

# Program for Hydro-Meteorological Disaster Mitigation in Secondary Cities in Asia – Viet Nam

## FINAL REPORT



*Implemented By:*  
Centre for  
International  
Studies and  
Cooperation  
(CECI)

*Submitted To:*  
Asian Disaster  
Preparedness  
Center  
(ADPC)



# **1. Introduction**

## **3.1 Introduction on the ADPC – USAID Program**

ADPC has picked up five candidate cities from Bangladesh, Pakistan, Philippines, Sri Lanka and Vietnam in consultation of the lead partner in respective countries through an analysis conducted in South Asia and South Asia for city demonstration projects. The selected cities are among the most vulnerable secondary cities subjected to hydro-meteorological events in the recent history. They are rapidly urbanizing and have the potential to be impacted severely affected by hydro-meteorological events in the future. City authorities of the respective candidate cities consider risk management as one of the priority issues among the problems faced by residents of the respective city and have shown a keen interest to take up activities under city demonstration projects. ADPC has included a concept note on the potential project and the detail project proposal should be in line with the concept note, which we have already shared with Project leading partners.

Based on the above assessment, ADPC has identified the following secondary cities as primary target area for project implementation, namely Chittagong in Bangladesh, Hyderabad in Pakistan, Dagupan city in the Philippines, Kalutara in Sri Lanka and Da Nang in Vietnam.

## **3.2 Introduction on Promise Vietnam – Da Nang**

### **Da Nang City**

Da Nang city is a dynamic city of the Key Economic Zone in the central Viet Nam, which is a long-stretching narrow region. It is an important communication hub of the central region with its international airport, deep-water seaports and North-South land Route and railways. Being located on the World Heritage Route, it also has tremendous potential for tourism development in addition to the potential for economic development. The city has a natural land area of 1,256km<sup>2</sup> with a total population of 816,831 people (data taken from statistic book of 2004). It consists of five urban districts, one rural district and one archipelago district.

<b>Total Area:</b>	1.256.2446 sq km
<b>Land Use – Agriculture:</b>	117.22 sq km
<b>Land Use – General:</b>	1048.6264 sq km
<b>Annual rainfall:</b>	1747.5 mm
<b>Population:</b>	816,831
<b>Annual population growth rate:</b>	1.74%
<b>Population density:</b>	599 people/sq km
<b>Average urban population:</b>	73.10%
<b>Households:</b>	167,109
<b>GDP per capita:</b>	12.54 m VND
<b>Monthly average income:</b>	635,000 VND (est. for 2004)

Being situated in the central region of the country, in a typical tropical area which is regularly influenced by monsoons with an annual average temperature of 25.70C, Da Nang city is frequently subjected to flood and storm/typhoon disaster events. Severe typhoons with strong wind are often engaged with heavy rains, causing river water level rising and flooding.

Among the six districts (five urban and one archipelago districts), Cam Le district was selected to be project implementation area. It is a newly split district from former Hoa Vang district of Da Nang city with its low-lying location makes it very vulnerable to flood and inundation in comparison with others districts in the city. Moreover, urbanization is happening to almost all of the wards in the district, which have been inconsistently exposed vulnerability to disasters. The district has total population of 71.000 people (16.612 households) with 1.231 poor

households accounting for 6,44% in 6 wards namely: Khue Trung, Hoa Xuan, Hoa Tho Dong, Hoa Tho Tay, Hoa Phat and Hoa An.

### **Main potential Hazards to Da Nang city**

Natural disasters frequently happen in Da Nang are Typhoon, Flood/inundation and Drought. They are all identified as the most concerned disasters to locality in terms of their frequency and impacts on community health, livelihood, and economic activities.

- (i) **Typhoon:** a disaster frequently happens every year from August to October with heavy rain causing flooding and inundation. Normal typhoons are at level 8-10 except typhoon N<sup>o</sup> 8 in 2005 with level of wind up to 11-12 and Xangsane typhoon with wind level up to more than level 13 causing big losses of lives and economic losses (housing, production, infrastructure damage, etc);
- (ii) **Floods and inundation:** Happen during typhoon season from August to September. There are at least 2-3 floods and inundations each year. Only two or three days of constraint rain will cause flooding and inundation. Inundations have been increased because of incomprehensive urban development plan and the new construction work prevent the flow of water;
- (iii) **Drought:** occurs from May to August. Hot sunny days last for 2-3 months without rain for extended period will cause a serious drought. The temperature of hot months always varies from 33<sup>o</sup>C to 39<sup>o</sup>C.



## **2. Project Overview**

### **3.1 Program Goal**

Reduced vulnerability of urban communities through enhanced preparedness and mitigation of hydro-meteorological disasters in South and South East Asia.

#### Program Strategy

ADPC proposes the following strategy for the proposed program: “Increased adoption of private and public sector mechanisms for community preparedness and mitigation of hydro-meteorological disaster risk in urban areas of South and South East Asia which will measurably alleviate human suffering, prevent loss of life, and reduce the potential for physical and economic damage”.

#### Program Objectives

The proposed project will build on the activities undertaken and strategies developed under the AUDMP for achieving the above goal through:

- Adoption of specific hydro-meteorological disaster preparedness and mitigation measures *to manage hydro-meteorological disaster risk* by stakeholders in targeted cities;
- Increased stakeholder involvement and further enhancement of strategies, tools and methodologies related to community preparedness and mitigation of hydro-meteorological disasters in urban communities;
- Enhanced coordination with USAID Missions to promote sustainability and ensure program activities accord with USAID country and regional strategies;

- Strengthen networks and regional links among relevant risk management institutions/organizations for improving potential and capacity for application and dissemination of lessons learned.

### Components

- Component 1: Hazard Vulnerability and Risk Assessment;
- Component 2: Mitigation and Preparedness
- Component 3: Training and Public Awareness
- Component 4: Advocacy for Mainstreaming risk management in urban governance

## **3.2 Project Management**

### **Coordination Agency (ADPC)**

ADPC is responsible for the strategic orientation and overall quality of results for the project in accordance with the contribution agreement signed with the USAID- ADPC and CECI and the broad objectives of the Fund:

- Facilitating working relationship with the central others country and USAID
- Obtaining authority for budgets required to cover the expected contributions
- Providing timely project disbursements to CECI;
- Reviewing the project operational documents, including the Project Implementation Plan, Annual Work Plans and Budgets, progress reports, and monitor conformity with the terms of the contribution agreement;
- Circulating project reports to appropriate forums;
- Assisting and providing support for policy feedback activities.

### **Implementation Agency (CECI)**

CECI was responsible for implementing and managing the project. Within the frame work of promoting participatory management, CECI was responsible for:

- Preparing a Project Implementation Plan and Annual Work Plan with local partners to indicate expected results and how these will be met with available time and resources;
- Liaising and coordinating with ADPC, central government, city and implementing partners;
- Establishing appropriate management and administrative structures in Canada and Vietnam and supervising and monitoring PMU and its staffs;
- Ensure programme is managed in accordance with results and indicators established in the PIP;
- Managing project finances in accordance with relevant procedures and budget;
- Coordinating project strategies with other national or international development projects or organizations;
- Advising ADPC of project progress, problems encountered and proposed solutions; submitting narrative progress report and financial reports.

## **Local Partner: Cam Le District's People Committee (DPC)**

The main partner for the implementation of the activities is People's Committee of Cam Le district who closely collaborated on the PROMISE project to support in conducting all project activities and provided technical advice on Disaster management and programs of the province in accordance with planned programs and priorities of Viet Nam Government.

The People's Committee of Cam Le district undertook to:

- Ensure full collaboration and support with CECI in implementation of the project.
- Issue, consultation with CECI, mutually agreed establishment of district steering committee (officials and local government institutions) describing the purposes of the project and the extent of cooperation and assistance needed of them for successful implementation of the project.
- Agreed upon systems for operation of the project in a manner which is consistent with the project objectives and which clearly delineates the roles and responsibilities of the parties to the agreement.
- The steering committee meet at least once every three months to (1) review the major policy issues with regards to project (2) provide direction and guidelines to project (3) serve as an avenue through which diverse views are received and integrated in to the project decision making (4) make appropriate recommendations.
- The district PC assigned a project facilitator who worked with CECI on planning, implementing activities and reporting. The facilitator will facilitate linkages with other units according to needs in support of planned activities.
- Facilitate in cooperation with CECI, training and awareness-raising activities for the Disaster Management Committees at Municipality level in order to enhance their capacity to respond effectively during and after disasters and minimize risks.
- Provide support to solve problems that may arises during implementation of the project.

## **Local Collaborators:**

- City Committee for Flood and Storm Control (CCFSC)
- Da Nang City's Red Cross (CRC)
- City Construction Department

## **Project beneficiary**

Cam Le, a newly split district from former Hoa Vang district of Da Nang city was selected to be the area for project implementation for its matching to the project objectives. The fact that urbanization is happening to most of the wards of the district inconsistently has exposed vulnerability to disasters of this district. The district is situated in the low-lying location, which has total natural area of 230 ha. The direct beneficiaries are 71.000 people (16.612 households) of six wards in the district namely: Khue Trung, Hoa Xuan, Hoa Tho Dong, Hoa Tho Tay, Hoa Phat and Hoa An. Direct beneficiaries will also include the district, ward and section governments. Indirect beneficiaries are the adjoining districts, provincial government and national government.

### 3.3 Project Implementation Methods

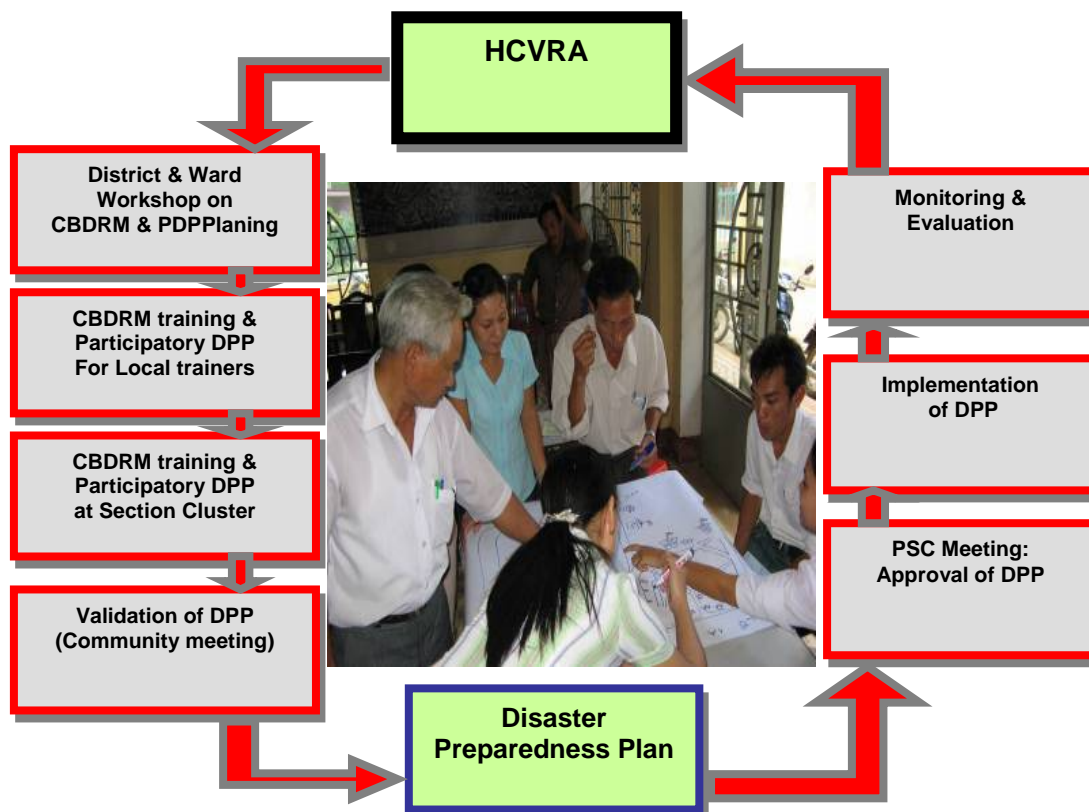
#### a) Capacity Development Programs:

In order to achieve an overall objective to reduce vulnerability of urban communities through capacity development program, CBDRM approach was applied. Trainings of CBDRM and Participatory planning aims to strengthen local planners' capacity for disaster mitigation and poverty reduction (Committee for Flood and Storm Control of district, wards and sections). Local trainer pool was created to conduct CBDRM training programs and first aid techniques trainings at ward and section levels. Participatory planning was to improve local existing Disaster Preparedness Plan (DPP) and foster grass-root democracy. Capacity development programs and community awareness-raising programs were for all wards and sections in the district.

#### b) Sub-project Implementation:

The selection of sub-projects was done by the steering committee basing on the prioritized sub-projects proposed in the DPPs of sections and wards. Co-financing is the method used to implement the selected sub-project with the budget allocation support to each ward. Financial support was for sub-projects which meet the community urgent needs the most and bring benefit to the whole community in terms of disaster mitigation and community development. All sub-projects are categorized as on-structural and structural ones which are mainly for improving early warning systems, awareness-raising, evacuation and safer housing building techniques and upgrading infrastructure for safer production of the most vulnerable communities.

The diagram below shows the sequence and method of project implementation.





### 3. Achievements

#### 3.1 Component 1: Hazard Mapping, Vulnerability and Risk Assessment

Objective: Adoption of specific hydro-meteorological disaster preparedness and mitigation measures to manage hydro-meteorological disaster risk by stakeholders in targeted cities.

*Outputs 1.1 Increase resilience of selected communes to hydro meteorological disasters.*

*Outputs 1.2 Improved capacities of public and private sector practitioners to apply skills and technologies for community preparedness and mitigation and to manage hydro meteorological disaster risks.*

#### Activity 1.1 Survey and Inception workshop

##### Activity 1.1.1 Participatory Vulnerability Assessment (PVA)

Basing on the project indicators, the Participatory Vulnerability Assessment (PVA) was conducted to serve as the basis for revising project implementation plans in accordance with the current situation and supported communities and governmental counterparts to develop sound and targeted plans for emergency response preparedness and disaster mitigation of the future disasters. The combination of different qualitative and quantitative research methods were used for data collection. Seven Focus Group Discussions with involvement of representatives of CFSC and Mass-organizations were done with 118 persons participated. In-depth Interviews with the key informants selected from FGD at the ward and section levels and household Interviews were conducted.

PVA covered the identification of the potential hazards, the most vulnerable wards and sections in the district as well as Training Needs Assessment (TNA) and Capacity Development Assessment (CDA). The specific training program packages, then were designed basing on the result of PVA in collaboration with Vietnamese partners and related departments. The results of PVA was presented at the inception workshop to ensure a comprehensive information to all stakeholders. Some of the key findings oriented the project interventions and capacity development strategy for the change agents as well as community training programs.

##### *The most vulnerable Wards in Cam Le District*

Ward	Household	Poor HH	Poverty level (%)	Flood	Typhoon	Drought	Ranking
Hoa Xuan	2.543	173	6,8	F1	T1	D1	1
Hoa Tho Dong	2.491	125	5	F2	T2	D2	2
Hoa Tho Tay	2.075	147	7,08	F2	T2	D2	2
Khuye Trung	3.893	328	8,4		T1		3
Hoa Phat	2.383	115	4,8		T2	D3	3
Hoa An	3.227	173	5,36		T2	D3	3
Total	16.612	1.231	6,44%				

*\*Note:*

*F1= the most affected by flood;*

*F2= Less affected by flood*

*T1= the most affected by Typhoon*

*T2= Less affected by Typhoon*

*D1= the most affected by Drought*

*D2= Less affected by Drought, D3=the least affected by*

*Drought*

### Activity 1.1.2 Baseline survey

The baseline survey was realized to provide an assessment of the current status of Cam Le wards related to the planned project interventions as well as an assessment of past experiences in disaster situations which will provide benchmarks for monitoring and evaluating the impact of interventions for the disaster preparedness mitigation program. The baseline survey is also to assess the community's vulnerability in terms of geographic location, infrastructure and livelihood and to gain a comprehensive profile on risks suffered by community in relation to natural disasters. For implementation of the baseline survey, household lists of six wards were submitted and 13 local surveyors were trained with the survey techniques to carry out the survey. A



number of 311 households were randomly selected and interviewed out of the 15,648 total households in the district. Communes, districts leaders and Change agents (representatives of mass organizations) took part in conducting in the surveys as the local surveyors.

### Activity 1.1.3 Inception workshop at city and wards level

The Inception Workshops was held at the provincial level in middle of June 2006 to give orientation to local partners and project stakeholders about project objectives, activities and the overall concept of the PROMISE program. At the inception workshop the results of PVA and Base-line survey were shared with local authorities of province, district, wards and the local collaborators.



## Activity 1.2 Identification of the change agent and TOT

### Activity 1.2.1 Identification of the Change agents

In Vietnam, the mass organizations (women's association, youth association, farmer's association, Red Cross volunteers, etc.) have a strong role to play in the community development activities. Leaders of such mass organizations are identified as the Change Agents and project expects to conduct a consolidated training program for these change agents. Promise Project has conducted a survey to identify the change agent, and also a capacity assessment has been conducted to evaluate their skills. The assessment focused on knowledge of CBDRM; training skills and knowledge obtained through trainings, previous experiences in delivering trainings; self-evaluation of skills, strengths and weaknesses and free time available to attend project training activities. Eighteen local trainers were identified and their capacity accessed; 13 of them were selected to be the local trainers.



### **Activity 1.2.2 Training of Trainers (TOT)**

CECI conducted CBDRM training focusing on the target members of city level Flood steering Committee (CFSC) to strengthen their capacity to prepare a better Disaster Preparedness Plan. The selected Change Agent attended this CBDRM training and received TOT training for dissemination and validation of the Disaster Preparedness Plan prepared after CBDRM training to the community. The TOT training not only enabled capacity building of the change agents on disaster mitigation and preparedness but also developing their training delivery skill. This helped to create a resource of trainers in dissemination CBDRM for the local.

Thirteen Change Agents (CA) (four female and 9 male trainers) identified from six ward and Cam Le district participated in TOT training from 27 to 28 September 2007. The one and a half day training equipped these 13 CA with facilitating techniques, condensed CBDRM training content and skills of validation of Disaster Preparedness Plan (DPP). The CAs were divided into three groups to conduct community meetings at the three wards to disseminate information on - CBDRM and validate the disaster preparedness plan.

### **Activity 1.2.3 Conducting and disseminating skills in safer construction techniques with local builders, district and ward engineers**

CECI collaborated with ADPC and construction department of Da Nang city to conduct the city-level workshop and the training sessions given to district and ward construction engineers and local builders on house construction techniques resistant to typhoon and flood in November 2006. Following this event, CECI collaborated with the local authority of the district and wards to support house reconstruction and reinforcement applying the Community-based Approach.

CECI worked with the district engineer to develop the house design applying the safe construction techniques. Before starting construction the CECI team and the district engineers conducted workshops to provide a basic technical training to beneficiaries and local builders. The training provided skills to help them to build and monitor construction activities. Four training sessions were delivered to house beneficiaries in Cam Le districts to 52 local builders and beneficiaries.

### **Activity 1.3 Documentation of best practices for community-based small-scale mitigation projects to reduce vulnerability**

#### **Development of poster on house construction principles**

To raise awareness of people on application of safe construction techniques, following different training provided to local engineers, builders and households, a poster on nine construction principles resistant to typhoon and floods was developed in consultation with the ADPC team. This poster was printed in a hundred copies and sent to ward and district people's committee district, beneficiaries of the house programme, head of sections for their dissemination of these principles in community meetings.

#### **Development of poster on “do and don’t before, during and after floods” for adults and children**

PROMISE Vietnam got funding from Uniterra programme of CECI on development of 2,000 posters on “Things children should know in flooding periods” including four “do” and “don’t” for children and “what the community should do before, during and after disaster” and flipcharts on CBDRM and safer community plans. These posters and flipcharts were to be distributed to schools and displayed at community meetings halls for awareness-raising.

**Development of leaflets for emergency rescue teams:** A thousand leaflets on simple basic emergency response steps was developed and distributed to participants of C-BERC training classes – members of emergency rescue teams at ward and section levels.

### **Activity 1.4 Information on early warning system disseminated and community access to EWS strengthened**

Limited access to early warning information was reflected in PVA study at the beginning of the project and field survey and interviews head of most vulnerable sections conducted in the later period. Besides the support to improve emergency response (EOC) of ward and district through provision of emergency facilities, radios and wireless loudspeakers, the project supported in setting up an early warning system with an aim to provide easier access to EW information. Thirteen community notice boards to advise people on three most common warning flood water level in river and what the community should do accordingly were set up in most vulnerable places of the three project wards: Hoa Xuan (9), Hoa Tho Dong (2) and Hoa Tho Tay (2). These boards, set up at community places, would help people to be better prepared and thus reduce the damages. In the same context, eleven deep water indicator warning plates were set up in the likely dangerous deep places of Hoa Xuan ward.

## **3.2 Component 2 Mitigation and Preparedness**

Objective: Increased stakeholder involvement and further enhancement of strategies, tools and methodologies related to community preparedness and mitigation of hydro-meteorological disasters in urban communities.

*Output 2.1 Increase adoption of tools and methodologies for community preparedness and mitigation of hydro meteorological disaster by stakeholder.*

*Output 2.2 Improved practices (techniques, methodologies, tools) and strategies for hazard mitigation and community preparedness throughout the region.*

### **Activity 2.1 Revise and adapt the CBDRM training material for PROMISE project**

#### **Activity 2.1.1 Revise and adapt the CBDRM training material**

The CBDRM training material was reviewed to suit the objectives of Promise project. In-house workshop was held to share the ideas. Then comments were obtained from ADPC and relevant department of the city for their supplement and ideas to suit the context of Da Nang city.

#### **Activity 2.3 CBDRM training at section cluster and ward level**

The essential element of this project is to demonstrate how Community – based Disaster Management can be integrated into existing processes of local development planning and how CBDRM can contribute to risk reduction by climate change adaptation measures and environment protection activities. CBDRM is a process whereby communities, with support of government or non-government service providers, analyze their vulnerability and identify actions that can be decided and implemented at the local level to reduce their risk. The essence of CBDRM is empowering communities to move from reactive to proactive strategies to prepare for disasters and adapt over the longer term to the changing nature of disasters resulting from climate change and other environmental factors, such as land-use changes in coastal areas, deforestation, and increased population density.

In an effort to build up capacity in disaster preparedness and base planning on needs articulated at the grass roots, the CBDRM program targets different levels of intervention including some initial training sessions at section cluster, then at ward level. So the DPPs for clustered neighbourhoods were brought and integrated into the formal DPP of the ward, then validated by

the community. This bottom-up approach, which encourages active involvement of communities in identifying their own risks and development of DPP, is also viewed and take into accounts by higher level authorities. CECI, in collaboration with the Red Cross, conducted eight CBDRM training classes in the three most vulnerable wards of Cam Le district identified in an earlier Participatory Vulnerability Assessment. They include five CBDRM trainings for neighbourhood clusters and two at ward level.

The CBDRM training were be done at six wards of the project area but investment for the disaster preparedness plan (DPP), the outcome of the training, to be focused at the most vulnerable wards. First the community in the most vulnerable section clusters identified in the PVA attended to training sessions and developed disaster preparedness plan for their section clusters. This plan was brought to and integrated into the formal disaster preparedness planning of the ward. The DPP developed by ward officials was be validated by the community through the community meetings for dissemination of CBDRM and validation of DPP before investment for the plan was decided.

Five training classes were conducted at the community level (section clusters) in the three of the most vulnerable wards identified in the PVCA. Almost a hundred fifty persons representing community representatives such as head of sections, representatives of community-based organizations attended a three-day training on CBDRM where they were familiarized with key concepts and produced a disaster preparedness plan for their section clusters. Identified change agents (local trainers) also joined and facilitated these training classes.

Following these training, three - day CBDRM training at ward level was conducted. Ninety persons including members of the ward CSFC and representative of the most vulnerable sections (head of sections) were invited to the training.

Program	Duration	No. of training	Participants		Total
			F	M	
Orientation to District PC	½ day	1	5	10	15
Section cluster level	3 days	5	42	102	146
Ward level	3 days	3	31	41	82
TOT	2 days	2	3	10	13

#### **Activity 2.4 Disaster Preparedness Plan**

Participatory planning was to improve local existing Disaster Preparedness Plan (DPP) and foster grass-root democracy and to bring into play communities' activeness in mobilizing local human and material resources more effectively. The entire community can be able to cope with disasters in a quick, prompt and effective way. This bottom-up planning approach encourages more participatory of community in:

- Assessing communities' potential risks, vulnerability, capacity and urgent needs to identify relevant disaster risk reduction measures;
- Developing a short term and a long term disaster preparedness plan that will be integrated into local socio-economic plan;
- Implementing, monitoring and evaluating planned activities with effective support from national, local Government and other stakeholders (Projects, consultants and donors, etc).

Disaster preparedness plans (DPP) of the most vulnerable sections or section clusters which have similar topography and disaster impacts were combined in the DPPs of ward and district. Since only representatives of CFSCs, section Heads of the selected community involved in

developing a DPP, the community meetings were organized to disseminate CBDRM and to get villagers involve in validating the plans.

The disaster preparedness plan is a comprehensive tool for disaster preparedness and integration of disaster risk reduction into the local development process. The plan includes (1) general information on socio economic situation, (2) risk analysis (evaluation of hazards; the existing resources and capacity to prepare for and mitigate disaster, vulnerability of people, infrastructures, homes, environment and livelihoods to mentioned hazards (3) disaster preparedness plan actions in the first year and (4) priority actions to reduce risks.

During CBDRM, the community development groups were formed for involving local residents in analyzing their situation in terms of hazard, vulnerability and capacity and identifying the main problems and solution. They together with the change agents worked with the communities to elaborate a detailed action plan including listing all subprojects for enhancement of disaster mitigation and community security.

#### **Activity 2.4.1 Revise Disaster Preparedness Plan**

The disaster preparedness plans were then validated by the community in the community meetings. Three community meetings were conducted in three wards from 23<sup>rd</sup> to 25<sup>th</sup> October to disseminate CBDRM knowledge and safe house construction techniques and validation of the ward disaster preparedness plan. A total of 150 persons including chief of the sections, community based organizations and residents attended the one-day training and meeting delivered by the Change Agents who attended the TOT in the previous month. Based on the comments in the community meetings, the plans were revised to cover and reflect the whole situation as well as the community needs.

#### **Activity 2.4.2 Sub project selection review**

The project steering committee was resumed on 25 September 2007 to get agreement on criteria for subproject selection and priority for investment.

Based on the investment fund defined for subprojects in PROMISE Vietnam project, the project used the remaining Xangsane relief fund to invest more in the subprojects proposed by the community and extended the project support to the non-project areas in the remaining three wards of Cam Le district. Lists of community based small scale projects were submitted to ADPC team for their comments and approval. These projects included structural and non-structural subprojects as Community Awareness-raising on Disaster Preparedness and Building Practices and Improving Emergency Response of Cam Le district, Upgrading inter-field dyke for agriculture production, improvement of flood drains and evacuation routes and community awareness-raising and support of emergency facilities under the City level Emergency Response Plans.

#### **Activity 2.4.3 Subproject implementation**

Based on the investment fund defined for subprojects in PROMISE Vietnam project, CECI used the remaining Relief fund to invest more in the subprojects proposed by the community and extended the project support to the non-project areas in the remaining three wards of Cam Le district. A list of community based small scale projects were submitted to ADPC team for their comments and approval. These projects included structural and non-structural subprojects as upgrading inter-field dyke for agriculture production, improvement of flood drains and evacuation routes and community awareness-raising and support of emergency facilities under the City level Emergency Response Plans.

## a) Nonstructural subprojects

### i) **Community Awareness-raising on Disaster Preparedness and Building Practices:**

One of the success of Promise project is the acknowledgment of the local authority and community to the importance of awareness-raising. That's why this nonstructural activity is first prioritized in their proposed list of subprojects.

According to results of PVA and Baseline surveys, the geographic location (located in the very low lying areas of the city) and inconsistent urban planning with rapid speed (a newly split district from a rural district) has made the three wards of Cam le district frequently prone to disasters. High damages were reflected every year on lives, property, livelihood infrastructures, especially on housing due to lack of preparation and proper mitigation and preparedness methods. In addition, the impacts of Xangsane typhoon in October 2006 exposed weakness in coping methods. This really shows a need to raise the community awareness of the community on disaster mitigation and preparedness as well as on building practices. Community awareness is one of the top strategic priorities proposed by the community in the disaster preparedness plan of section clusters, wards and district.

Thirteen selected local trainers (Change Agents) trained the community in the two days training on CBDRM and safe construction techniques. The training aimed to enhance people's capacity to cope with disasters through awareness-raising for local community in disaster risk reduction and preparedness (dissemination of key concepts on CBDRM, climate change, CBRA (risk, vulnerability and capacity), various tools for risk assessment), applying safe construction techniques and to disseminate simple but effective techniques of reinforcing houses.

In preparation for implementation of the Community Awareness-raising on Disaster Preparedness and Building Practices, refresher training was held to the Change Agents (local trainers). The Change Agents (five females and nine males) of the six wards of Cam le district and Ngu Hanh Son district (previously were trained by CECI in a disaster mitigation program) participated into the three-day training which focused on lesson planning and practicum. The purpose of combining the newly trained with the existing resources was to strengthening CBDRM delivery skills of the existing resources as well as to have experience exchange between the newly trained and experienced trainers.

As proposed by the community, twenty classes on CBDRM and safe construction techniques were conducted to the community people in six wards of Cam Le district. About six hundred community representatives attended these two day training classes, who acted as the main agents to disseminate information to other people in the community. Friendly materials with condensed content on CBDRM and safer community plans were given to local trainers to support their future training.

Community Awareness-raising on Disaster Preparedness and Building Practices	Duration	No. of training	Participants		Total
			F	M	
Hoa Xuan	2day	6	68	119	187
Hoa Tho Dong	2 days	5	37	84	121
Hoa Tho Tay	2 days	4	32	88	120
Hoa An	2 days	2	15	45	60
Hoa Phat	2 days	2	21	39	60
Khue Trung	2 days	1	7	23	30
Total		20	180	398	578

## ii) Improving Emergency Response of Cam Le district:

The project focused on strengthening EOC and EWS of Cam Le district through support in emergency facilities and giving training to emergency response teams of district and wards. This aimed to well equip and train on emergency response techniques to the CSFC and emergency response teams and the community having access to early warning information.

Cam Le district has CSFC and an emergency response team of 30 persons at district level. At ward level, each of the six wards has a CFSC and an emergency response team from 20 to 30 persons. At section level, there are sub-CSFC which consists of chief, vice chief of the section and representatives of the mass organization (about 10 persons) and an emergency response teams for each sub-committee (from 7 to 10 persons). In each section there is also a response team of 5 to 7 persons.

In Hoa Tho Dong ward, there are 37 sections with total population of 10.000 people (2.350 households). Below the CSFC and emergency rescue team at ward level, there are 11 sub CFSC with 11 emergency response teams. 37 sections have 37 response teams which operate under instructions of 11 sub CSFC.

Hoa Tho Tay ward has 28 sections a population of 8.337 people (2.063 households). Below the CSFC and emergency rescue team at ward level, there are 11 sub committee with 11 emergency response teams and 28 emergency response teams at section level.

Hoa Xuan ward has 32 sections total population of 13.317 people (2.300 households). Below the CSFC and emergency rescue team at ward level, there are 9 sub CFSC and 9 emergency teams at sub CFSC level and 32 response team at section level.

Although the local has strong and big team in places, these teams are not well equipped and trained on emergency response techniques. The available tools/equipment at ward/ district CFSC is listed below:

No.	Unit	Life jacket (unit)	Life buoy (unit)	Sheet buoy (unit)	Tent (unit)	Generator (1kg)	Electric wire (roll)	Canva (unit)	Plastic sheet	Blanket
1	Hòa Thọ Đông	20	20					1	1	25
2	Hòa Thọ Tây	15	20					2	2	50
3	Hòa An	15						2	2	25
4	Hòa Phát	10				1	1	1	2	25
5	Hòa Xuân	65	85	3				3	1	50
6	Khuê Trung	25						1	1	25
7	Police	20	10							
8	Military Commander	15	15							
9	District CFSC	30	20	7	3	1	1		1	
10	Medical Centre of Hoa Xuan Ward					1	1			
11	Medical centre of Hoa Tho Tay Ward					1	1			
	<b>Total:</b>	<b>215</b>	<b>170</b>	<b>10</b>	<b>3</b>	<b>4</b>	<b>4</b>	<b>10</b>	<b>10</b>	<b>200</b>

Concerning the early warning system, the Broadcasting Department of Cam Le district has a broadcasting machine of 200W and an automatic wireless system from the district to 6 wards, namely Hoa Xuan, Hoa Tho Dong, Hoa Tho Tay, Khue Trung, Hoa Phat and Hoa An. Each



ward has a transmission station FM of 30W and at least from 10-15 FM receiver station using wireless loudspeaker and more than 200 loudspeakers of 25w scattered in sections.

At present, in Cam Le district, there are:

+ 01 transmitting machine 200w located in broadcasting station

+ 06 transmitting machine and 110 FM receiver station and 220 loudspeakers of 25w

The broadcasting system is needed to: get information from upper levels and informing weather forecast and early warnings from the Central CSFC, city and district to localities in accordance with the defined calendar; broadcast directly urgent notification, early warning and forecast for disaster prevention; perform emergency rescue in district before, during and after disasters; announce evacuation out of areas adjacent to river and prone to landslide in Hoa Xuan, Hoa Tho Dong and Hoa Tho Tay; announce direct orders from district and ward CSFC; and to disseminate information on disease prevention after disasters.

With the existing facilities, the district broadcasting centre still has a lot of difficulties and restrictions in giving early warning on disasters. FM receiver and loudspeakers is not available in all places, especially in areas adjacent to river and prone to river bank erosion, low lying areas of Hoa Xuan, Hoa Tho Tay and Hoa Tho Dong, when water flooded the whole area, means of communications are not working (the only thing working is the radio that runs on a battery).

***Existing situation of loudspeakers and receivers in Cam Le district***

Ward	No. of sections	No. of receiver set	No. of available loudspeaker	Need
Hoa Tho Dong	37	18	11	7
Hoa Xuan	28	18	13	6
Hoa Tho Tay	53	14	10	5
Hoa An	40	14	9	6
Hoa Phat	32	16	12	5
Khue Trung	54	16	11	6
<b>Total</b>	<b>244</b>	<b>96</b>	<b>66</b>	<b>35</b>



PROMISE Vietnam provided some of emergency facilities as proposed in their disaster preparedness plans. The equipment was delivered before the historic flood on 12 November 2007. The in time support has helped the community be better prepared to the second biggest flood ever happened in the Central of Vietnam. Wireless loudspeakers and first aid bags were delivered to wards PC and emergency response teams. The equipment was of

great help to strengthen access of community in getting early warnings as well as having quick response before, during and after disasters.

After delivering of emergency facilities, training on how to use these facilities was conducted to thirty members of emergency response teams of three wards. The training was done in collaboration with the city Red Cross.

**\* Provision of emergency facilities and loudspeakers**

Wards	Wireless loudspeaker	Radio	Megaphone	Electric saw	Helmet	First aid kit	Generator (5kg)	Life jacket	Lifebuoy	Rope (m)	Torch	Boat
Hoa Tho Dong	4	12	11	1	30	40	1	30	10	100	10	
Hoa Tho Tay	4	15	26	1	30	28	1	30	10	100	20	
Hoa Xuan	5	35	61	2	200	35	1	30	20	100	35	6
Hoa An	3					10						
Hoa Phat	3					10						
Khue Trung	3					10						
<b>Total</b>	<b>22</b>	<b>62</b>	<b>98</b>	<b>4</b>	<b>260</b>	<b>133</b>	<b>3</b>	<b>90</b>	<b>40</b>	<b>300</b>	<b>65</b>	<b>6</b>

**\* Training of emergency rescue teams of wards and sections**

Along with provision of facilities, the project helped create emergency rescue teams at community level.

Same approach as CBDRM training was applied. Local resources for CBERC training was built up through conduct of capacity and training need assessment to local trainers. A group of nine LTs were selected and trained to conduct fourteen CBERC training classes to emergency rescue team wards and section. Training kits were delivered to local trainers to facilitate training on basic emergency response skills.



A thousand leaflets on simple basic emergency response steps was developed and distributed to participants of these training classes – members of emergency rescue teams at ward and section levels.

C-BERC training to emergency rescue team of wards and sections	Duration	No. of training	Participants		Total
			F	M	
Hoa Xuan	2day	4	22	109	131
Hoa Tho Dong	2 days	5	29	104	133
Hoa Tho Tay	2 days	2	23	37	60
Hoa An	2 days	1	5	25	30
Hoa Phat	2 days	1	7	23	30
Khue Trung	2 days	1	12	28	40
Total		14	98	326	424

**b) Structural subprojects**

As part of the capacity building strategy, the consultant engineer of the project assisted the district and ward in revising the designs and cost estimates to ensure technicality and sustainability of these projects. Meetings were held between the project teams and ward's PC and designer to finalize the design options and agree on the local community's contribution as well as project's contribution.

**i. Development of house models applying safe construction practice - House Programme to support Xangsane Typhoon victims (CECI's contribution)**

Early October, a very strong typhoon named Xangsane (storm N06 in Vietnamese) hit Da Nang city and left tremendous devastation to the city, especially to Cam Le district.

One of the most serious impacts was loss of home and house damages. More than 1,957 houses were completely collapsed, 1,648 partially collapsed, 5,766 completely unroofed and badly ruined, 7,034 partially unroofed and slightly ruined. In the effort to help the affected community in their recovery period after the mentioned historic typhoon, immediately after the typhoon,

CECI initiated to ask for fundraising from CIDA and Canadian government to implement the relief project in bid to help the community quickly recover. The house programme to assist families whose houses were completely damaged and seriously damaged, part of the Relief project, was implemented in combination with Promise project activities and was shown as CECI's contribution for PROMISE Vietnam. With the relief fund from CIDA and Canadian government, CECI was carrying out some demonstration projects on house reinforcement and reconstruction.

The housing reconstruction programme was implemented in collaboration with local authorities of the district and wards. The implementation process encouraged a great involvement of the communities as beneficiaries of the programme as well as district and ward authority in building and monitoring. The beneficiaries were consulted about their house design to suit their needs and contribution and were invited to participate the training on house design and supervision monitoring.

The project worked with the district engineer to develop the house design applying the safe construction techniques. Before starting construction the project team and the district engineers conducted workshops to provide a basic technical training to beneficiaries and local builders. The training provided skills to help them to build and monitor construction activities (referring to Activity 1.2.3). All supplies delivered by contractors were checked by the household and by a CECI personnel to ensure that families received what had been purchased on their behalf.



Letters of agreement were signed with the PC to assign a construction professional to regularly check the quality of construction and help the family in monitoring local builders. A house construction monitoring form was developed in consultation with the district and ward engineers. This form was distributed to ward engineers for their use in verifying construction progress and the techniques applied. District engineers were also involved in house construction monitoring by providing technical support relating to the design and joining with CECI staff in overall verification. Any changes to the design had to be approved by the district engineers to ensure safe construction techniques. The CECI team also makes ad hoc visits throughout the construction period to ensure that the construction is progressing on time and that the designs are being followed. A total of 21 houses were rebuilt and 10 houses repaired in Cam Le District.

These houses are the models for simple and safe construction techniques for the community to learn and follow.

## **ii. Upgrading inter-field dyke section 7A-7B, Hoa Tho Tay ward**

As stated in the PVA, Hoa Tho Tay ward often suffers shortage of water for production as 100% of inter field irrigation systems are all still earthen, therefore cannot get enough water to the fields (only irrigations level 2 are concretized). The existing dyke is earthen with total length of 1500 m from section 6 to 9 of Hoa Tho Tay ward. The proposed dyke is part of this dyke with a length of 250 m from section 7A to 7B which is always prone to landside affected by floods, destruction by rats and due to its location being lower than the rice field. The cultivated area of the sections 7A and 7B of Yen Bac is about 12 ha, the water supply is from Tuy Loan pumping station, through the existing earthen dyke to the fields. The dyke lies between the slope and Cau Do river, hence, in the wet season, the water comes down from the slope causing the erosion of the channel. Therefore, there was a big loss of water loss, especially at the broke dyke section behind the meeting house of the hamlet, and the water at the end of the channel is not enough for the fields. The bottom of the channel is low, so an area of around 15ha of rice fields and 1ha of other vegetables and plants on the high location cannot get the water and has low productivity causing problem to the life of the farmers. Besides, a lot of grass inside the channel prevented the water flow in the channel. Because this is the earthen dyke section, every year the farmers have to repair the channel before and after the rice crop (repair expense was estimated about 7 million VND (500 USD) per year).

In order to ensure the water supply for 12 ha of cultivated land in sections 7A and 7B of Hoa Tho Tay ward, increase the productivity of the cultivated land, create the stable income, improve the life of people and reduce the labour force of people in repairing the channels every year, the community and the People's Committee of the ward has proposed to upgrade this dyke section. Based on field survey and feasibility study of the project, it was proposed to concrete the dyke sections 7A and 7B, 248m long with sufficient gradient of the channel to increase the water flow and irrigation capacity of the channel. Inlets of plastic pipes PVC 100 were arranged in the dyke to catch the water and control water into the fields. The total cost of the subproject was 72,263,209 in which investment from the PROMISE project was 51,000,000 VND, CECI's contribution from Xangsane Relief funding was 12,000,000 VND and contributions from the local was 9,263,209 VND.

## **iii. Upgrading inter-field dyke section 5-6, Hoa Tho Tay ward**

The existing dyke was earthen that connects water from Tuy Loan pumping station to rice and vegetable field. It was 250m long and was not in good condition. The dyke was always prone to erosion and water was leaked into the high productivity vegetable production field, which caused 1,5 ha of vegetable production field to be inundated and unable to plant vegetable. Also as part of the water is leaked into the vegetable field, there is not enough water to irrigate 10ha of rice. Currently, this area was just used to plant local vegetable, not the high productivity vegetable which brings an income of 24 million per year.

By upgrading the proposed dyke section, livelihood security was ensured through adequate supply of water for 10ha of rice field and 1,5 ha of vegetable production field and local people would have enough food for storage before disasters. Based on field survey and feasibility study of the project, it was proposed to concrete the dyke sections 5 and 6, 254m long with sufficient gradient of the channel to increase the water flow and irrigation capacity of the channel. Inlets of plastic pipes PVC 100 were arranged in the dyke to catch the water and control water into the fields. The total cost of the subproject was 88,473,248 in which investment from the PROMISE

project was 50,500,000 VND, CECI's contribution from Xangsane relief fund was 12,500,000 VND and contributions from the local was 25,473,248 VND.

#### **iv. Upgrading evacuation bridge and road in Hoa Xuan ward**

The proposed project is the inter-village route from Xom Con area to section 3 of Liem Lac with the length of the route of 100m and the bridge of 12m. Liem Lac culvert was built under the ex-government in 1960s along the soil road connecting from the residential area of Con hamlet to section 3 of Liem Lac - Hoa Xuan Ward - Cam Le District - Da Nang city. Later, this road was concreted in 2.2m wide under the program of developing the rural traffic of Da Nang city. Liem Lac culvert has the concrete surface, is 8m long and 1.7m wide, has two reinforced concrete longitudinal beams, and two cement mortar abutments. Due to the long existence, the culvert is being seriously downgraded: there are some cracks from top to bottom at two abutments, the width of the crack was from 0.5 to 1 cm. Two longitudinal beams: the concrete was broken, exposing the rusted iron bars. The culvert surface was cracked and broken upstream and downstream. People, especially children, were stressed when passing this culvert.

The concrete road from Liem Lac culvert to section 3 is about 86m long and is about 0.8m lower than the culvert surface. Therefore, it is very dangerous for the residents, especially the pupils, using this road when the water from the fields crosses the road in the heavy rain. In the wet season, the road is approximately 1.5m covered by the water, section 3 of Liem Lac is isolated, the traffic is interrupted, affecting the life of local residents.

In order to ensure the safety for people passing Liem Lac culvert and solve the flooding of the concrete road connecting from the culvert to section 3 including 23 households with 115 persons. The section cluster and the People's Committee of the ward proposed to improve the condition by constructing a reinforced concrete culvert (permanent work) to replace the existing downgraded culvert and upgrading a section of 86m of the concrete road. The whole improvement process consisted of constructing a new Liem Lac culvert of reinforced concrete, the new culvert is 2.2m long and as wide as the road surface. In order to increase the stability of the foundation, the culvert has two cells, the bottom and body of the culvert are built with stone masonry. The load capacity of the culvert is 5T. In order to ensure the traffic safety of the residents during the flooding time, the level of the 86 section of the road should be raised to 0.8m more, two side of the road shall be filled. The cost of this subproject is 103,514,479 VND, in which Promise project supported 54,175,000 VND, CECI's contribution from Xangsane Relief 24,925,000 VND and contributions from the local was 24,414,479 VND.



#### **v. Upgrading flood drain for intersection 16-29-33**

Construction of the road from Tuyen Son to Tuy Loan, running along Cam Le river makes the drainage of 07 sections of Hoa Tho Dong ward worse (sections 16,17,29,30,31,32,33). The rainfall of this area goes through the culverts crossing the road and a small channel to Cam Le river. Below Cam Le bridge, there is an embankment road crossing the ditch leading to the safe vegetable growing area. In the middle of the embankment road, there was a temporary culvert of which the cover is made of iron connecting the embankment road, the clearance of the culvert is 4.2m x 2.8m. Due to the limited drainage area, the drainage system cannot work well in the condition of the big rainfall, causing the water increased in the channel at the upstream of the culvert, the difference of the water level between the upstream and downstream of the culvert nearly reaches 1m, which affects the drainage of the culverts crossing the road causing the residential area submerged.



Besides, the foot of the culvert was temporarily made of iron gabions, and the iron gabions were being rusted now due to the brackish water from the river. This affected the safety of people and means of transport crossing the culvert to the safe vegetable growing area.

In order to solve the submerged situation of 7 sections of Hoa Tho Dong ward (section 16: 279 persons, section 17: 328 persons, section 29: 305 persons, section 30: 242 persons, section 31: 257 persons, section 32: 241 persons, section 33: 281 persons), ensure the safety and make it easier for people in the safe vegetable growing area, People Committee of this ward has proposed to upgrade this flood drain to enhancing the drainage capacity of the existing culvert to avoid the flooding during the heavy rain in the area of 7 sections (sections 16,17,29,30,31,32,33) benefiting 1930 persons and ensure safety for people going to the safe vegetable growing area. The drainage culvert with 5 tones loading capacity will also facilitate transportation of products after being harvested. The subproject valued 106,366,629 VND. DPP fund from Promise accounted 68,005,000, CECI's contribution from Xangsane Relief 3,995,000 VND and contributions from the local was 26,559,763 VND.

### **Activity 2.5 Risk based land use planning:**

#### **Activity 2.5.1: Training sessions on construction techniques resistant to natural disasters (District and Ward)**

The severe typhoon No. 6 in early November left catastrophic damages to infrastructures, especially to houses of local residents.

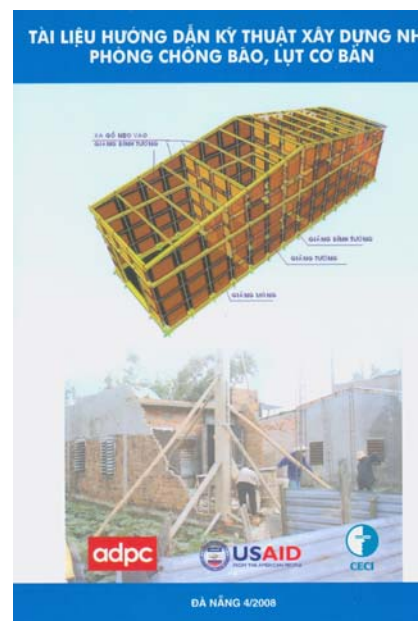
The impact of this disaster demonstrated the pressing need to review the existing building codes and urban risk management policies and to raise awareness of the community on the application of building codes in house construction. Recognising the importance of appliance of building codes and safer house construction techniques based on the PVA results and serious damages to houses caused by the typhoon mentioned above, PROMISE Vietnam initiated to hold a workshop on construction techniques that reviewed urban land use planning, impact of climate changes and building codes and application of safer house construction techniques. The objective of the workshop were to review building codes and regulations, share initiatives on house construction techniques resistant to typhoons and develop models as well as manuals for community use. There were more than 60 participants including city officials of departments relating to urban planning and building construction, international and national construction consultants attending the workshop. The outputs of the workshop would be shared to local builders, constructors and construction cadres of wards and districts in a two days training on house reinforcement and reconstruction techniques to be followed after the workshop. Around twenty local builders from eight wards of Cam Le and Ngu Hanh Son district of Da Nang city attended the training, field visit and developed safer house models.

The activity was undertaken to demonstrate the Risk based Physical planning approach to minimize the impact of hydro-meteorological hazardous events and promote hazard resistant construction practices.



### Activity 2.5.2 Development of guidelines to raise the awareness on safe construction techniques

In collaboration with the Construction department of Da Nang city and the Construction Consulting Company of Architect Union, Promise Vietnam developed a set of guidelines on basic construction techniques resistant to storms and flood to raise the community awareness on safer construction techniques. The guidelines included content on typhoons/floods and climate change, historical profiles of damages to houses caused by typhoons and floods, analysis of reasons why many houses were damaged and destroyed. Based on this analysis, the document then proposes safer construction principles and techniques in reinforcing as well as building houses. After getting comments from ADPC, the guidelines were printed in 1000 copies and disseminated in the community.



### Activity 2.6 Emergency Rescue team at city and ward level/development of Standard Operating Procedures

Da Nang city has a particular EOC system in place acting as steering centres for emergency response at different levels from city down to ward level. The project support aimed at strengthening the coordination among different levels (city, district and wards) in getting information on emergency from lower levels for decision making and giving instructions through support in visualized tools such as flood hazard maps for the city CSFC and district. Promise supported the city CFSC to develop flood mapping for Da Nang city and storm trace management charts for Cam le district. These map/visualization tools will help the city and district CFSC to monitor flooding/storm situation in each area to have timely alert when flood/storm occurs, identify time and flooding/storm possibilities to have preparedness plan and giving instructions accordingly.

Promise project also mobilized additional fund from another programme of CECI to support city CSFC in building up (i) electronic map to get information on water level and general rainfall from starting point of water measurement points upstream and river catchment area to forecast flooding possibility at downstream river, (ii) monitoring chart for rainfall and water level of hydrographical stations of hydrographical system to forecast situation of rainfall and water level to identify time, water amount and possibility to have flood for development of coping strategy, (iii) map for evacuation of people at two reservoir and (iv) storm track chart.

## 3.3 Component 3: Training and Public Awareness

*Objective 3: Enhanced coordination with USAID Missions to promote sustainability and ensure program activities accord with USAID country and regional strategies.*

*Outputs: Enhanced coordination and linkages between USAID country and regional offices and program partners at national and regional level to ensure program activities accord with USAID country and regional strategies*

*Increased visibility of USAID humanitarian assistance to risk communities*

### Activity 3.1: Campaigns for raising Public Awareness

#### Activity 3.1.1 Public awareness-raising at ward levels

Being included in the disaster preparedness plan, the ward conducted campaigns for raising Public Awareness and activities for the sections/wards which involved participant of different mass organizations at ward and community level such as ward representatives, business leaders, community leaders, women groups, etc. Each of six wards proposed different awareness-raising activities such as music performance (Hoa Tho Tay ward), demonstration on emergency rescue (Hoa Tho Dong), organizing a competition by Youth Union on disaster mitigation content knowledge (Hoa An ward), marching to raise awareness on disaster management and environment protection (Hoa Phat), combination with the International Women’s days to hold a competition on Women with CBDRM (Hoa Xuan). All of these activities were held outdoors, which attracted a lot of attendance of community people.

PROMISE Vietnam got funding from Unitertra programme of CECI on development of 2,000 posters on “Things children should know in flooding periods” including four “do” and “don’t” for children and “what the community should do before, during and after disaster” and flipcharts on CBDRM and safer community plans. These posters and flipcharts were to be distributed to schools and displayed at community meetings halls for awareness-raising. PROMISE Vietnam also developed posters on “Do’s” and “Don’t’s” for safe housing construction and distributed these to the beneficiaries of the Xangsane housing reconstruction grants.



#### Activity 3.1.2 School Programmes

The project targeted school programs to disseminate information on disaster preparedness. These programmes can be drawing competition or music performance contests...From that concept, the drawing competition on Disaster Preparedness and Living Environment Protection to the target of 4th and 5th grade pupils of school in the three project wards was held successfully with a big number of pupils’ registration. The objectives of the competition are to (i) highlight the importance of raising awareness on disaster preparedness and living environment protection for community members of all ages; (ii) collect drawings that could eventually be used by the project team to develop training and awareness material on disaster preparedness and living environment protection as well as disaster risk mitigation issues. The competition covered different themes specified as Activities that children can do to help family to prepare for coping a disaster and keeping living environment clean; Early warning systems, Communication during a disaster, Role of the community before, during and after a disaster, Safe evacuation, Clean water and hygiene and Rescue activities.



The competition was done at two levels, firstly competition at school levels, then selection of best drawings of the district. Each school selected 7<sup>th</sup> prizes (2 first prizes, 2 second prizes and 3 third prizes) for selection of best drawings of the district. A number of four hundred and ten pupils of the 4<sup>th</sup> and 5<sup>th</sup> grade of five primary schools attended the drawing competition.

The drawings which won the prizes were exhibited to schools pupils and then were used to develop the picture books in the library.

The competition was held in collaboration with the Education Department of Cam Le district and involvement of different stakeholders such as teachers, people's committee of wards, district project steering committee.

Picture books were developed based on the results of the drawing competition for the 4<sup>th</sup> and 5<sup>th</sup> primary school pupils. These books (500 books) were to be distributed to schools and serving as a study tool for their intended integration of disaster preparedness and environment protection into the study curriculums.

### **Activity 3.2 – Disaster safety day events at city level**

#### **Activity 3.2.1: Supporting Awareness-raising Funds**

Promise project could look for potential funds from different levels from the People's Committee and could also provide funds in order to promote these events. The project collaborated the city RC to hold a music performance programme to raise fund for disaster mitigation. The money raised from that programme was about 10 million VND, this money would be used to support to build houses for victims of storms and conduct awareness-raising programmes of the RC association.

#### **Activity 3.3.2: Radio broadcast**

A training class on CBDRM was to be provided to reporters of district and ward broadcasting stations to enhance their knowledge on CBDRM as well as facilitate their dissemination of news on disaster preparedness and mitigation. The training was then to be followed by a contest on best article on disaster management and awareness-raising on disaster mitigation.

#### **Activity 3.4: Training for Medical First Responders**

Three classes on Community Level Basic Emergency were conducted for emergency response teams of three wards. These classes followed the same three-day training modules and materials of C- BERC as previously provided by ADPC trainers (DM in Vietnam, Diseases Precautions, Emergency Incident, Principles of Patient Assessment, Basic Life Support & CPR, Bleeding, Shock, Lifting and Moving Patient, Fracture, Sprain, Dislocation and Triage). In total around 62 persons attended the training with the majority of men (70%) and was given Certificate of Completion. City red cross trainers, who acted as Assistants for ADPC trainers, delivered these trainings.

As commented by participants and district as well as ward authorities, C-BERC training was very essential and practical so they proposed to have more training classes given to sub committee for storm and flood control at section cluster level.

The Community Level Basic Emergency Response Course (C-BERC) training was implemented from 10 to 12 September 2007 in collaboration with ADPC team and Da Nang city Red Cross Association. The training was conducted by Instructors from ADPC, Mr. Frederick John Bernardo, Technical Manager, Public Health in Emergencies (PHE) and four Assistant Instructors from the city Red Cross. As it was designed for the three – day as requested by PROMISE Vietnam, the training focused on main content as DM context in Vietnam, Diseases Precautions, Emergency Incident, Principles of Patient Assessment, Basic Life Support & CPR, Bleeding, Shock, Lifting and Moving Patient, Fracture, Sprain, Dislocation and Triage. Totally there were twenty seven trainers of the city Red Cross from 7 districts of Da Nang city (9 female and 18 male) attending actively in the training. The training was completed quite successfully with 26 trainers receiving certificate of completion and one receiving certificate of attendance

after the writing test at the end of the training to assess trainers' knowledge and skills. Mr. Anup Karanth, Promise Coordinator also came to Da Nang to assist in the training. Following with this training, three more training classes were conducted consecutively to three emergency rescue teams of the three most vulnerable wards.

C-BERC training at city and ward level	Duration	No. of training	Participants		Total
			F	M	
city Redcross volunteers	3 day	1	9	18	27
Hoa Tho Dong CFSC	3 days	1	7	18	25
Hoa Tho Tay CFSC	2 days	1	6	18	24
Hoa Xuan CFSC	2 days	1	6	16	22

### **3.4 Component 4: Advocacy for Mainstreaming risk management in urban governance**

*Objective 4 Strengthen networks and regional links among relevant risk management institutions/organizations for improving potential and capacity for application and dissemination of lessons learned.*

*Output 4.1 Increased collaboration and partnership among stakeholders at city and national level*

*Output 4.2 Increased collaboration and partnership with regional and international institution for wider dissemination and enhanced capacity for adaptation of tools and methodologies for community preparedness and mitigation.*

#### **Activity 4.1: Workshop on CBDRM Institutionalization (Training/workshop):**

This activity was combined with the Activity 4.3 Workshop experience sharing through existing network to make a Workshop on CBDRM institutionalization and experience sharing. The workshop aimed at sharing experiences on CBDRM Institutionalization and on Promise project implementation and lessons learned. Thirty five participants from city, district and other districts and ward outside from the project area attended the workshops whose information on how to institutionalize CBDRM was disseminated from ADPC and project partners shared about the participatory approaches and planning techniques developed and applied through the project, lessons learned and best practices of the project.

#### **Activity 4.2 Study tour for CBDRM institutionalization model**

Following the engagement into the Media Campaign under the DIPECHO Advocacy Network Initiative project to advocate for CBDRM at both national and local level in August, PROMISE Vietnam also actively participated in the Communities Disaster Prevention Tour for DIPECHO project partners from 4th to 10 October. This was the integration of PROMISE VIETNAM into other projects implemented by CECI as a partner of DIPECHO project. Around 35 participants from Save the Children, OXFARM, SRC-NLRC VNRC, CARE, World Vision, Development Workshop France, CECI and mass media would participate in the study tour to different projects from the South to the Central of Vietnam. PROMISE Vietnam appointed Ms Duong Thi Hoai Trang, the Project Coordinator, Ms Marie France Biron, Urban Planning Volunteer and Ms. Duong Thi Hoan, Economic Department of Cam Le district, and two Vice Chairs of two vulnerable wards, Mr Nguyen Tuong and Nguyen Quang Vinh to join the study tour. PROMISE Vietnam took the delegations to Promise project area and visit an example of its safer house program for promotion of application of safe techniques in house construction practices.

The study tour ended on the 10th after all the participants participated in various activities and meetings to celebrate the International Disaster Reduction Day in Hue city.

#### **Activity 4.4: Organization of meetings with People's Committees at city, district and ward levels**

##### *Activity 4.4.1 Organization of meetings with People's Committees at city, district and ward levels*

The preparedness and mitigation action planning WS at district and ward level was held to overview and evaluate the project activities as well as how to integrate disaster preparedness plan into socio-eco development plan. The district project steering committee was committed to maintain and replicate project activities by using training manuals on CBDRM, C-BERC and basic guidelines on construction techniques resistant to storms and floods developed by the project to widely disseminate to community, requesting all the ward to efficiently use all emergency facilities provided based on the four “in-place mottoes” by submitting a usage and maintenance plan to district. Resources of Change Agents/ LTs built up by the project will be listed and have periodic refresher and advanced training maintain the team. These resource persons would be in charged of delivering training on CBDRM to raise community’s awareness based on the CBDRM material provided. Participants proposed to maintain the disaster preparedness planning based on risk assessment and integrate disaster preparedness plan into socio-eco development plan. According to them, the integration would to help people be active in disaster preparedness, have long term coping method to reduce disasters and ensure livelihood security and economic development through application of changing seasonal calendar, application of safe construction techniques.

#### **Activity 4.6: Collaborate with other national and international programs (01|07 to 12|07)**

The experiences and the initiatives of the project were shared with other national and international programs.

\* **Media Campaign** under the DIPECHO Advocacy Network Initiative project to advocate for CBDRM at both national and local level:

As a partner of DIPECHO network, PROMISE Vietnam participated in the Media campaign under the DIPECHO Advocacy Network Initiative project. The project activities were shared to national and local journalists and press. Presentations on project accomplishment were made to participants and field visit was conducted. To share its good practice on CBDRM, PROMISE Vietnam took the study tour group to visit a house demonstration for promotion of application of safe techniques in house construction practices.

#### **\* Project visit:**

During implementation of the project, the project had a good opportunity to welcome the visit by Mr Tom Dolan, OFDA officer-in-charge from Bangkok and Ms Brett Jones from USAID Hanoi on 12 October and an important visit of the US Ambassador in Vietnam, Mr Michael Marrine on 18 October 2006. The delegations visited some key project areas, had a talk to local partners as well as beneficiaries from the project and also attended one orientation session to local ward committee for storm and flood control and a training class on house reinforcement techniques.

PROMISE Vietnam was welcome the visit of Mr. Olivier C. Carduner, Mission Director of USAID, Asia and Ms. Brett Jones, USAID Vietnam. The project team made a presentation on the progress of PROMISE projects, then took the delegates to visit to the most vulnerable ward and most affected areas by the historic flood on 12 November 2007, have a meeting with local partners, and attend the training class on how to use emergency facilities and demonstration of emergency rescue.



## First regional Course on Governance and Disaster Risk Reduction, Manila, 25 to 30 September 2007:

Disaster Management Centre (DMC) under Central Department for Storm and Dyke Management was chosen to be Promise Vietnam National Training Partner. MOU was signed for the replication of the regional training course on Governance and Urban Risk Management. DMC integrated the training content into their periodic training to local government officials, thus replicated the training in other areas of Vietnam

Construction Planning Institute of Da Nang city attended the Regional training course on Governance and Urban Risk Management.

## Project Coordinator Meeting and first Annual Working Group Meeting, Manila, 1–4 October 2007

Promise Vietnam staffs also attended the Promise coordinators meeting on the 1st October 2006 and the Annual Working Group Meeting on the 2nd to 4th of October. The team had a chance to visit Dagupan city where the Promise project has been implemented and see concrete results of project implementation.

## Second Regional Course on Governance and Disaster Risk Reduction, Bangkok, 17 to 21 September 2007

Four nominees from PROMISE Vietnam team (Ms. Duong Thi Hoai Trang, Project Coordinator, CECI), representatives from Da Nang city government (Mr. Thai Van Quang the city Department of Agriculture, Fishery and Aquaculture and Mr Tran Viet Dung, Urban Planning Construction Institute) and from the Central Committee for Storm and Flood Control (Ms Pham Hoang Lan) attended the five-day Regional training course on Governance and Disaster Risk Reduction in Bangkok from 17 to 21 September 2007. This was the second training course on the same topic organized by the ADPC under PROMISE. The course covered topics on urban governance, risk management, vulnerability reduction and mainstreaming risk reduction as a component of governance. A training plan to institutionalize this training course was also discussed at the end of the training.

## Development of the case study on PROMISE Vietnam program “Promoting Safer Housing Construction through CBDRM:

In the middle of June 2007, Gabrielle Iglesias, PROMISE's networking and information coordinator from ADPC came to Vietnam to develop the case study “Community-designed Safe Housing in Post-Xangane Da Nang city” with the theme of mainstreaming safer construction into regulation and private practice was developed. This case study of Da Nang city describes how building safer houses has to be supported by a comprehensive and integrated approach that includes creating a culture of safety through an appropriate institutional framework, community-based disaster risk management, and raising the capacity of house owners and builders.



## Development of Promise Vietnam website:

Website for Promise Vietnam was developed and being updated (<http://www.ceciasia.org/countryprograms/Vietnam/promise>).