vietnam (DRP-CLV) of ADPC.

After the MOU signing ceremony, Dr. Suvit Yodmani and his team paid a courtesy call on H.E. Somphanh Phengkhammy, Minister of Labor and Social Welfare. Also present was Mr. Sommai Xaixongdeth, Deputy Chief of Cabinet, Ministry of Labor and Social Welfare. The team briefed the Minister on the AUDMP's Lao Disaster Mitigation Project and other ADPC collaboration with Lao PDR in disaster management, namely the PDR-SEA and DRP-CLV projects. The Minister expressed his appreciation for the collaboration on the AUDMP's Lao project.

The project focuses on fire hazard and road accidents, which are the main disasters in modern Laos, especially in Vientiane. The Lao Disaster Mitigation Project's partners will be the National Disaster Management Office; Urban Research Institute; Vientiane Municipality; and the Fire Brigade.

A grant agreement was signed on 24 June 2002 for the start-up of the project implementation on 1 July 2002. A Stakeholder Workshop is planned to be held in July to introduce the project to the Vientiane community and to obtain support and inputs from the community for project implementation and activities.

NEPAL Kathmandu Valley Earthquake Risk Management Project

Site(s): Kathmandu Valley
Hazard(s): Earthquakes

Lead Institution(s): National Society for earthquake Technology of Nepal (NSET-Nepal) and GeoHazards International (GHI)

Accomplishments:

Co-organizing the EVRC-1

Although the Nepal project ended in November 2001, NSET-Nepal continues to be associated with AUDMP by co-organizing the first Earthquake Vulnerability Reduction for Cities (EVRC-1) course held in Kathmandu in May 2002. Showcasing the success of the KVERMP, NSET organized a site visit to Ward 34 and retrofitted schools for the course participants to gain a firsthand experience on earthquake mitigation and preparedness.

PHILIPPINES

Philippine Cities Disaster Mitigation Project

Site(s): Naga City and San Carlos
Hazard(s): Floods and multiple hazards
Lead Institution(s): The Philippine Business for Social Progress (PBSP) and the League of Cities of the Philippines (LCP)

Accomplishments:

Phase I of the Philippines Cities Disaster Mitigation Project (PCDMP) in Naga City and San Carlos ended. The possibility for phase II is being reviewed.

The project needs to identify a new partner for implementing and expanding project activities under phase II. AUDMP team a discussion with the Naga City representatives to share ideas for drafting a new proposal, which is expected to focus on Naga City.

SRI LANKA

Sri Lanka-Multi-Hazard Disaster Mitigation Project

Site(s): Ratnapura and Nawalapitiya
Hazard(s): Multiple hazards
Lead Institution(s): The Center for Housing, Planning and Building (CHPB)

Accomplishments:

Institutionalization of Urban Disaster Mitigation (UDM) course

The Faculty Board of the Faculty of Architecture, University of Moratuwa has agreed to integrate the subject of Natural Disaster Management (NDM) into the curricula of all courses of the Faculty. As a result, a curriculum development committee has been established to further consider this initiative.

The need to include the NDM subject in the postgraduate and undergraduate courses in Town Planning of the University of Moratuwa's Faculty of Architecture was felt during the implementation of SLUMDMP, which aims at integrating risk-based mitigation planning into development process.

As the first activity in the process, an awareness seminar was conducted on 28 January 2002 for the staff of the 3 departments of the faculty, namely Town and Country Planning, Architecture, and Building Economics, and a few MSc students of the Faculty. The seminar was organized by the Centre for Housing Planning and Building (CHPB) and National Building Research Organization (NBRO) under the Sri Lanka Urban Multi-Hazards Project (SLUMDMP).

The University of Moratuwa's Faculty of Architecture has been chosen for the first integration of NDM subject due to the fact that it is the only degree granting institute in architectures and town and country planning in Sri Lanka.

The subject is expected to be included in three programs, namely MSc in Town Planning and Architecture, PG Diploma in Housing Development and Urban Development and BSc in Town Planning, Build Environment and Building Economics, to different extents as appropriate.

Many further steps, however, towards the ultimate goal need to be taken, requiring a full cooperation from all parties involved. This includes the University's commitment to explore the extent and depth of Disaster Mitigation subject to be covered in different courses. Other important issues are the selection of the appropriate term/semester within each course to take up this subject as well as to initiate activities for development of curricula.

Integration of Natural Disaster Mitigation in the National Land Use Policy

SLUMDMP submitted its comments on the draft National Land Use Policy published by the Ministry of Lands on 4 April for public comments. Land use related to flood prone areas was not clearly indicated in the draft policy. The comments are under review by the Monitoring Committee of the Ministry of Lands.

THAILAND Thailand Urban Disaster Mitigation Project

Site(s): Hat Yai
Hazard(s): Floods
Local Institution(s): Prince of Songkla University

Accomplishments:

The Royal Government of Thailand requested ADPC to provide technical assistance in developing a disaster management framework for Thailand. As a result, ADPC in collaboration with the Ministry of Interior organized a one and a half day high-level seminar on 'Institutional Arrangements for Total Risk Management' during 3-4 April 2002 at the United Nations Conference Center, Bangkok. The seminar was attended by more than 150 representatives from Thailand's government organizations responsible for disaster management. This was an effort to assist the Thai government in establishing a new agency dealing with disaster reduction, which is scheduled to become operational by October 2002.

International experts and practitioners in the field of total risk management made presentations on models of total risk management used in their countries. They included Mr. Thomas Brennan, Senior Regional Advisor, USAID Office of Foreign Disaster Assistance; Mr. David Templeman, Director General, Emergency Management Australia; Dr. Neil Britton, EQTAP Chief Coordinator and Former Manager of Sector Development Unit, Ministry for Emergency Management, New

Zealand; and Major General Melchor P. Rosales, Administrator Office of Civil Defense, Department of National Defense, Philippines.

The concept of 4'Rs in total risk management, namely readiness, relief, rehabilitation and reduction, was discussed throughout the seminar. The new disaster management paradigm shifting from response and relief to readiness and reduction was extensively discussed and unanimously supported. Other major highlight inputs solicited from participants also included budget allocation, systematic integration of information, self-reliance and awareness promotion.

The seminar significantly produced many insightful inputs, which are useful for establishing the new agency. It is strongly anticipated that the new agency would cover all aspects of disaster management in lieu of focusing on relief and rehabilitation alone. This vision would eventually result in long-term solutions for disaster management.

The comments and concerns regarding disaster management in Thailand raised by participants during the seminar will also be taken into account for integrating into the AUDMP's Thailand project.

VIETNAM

Site(s): To be identified
Hazard(s): Floods and Typhoons
Local Institution(s): To be identified

Accomplishments:

As a result of the previous mission, the concept of the project was identified. It includes three components: 1) to define technical solutions for disaster-resistant shelters; 2) to transfer these technical solutions; and 3) to develop financial systems for delivery of these technical solutions. In this process, ADPC intends to work with the Vietnamese Government in putting together a supportive policy environment for the above components.

An AUDMP team visited Vietnam to carry out an institutional analysis. The team visited the flood shelter programs Hue province implemented by international organizations such as Development Workshop (DW), CECI, CRS, VNRC/IFRC.

In the upcoming months, ADPC in partnership with the Vietnamese government, IFRC and VNRC is planning to conduct a two-day workshop on disaster-resistant shelter in Vietnam to discuss, review and analyze the components identified above.

2. Information and Networking

Activities lead specifically towards progress on:

- **Result No. 2: Improved access to hazard mitigation information and skills (e.g. techniques, methodologies, experience throughout the region)**

AUDMP Website

The AUDMP website has been redesigned and restructured, and continues to be updated with additions of new information in an effort to make it a useful and active tool for information sharing and exchange. All monthly and quarterly reports are archived in <http://www.adpc.ait.ac.th/audmp/m&e.html>.

AUDMP Case Studies

ADPC recently launched its case study of the Safer Cities series. Safer Cities series presents strategies and approaches to urban disaster mitigation derived from analyses of real-life experiences in Asia initiated by the AUDMP. Topics highlighted throughout the Safer Cities series are broad-based participation, partnerships, sustainability and replication of success stories.

This user-friendly resource allows readers to explore a city's experience through a pair of "thematic" spectacles, providing decision-makers, city and community leaders and trainers with an array of proven ideas, practices, tools, policy options and lessons for urban disaster mitigation.

The first issue released in January 2002 focuses on community-based initiatives under the Kathmandu Valley Earthquake Risk Management Project (KVERMP, 1997-2001). It highlights lessons learned from the pioneering community-based disaster management process developed in Ward 34 of Kathmandu Metropolitan City and the implementation of a participatory approach in KVERMP's School Earthquake Safety Program.

Two new issues in the Safer Cities case studies series illustrating the experiences and lessons learned from the Community-Based Flood Mitigation and Preparedness Project (CBFMP, 1998-2001) in Cambodia are also available.

Safer Cities 2, the first of a two-part series, features the development of an organizational framework for flood vulnerability reduction in 23 Cambodian villages. The process involves the selection of the project sites; the selection of community members as volunteers and the training programs provided for volunteers; community organization; and community based risk assessment. Building the capacities of communities to mitigate, prepare for and respond to disaster in a self-reliant and cooperative manner is also emphasized in this issue.

Safer Cities 3 focuses on lessons learned in the areas of resource mobilization, proposal development, implementation and mitigation solution, and preparedness planning. Examples of conflict resolution, consensus building, leadership and community participation are also explore. Furthermore, it discusses the impact of the 2000 and 2001 floods on the communities and their mitigation solutions; the communities' future plans; and the implications for governmental and non-governmental and community initiatives for disaster preparedness and mitigation.

A guidelines for Safer Cities Case Studies on Mitigating Disaster in Asian and the Pacific was also developed by AUDMP.

Regional Workshop on Best Practices in Disaster Mitigation

The first Regional Workshop on Best Practices in Disaster Mitigation is scheduled for 24-26 September 2002 in Bali, Indonesia. Its preparation is underway.

The workshop consists of five aims as follows:

1. Showcase how communities, cities, governments and businesses have been able to make cities safer before disasters strike
2. Present strategies and approaches to urban disaster mitigation derived from analyses of real-life experiences, good practices and lessons learned in Asia
3. Provide an array of proven ideas, tools, policy options and strategies for urban disaster mitigation
4. Offer a forum for knowledge sharing and networking for the replication of urban disaster mitigation practices worldwide
5. Exhibit urban disaster mitigation activities and outputs including videos, photographs, publications, case studies and posters

The workshop will employ a thematic approach to urban disaster mitigation. Eight fundamental themes in DM have been identified. The themes include 1) hazard mapping and risk assessment; 2) mitigation planning and implementation; 3) policy, legal and institutional arrangements; 4) public awareness and social marketing; 5) capacity building; 6) safer building construction; 7) community-based approaches to disaster mitigation and; 8) climate applications and preparedness.

3) Training, Resource Materials and Continuing Education

Activities lead specifically towards progress on:

- **Result No.2: Improved access in hazard mitigation information and skills (e.g. techniques, methodologies, experience throughout the region); and**
- **Result No.3: Improved policy environment for disaster mitigation**

Urban Disaster Mitigation course (UDM)—The fourth Natural Disaster Mitigation (NDM) course was conducted during 21-26 January 2002 at CHPB, Sri Lanka. A total of 16 participants from a range of disciplines attended the 6-day course, which was adjusted in line with the AUDMP's regional Urban Disaster Mitigation (UDM) course to suit the natural disaster environment in Sri Lanka. The course comprised of four modules on urbanization and urban issues in Sri Lanka, hazard and vulnerability assessment, mitigation practices and institutionalization as well as a field trip to the demonstration area of SLUMDMP-Ratnapura Municipal Council on which group exercises on disaster mitigation were based.

To further the dialogue of institutionalizing the subject of UDM, ADPC plans to organize a workshop on "Institutionalization of Urban Disaster Mitigation" to be held in July. The workshop is expected to be attended by representatives from educational institutions in the AUDMP country projects.

Urban Flood Mitigation (UFM)—The UFM course has been renamed as "Flood Risk Mitigation (FRM) " course. Prior to its third delivery at a regional level scheduled in September 2002, a review workshop for the UFM-2 will be organized by ADPC to review and improve its curriculum and its delivery strategies.

Earthquake Vulnerability Reduction for Cities (EVRC)— More than 25 participants from six earthquake-prone countries, namely Bangladesh, India, Indonesia, Nepal, Philippines and Turkey attended the first regional training course on Earthquake Vulnerability Reduction for Cities (EVRC-1) during 20-31 May 2002 in the most earthquake prone city in the world - Kathmandu, Nepal.

EVRC is the fourth training course developed under TRMCE. It was delivered by ADPC in collaboration with the National Society for Earthquake Technology-Nepal (NSET-Nepal), the World Seismic Safety Initiative (WSSI) and the Earthquakes and Megacities Initiative (EMI). The course content was compiled and evaluated by a panel of international experts.

The 10-day course consisted of five modules, to provide knowledge, instill skills and attitudes for Earthquake Vulnerability Reduction (EVR) approaches and mitigation initiatives. The course contents consisted of overview of urbanization, natural hazards, vulnerabilities, risks and disaster management as well as an in-depth study of earthquake hazard, earthquake vulnerabilities, and EVR methods, planning for EVR and plan implementation for EVR.

Through learning-by-doing, the participants had an opportunity to familiarize themselves with the RADIUS (Risk Assessment Tools for Diagnosis of Urban Areas against Seismic Disasters), which is a tool for preliminary earthquake risk assessment developed and launched by the secretariat of the International Decade of Natural Disaster Reduction (IDNDR), United Nations. The learning process of RADIUS was facilitated by a field survey to Ward 34 in Kathmandu city. The field exposure also provided the participants a firsthand experience on EVR from ongoing mitigation work implemented by NSET-Nepal, enabling them to learn and be able to replicate the mitigation measures in their own countries.

Though run for the first time, the course was evaluated by the participants to be a very successful and a useful one. There was unanimous agreement that “its learning objectives have been achieved”.

The EVRC will be next offered as a pre-symposium training course at the 4th General Assembly of the Asian Seismological Commission scheduled for November 2002 in Kathmandu, Nepal.

Social Marketing for Disaster Management (SMDM)—The concept of Social Marketing was first introduced at the AUDMP’s 7th Working Group Meeting in Bandung, Indonesia by a resource person, Prof. Jyotika Ramaprasad from University of Southern Illinois. Deemed as a strategic way to generate, maintain and sustain public awareness and enthusiasm in disaster mitigation among the public, the concept has been envisioned to become the fifth course of AUDMP. The course development of Social Marketing for Disaster Management training course is underway. Further dialogue on this concept with resource persons will be done at the Regional Lessons Learned Workshop scheduled in September 2002.

4) Program Management and Administration

Activities offer critical support to progress on the program objectives and all three results.

AUDMP 7th Working Group Meeting

The 7th Annual Working Group Meeting of AUDMP co-hosted by the Institute of Technology Bandung during 19-21 March 2002 in Bandung, Indonesia highlighted the culture of prevention by introducing ‘social marketing’ concept to be combined with disaster mitigation. More than 50 participants from nine AUDMP project countries, USAID and ADPC staff participated in the meeting.

The theme of this year's working group meeting is 'Public Awareness for Urban Disaster Mitigation', according to AUDMP's endeavor to cultivate the culture of prevention in disaster mitigation, which requires creative and innovative approaches to disseminate this message and to make it an integral part of the overall planning process, targeting especially communities in disaster-prone countries.

In an attempt to form a working model for public awareness promotion in disaster mitigation, the experiences of some project partners, which have integrated public awareness activities in their project implementation, were showcased and critiqued. The attempt was also reinforced by the introduction of 'Social Marketing' concept as a tool for public awareness promotion by resource person Professor Jyotika Ramaprasad, Associate Dean of College of Mass Communication and Media Arts, Southern Illinois University, USA.

The participants felt that a training course to address the need for knowledge-based communication skill development was necessary. As a result, the workshop decided to have the fifth course of TRMCE/AUDMP on Social Marketing for Disaster Management.

At the meeting, participants also discussed issues pertaining to activities, methodologies and processes that were initiated by the country projects and the challenges ahead in mainstreaming disaster mitigation as part of urban development and planning. Experiences from partners in Bangladesh, Cambodia, Indonesia, Nepal and Sri Lanka demonstrate that much remains to be done to mainstream disaster mitigation and put into practice arrangements and actions that will reduce the social and economic impact of disasters. The need for a stronger national commitment to disaster reduction, including the necessary political will and legal framework, was addressed by the presenters.

In making disaster mitigation a mainstream activity, it was emphasized that continued interdisciplinary and cross-cutting partnership-building at all levels among scientific and social organizations, governments, the private sector, the media, NGOs, academic institutes and international organizations, is fundamental. Public awareness and commitment of both public and private sector decision-makers constitute an effective means for its implementation.

The meeting also provided an opportunity for AUDMP partners to prepare for the 'AUDMP Regional Lessons Learned Workshop' scheduled in September 2002, which will provide a forum for networking and interacting to share and exchange knowledge on 'lessons learned' emerging from the implementation of national demonstration projects.

III. CONCLUSIONS AND RECOMMENDATIONS

The seventh year of AUDMP's operation is full of exciting and challenging opportunities. The ongoing projects in Bangladesh, Indonesia and Sri Lanka continue their tasks in different stages yet towards the same goal of reducing disaster vulnerabilities in communities. The new project in Lao PDR started off with a successful introductory workshop held in mid July, which generated a lot of valuable inputs from all stakeholders.

The future projects expected to begin by late this year in India, Thailand and Vietnam have made significant steps. The proposal for the India redesigned project addressing the earthquake risk in

Gujarat has been submitted and is currently under review. In Thailand, ADPC, through AUDMP, provides a technical assistance to the Royal Thai Government in establishing a new framework for disaster management as requested since the RTG is undergoing a structural reform. The Vietnam project is at a stage where project's partner(s) are being identified.

As the national demonstration projects are going well with a lot of significant accomplishments, the TRMCE has also had several achievements during the first half of the year. These include: the first delivery of the EVRC-1 in Kathmandu, Nepal in May in collaboration with NSET-Nepal; the second delivery of the EVRC-2 to be held as a pre-symposium training course at the 4th General Assembly of the Asian Seismological Commission in Kathmandu in November also with NSET's collaboration; identification of a new potential training partner, the International Institute for Geoinformation Science and Earth Observation (ITC), the Netherlands; and the development of the fifth course on Social Marketing for Disaster Management.

The major challenge in the second half of the year for Information & Networking component is the first Regional Lessons Learned Workshop scheduled for 24-26 September 2002 in Bali, Indonesia. The workshop will offer a forum for sharing knowledge and best practices in disaster mitigation in the Asia region as well as networking for the replication of urban disaster mitigation practices worldwide.

C. PROGRAM OVERVIEW

AUDMP Overview

1) Program Description

Asia is the most disaster-prone region of the world, where loss of life and property from natural hazards is very high, hindering sustainable, broad-based development. As population and economic activity concentrate in rapidly-growing cities, urban areas become increasingly vulnerable to disasters. Where properly managed, however, cities also represent a critical opportunity to mitigate the damage from natural hazards.

The Asian Urban Disaster Mitigation Program (AUDMP) is an eight-year program designed to respond to the need for safer cities. The ultimate goal of the program is to reduce the disaster vulnerability of urban populations, infrastructure, critical facilities, and shelter in targeted cities throughout Asia. The purpose of the program is to:

- establish sustainable public and private sector mechanisms for disaster mitigation that will measurably lessen loss of life, reduce the amount of physical and economic damage, and shorten the post-disaster recovery time; and
- promote replication and adaptation of successful mitigation measures within target countries and throughout the region.

The AUDMP is being implemented by the Asian Disaster Preparedness Center (ADPC) in Bangkok, Thailand, with core funding from the Office of Foreign Disaster Assistance (OFDA) of the United States Agency for International Development (USAID). Management oversight for the

program is provided by USAID's Regional Urban Development Office for South Asia (RUDO/SA). A Core Working Group, including representatives from OFDA, the RUDOs for South Asia and Southeast Asia, USAID's Office of Environment and Urban Programs, and the ADPC, provides periodic advice and recommendations on the progress of the program.

2) Program Strategies

Working in conjunction with collaborating institutions in each target country, the program strategy takes a three-tiered approach:

a) **National demonstration projects** in each of the target countries will serve to provide a working example of urban hazard mitigation. In a selected urban area in each country, a hazard or set of hazards will be assessed, followed by the design and implementation of appropriate disaster mitigation measures.

b) The **Information and Networking** component aims to help build public and private networks as a forum for exchanging information and experience on urban disaster management, with the goal of replicating successful hazard mitigation practices from the demonstration projects throughout the region.

c) The **Training, Resource Materials, and Continuing Education** component provides an opportunity to further institutionalize hazard mitigation practices through seminars for national level decision makers, as well as by using an in-country and regional "train the trainers" approach for passing on technical skills via a core curriculum in hazard assessment and mitigation. Courses will be offered by in-country partner institutions and on a distance learning basis.

OVERVIEW OF NATIONAL DEMONSTRATION PROJECTS

BANGLADESH Bangladesh Urban Flood Mitigation Project

Site(s): Tongi and Gaibhanda
Hazard(s): Floods
Lead Institution: CARE-Bangladesh
 Bangladesh Disaster Management Unit
 Gana Unnayan Kendra (GUK)
 Association of Rural Development (ARD)

Overview: The Disaster Management Unit (DMU) of CARE-Bangladesh is the partnering institution in implementation of Bangladesh urban flood mitigation project. The project is expected to benefit from the experiences and capabilities of CARE Bangladesh through the involvement of number of associated projects implemented in the urban areas of the country. Few such projects are: (i) ongoing flood mitigation program in rural areas; (ii) recent experience in flood relief in urban areas (iii) the ongoing USAID SHAHAR project targeting urban areas; and (iv) also the expanding role and capacity of the DMU itself. Proposed project activities include activation of municipal disaster management committees, use of participatory rural appraisal (PRA) techniques to assess the level of vulnerability and hazard, mobilization of community resources for reduction of flood impact, and the development of community mitigation plans, preparedness plans and implementation of respective plans as demonstration initiatives.

CAMBODIA Community-Based Flood Mitigation and Preparedness Project

Site(s): Provinces of Kampong Cham, Prey Veng, and Kandal
Hazard(s): Floods
Lead Institution(s): PACT-Cambodia, International Federation of the Red Cross (IFRC) and the
Cambodian Red Cross (CRC)

Overview: Many Cambodian communities have proven to be extremely vulnerable to the effects of recurrent flooding, particularly in the eastern part of the country that borders the Mekong River and the northwestern area around Tonl'e Sap. The goal of the project is to reduce the vulnerability of the population to floods using an integrated, community-based disaster preparedness and mitigation process at the village level. The process addresses the susceptibility of the general population and its critical facilities, infrastructure, livelihoods, and shelter. The project targets several communities within three highly flood-prone provinces bordering the Mekong River: Kompong Cham, Prey Veng, and Kandal.

INDIA Gujarat Cities Disaster Mitigation Project

Site(s): Ahmedabad and Gujarat
Hazard(s): Earthquakes
Lead Institution(s): Center for Environmental Planning & Technology, Ahmedabad Municipal
Corporation, Ahmedabad Urban Development Authority and Environmental
Planning Collaborative

Overview: The Gujarat Cities Disaster Mitigation Project aims to reduce the vulnerability of urban areas in the state of Gujarat to earthquakes by promoting safer building construction and increasing capacity for emergency response. The project, implemented by the Centre for Environmental Planning and Technology (CEPT), Ahmedabad, focuses initially on the city of Ahmedabad and replicating activities to other major cities. This project builds on the experiences of the Indian Urban Disaster Mitigation Project, an AUDMP-supported activity focused on technological/industrial hazards in Baroda and metropolitan Calcutta.

INDONESIA Indonesian Urban Disaster Mitigation Program

Site(s): Bandung
Hazard(s): Earthquakes
Lead Institution(s): Institute for Research, Institute of Technology Bandung (ITB)

Overview: Although the City of Bandung in West Java is subject to numerous natural hazards, it is considered to be especially high risk to earthquake. Not only does the city sit on sedimentary soils close to an active fault, but it also has the highest population density of any urban area in Indonesia. The objective of the Indonesia Urban Disaster Mitigation Project (IUDMP) is to reduce the vulnerability of the city of Bandung to natural disasters. The project focuses on reducing the

susceptibility of the urban population, infrastructure, critical facilities, and shelter to natural disasters, particularly to earthquake hazards. The first phase consists of hazard mapping and vulnerability assessment of the city. During the second phase, mitigation strategies are developed and implemented. Activities include the review of the Bandung Spatial Planning and Local

Building Regulation with regard to seismic safety; the preparation of technical guidelines for implementation by the Municipality of Bandung; the development and implementation of a monitoring system; the development of an emergency response mechanism and the shift from a single hazard to a multi hazard mitigation process. Other activities include public awareness campaigns, networking and training.

LAO PDR

Site(s) Vientiane
Hazard(s): Fire and other urban hazards
Lead Institution(s): The National Disaster Management Office (NDMO) and the Urban Research Institute (URI)

Overview: Fires have been identified as the largest cause of loss of life and property in the capital city of Vientiane. The objective of the Laos project is to reduce the vulnerability of the Vientiane population and built environment to fires and related man-made urban hazards. To accomplish this, the project will focus on building capacity for prevention and response within the city's emergency service departments, establishing a community outreach program, and improving the regulatory environment and incentive system for fire mitigation and accident prevention. The lead institution is the National Disaster Management Office (NDMO) in collaboration with Urban Research Institute (URI), key government ministries and Vientiane municipal officials.

NEPAL Kathmandu Valley Earthquake Risk Management Project

Site(s): Kathmandu Valley
Hazard(s): Earthquakes
Lead Institution(s): National Society for earthquake Technology of Nepal (NSET-Nepal) and GeoHazards International (GHI)

Overview: Nepal has a long history of destructive earthquakes. With a burgeoning population of almost a million people, uncontrolled development, and building construction techniques that have changed little in the past century, Kathmandu Valley becomes increasingly vulnerable to catastrophic earthquakes with each passing year. The objective of the project is to reduce the earthquake vulnerability of Kathmandu Valley. The project has four main components: 1) Scenario and Action Plan; 2) School Earthquake Safety; 3) Public Awareness; and 4) Institution Building and Training. The Scenario and Action Plan component involves putting information on earthquake risk and consequences in a form that is understandable to public officials and citizens, information gathering from operators of critical facilities, presentation of a likely earthquake scenario to public and private decision-makers, and generation of an action plan. The School Earthquake Safety component establishes an Advisory Sub-Committee on school safety, design earthquake preparedness curriculum, conduct a participatory evaluation of the vulnerability of schools, and produce proposals for retrofitting the buildings most at-risk. The Public Awareness component combines public outreach in the form of various information pieces and public talks. The highlight of the project so far has been

the establishment and commemoration of the annual Kathmandu Valley Earthquake Safety Day on the anniversary of the devastating earthquake in 1934. Finally, the Institution Building and Training component expects to build the capacity of NSET-Nepal in order to facilitate becoming a self

sustaining multidisciplinary professional society competent of handling various aspects of earthquake risk management within Nepal.

PHILIPPINES Philippine Cities Disaster Mitigation Project

Site(s): Naga City and San Carlos
Hazard(s): Floods and multiple hazards
Lead Institution(s): The Philippine Business for Social Progress (PBSP) and the League of Cities of the Philippines (LCP)

Overview: Many natural hazards, including cyclones, floods, and earthquakes, seriously threaten urban areas of the Philippines. The objective of the Philippines project is to reduce vulnerability to natural hazards in two cities, beginning with flood mitigation in Naga City and followed by multiple hazard mitigation in San Carlos. In addition to hazard mapping and mitigation planning, the project emphasizes land use planning, the formation of disaster management standards, and the training of urban professionals. A Cascade City component promotes the replication of lessons learned to other Philippine municipalities. The lead project institutions are the League of Cities of the Philippines (LCP) and the Philippine Business for Social Progress (PBSP).

SRI LANKA Sri Lanka-Multi-Hazard Disaster Mitigation Project

Site(s): Ratnapura and Nawalapitiya
Hazard(s): Multiple hazards
Lead Institution(s): The Center for Housing, Planning and Building (CHPB)

Overview: Urbanizing areas in Sri Lanka are often vulnerable to a number of hazards. The town of Ratnapura is an urban growth center subject to landslides, frequent flooding, erosion, pollution and

contamination of water supplies, subsidence, and other hazards. The objective of the Sri Lanka project is to reduce the vulnerability of Ratnapura to such hazards. The project identifies hazards and selects appropriate strategies to avoid or reduce hazard-related losses. In this way, the project assists municipal officials to develop improved tools and skills for development planning and risk management. Two “replicating cities” Nawalapiatiya and Kandy are involved in the second phase. The project has three major components: Multi-Hazard Mapping, Training, and Networking/Policy Development. Phase 1 of the Multi-Hazard component focused on multi-hazard mapping, vulnerability and risk assessment, and generation of mitigation options. Phase 2 involves the selection of appropriate mitigation strategies and implementation of them through a municipal action plan, land use guidelines, and public awareness campaigns.

THAILAND Thailand Urban Disaster Mitigation Project

Site(s): Hat Yai
Hazard(s): Floods
Local Institution(s): Prince of Songkhla University

Overview: Thailand The Thailand Urban Disaster Mitigation Project (TUDMP) aims to strengthen and improve capacity for risk assessment and mitigation planning in Thailand through demonstration activities and training as well as reduce the vulnerability of urban populations, lifeline facilities, infrastructure and shelter to natural hazards. Annually experiencing flood catastrophe owing to its low-lying location and rapid urbanization, Hat Yai is the TUDMP's project site. The partner for implementing the project is the Faculty of Natural Resources, Prince of Songkla University, Hat Yai.

VIETNAM

Site(s): To be identified
Hazard(s): Floods and Typhoons
Local Institution(s): To be identified

Overview: ADPC is developing a new project in Vietnam in 2002. Floods and cyclones regularly create widespread damage in Vietnam. The Government of Vietnam, as well as other organizations including the Vietnam Red Cross and IFRC, have rebuilt thousands of houses using a variety of designs. The AUDMP project in Vietnam will assist in identifying best practice in disaster resistant housing and the development of a shelter delivery system for disaster resistant housing.