



Community Self Reliance and Flood Risk Reduction

ADB TA 4574-CAM

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A Background of the TA

The Asian Disaster Preparedness Center (ADPC), with funding from the Asian Development Bank (ADB), has implemented this advisory technical assistance (TA) to Cambodia on *Community Self-Reliance and Flood Risk Reduction (TA 4574-CAM)*. Ministry of Water Resources and Meteorology (MoWRAM) of the Royal Government of Cambodia (RGC) has been the TA Executing Agency.

The objective of the TA is to enhance community participation in disaster risk reduction in rural communities in Cambodia (addressing both floods and droughts). The outputs of the TA is expected to provide strategic guidance on improving participatory flood and drought risk management for targeted vulnerable communities in the lower Mekong River Basin provinces of Cambodia.

TA 4574-CAM has been financed under the Poverty Reduction Cooperation Fund (PRF). The project area comprised the flood and drought affected districts of Kandal, Prey Veng, Svay Rieng, and Takeo provinces.

The primary purpose of the TA is to provide MoWRAM and its Provincial Departments of Water Resources and Meteorology (DWRAMs) opportunities to adopt participatory risk reduction strategy as standard approach when undertaking flood mitigation programs.

It is also expected that the outputs of as well as the processes followed for this TA would be directly applicable to future ADB and MoWRAM flood management programs at community level in Cambodia.

The outputs would also provide strategic guidance to the National Committee for Disaster Management (NCDM) and various other stakeholders working in the field of disaster risk reduction in Cambodia.

The TA was implemented in two phases:

- (i) Phase I - **Strategy development**¹ to formulate a methodology for mobilizing communities to plan, design, and implement preparedness, prevention, and mitigation measures; and
- (ii) Phase II – **Pilot projects' implementation by NGOs** to implement the community based disaster risk reduction (CBDRR) strategy; and technical capacity development activities undertaken by ADPC.

Following are the main outputs of the TA:

Output 1 Community Based Disaster Risk Reduction Strategy (2007-2012) for Flood and Drought;

- **Part A** - Guidance for Promoting and Implementing Community level Action for Self Reliance and Flood and Drought risk reduction; and
- **Part B** - Supporting High Risk /Vulnerable Communities in 4 Mekong Delta Provinces to implement CBDRR focussed on floods and droughts; Strategic Framework and Road Map for developing and implementing an Action Program (2007-2012) by a multi stake holder partnership

¹ Implemented from an office based at the Department of Hydrology and River Works, MoWRAM, Phnom Penh, Cambodia
Asian Disaster Preparedness Center

- Output 2 Pilot projects on Community based disaster risk reduction**
- Community based disaster risk reduction project in Svay Rieng Province by Church World Service (CWS)
 - Flood risk reduction project in communities in Koh Andet district and Borey chulsa district in Takeo Province by Chamroen Chiet Khmer (CCK)
- Output 3 Svay Provincial Disaster Risk Reduction Action Plan**
- Output 4 Flood Risk Reduction Action Plan for Borey chulsa district in Takeo Province**
- Output 5 Flood Vulnerability GIS for 4 provinces of Kandal, Prey Veng, Svay Rieng and Takeo**
- Output 6 Training materials for Community Based Disaster Risk Management (CBDRM)**

B Executive summary of significant activities under the project

This section summarizes the key activities undertaken in the project and which is described in detail in the following section C of this report.

1. Understanding **NGO interventions in Flood and Drought Risk Reduction** (Activity 1.1); NGOs and other agencies working on Flood and Drought Risk Reduction in Cambodia were identified, consultations were carried out with them and their project sites visited to understand their interventions, strengths of their approach, constraints.
2. Developing a simple **GIS** which can facilitate decision making for the TA as well as future programs (Activity 1.2); Data was collected on several parameters which acts as indicators for flood risk, analysed and a simple Flood Vulnerability GIS Atlas was developed, which helped in identifying the vulnerable communes from the target TA districts and thus facilitated in the decision making of the implementation of the pilot projects.
3. Undertaking **survey with TA target provinces** to identify community needs in flood and drought risk reduction (Activity 1.3); a rapid survey was undertaken by the TA team for understanding community concerns and needs in the context of flood and drought impacts and thus helped in the development of the strategy under the TA.
4. **Identification of target areas** and prioritizing areas for future interventions (Activity 1.4); Based on the GIS developed under 1.2 and community needs survey conducted under activity 1.3, most vulnerable provinces were identified to implement the pilot projects.
5. **Terms of Reference for inviting NGOs** to undertake activity 2 – Implementation of TA Pilot Projects – were developed, including guidelines for NGOs to prepare and submit proposals (*Activity 1.5*)
6. Seven agencies (primarily NGOs) actively working in the country on disaster risk reduction activities, or development activities that have a significant impact on disaster reduction, were invited to submit proposals in response to the terms of reference sent. These were (in alphabetical order) – Cambodian Red Cross, CARE International in Cambodia, CEDAC, Chamroen Chiet Khmer (CCK – a local NGO based in Romenh Commune, Takeo province), Church World Service, Oxfam GB in Cambodia, and World Vision International. (*Activity 1.5*)
7. Three NGOs responded with proposals, namely: **Chamroen Chiet Khmer (CCK)**, **Church World Service (CWS)** and CEDAC. These proposals were thoroughly evaluated and two NGOs were selected for undertaking pilot implementation. The recommendation on selected NGOs was sent to ADB and MoWRAM for approval. Based on the approval, the 2 selected NGOs, i.e. CWS and CCK were invited to initiate implementation of pilot projects. (*Activity 1.5*)
8. The draft of the **Community Based Disaster Risk Reduction Strategy** (CBDRR Strategy), the key output of Phase I, was prepared and circulated to MoWRAM and ADB, as well as several NGOs for comments and feedback. (*Activity 1.6*)
9. Following this initial round of consultation and revision, a **Consultative Workshop** was organized on August 21, 2006, to receive feedback from various agencies working on disaster risk reduction at the community level on the CBDRR Strategy developed under

the TA. The workshop was attended by various stakeholders including representatives from Ministry of Water Resources and Meteorology, National Committee for Disaster Management, and various NGOs. The components of the strategy document were presented separately, with working group sessions for receiving feedback. (*Activity 1.7*)

10. Based on significant revision, the draft CBDRR Strategy document was presented to a wider group of stakeholders at the 6th Meeting of the **Cambodian Disaster Risk Reduction Forum (CDRR)** in Phnom Penh on 27th of March, 2007 (*Activity 1.7*)
11. Training material was developed based on the proposed CBDRR Strategy and ADPC's experience in community based disaster risk reduction and material used by CRC and other NGOs. (*Activity 2.1*)
12. **Training** on community based disaster reduction was conducted between August 29 through 31st 2006, for the staff working for 2 NGOs CCK and CWS that are implementing the TA pilot project. In the training, as initially envisaged, participants from the Provincial Department of Water Resources of the 4 target provinces of Prey Veng, Kandal Takeo and Svay Rieng, as well as officials from the Provincial and District Disaster Management committees from the places where the CCK and CWS NGOs are currently implementing the pilot projects (Koh Andeth and Borey Chulsa districts of Takeo Province, and Svay Chhrum and Kampong Ro of Svay Rieng Province, also participated. The training was delivered in Khmer language, with all material being in Khmer language. (*Activity 2.2*)
13. The GIS developed under the project was presented at both the Strategy Workshop and the CBDRR training.
14. During the workshop on the CBDRR Strategy on 21st August, several participants had expressed interest in learning more about the simple GIS developed under the TA. As a result of this, and also as part of the **handover process of the GIS**, a small seminar for delivering the GIS outcome to the MoWRAM (date 25 August) was organized. 2-3 participants each from NCDM and CRC were also invited, in addition to MoWRAM's GIS staff, to use the GIS first hand on computers at the TA project office within Department of Hydrology, and the GIS outputs in Arc Reader format were provided to the participants along with the full datasets.
15. In addition to the above formal seminar, an informal meeting with several staff of the Mekong River Commission was also organized, in which the GIS output was delivered on 23rd August, 2006.
16. The 2 NGOs – CCK and CWS implemented the **pilot projects** in the province of Svay Rieng and Takeo respectively over the period of July 2006 to August 2007. During the project implementation, several **workshops** were organized by the NGOs in the respective project areas with various stakeholders to seek inputs and ensure sustainability of the project once the TA is over. The NGOs also supported the local government in developing a provincial/district disaster risk reduction plan for implementation over 2008-2010. (*Activity 2.3*)
17. Based on the experience of the pilot project implementation, and the inputs from the CDRR Forum the CBDRR Strategy document was revised and presented to a larger set audience through a **National Workshop** organized in April 2007, for receiving final comments (*Activity 2.4*)
18. With the CBDRR Strategy document developed under the TA as a base, partnerships were developed in **Svay Rieng province** and in **Borey chulsa district** in Takeo province

to develop the respective provincial and district **disaster risk reduction action plans**. The process adopted for developing the action plans were highly consultative and was led by the respective provincial and district committees for disaster management with active support from other stakeholders working in the area in the field of disaster risk reduction.

19. During the course of the project, **tripartite meetings** were held between MoWRAM, ADB and ADPC to discuss on the project implementation. The meetings were held as follows:

- Meeting with MOWRAM during Inception Mission, November 2005
- Tripartite Meeting to discuss the Inception Report, January, 2006
- Tripartite Meeting to discuss the First Interim Report, April, 2006
- Tripartite Meeting to discuss the Second Interim Report, October, 2006

The Minutes of the meetings are attached in ***Annex 1***

C Details for each activity under the two phases of the TA

Activities were undertaken under the TA in Cambodia as programmed, and following the methodology proposed and agreed upon in the Inception report (submitted in January 2006). The activities undertaken are listed below with details under each specific activity described in the subsequent paragraphs.

1. Designing the community participation model

The community participation model, called '*Community Based Disaster Risk Reduction Strategy (2007-2012) for Flood and Drought, For Kingdom of Cambodia*' was developed after undertaking the following activities:

- 1.1 Understanding NGO interventions in Flood Risk Reduction
- 1.2 Developing a simple GIS which can facilitate decision making for the TA as well as future programs
- 1.3 Undertaking a brief survey within target provinces for identifying key community needs in flood risk reduction
- 1.4 Identification of target areas and prioritizing areas for future interventions
- 1.5 Selecting NGOs for undertaking pilot community based flood risk reduction action in the target areas identified
- 1.6 Developing a comprehensive CBDRR Strategy
- 1.7 National Workshop on CBDRR Strategy, August 2006 in Phnom Penh to discuss the first draft of the CBDRR strategy with wider stakeholders.
- 1.8 6th Meeting of the Cambodia Disaster Risk Reduction Forum (CDRR Forum), 27th March to discuss the Draft CBDRR Strategy with the members of the CBDRR forum of Cambodia involved in CBDRR in Cambodia

2. Implementation of TA pilot project

This includes:

- 2.1 Developing a training program for NGOs to undertake pilot implementation of flood risk reduction programs based on the CBDRR Strategy
- 2.2 Training of selected NGOs in undertaking pilot activities using the training material developed under activity 2.1
- 2.3 Implementation of Pilot activities in the identified target areas by identified NGOs, with suitable technical support from ADPC
- 2.4 National Workshop for disseminating experiences from pilot implementation and presenting the Draft Final CBDRR Strategy document to wider group of stakeholders from government, NGOs, research institutes, microfinance institutes, involved in CBDRR in Cambodia and to receive final comments.

1. Designing the community participation model

1.1 Understanding NGO interventions in flood and drought risk reduction

This was the first activity conducted under the TA. It looked in depth at the various NGO interventions particularly in flood and drought risk reduction in the 4 TA target provinces of Prey Veng, Kandal, Takeo and Svay Rieng and tried to understand the various approaches adopted by the NGOs and the typical constraints of such intervention.

The following section begins with a description of the projects for each major NGOs and then concentrates on the NGO projects in each of the 4 TA target provinces. Also included is an analysis of various approaches towards flood and drought risk reduction utilized by the NGOs.

This section is divided under following four sub sections:

- Description of NGO projects in Cambodia
- NGO projects on flood risk reduction in 4 TA target provinces
- NGO approaches to flood risk reduction
- Typical constraints to effectiveness of NGO interventions

1.1.1 Description of NGO projects in Cambodia

CARE International in Cambodia (CARE)²

CARE strives to work with the most vulnerable individuals and households to identify resources, experiences and address through sustainable solutions the root causes of vulnerability and poverty together. The main activities of CARE in Cambodia include education, health, rural development and emergency response.

CARE undertook a Disaster Preparedness Action Planning (DPAP) project to implement a model for bottom-up disaster preparedness that is tested at commune, district and provincial levels. The project involved building the capacity of local authorities and villagers to identify, implement and monitor appropriate forms of disaster mitigation and preparedness measures. The main activities included i) Mitigation Action Planning; ii) Preparedness Action Planning; and iii) Disaster Mitigation through Savings. The community action plans in project areas included repairs of farm to market roads, dams, irrigation canals, bridges and schools, repair or construction of safety-hills, provisions for boats, radios and wells. In total, 71 boats, 123 radio sets 12 community safety hills and 350 family safety hills were supported. Key lessons learned from the CARE DPAP project were as follows:

- Need to move away from conceptual “textbook” methods of training to a more practical pedagogic method of training;
- At community and sometimes even with local officials, training sessions needed to be shorter and covering few but directly relevant topics and
- CARE staff needed to move away from being “trainers” to being community “facilitators”

² 2005, Disaster Preparedness and Mitigation – Living Above the Floods Project, Final Report, CARE International in Cambodia

CARE also completed implementing the Disaster Preparedness & Mitigation – Living Above the Floods (DPM-LAF) project, with the strengthening the existing model for Community based disaster mitigation and preparedness that incorporates global best practice standards in 20 villages of 6 communes in 2 districts namely Preah Sdach and Kampong Trabaek of Prey Veng province. The DPM-LAF project is informed by research and recommendations from the DPAP evaluation, HAP study and Flood Impact on Women and Girls. It is also piloting on the SPHERE and ALNAP Participation standards and has developed a Project Participation Strategy that guides project implementation. Consciously and firmly trying to adhere to the above lessons and principles, especially the Humanitarian Accountability Principles, preparatory activities took more than twelve months to implement from June 2004 to June 2005. Actual sub-grants distribution to community-partners started only in July 2005. The major components of this project were:

- Organizational development and training (ODT)
- Micro-project support (MSP)
- Networking and Public Information (NPI)

ODT involved activities supporting government capacity building efforts in subjects such as emergency preparedness, leadership, participatory risk assessment, humanitarian accountability etc. to ensure local authorities' responsiveness and service coverage. MSP provided financial support and technical assistance to the most vulnerable households/individuals in the target villages in the design of activities/interventions for reducing disaster impacts. A rigorous 4-step selection process was followed for selection of the vulnerable households. A total of 1,923 households directly benefited the project. The NPI component promoted co-operation and collaboration among stakeholders operating in the area in an effort to augment limited resources.

OXFAM GB in Cambodia³

The Joint OXFAMs' Disaster Management Program has two components –

- The "core" programme and
- The "Takeo Flood Mitigation Programme".

The DM Programme has a comprehensive mandate. It responds to natural and man made disasters in the country, though the efforts have been focused on flood prone areas of the Mekong and Tonle Sap flood plains. More recently, however, the DM programme has worked in provinces in the country which have been drought-affected, specifically Prey Veng, Svay Rieng and Kampong Speu. Over the course of the year the DM community based disaster management team and its partner, the Community Based Organization, Chamroen Chiet Khmer (CKK), have consolidated their cooperative work in 13 targeted villages.

The primary activities in the project have included distribution of family boats, water filters, fishing gear, timber for platforms for home-based vegetable production, cement water jars, vegetable seeds, and timbers for home repair, homestead raising (cash-for-work), tree and bamboo planting and safe area development. Other activities have included capacity building for Village Committees for Disaster Management (VCDMs) and local authorities in leadership, management and first aid training, disaster management and gender training, reflection workshops and study tours, hygiene promotion and health education. Local government, villagers, VCDM members all express a high level of satisfaction with the activities, outputs and processes that Oxfam and CCK have promoted.

The project has reached the total population of 1600 families as direct beneficiaries, among who are people highly vulnerable to flooding and among the poorest in Cambodia. The project has also been supported by the provincial authorities with the

³ July 2005, The Join Oxfams' Disaster Management Programme, Annual Progress Report, Volume 1, OXFAM

secondment of an officer from the Provincial Committee for Disaster Management (PCDM). The close working relationship between Oxfam, CCK, NCDM/PCDM, the beneficiaries, commune heads and village chiefs is a strong, if complicated model, for the promotion of government and NGOs working relationships in disaster management.

The implementation of the Flood Preparedness/Mitigation Pilot project has provided Oxfam, CCK and NCDM/PCDM with an opportunity to explore innovative activities. A good example is the raised homesteads (using a cash-for-work approach) and 'family boat' distribution that have a high impact on people's lives. During the flood season those who are vulnerable to the affects of flooding will now be more secure knowing their homes are above flood lines or that they will not be isolated or trapped. By utilizing the family boat they will have access to other community members, markets, fishing grounds, schools and health centres. Through these cash for work activities and the other integrated interventions of the project the living standards of the communities are improving in small but important ways and, in addition, provide a base for future development and poverty reduction activities.

More recently, OXFAM GB in Cambodia has also engaged in Drought Mitigation related activities.

OXFAM Australia⁴

In Cambodia, Oxfam Australia works with rural communities to help reduce poverty and build a better life for people in three provinces: Takeo, Kratie and Stung Treng. Program activities focus on increasing food security through improved agriculture and rice and buffalo "banks"; improving access to basic education, sanitation and health care; and ensuring that women and the poor are involved in making the decisions that will affect their future. OXFAM Australia has been working in the floods and drought affected areas of Cambodia in response to natural disasters as follows:

- Providing emergency food supplies to families facing immediate food shortages as a result of floods or drought, and providing seeds, livestock or farming tools to allow affected families to resume income-earning activities;
- Facilitating cash-for-work and food-for-work programs in affected communities. The work aims to improve the ability of communities to cope with future floods or drought as well as providing much needed cash income;
- Working with communities to help them to better prepare for future floods & droughts. This includes establishing Village Disaster Management Committees and working with other organizations to coordinate disaster response;
- Establishing rice banks, which are a store of rice from which people can "borrow" if their crop is destroyed or damaged by flood or drought;
- Funding flood and drought mitigation activities such as the rehabilitation of small scale irrigation infrastructure, channels to divert flood waters, levy banks around villages, water storage ponds and pots to collect and store rain water.

Humanitarian Accountability Network (HANET)⁵

The Humanitarian Accountability Partnership International (HAP-I) is striving to make humanitarian action accountable to its intended beneficiaries: those people whose lives are at risk due to armed conflict or other calamitous events. Various international agencies, as members of the HANET, undertake to follow the transparency and accountability principles as determined by HAP-I. In Cambodia, several agencies such as CRC, CARE,

⁴ <http://www.oxfam.org.au/world/asia/cambodia/index.html>

⁵ <http://www.hapinternational.org/>

OXFAM, World Vision, Concern etc are members of the HANET, with HANET Secretariat located within the OXFAM GB office in Phnom Penh.

Lutheran World Federation (LWF)

Dan Church Aid, Lutheran World Federation and Church World Service are jointly undertaking a project on Community Based Disaster Preparedness and Mitigation Project (CBDPM), with the objective of empowering rural communities to prepare for, manage and mitigate the impact of natural disasters. The main activities of the LWF include Community Development, Food Security, Income Mobilizing, Quality water and Sanitation, AIDS, Environment advice, Disaster preparedness, and Mines resolution. The project is being implemented in the provinces of Battambang, Kampong Chhnang, Kampong Speu, Kampong Thom and Banteay Meanchey.

The disaster reduction strategy of the LWF has the following expected results: (i) Increased capacity of Provincial Red Cross (PRC) staff, District and Provincial Committees for Disaster Management, Village Disaster Volunteers (VDVs), Village Development Committees (VDCs) and Village Health Volunteers (VHVs) and Commune Council (CC) in Community Based Disaster Management; (ii) Rehabilitated and improved small-scale infrastructure to prevent and mitigate natural disaster; and (iii) Increased awareness of communities about Disaster Preparedness and Mitigation through conducting awareness by VDCs and VDV

Church World Service (CWS)

CWS Cambodia⁶ has been engaged in relief and development work in Cambodia since 1979. The long-term goal of CWS is that Cambodians, and especially the most vulnerable, will develop the capacity to meet their basic needs in a sustainable manner, and participate in an emerging democracy. CWS will focus its attention on developing the technical and institutional capacity of its Cambodian NGO partners and community-based organizations.

CWS works to develop Cambodian capacity to:

- secure enough nutritious food
- improve health
- respond to natural and man-made disasters
- give voice to major issues affecting their lives

CWS is working in 5 provinces namely Kandal, Svay Rieng, Battambang, Banteay Meanchey and Kampong Thom. In Kandal and Svay Rieng, CWS activities focus on integrated community development. In relation with the recurrent floods in these provinces, CWS is involved in Emergency Response and Food security related issues, working in some 30 villages in nine communes located in four districts in Svay Rieng and in 37 villages in Kien Svay and Lvea Em districts, two of the poorest in Kandal province. The project consists of various components in Svay Rieng and Kandal namely, organizing self-help groups and community-based organizations, agriculture and food production, health, animal health, emergency response, advocacy, and assistance to local NGOs based in the province.

World Vision (WV)

WV has been engaged in providing emergency relief supplies to the affected areas during floods and drought disasters. Like several other organisations WV is in the phase of making the transition from disaster relief to planning and developing a longer term strategy of disaster management. Most of their planned programs are being defined as pilots, having duration of about one year. Next phase of their programs will integrate Disaster Management into their Area Development Programs.

⁶ <http://www.churchworldservice.org/cambodia/2002annualreport/overview.html>

There are currently 20 Area Development Programs (ADPs) operating in Cambodia. Around 615,000 people benefit from these programs in six provinces and Phnom Penh city. Work in these ADPs goes on according to the community's need, and is focused on building community capacity, food security, agriculture, health, education, gender and water. Village-level improvements have included the construction of hand-pump wells, new bridges, rural roads, health centers and schools⁷.

PADEK - Partnership Development Kampuchea

Padek⁸ is a community development organization whose goal is to empower disadvantaged people to improve the quality of their lives in a sustainable way through building and strengthening civil society organizations. In the context of disaster management, PADEK has been involved in flood rehabilitation programs in relation to rehabilitation of irrigation canals, etc in Prey Veng and Svay Rieng.

Action Contra la Faim (ACF)

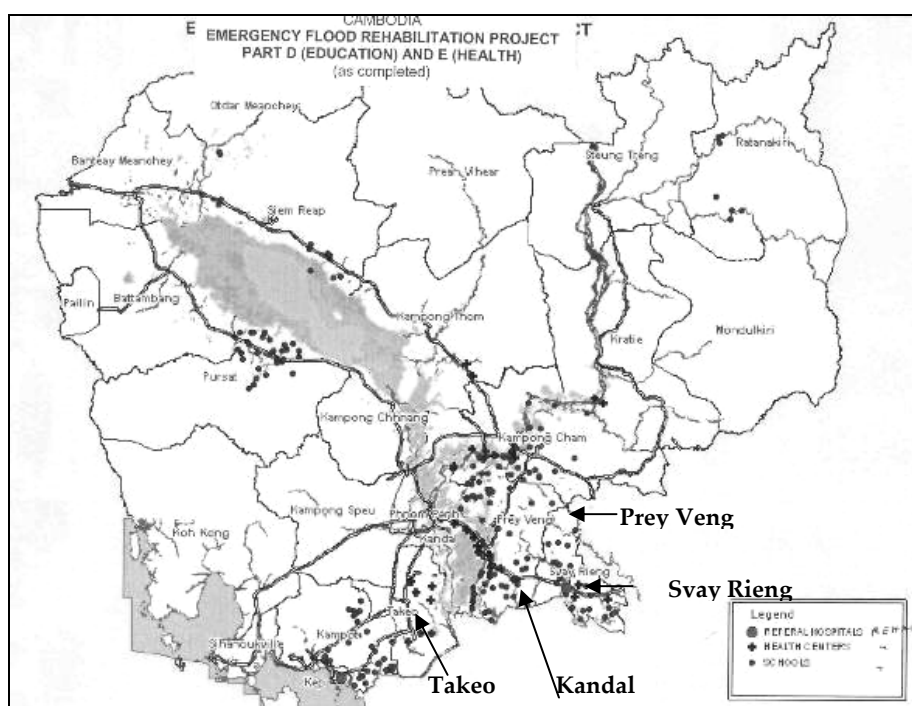
ACF has a program in relation to Flood Early Warning Systems in the Kampong Cham province, where ACF has been working actively over the last few years. The project aims to reduce the vulnerability of communities in Cambodia and Lao PDR to higher-than-normal floods and flash flooding by providing timely flood warnings to the population in flood-vulnerable communities. The provision of services includes the installation of flood marks and community billboards, community flood forecasts (generated by MRC) and maps, radio communication, guidebooks, and training.

1.1.2 NGO projects on flood risk reduction in 4 TA target provinces

While the previous sub section summarizes ongoing NGO projects in relation to flood risk reduction in Cambodia, this section focuses on projects on the 4 provinces within the scope of this TA, namely Prey Veng, Kandal, Takeo and Svay Rieng. Each of these four provinces has slightly different type and extent of flooding depending on their location with respect to the Mekong. The map below shows the extent of year 2000 floods with location of the provinces indicated.

⁷ http://www.wvi.org/wvi/country_profile/profiles/cambodia.htm

⁸ www.padek.org



Source: ADB Cambodian Resident Mission

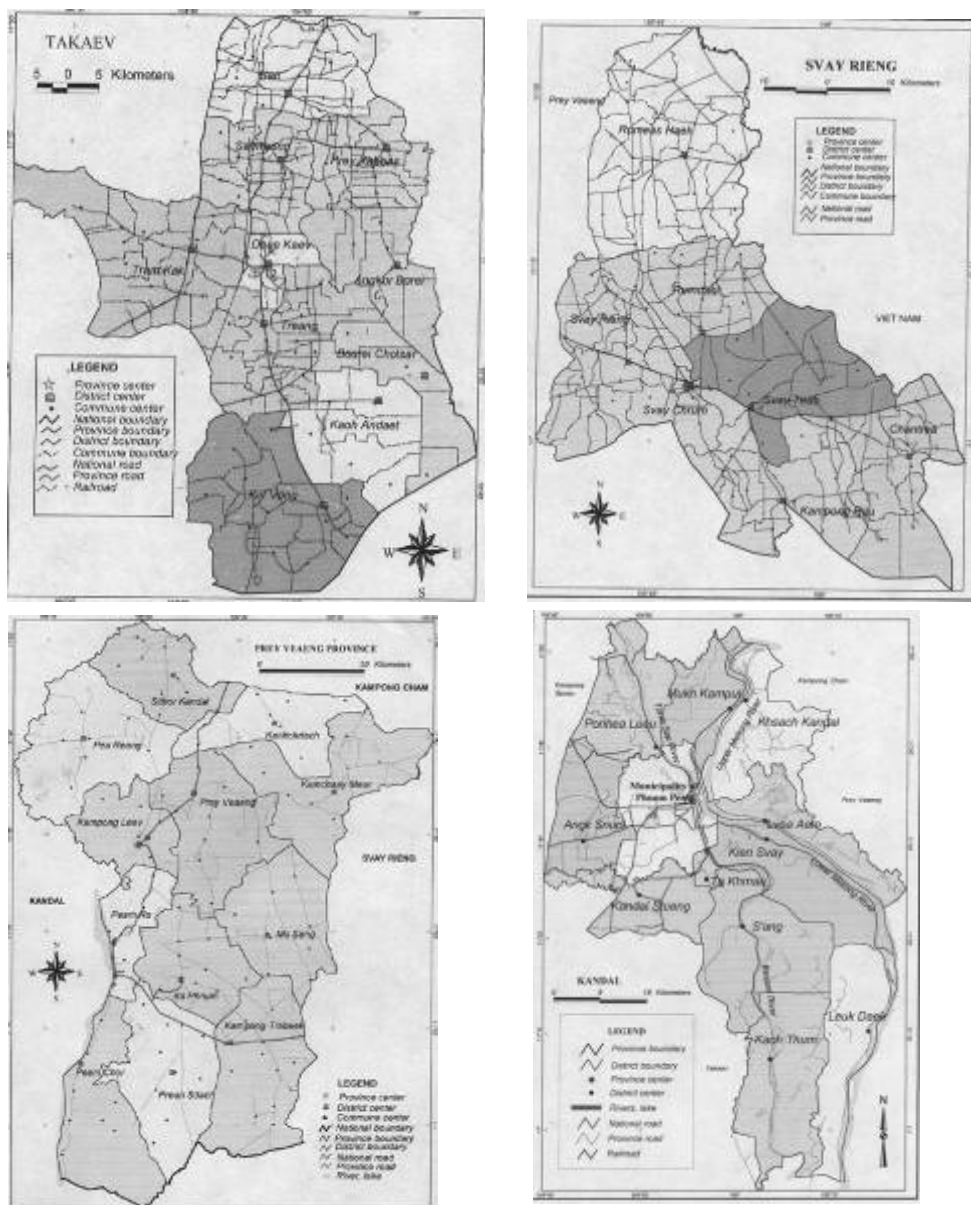
As one can see in the map, Kandal and Takeo provinces are south of the capital Phnom Penh, whereas Prey Veng and Svay Rieng provinces are to its east. All four provinces share a border with Vietnam. The **table 1** below provides a summary of the various NGOs working in each of the provinces and their flood proneness. It also shows the coverage of these NGOs within the target provinces.

Table 1: NGO projects in target provinces

Name of Province and Baseline	NGOs Working in Province	Number of Districts serviced	Numbers of communes/villages in each District
Prey Veng: This province has 12 number of districts, of which 11 are flood prone. 116 communes, 1138 villages	ADPC-MRC Flood Early Warning Strengthening project	2 districts of 11 flood prone districts	
	CARE Cambodia	4 of 11 flood prone districts	Total 20 villages in 4 districts
	Cambodian Red Cross (Early Warning Project)	6 of 11 districts	Nearly 50 villages
	CBDP project of Cambodian Red Cross	Total 8 of 11 flood prone districts covered	
	PADEK	3 districts (drought activities)	10 communes
Svay Rieng: There are 7 districts, of which 5 are flood prone. 80 communes, 690 villages.	Cambodian Red Cross (CRC)	1 of 7 districts	Total 2 communes in 1 district
	Catholic Relief Services (CRS) (Emergency relief)	2 of 7 district through local NGOs partners: Sante Sina Organization,	
	Church World Services (CWS)	2 districts (drought activities)	6 communes
	PADEK	4 districts (drought	

activities)				
Takeo: There are 10 districts, of which 5 are flood prone. 100 communes, 1116 villages	Cambodian Red Cross (CRC)	1 of 10 districts	4 communes in 1 district	
	Chamroeun Chiet Khmer Organization and OXFAM GB (CCK)	2 of 10 districts	4 communes for flood program, 3 communes for drought program	
	World Vision Cambodia	3 of 10 districts	3 communes in Samrong ADP.	
Kandal: There are 11 districts, 147 communes, 1087 villages	ADPC-MRC Flood Emergency Management Strengthening (FEMS)	2 districts of 11 districts		
	Cambodian Red Cross (CRC)	4 of 11 districts (CBDP)	5 communes of EWS plus CBDP communes	
	World Vision Cambodia	2 of 11 districts	10 communes in Ksach Kandal and Lerk Dek ADP.	

The TA consultant team visited each of the above project sites and interviewed staff from the project team at national as well as provincial level.



Maps of Prey Veng, Kandal, Takeo and Svay Rieng Provinces

Prey Veng province has highest NGO projects in relation to flood risk reduction, including projects of agencies such as ADPC, CARE, Cambodian Red Cross. Prey Veng experiences recurrent flooding from the Mekong and 11 out of its 12 provinces are prone to flooding from the Mekong or one of its tributaries. During travel to Prey Veng, it is easy to observe the floodplains on either sides of the road, filled up with Mekong water, which are able to provide a dry season crop to the communities. The team visited CARE Cambodia's DPM – LAF project site in Kampong Trabek district of Prey Veng and met with CARE's staff at its Phnom Penh office, provincial office in Naek Luang, as well as project staff in one of the target villages, in addition to the target community and the village chief. Elsewhere within Prey Veng province, the team also visited Peam Ro district to observe the CRC-MRC project on Flood Early Warning and met with the provincial officials in Prey Veng and the branch chapter personnel in Peam Ro.

Takeo province has very little infrastructure and assistance from other agencies aside from CCK-OXFAM and World Vision. Flood levels in this province are very high and living with floods can almost be considered a way of life. Flood levels are too high for wet rice cultivation in most areas. Fishing is an important activity for half the year and there is little

livestock raising observed as well. During visit to province the team observed large wetlands. The team visited CCK-OXFAM's project site in Kaoh Andaet districts of the province. The team also had the opportunity to visit World Vision's activity in the Samraong district of the province.

Kandal province is known to be relatively less affected by floods, except from flooding from the Mekong in high-flood years and occasional flash floods from a Mekong tributary. Svay Rieng is partially drought prone and partially prone to floods. Cambodian Red Cross, PADEK, CWS and CRS are active in the province. The CRC had earlier undertaken its CBDP project in this province in 4 districts. The team visited Ksach Kandal and Leuk Dek districts of Kandal province to observe the World Vision's area development program there.

The team also established contact with the Provincial Disaster Management Committees, Provincial Departments of Water Resources and Meteorology and Cambodian Red Cross offices in each of the 4 target provinces. **Annex 2** provides a list of organizations and its personnel contacted during the course of analysis of NGO interventions in the 4 target provinces. A list of villages serviced by each of the NGOs is provided in **Annex 3**.

The following **table** provides basic social indicators for these provinces.

Table 2: Socio-Economic Indicators for target provinces

Name of Province	Population ('000)	Population Density (per km ²)	Rural Population (%)	Female Headed Households (%)	Agricultural Employment (%)	Poverty (%)
Prey Veng	946.0	193.7	94.2	31.2	90.4	53.1
Kandal	1075.1	301.3	94.6	25.4	76.8	18.4
Takeo	790.2	221.8	95.0	26.5	90.1	15.2
Svay Rieng	478.3	161.2	95.6	27.5	90.5	43.5

Source: Socio-Economic Atlas of the Mekong, MRC

1.1. 3. NGO approaches to flood risk reduction

NGOs in Cambodia have been involved in various issues in relation to disaster reduction. NGOs in earlier years were and continue to be involved in Mine action related activities. Following this, over subsequent years when the provinces around the Mekong saw severe flooding, several NGOs were involved in providing relief supplies. More recently, particularly after the floods in year 2000, several NGOs took up activities in relation to small scale flood risk reduction/mitigation and flood early warning projects, which have helped communities in reducing their flood vulnerability, rather than being repeatedly exposed to floods.

There also exist several projects on capacity building and training at national, provincial, district and local level in flood risk reduction. These projects also complement efforts of the Royal Cambodian Government (both NCDM and MoWRAM), the Cambodian Red Cross and intergovernmental agencies such as the Mekong River Commission in strengthening local level capacity in Early Warning, Flood Preparedness and Emergency Response, as well as enhanced capacities to use and produce flood information mapping and forecasting products.

In addition, during flood events, a large number of NGOs get involved in providing relief assistance to the affected communities. A number of NGOs also engage in rehabilitation of

canals which also assist communities in regulating flow of excessive water to the community's benefit, both in flood and drought events. While the team has attempted to establish contact with most such agencies, not all of them are documented within this report. In addition, several NGOs working on agriculture and fisheries related projects undertake activities (such as facilitating rain/flood water retention or channelling) which have direct or indirect impact on the communities' vulnerability to natural hydrological disaster events.

The last few years have seen various agencies having an increased interest in drought mitigation, and their impacts on food security and livelihoods. The strategies adopted for vulnerability reduction could be categorized into following major areas of focus:

Emergency Preparedness; is a key area of focus in majority of the projects. This is a response to the annual severe flooding and the extremely low capacities of the Cambodian communities to cope with such situations. Therefore, CBDRM projects have focused on emergency response capacity building, e.g. evacuation drills, identification of safer evacuation routes and evacuation places, community based early warning systems etc.

Structural Mitigation; Construction of small scale embankments, rains water harvesting structures, pumps for drainage of flood water, strengthening of houses, raising of wells for clean water availability during flooding, and making of boats and other rescue equipment. Construction of roads which unwittingly act as embankments, which sometimes prevent and sometimes create floods (by retaining water that spills over), has also been a concern which is being examined by some agencies such as the World Wide Fund for Nature (WWF), in collaboration with MRC.

Livelihoods; Considering the food security problems in Cambodia, strengthening of livelihoods was considered a key vulnerability reduction strategy at household level. Therefore, a number of projects focused on promotion of home gardening, provision of seeds and plants to farmers, savings programs and raising awareness on alternative livelihoods. Some structural mitigation projects such as safe area construction or irrigation canal rehabilitation projects use the 'cash-for-work' approach, which helps generate employment as well.

Social / Organizational / Capacity Building; Social and organizational capacity building is an important strategy being followed by a number CBDRM projects. This included organizing community groups, training, and awareness raising of community members on disaster preparedness.

NGO approaches to flood risk reduction can broadly be categorized into 3, namely at:

- Local government level (district/provincial capacity building projects),
- Community level and
- Household level

While majority of interventions by NGOs have been adequately gender sensitive, and appear to have targeted female and male headed households alike, there are few specifically female targeted activities. However, it was also noted during visits to the NGO project sites that training programs which are conducted during working hours have largely female attendees. There are almost no NGO projects that specifically target other vulnerable groups within the communities such as the elderly, the disabled, or the children.

In community oriented approach, activities include creating community-wide assets, such as community flood-safety hills, which can house the nearby community and their livestock

in the event of a higher than normal flood. Basic community needs of shelter, water and sanitation are organized on these safe areas and in some cases, plantations for ensuring emergency supplies and some basic means of continued livelihoods provided. In the household oriented approach, activities/micro-projects include ensuring household level safety from floods. Typical to both community and household oriented approaches is the activity of community organizing and capacity building and/or raising awareness on flood risk reduction, water and sanitation, health and nutrition and overall community development issues.

At the provincial or district level, typical exercises undertaken are in relation to facilitating flood preparedness planning and training for staff at the administrative level responsible for responding to flood emergencies. Most NGOs undertake within their projects a combination of the above 3 approaches, since it is largely recognized that for effectiveness, action at various operational and administrative levels are essential, though some NGOs favour particular approaches for their interventions.

The Cambodian Red Cross, with their nation-wide presence, their large network of trained Red Cross Volunteers, their numbers of years of involvement in the area of disaster management, as well as their involvement in related developmental aspects are able to work effectively at each of these levels.

1.1.4 Typical constraints to effectiveness of NGO interventions

As observed during visits to project sites of various agencies working in the 4 TA target provinces of Prey Veng, Kandal, Takeo and Svay Rieng, feedback from partners and based on ADPC's observations and experience of working in the country over past years, the following are the typical constraints to effective delivery of services by NGOs:

- **Absence of adequate funding to have a programmatic approach**

Funding cycles for flood risk reduction projects are short term, which has the following drawbacks:

- Considerable financial and material resources invested in training existing project staff, both locally and internationally recruited. At the end of the project, due to discontinuation of funding the trained project staff is lost to other projects/programs. In cases where there are short time lags between related projects, significant time and effort is lost in re-establishing project site offices in target areas and identifying appropriate staff;
- Projects that undertake elaborate processes for identifying appropriate area or household to be targeted as beneficiaries need to undertake similar processes again for next project phase since the 'baseline' might have changed, or the target project area changes;
- Given that floods are seasonal events, timings of these projects, which is essential for testing effectiveness may also be incorrect; and
- Time lapse between project phases also means a certain loss of project momentum and memory of lessons learned, which must be relearned and momentum rebuilt.

- **'Micro-project' and 'pilot project' approach**

As NGOs shift their involvement in disaster management from providing 'response' to longer term 'disaster management', typically projects are undertaken on a pilot basis. Similarly, when NGOs modify their established approach to flood risk reduction based on their experiences on ground; that too is pilot tested. Sometimes pilot projects may also be a result of short project funding cycles. This approach, while quite appropriate in most contexts, can be pointless if the 'pilot tested' initiative is not taken up on a larger scale on a

longer term basis. Similarly, more recent trends favouring use of 'micro-projects' or 'sub-projects' undertake very useful small scale flood mitigation work, but in the longer term, these interventions appear sporadic, in spite of having carefully selected beneficiaries.

- **Need for large scale interventions or upscaling of current interventions**

In Cambodia, the coverage of community based disaster risk management is quite extensive. Of the total 24 provinces, only 6 are not being covered by any CBDRM projects. Each of the 4 target provinces identified for this TA, namely Prey Veng, Kandal, Takeo and Svay Rieng are serviced by NGOs in terms of Community Based Flood Risk Management. However, although provincial coverage is high, at district level, the percentage of coverage drops drastically. Similarly, within target districts, the numbers of communes/villages being catered to are small as well. This, when compared with the large population living in flood prone regions and dependent on livelihoods such as agriculture and fisheries that are related to the Mekong river system, underscores the need for undertaking community based flood risk reduction initiatives on a larger scale.

Table 1, which lists NGO projects for each of the 4 target provinces, also provides information regarding the coverage of these projects, for reference.

- **Limited material and human resources**

There is a shortage of trained staff working on disaster preparedness and mitigation available within the country. Targeting of appropriate staff is done carefully in several training programs, but often the personnel do not have access to the necessary information and material required to undertake suitable flood preparedness action. Even basic material such as detailed district maps may not be readily available at the district level for officials to undertake preparedness planning. In some cases, training programs are not suitably resourced with sufficient equipment.

In NGO projects at community level, there is often little formal linkage with local level government agencies for either their inputs/monitoring or their capacity building.

- **Limited formalization/institutionalisation of projects within formal processes**

Community based disaster risk reduction approaches are typically considered as functions of NGOs, which interact directly with the community, with little engagement of any government agencies at national or local level. Within Cambodia, government agencies have been very supportive of NGO activities and such community based approaches need to be integrated within local government functions and capacity of local officials strengthened suitably.

In addition, there exist, at the local level, formal processes of seeking funding for functions at the district/commune/village level, known as the District Integration Workshops, which may be tapped by local government for community based disaster reduction initiatives.

- **Incentives for communities or local government officials for project**

Projects may sometimes involve local (district/provincial) government officials in facilitating certain activities of the projects or participating in workshops and training programs. However, salaries of these personnel are often very low. In such cases, often, there is little interest in projects in the absence of any incentive for participation.

- **Not enough integration of disaster risk reduction concerns in development projects**

A large number of NGOs in Cambodia are working on various aspects of development such as livelihoods, education, agricultural development, fisheries, infrastructure development and such. Several of these respond and cater to communities' emergency

needs in natural disasters. However, though disaster management is a cross-cutting concern, few NGOs integrate disaster risk management concerns into their normal activities (e.g. building schools which can continue functioning in floods and can also act as flood safe shelters), which would be beneficial to the country in the longer term.

- **Single hazard focus of projects**

Most projects in Cambodia focus on flood mitigation and only recently some of the projects are also focusing on the drought mitigation given the current drought conditions and Avian Influenza. Other hazards such as fires are largely ignored. A large number of projects on agriculture increasingly pay attention to droughts and to mitigating their impacts, but do not necessarily characterize their interventions and disaster preparedness or risk reduction.

1.2 Developing a simple GIS which can facilitate decision making for the TA as well as future programs

Physical, social (demographic), economic and hazard data in digital formats were collected, which was collated in a GIS format and datasets analysed to generate flood hazard exposure and vulnerability indicators (both flood vulnerability and socio-economic vulnerability), represented in the GIS environment. The GIS contains the following datasets acquired from various sources within Cambodia:

- Administrative boundaries for Province, District, Commune and settlements at Village level, as well as village centres; source: Ministry of Public Works and Transport;
- Demographic data; source: Seila Database;
- Flood vectors for years 1999, 2000 and 2001; source: Hatfield/MRCS;
- River and tributaries; source: MRCS;
- Results of Mike11 hydrological model showing flood duration, depth and extent in Cambodia; source: MRCS;
- Flood Digital Elevation Model; source: MRCS;
- Poverty data; source: Seila database;
- Location of primary, secondary and tertiary roads; source: Ministry of Public Works and Transport;
- Location of schools and pagodas; source: Ministry of Public Works and Transport;
- Location of irrigation canals; source: Ministry of Water Resources and Meteorology;
- Flood vulnerable areas prioritized at commune level by World Food Program; source: Vulnerability Analysis Mapping of World Food Program;
- Drought vulnerable areas prioritized at commune level by WFP; source: Vulnerability Analysis Mapping of World Food Program;
- Topographic and land use information regarding marshes and flood plain area; source: Ministry of Public Works and Transport; and
- Data regarding locations of various NGO project sites in the 4 target provinces (up to village/commune level), based on data and information gathered by TA consultant team; source: NGOs and CRC implementing projects on community based disaster risk reduction.

Most of the above datasets are updated by their source agencies and therefore, with minimal effort, the above GIS can be maintained to be quite current to ensure its usability.

As part of the handover process of the GIS, a seminar for delivering the GIS outcome to the MoWRAM was organized on 25 August, 2006 at the TA project office within Department of Hydrology. 2 key GIS staff members were nominated by MoWRAM for receiving full handover of the GIS. 2-3 participants each from NCDM and CRC were also invited, to use

the GIS first hand on computers, and the GIS outputs in Arc Reader format were provided to the participants along with the full datasets.

In addition to the above formal seminar, an informal meeting with several staff of the Mekong River Commission was also organized, in which the GIS output was delivered on 23rd August 2007. Also, the GIS outputs were presented to participants who attended both the workshops on CBDRR strategy in August 2006 and the TA National Workshop in April 2007.

Following 3 outputs have been developed under this Activity

- Development of a Flood Vulnerability GIS Application; A tool for community self-reliance and flood risk reduction
- Flood vulnerability GIS – Atlas Interpretation Guide
- GIS Maps for ready reference
- CD with GIS outputs

1.2.1 Development of a Flood Vulnerability GIS Application; A tool for community self-reliance and flood risk reduction

The **Flood vulnerability GIS** is designed to support decision making for the identification of flood-prone communes, as well as to assist government agencies, local non-governmental organizations and targeted communities affected by flood and drought. The development of the GIS focused on mapping the historical flooding as well as the communities living in flood-prone areas, while attempting to provide visual and analytical information to assess the vulnerability of the communities; subsequently this information could help to reduce the risk of adverse effects from flooding.

The final Flood Vulnerability GIS Application Report is attached in **Output 5** and divided into the following main sections

- Introducing methods used to construct the GIS database and describes the analysis used to assess flood vulnerability
- Presents examples results through illustrative examples of the analysis conducted to assess flood vulnerability
- Provides a brief discussion on the major findings, and the challenges encountered in the development of the GIS

The appendices of this report present the metadata, provides details of the calculation of the flood indicators and provides a list of the most vulnerable communes in the 4 TA provinces.

The report demonstrates that despite the existing challenges, the available data can be integrated and analysed to provide various indices of flood vulnerability.

1.2.2 Flood vulnerability GIS – Atlas Interpretation Guide

The **Atlas Interpretation Guide** presents an overview of the GIS and mapping component developed as part of the ADB TA- 4574 CAM. It includes information on the contents and use of the CD-ROM, specifically

- Summary of the Flood Vulnerability GIS and Atlas
- A description of several series of 82 maps, showing flood vulnerability by province and for the stud area (four provinces); and
- A Map Index, for easy reference to the maps

The Guide is attached in **Output 5** of the TA.

1.2.4 GIS Maps for ready reference

In addition to the above outputs, a set of maps in jpeg format is generated as follows for ready reference and also attached in **Output 5**. A **CD-ROM** containing the guide to the Arc Reader GIS Software package is provided along with Output 1.

No.	Topic	Name
1	<u>1_Poverty_VulnIndex</u>	Map 1.1: Four TA target provinces - Poverty Index
2		Map 1.2: Kandal - Poverty Index
3		Map 1.3: Takeo - Poverty Index
4		Map 1.4: Prey Veng - Poverty Index
5		Map 1.5: Svay Rieng - Poverty Index
6	<u>2_PopulationDensity</u>	Map 2.1: Study Area - Population Density
7		Map 2.2: Kandal - Population Density
8		Map 2.3: Takeo - Population Density
9		Map 2.4: Prey Veng - Population Density
10		Map 2.5: Svay Rieng - Population Density
11	<u>3_FemaleHHouseholds</u>	Map 3.1: Study Area - Female HH
12		Map 3.2: Kandal - Female HH
13		Map 3.3: Takeo - Female HH
14		Map 3.4: Prey Veng - Female HH
15		Map 3.5: Svay Rieng - Female HH
16	<u>4_FloodExpo</u>	Map 4.1: Study Area - Flood Exposure
17		Map 4.2: Kandal - Flood Exposure
18		Map 4.3: Takeo - Flood Exposure
19		Map 4.4: Prey Veng - Flood Exposure
20		Map 4.5: Svay Rieng - Flood Exposure
21	<u>5_FloodExp_Density</u>	Map 5.1: Study Area - Flood Exposure and Population Density
22		Map 5.2: Kandal - Flood Exposure and Population Density
23		Map 5.3: Takeo - Flood Exposure and Population Density
24		Map 5.4: Prey Veng - Flood Exposure and Population Density
25		Map 5.5: Svay Rieng - Flood Exposure and Population Density
26	<u>6_FloodExp_Poverty</u>	Map 6.1: Study Area - Flood Exposure and Poverty
27		Map 6.2: Kandal - Flood Exposure and Poverty
28		Map 6.3: Takeo - Flood Exposure and Poverty
29		Map 6.4: Prey Veng - Flood Exposure and Poverty
30		Map 6.5: Svay Rieng - Flood Exposure and Poverty
31	<u>7_FloodExp_FemHHs</u>	Map 7.1: Study Area - Flood Exposure and Female HH
32		Map 7.2: Kandal - Flood Exposure and Female HH
33		Map 7.3: Takeo - Flood Exposure and Female HH
34		Map 7.4: Prey Veng - Flood Exposure and Female HH
35		Map 7.5: Svay Rieng - Flood Exposure and Female HH
36	<u>8_PeamCho_SafeAreas</u>	Map 8.1: Peam Chor District - Flood Safe Areas
37	<u>9_DroughtIndex_WAM</u>	Map 9.1: Study Area - Drought Prone Priority Areas

38	10_FloodIndex_WAM	Map 10.1: Study Area - Flood Prone Priority Areas
39	11_NGOInterv	Map 11.1: Study Area - NGO Intervention
40		Map 11.2: Kandal - NGO Intervention
41		Map 11.3: Takeo - NGO Intervention
42		Map 11.4: Prey Veng - NGO Intervention
43		Map 11.5: Svay Rieng - NGO Intervention
44	12_RiceDependency	Map 12.1: Study Area - Wet-Season Rice Dependency
45		Map 12.2: Kandal - Wet-Season Rice Dependency
46		Map 12.3: Takeo - Wet-Season Rice Dependency
47		Map 12.4: Prey Veng - Wet-Season Rice Dependency
48		Map 12.5: Svay Rieng - Wet-Season Rice Dependency
49	13_FloodExp_RiceIndex	Map 13.1: Study Area - Flood Exposure and Rice Dependency
50		Map 13.2: Kandal - Flood Exposure and Rice Dependency
51		Map 13.3: Takeo - Flood Exposure and Rice Dependency
52		Map 13.4: Prey Veng - Flood Exposure and Rice Dependency
53		Map 13.5: Svay Rieng - Flood Exposure and Rice Dependency
54	14_FloodExp_Drought	Map 14.1: Study Area - Flood Exposure and Drought Prone Priority Areas
55		Map 14.2: Kandal - Flood Exposure and Drought Prone Priority Areas
56		Map 14.3: Takeo - Flood Exposure and Drought Prone Priority Areas
57		Map 14.4: Prey Veng - Flood Exposure and Drought Prone Priority Areas
58		Map 14.5: Svay Rieng - Flood Exposure and Drought Prone Priority Areas
59	15_Drought_RiceIndex	Map 15.1: Study Area - Drought Prone Priority Areas and Wet Season Rice Dependency
60		Map 15.2: Kandal - Drought Prone Priority Areas and Wet Season Rice Dependency
61		Map 15.3: Takeo - Drought Prone Priority Areas and Wet Season Rice Dependency
62		Map 15.4: Prey Veng - Drought Prone Priority Areas and Wet Season Rice Dependency
63		Map 15.5: Svay Rieng - Drought Prone Priority Areas and Wet Season Rice Dependency
64	16_FloodExp_Access	Map 16.1: Study Area - Access Vulnerability and Flood Exposure
65		Map 16.2: Kandal - Access Vulnerability and Flood Exposure
66		Map 16.3: Takeo - Access Vulnerability and Flood Exposure

67		Map 16.4: Prey Veng - Access Vulnerability and Flood Exposure
68		Map 16.5: Svay Rieng - Access Vulnerability and Flood Exposure
69	17_Radarsat	Map 17.1: Study Area - RADARSAT-1 Derived Flood Extent (24-Sep-99)
70		Map 17.2: Study Area - RADARSAT-1 Derived Flood Extent (25-Oct-99)
71		Map 17.3: Study Area - RADARSAT-1 Derived Flood Extent (24-Aug and 4-Sep-00)
72		Map 17.4: Study Area - RADARSAT-1 Derived Flood Extent (23-Sep and 5-Oct-00)
73		Map 17.5: Study Area - RADARSAT-1 Derived Flood Extent (19 and 29-Oct-00)
74		Map 17.6: Study Area - RADARSAT-1 Derived Flood Extent (17-Oct-01)
75		Map 17.7: Study Area - RADARSAT-1 Derived Flood Extent (10-Jul-02)
76		Map 17.8: Study Area - RADARSAT-1 Derived Flood Extent (15-Aug-02)
77		Map 17.8: Study Area - RADARSAT-1 Derived Flood Extent (20-Sep-02)
78		Map 17.8: Study Area - RADARSAT-1 Derived Flood Extent (25-Dec-02)
79	18_MIKE11	Map 18.1: Study Area - MIKE11 Model Derived Flood Extent (Minor Flood Event)
80		Map 18.2: Study Area - MIKE11 Model Derived Flood Extent (Medium Flood Event)
81		Map 18.3: Study Area - MIKE11 Model Derived Flood Extent (Major Flood Event)
82	19_DEM	Map 19.1: Study Area - Flood Prone Area DEM

It is expected , the GIS produced by the TA and the information on vulnerability categorization at the commune level will serve as a decision support tool in the future for selection of target areas of intervention in the case of future up-scaling of risk reduction programs.

1.3 Undertaking a brief survey within target provinces for identifying key community needs in flood risk reduction

A rapid survey of 20 villages was undertaken by the team of national consultants for understanding community concerns and needs in the context of disasters and impacts of recurrent floods and/or drought on community safety, livelihoods, poverty and vulnerability. The survey was conducted with the following objectives:

- Identifying communities' needs in the context of recurrent floods and droughts, and understanding impacts of these events on community lives, poverty and livelihoods, which affect vulnerability;
- In communities where NGOs have already implemented community based programs, assessing effectiveness of interventions in addressing community concerns and identifying further community needs;
- Identifying vulnerable groups within communities so that they may be specifically targeted in community based initiatives.

The team initially developed a set of survey questions (*see Annex 4*), which were used as discussion guiding points in conducting the surveys. It was agreed that the survey consider at least a few villages from each of the 4 provinces which have been identified as target provinces under the TA, since communities from each province have different social and hydro-meteorological context, and thereby slightly different vulnerability. Given the time constraint, and the methodology for the discussion that the team proposed to follow, it was agreed within the team that a maximum total of 20 villages may be surveyed to represent the community needs of the 4 provinces. Following criteria were used for selection of individual villages to be surveyed:

- Few villages with past NGO interventions on disaster risk reduction, and few villages having no disaster reduction interventions;
- Within villages with prior DRR interventions, the team agreed to identify villages which had had interventions from different agencies;
- Villages which were severely affected in previous floods of 1996 and 2000;
- Villages from communes that had high commune poverty index;
- Villages with high percentage of women headed households.

The team, based on their past experiences in community surveys, and given the time considerations, decided that they would undertake a participatory rural appraisal (PRA), which will assist in ranking community's well-being, analysing seasonal coping patterns and variation in community needs, livelihood analysis and mobility analysis. This rapid appraisal, aimed at achieving a quick overview of the community's socio-economic and cultural context, was followed by focused group discussions with a cross-section of community members identified to receive diverse set of feedback to our research questions. In most cases, the following community members were encouraged to participate in the discussion: village head/chief, one/two poor/vulnerable households identified in the PRA, one/two women headed households, member of the village pagoda committee, school teacher, one/two village elderly, Red Cross volunteer from the village, local person from local NGO where possible.

The community was encouraged to undertake a ranking of problems and mobility, as well as general well-being. This ranking was analysed for seasonal variation and based on this, impacts of floods and droughts on community poverty, livelihoods and vulnerabilities identified. A summary report for Prey Veng province is attached for reference (*see Annex 5*), and a sample village report is attached as well (*see Annex 6*). A summary of these findings is provided below.

Prey Veng was identified as the most vulnerable province of the 4 target provinces under the TA, based on information regarding flood inundation, demographic data and survey of community needs. During the survey, it was found that the province is recurrently flooded and community members are unable to utilize any benefits from the flooding, unlike some villages in Takeo province, which, while recurrently flooded, are able to reap additional floating rice crop during the flood season, an assured receding rice crop, totalling to 3 crops per year.

Principal livelihoods in surveyed villages were related to agriculture and small-scale livestock breeding, which were both highly dependent on the annual hydrological cycle. While there is a strong inclination in continuing to engage in rice cultivation due to existing skills within the community, several communities are adapting their livelihoods, which enable them to mitigate adverse impacts from these hydro-meteorological hazards, such as growing additional floating rice crop (in Takeo), or shared usage between community members of hand-held mechanised plough which speeds up the process of cultivation in immediate post-flood season.

Some communities engage in alternate livelihoods such as weaving and fishing during flood season, or migrate during the flood season to provincial towns or Phnom Penh to work at garment factories. Some NGOs and community based organizations (CBOs) have organized communities into savings groups or self-help groups, in which community members, who normally may not be entitled to formal loans since they do not have assets to present as collateral against loans, contribute savings into the savings group through the year, which can be borrowed back as needed by community members. Community members are able to use this loan during flood season for buying daily supplies and basic survival material. Communities showed a preference for such groups if they were run by neutral CBOs/NGOs rather than the communities themselves, due to internal inherent discriminations existing within community members.

In several other communities, where such loan mechanisms did not exist, the more vulnerable households received loans/advance from their better off neighbours by pledging repayment through labour in non-flood season. The team also heard instances of loans where interest rates were up to 100% per year and how some community members lost all their assets in trying to repay funds borrowed during flood seasons.

For protection of family lives and assets, several coping strategies were observed, such as tying empty plastic cans to homes which float as the flood waters rise, which allow children a buoy in case they fall into the flood waters. At community levels, some communities had developed their own canal/moat system, which retained water for use in post-flood season and helped them to have good crop yield.

1.4 Identification of target areas and prioritizing areas for future interventions

Based on the GIS developed under 1.2 and community needs survey conducted under activity 1.3, Hatfield consultants prepared a list of flood prone communes (*see Annex 7*) within each of the 4 provinces (for a low-flood year of 1999) and provided this listing to NGOs in the terms of reference prepared to invite proposals from NGOs to undertake pilot project implementation under the TA (see activity 1.7 for details on this).

Prey Veng was noted to be highly vulnerable to floods based on their limited coping strategies, recurrent exposure to floods, followed invariably by food shortage for several

households in every community, poverty and community livelihoods and their dependence on the hydrological cycle of the Mekong River.

Takeo province was also a high priority province due to its vast area exposed to long duration flooding given its location in the lower Mekong delta region, and also due to its exposure to the additional hazard of high-speed winds and turbulent river water (stormy conditions).

Based on the above, NGOs selected to undertake TA pilot project worked closely with ADPC and Hatfield in verifying and agreeing on the target area for TA pilot project implementation as suggested by the NGOs using the following parameters:

- Flood exposure ranking by commune, provided by the GIS, in case of pilot project related to flood risk reduction
- Commune poverty index derived under the GIS from Seila Database
- Flood priority ranking of the WFP
- Drought priority ranking of the WFP
- Locations of ongoing NGO interventions, as represented in the GIS

1.5 Selecting NGOs for undertaking pilot community based flood risk reduction action in the target areas identified

Terms of reference were developed along with a request for NGOs to submit proposals to ADPC according to the ToR. The ToR included background information about the TA and expected outcomes of the pilot project, the proposed strategy expected to be pilot tested, the guidelines for proposal submission, the expected duration and schedule of reporting during the pilot project implementation, and the outline of the Menu of Options for CBDRR. The detailed document on terms of reference is attached as **Annex 8**.

Based on its review of interventions being undertaken by various NGOs on community based disaster risk reduction in the 4 target provinces of Prey Veng, Kandal, Takeo and Svay Rieng in Cambodia (Activity 1.1), a few NGOs were identified for inviting to submit proposals. These were:

- Cambodian Red Cross (CRC)
- CARE International in Cambodia (CARE)
- Chamroen Chiet Khmer (CCK)
- CEDAC
- Oxfam GB in Cambodia (Oxfam)
- World Vision International (WVI)
- Church World Service (CWS)

Some NGOs cited constraints related to the availability of trained human resources, workload of current staff members, and desire to work on ongoing longer term projects; as well as reservations about the limited duration for the pilot and the schedule overlapping with the flood season, as reasons for their inability to submit proposals for the TA. Most agencies expressed their appreciation of the TA and their interest in continuing to be informed regarding outcomes of the TA.

Of the above 7 NGOs, 3 NGOs namely CCK, CWS and CEDAC, responded with detailed proposals to undertake a pilot project on community based disaster risk reduction, using a participatory approach, as outlined in the ToR.

These three proposals received were carefully evaluated and the NGO proposals were ranked based on various criteria as follows:

Criteria	% Weight
Past Experience of the organization	
• In working with implementing community based activities	15
• In disaster risk reduction	10
Future sustainability and replicability	
• Sustainability/effort towards integration with commune development processes	10
• Contribution from community	5
• Replicability (by MoWRAM and otherwise)	10
Project Content	
• Relevance to disaster risk reduction	15
• Proportion of mitigation action in overall project budget	10
• Understanding community needs	10
• Capacity building component in project design	5
• Gender participation	5
Ease of Project Management	
• Effectiveness of communication with ADPC	5

The ranked list of NGOs was sent with ADPC's recommendations to ADB for approval. The recommendation sent to ADB is attached as **Annex 9**.

The NGOs recommended were approved by ADB and MoWRAM, and following approval of form of contract, ADPC confirmed the NGOs selection and contracts for undertaking implementation of the pilot projects were signed. Contracts for both CWS and CCK are attached as **Annex 10 and 11** respectively. Further details of the scope of work of these projects are given in section 2.2 of this report.

1.6 Developing a Community Based Disaster Risk Reduction (CBDRR) Strategy

A comprehensive strategy for Community Based Disaster Risk Reduction Strategy (2007-2012) for flood and drought was developed by the team (**Output 1**). The document is divided into sub documents as follows:

- Document-1: Guidance for Promoting and Implementing Community level Action for Self Reliance and Flood and Drought risk reduction
- Document-2: Supporting High Risk /Vulnerable Communities in 4 Mekong Delta Provinces to implement CBDRR focussed on floods and droughts; Strategic Framework and Road Map for developing and implementing an Action Program (2007-2012) by a multi stake holder partnership

The team debated about what key elements would be required to make the CBDRR strategy document most comprehensive and relevant to the agencies working on disaster reduction in Cambodia and agreed that the strategy must provide Guidance for promoting and implementing community level action for self reliance and flood risk reduction and hence must:

- provide background about the communities which it proposes to assist, along with some analysis of their specific vulnerabilities in disasters;
- provide process of engaging with the communities and ensuring full buy-in and participation from the communities;

- identify specific actions that will reduce community vulnerability to disasters, and
- propose how this process can be sustained over the longer term through integration with ongoing government processes.

The document 1 consists of the following sections:

1. Disaster and Vulnerability in Cambodia, Lessons from Community Based Disaster Risk Reduction (CBDRR) Approaches in Relation to Floods and Drought

- Characteristics and Trends of Vulnerabilities and Flood and Drought Risk in Cambodia
 - Trends and Characteristics of Flood and Drought in Cambodia
 - Key Characteristics of the Vulnerabilities of Rural People in Cambodia
 - Who are Vulnerable?
 - Geographical Differences of Vulnerability
 - Vulnerability of Livelihood to Flood
 - Local level Mitigation Strategies
 - Institutional Support for the Vulnerable People
- Community Based Disaster Risk Reduction with Respect to Floods and Droughts – Common Approaches and Practices in Cambodia
 - Major area of focus of the NGO work on flood and drought risk reduction
 - Level of intervention by the community based disaster risk reduction
- Lessons Learned from Community Based Flood and Drought Risk Reduction Approaches and Practice in Cambodia
 - The key lessons from disaster risk reduction work in Cambodia:
 - Challenges for NGOs working on CBDRR

2. Critical Guidelines for Community Based Disaster Risk Reduction: Principles, Processes and Desired Outcomes

- Guiding Principles
- Standard Processes and Procedures in CBDRR
 - Purpose of Community Based Disaster Risk Reduction
 - Background work for CBDRR planning
 - Standard Processes in CBDRR planning and implementation
 - Description of the Processes
 - Summary of the CBDRR Process

3. Menu of Community Based Preparedness and Mitigation Interventions in CBDRR for Floods and Drought

- Reviving and Strengthening Indigenous Coping Mechanisms
- Menu of Community Based Preparedness and Mitigation Interventions in CBDRR for Floods and Drought
 - Community Based Flood Preparedness Interventions – Options and Corresponding Actions
 - Community Based Flood Mitigation Interventions – Options and Corresponding Actions
 - Community Based Drought Mitigation Interventions
 - Community Coping Strategies in Drought

4. Mainstreaming Gender in the CBDRR Initiatives

- Overview of Gender Issue in Cambodia
- Vulnerability of Women to Flood and Drought
- CBDRR with Focus on Women- Common Approaches and Practices in Cambodia
- Lessons Learned from Women Participating in Community Based Disaster Risk Reduction Approaches and Practices in Cambodia

- Standard Processes and Procedures in CBDRR
- Mainstreaming Gender in CBDRR
- Menu of Gender Focused Community Based Preparedness and Mitigation Interventions in CBDRR

5. Addressing Special Needs; Utilizing Special Capacities of all Vulnerable Groups

- Key Concept of Coping Mechanism and Most Vulnerable People
- Who are the Especially Vulnerable People in Cambodia? What are Their needs? How to Address Them?
- Construction of Vulnerability
- Guidelines to Strengthen Capacity of the Most Vulnerable People to Participate in the CBDRR Process

6. Strengthening and Expanding National Forecasting System for Flood and Drought and Effective Dissemination of Early Warning

- Introduction to Early Warning: Key Concepts
- Policy and Institutional Capacity in Cambodia
- Drought Monitoring and Forecasting in Cambodia
- Immediate Priorities and Strategic Guidance for Expansion and Strengthening Forecasting and Dissemination System

7. Promoting Community Resilience in Community Development; Guidelines for Commune Development Planning (CDP), Commune Council for Disaster Management and NGOs' Programming

- Guidance for Linking CBDRR into Commune Development Planning (CDP)
- Guidance for Commune Council for Disaster Management (CCDM) Linkage with CBDRR Activities
- Guidance for Accessing Micro Finance for Disaster Risk Reduction Initiatives
- Guidance for integrating CBDRR into NGO Community Development Planning
 - What is the linking point?
 - Guidelines for Integration
 - Integrating Disaster Risk in Planning
 - Guidelines for Program Design

8. Aligning CBDRR Work with National Policies and Strategies for Development and Disaster Reduction

- National Strategic Development Plan 2006-2010
- National Committee for Disaster Management (NCDM) and Hyogo Framework of Action (HFA)
 - National Committee for Disaster Management
 - Hyogo Framework of Action: What You Must Know
- National Adaptation Plan of Action (NAPA)
- Guidelines for CBDRR Actors to Mainstream Climate Change

The section 2 on critical guidelines for CBDRR looks into the following:

Guiding Principles

The strategy lays out a set of guiding principles for CBDRR work as follows:

- Empowerment and Participation: Effective CBDRR outcome is conditioned upon the level of participation of the vulnerable population in the process of planning and

implementation. Empowerment is the precondition for a meaningful participation, and sustaining that throughout the process. The critical aspect of sustainability comes from the community's ownership on the CBDRR programme, where empowerment and participation are the two vital precondition and ethical principle. This principle emphasizes that the most vulnerable people's interest should govern the planning and implementation while addressing the concerns of other stakeholders. Ultimate aim of this process is to giving most vulnerable community members more control over the natural and physical environments affecting their lives;

- Responsiveness: Interventions are to be based on the community's felt and urgent needs;
- Gender, generation and disability sensitivity: CBDRR planning and implementation process must be built upon an analysis of the most vulnerable members of the communities, particularly women, elderly, children, people with disability and people with HIV positive. This analysis should also include the vulnerable group's
 - access to productive resources made available under the project,
 - participation in decision-making,
 - access to information, and
 - participation in monitoring and evaluation
- Accountability to the community: The partner NGO will ensure that all activities carried out during the pilot project respond to the need for greater accountability in the provision of assistance to individuals and communities and adhere to the humanitarian accountability principles being introduced in Cambodia by prominent NGOs.
- Timeliness: The timing of the impending flood season must be borne in mind at all times and the pilot project activities timed in accordance;
- Comprehensiveness and complementarities: This principle emphasises on a holistic analysis of sources of risk and vulnerability and integrated approach to tackle them. The approach may include both structural (physical) and non-structural measures (e.g., activities to improve public awareness, community cohesiveness, environmental protection, health, literacy, and livelihood opportunities). In cases, where one kind of interventions may have been made, providing complementing interventions will strengthen community resilience in a more holistic manner. This also highlights partnership between various institutions and communities as CBDRR actor alone can not address all the sources of risks and vulnerabilities. Interventions are to be conceived as the part of a long-term development process that seeks to reduce poverty, social inequity, exploitative gender relations, and environmental degradation.
- Integration and partnership: throughout planning and implementation process of CBDRR, all possible measures should be taken to establish and strengthen links and partnership between the community, NGOs, and government agencies at various levels. This should include exchange of analysis findings, information and coordination in designing intervention.
- Cost consciousness and sustainability: sustainability should be the key outcome of the CBDRR process which can not be achieved without a serious cost consciousness principle. This does not mean that CBDRR option should always be cheap, rather it emphasizes to examine various cost options before making a decision.
- Effectiveness for adaptability and replication: It is essential for CBDRR actors to determine simplicity and ability of the CBDRR process to be replicated and outcome for larger converge, comprehensiveness, duration and sustainability. Project intervention should

demonstrate inclusion of community needs in approach and action to guide adaptation of CBDRR by other agencies.

- Versatility: all possible measures should be undertaken to understand local indigenous knowledge and coping mechanism so that technological solutions and external support always strengthen those aspects of local knowledge and coping mechanism.

Standard processes and procedures in CBDRR

It is understood that in case of flood risk reduction and short/longer term flood mitigation efforts at the community level, it is essential to have full community involvement and participation to ensure that the interventions are relevant to the community needs and will indeed be used by the community. This consultation may also facilitate to some extent community ownership and maintenance of common community or household level assets that are created as project interventions. It is also essential that the community based interventions target the most appropriate, vulnerable households/communities.

Therefore the strategy guides the process of working with the communities by elaborating on the following process steps:

Process 1: Identification of vulnerable location and people. Identifying and selecting vulnerable geographical location, communities, groups and household and individual to engage with CBDRR initiatives

Process 2: Generating people centred analysis and options for risk reduction. Empower and facilitate communities for identifying current and future hazards, risks and vulnerabilities and options for risk reduction

Process 3: Identifying risk reduction activities and planning for implementation. Engage in participatory planning of disaster risk reduction activities, including plan for resource sharing and implementation

Process 4: Community led implementation of risk reduction activities

Process 5: Participatory monitoring and evaluation of project effectiveness *(This process step needs to be carried in parallel to Process 4 as it is an integral part of the learning and needs to be planned from the very beginning of implementation)*

Process 6: Documenting lessons learned and sharing of knowledge

1.7 Workshops to receive feedback on the CBDRR Strategy document

Apart from bi lateral consultations with various stakeholders working in the field of disaster risk reduction in Cambodia, following three workshops were organized in various stages of during the implementation of the TA to present the CBDRR Strategy document and to receive feedback from the experts:

- Consultative workshop on CBDRR Strategy, August 2006
- 6th Meeting of the Cambodia Disaster Risk Reduction Forum, March 2007
- National Workshop on Community Self Reliance and Flood Risk Reduction, April 2007

The following sections provide brief details on each of the workshops.

1.7.2 Consultative workshop on CBDRR Strategy, August 2006

The CBDRR Strategy and its various components were presented during a consultative workshop on the Community Based Disaster Risk Reduction Strategy, organized in Phnom Penh on 21st August, 2006. The summary report of the workshop is provided in **Annex 12**. The workshop was organized with the following objectives and expected outcomes:

Workshop Objectives:

- To present the draft of Community Based Disaster Risk Reduction strategy, which describes the following :
 1. Process of facilitating communities to participate in DRR
 2. Menu of options for community and household based disaster preparedness and mitigation against flood & drought
- To receive feedback from the participants on the strategy

Workshop Expected outputs:

- Reviewed and revised menu of possible community based risk reduction interventions;
- Inputs to revision of the draft strategy on community based risk reduction practices, based on lessons from good practices
- Revisions to draft strategy for integrating DRR considerations into Seila program

The Ministry of Water Resources and Meteorology (MoWRAM) hosted the workshop along with ADPC and was widely attended by staff from the Department of Hydrology and River Works at MoWRAM, the National Committee for Disaster Management (NCDM), Cambodian Red Cross (CRC), Seila Task Force Secretariat, UNDP Participatory Local Governance Project, American Red Cross, Asian Disaster Preparedness Center (ADPC), Mekong River Commission and non-government organizations namely Action Contre La Faim (ACF), Agronomes et Veterinaires Sans Frontieres (AVSF), Chamroen Chiet Khmer (CCK), CEDAC, Church World Service (CWS), Concern Worldwide, Lutheran World Federation (LWF), Oxfam Australia, Oxfam GB in Cambodia, PADEK, World Vision International in Cambodia and ZOA Refugee Care. Catholic Relief Services (CRS) and CARE International in Cambodia had both expressed interest in participation, but were unable to attend due to other pressing engagement.

During the workshop, in addition to the presentations on the strategy, the participants were divided into groups and deliberated on the specific aspects of the strategy. In the first working group session, 3 groups discussed the proposed shared approach for ensuring community participation in Disaster Risk Reduction. The groups were requested to consider the following questions:

Question 1. Review processes 1-6, as summarized in Table on page 30 of CBDRR Strategy; and from your experience identify

- If any process is not relevant
- If any process needs to be added

Question 2. Review 2 process as mentioned in the CBDRR Strategy as follows

- Group 1: Process 1 + 2
- Group 2: Process 3 + 4
- Group 3: Process 5 + 6

Please review the purpose and process steps and suggest changes
Give additional examples of good practices that should be added

Question 3. The document is currently called Community Based Disaster Risk Reduction Strategy (CBDRR). Given its purpose and contents should it be named differently.

Question 4. Are there additional sections that should be included in the strategy?

In the second working group session, 3 parallel working groups discussed one each of the following topics:

- Integrating Disaster Risk Reduction into Commune Development Planning processes – feasibility of implementation of proposed approach
- Menu of Options for community based disaster risk reduction – for flood preparedness and mitigation – suggestions to make it more comprehensive
- Menu of Options for community based disaster risk reduction – for drought mitigation and coping strategies – suggestions to make it more comprehensive

A summary of recommendations arising from the above working groups is provided below:

Working Group discussion on Standard process of CBDRR: Participants have common agreement to keep the name of document as CBDRR Strategy. However, based on comments and feedbacks two issues were highlighted which needs to be addressed in the process of CBDRR Strategy: (1) inclusion of gender and (2) role of community in the entire process of CBDRR.

It was emphasized that Gender should play a greater roles in the entire process of CBDRR, not only by participation but also involve in decision making in all processes.

In order to ensure the decentralization at community level, the CBDRR Strategy should be lead by the local community or commune councils with facilitation and support by NGOs and other development agencies. The local communities need to be involved in the entire process including monitoring and evaluation. In addition to that external evaluation should also be present. Officials from different levels of government should also be involved in process. Transparency and accountability must be included all processes of CBDRR, to make sure that all community people are included without any discrimination by social class or political motivation.

Working Group discussion on Menu Options for community and household based disaster preparedness and mitigation against flood & drought: The participants strongly suggested that before going into preparedness and mitigation measures for both flood and drought, it is essential to assess the hazards, vulnerability and risk associated with it.

During the process of actual implementation at community level, sustainability is a core issue especially for CBDRR measures that is related to mitigation or preparedness, because is not directly associated with financial gain for community. Sustainability can be achieved by increased establishment/association of Self Help Groups and Saving Groups and this would function without the continuous support from NGOs. This was supported by CEDAC's sharing of experience on farmer's groups. It is therefore advised that formation of self-help groups form an essential part of community based risk reduction initiatives.

For Flood preparedness following measures should be included

- Inclusion of rice bank
- Family planning
- Study of Migration and its impacts
- vocation training such as motorbike repair
- Public awareness
- Gender considerations in all interventions

For Drought following measures should be included

- Giant jars as part of drought coping strategy
- Self help groups
- Environmental conservation
- community based irrigation to optimally utilize water
- public awareness
- gender considerations
- vocational training

The CBDRR Strategy was also presented during the Training on Community Based Disaster Risk Management, organized between 29th through 31st August, 2006 for the two NGOs who implemented the TA pilot projects.

1.7.2 6th Meeting of the Cambodia Disaster Risk Reduction Forum, March 2007

The CBDRR Strategy document was presented at the 6th Meeting of the Cambodia Disaster Risk Reduction Forum in Phnom Penh on 27th March 2007.

The Cambodian Disaster Risk Reduction Forum was initiated by the DIPECHO partners and other DRR agencies in 2005 with an objective to promote better coordination and exchange of experiences between the agencies working in the field of DRR. The main focus of the discussions at the forum is on practical concerns, challenges and successes. The forum is participated by wide range of agencies from the government, INGOs, NGOs and UN and Regional organizations.

This 6th meeting of the CDRR forum was organized by NCDM and ADPC and the primary objective of the forum was to present the CBDRR Strategy document to a wider group of stakeholders who are involved in DRR.

The meeting was attended by MOWRAM, CRC, UNDP, UNIFEM, WHO, WFP, Action Aid, American Red Cross, MRC, CARE, CCK, CEDAC, CFED, CWS, Concern Worldwide, Danish Red Cross, LWF, Oxfam GB, PADEK, World Vision International and ZOA along with NCDM and ADPC. **Annex 13** provides the agenda and the list of participants at the forum.

The forum discussed the different sections of the proposed CBDRR Strategy document and highlighted on the need to have an accompanying document which would lay out the road map for a sample province on how to translate the strategy into provincial action plans for implementation in the next five years.

2. Implementation of TA project interventions

2.1 Developing a training program for NGOs to undertake pilot implementation of flood risk reduction programs based on the CBDRR Strategy

Alongside the process of developing the Community Based Disaster Risk Reduction Strategy, the TA team was also involved in preparing training material related to community based disaster risk management, which was to be delivered to staff from the 2 NGOs implementing the pilot projects identified under activity 1.5.

In designing the training program, the team deliberated and agreed that the following key aspects must be introduced to participants during the CBDRM training:

1. Understanding basic concepts of community based disaster risk management as well as familiarity of terms commonly used
2. Disaster Risk Management framework, which provides a theoretical framework to participants about the relation between various stakeholders (community, Government, NGOs, CBOs etc) during various stages/phases of disaster risk reduction (namely mitigation, preparedness, emergency response, relief and rehabilitation, recovery etc)
3. Government Institutional structure for Disaster Risk Reduction at community level (Commune Disaster Management Committees)
4. Use of GIS and general concepts for identifying target communities for DRR interventions
5. Hazards, Vulnerabilities and Capacities Assessment (HVCA)
6. Menu of options for disaster risk reduction (preparedness and mitigation) at community level
7. Flood forecasting and flood early warning systems
8. Preparedness, Mitigation and Risk Reduction Planning based on HVCA and understanding of options for DRR
9. Integrating disaster risk reduction into development planning processes at local level

Along with the training material, the team also developed two significant consultative field exercises –

- Hazards, Vulnerability and Capacities Assessment (full day field exercise at Lvea Em, Kandal province)
- Half-day exercise on Preparedness & Mitigation Planning based on the HVCA developed in the field

A complete set of the training material was submitted to ADB in October 2006 and is attached as **Output 6.**

2.2 Training of selected NGOs in undertaking pilot activities using the training material developed under activity 2.1

Based on the training material developed under activity 2.1, the 2 NGOs; CCK and CWS were invited to submit nominations for their staff to receive training on Community Based Disaster Risk Reduction and use of CBDRR strategy.

Both NGOs responded enthusiastically by nominating 5-6 staff each. At the same time, MoWRAM also nominated 2 staff from each of the 4 TA target provinces of Prey Veng, Kandal, Takeo and Svay Rieng to participate in this training program.

Since the two NGOs were implementing their projects in Kampong Ro and Svay Chhrum districts of Svay Rieng Province; and Koh Andeth and Borey Chulsa districts of Takeo Province, the team also requested participants, one each from the 4 districts and also 1 each from Svay Rieng and Takeo Provincial Committees of Disaster Management (PCDM).

At the end of the training program, a brief meeting was held between the staff of the 2 NGOs in which their understanding of the CBDRR Strategy and its use in the implementation of the TA pilot projects was discussed. In addition, the schedule of monitoring of the 2 pilot projects by ADPC was also briefly discussed. A brief summary report of the training is attached in **Annex 14**.

2.3 Implementation of Pilot activities in the identified target areas by identified NGOs, with suitable technical support from ADPC

This section of the report provides brief summary of the pilot projects implemented by two NGOs namely Church World Service (CWS) and Chamroen Chiet Khmer (CCK) under the TA.

2.3.1 Community Based Disaster Risk Reduction Project implemented by Church World Service (CWS)

Under the TA, the pilot project on Community Based Disaster Risk Reduction (CBDRR) was implemented by Church World Service (CWS) in the Svay Rieng Province of Cambodia over a period of July 2006 to March 2007. The final project report is attached as **Output 2**

CWS had chosen Svay Rieng province for the pilot implementation because of the following reasons:

- For the past five years, the Svay Rieng province has been repeatedly affected by the severe droughts and flash floods and hence this pilot would provide an opportunity to address the issues related to disaster risk reduction while adopting a community led approach
- Villages in the province are sparsely located, with villagers totally dependant on seasonal rainfall for the paddy cultivation, have poor irrigation systems and very less awareness on disaster risk reduction, thus the pilot would enable working with the community on raising their awareness on DRR and together implementing activities to reduced the risk from future droughts and flash floods
- In the past, CWS has been working in the district with close partnership with the local government and the Cambodian Farmer Economic Development (CFED), hence this implementation would strengthen the relationship between all there in working for the people of Svay Rieng

The pilot project was implemented in 9 villages located in two different communes in two different district of Svay Rieng. The Table below shows the details of the pilot sites:

Province	District	Commune	Villages
Svay Rieng	Kampong Ro	Prey Thom	Prey Thom
			Kakruos
			Ta Koeng
	Svay Chrum	Pouthi Reach	Chensa
			Tbaeng
			Anhchanh
			Ta Mom
			Prey Khla
			Prasat

Both the communes Prey Thom and Pouthi Reach have been affected by the droughts in the past. The primary occupation of the people is agriculture followed by working in the garment factory in Phnom Penh and as wage labors in Vietnam. The irrigation system in both the communes is poor.

Activities under the pilot project:

The following paragraphs highlights the main activities conducted under the pilot with a brief description of each. The detailed description of each of the Activity is provided in the Project Completion Report submitted by CWS (see Annexure 14).

Needs Assessment and baseline survey:

A detailed baseline survey of the communities was carried out by the CWS project team on understanding the need of the communities with special emphasis of the need of the women. The survey was conducted using Participatory Rural Appraisal (PRA) techniques like Disaster Historical Timeline, Seasonal Calendar, Hazard mapping, Resource mapping, Well being ranking, Transit walks etc. The survey tried to identify the following:

- Community's perception on disaster and its trend
- Coping strategy of the communities in disasters
- Hazard, social and resource mapping
- Factors adding to the vulnerability of the communities
- Linkage of disaster risk reduction activities with commune development planning

Following are some of the findings of the need assessment:

It is felt by the communities that over the years the occurrence of disasters have increased with consequent increase in damage. Environmental issues like deforestation are recognized as some of the cause and also absence of irrigation systems increasing the impact.

Svay Rieng is one of the most affected provinces in terms of food shortage because of severe drought. To cope with the food shortage, large number of population has started working in the garment factories and as wage labors.

Impact of disasters also leads to 'negative' coping strategies like selling or mortgaging of paddy field, borrowing money with very high rate of interest, thus adding to the level of

poverty.

Self Help Groups and rice banks are considered as useful mechanisms to cope with the disasters, however they are mostly catered to community as a whole, and thus in most cases exclude the most vulnerable households.

Primary focus of commune councils and the commune disaster management groups being on emergency response and not much on preparedness and mitigation and need of building capacity of the commune disaster management groups.

Lack of understanding on disasters having adverse affect on development and need to incorporate disaster risk reduction activities into commune development planning.

The concept of community led disaster risk reduction is new to most of the communities.

Selection Village Disaster Volunteers (VDV):

Under this activity it was aimed to elect disaster volunteers from each of the target villages who would take on the lead in coordinating with the target communities, identifying their needs, and assisting them in implementing the mitigation activities prioritized by the communities under the pilot project. It was decided to link this election procedure with the volunteer network of the Cambodian Red Cross. This would mean that the volunteers elected under this project would be recognized by CRC as the village disaster volunteers and would continue to work with the CRC even when this pilot project is completed, thus ensuring the long term sustainability of this initiative.

Accordingly CWS and CFED in cooperation with CRC elected 19 VDV's from the target villages out of which 9 are women.

Capacity Building

Following trainings were conducted to enhance the capacity of the communities

Trainings at Community level:

Community based disaster risk reduction; this training was conducted for each of the target villages for the elected village disaster volunteers, village development committees (VDC) and the village chief

Disaster management and reporting; this training was conducted for each of the target villages for the elected village disaster volunteers and the village chief

Community based first aid; this training was conducted for each of the target villages for the elected village health volunteers (VHV) and village disaster volunteers

Trainings at Commune level:

Community based disaster risk reduction; this training was conducted for each of the two target commune with participation of 2 members from each of the commune councils

Disaster management and reporting; this training was conducted for each of the two target commune with participation of 2 members from each of the commune councils

Community based first aid; this training was conducted for each of the target villages with

participation of 2 members from the commune councils

Trainings for CWS and CNGO Staff:

Training on Disaster management and reporting was conducted for the staffs of CWS and the CNGO.

The trainings on CBDRM and Disaster management and reporting were conducted in partnership with NCDM and the trainings on first aid and CBDRM was conducted in partnership with CRC.

The different kind of trainings tried to provide the participants with an overall understanding on disaster management concepts, existing structure of disaster management and NCDM. The trainings on community based disaster management helped the participants to understand the importance of community based disaster management and included carrying out assignments on village mapping to identify hazards, resources, vulnerability and capacity. This village plans developed were used as base material for preparing the village disaster risk reduction plan in the subsequent activities of the pilot.

Public Awareness on Disaster Management:

In each of the target villages, meetings were organized to raise awareness on disaster and its impacts. A total of 469 people participated in the meetings out of which 244 were women. Existing posters of CWS on 'understanding disasters', 'disaster and its impact', 'common animal diseases' were used as campaign materials along with other resources like video on 'living with flood' produced by the Oxfam GB.

Village disaster reduction planning:

Under this activity the Village disaster volunteers along with the village leaders, village development committees and members of the commune councils played a lead role in reassessing the needs of the communities to reduce the risk of disasters. They provide support to the communities in coming up with their own village mitigation project proposals. The CWS and CFED project team discussed the individual proposals with the respective communities and helped them priorities the needs. The mitigation activity with the highest priority was taken up for implementation under the project. It was decided to increase the ownership of the pilot and to add to its sustainability; at least 5% contribution from the communities was a must.

At the beginning of the project it was intended that mitigation activities would be implemented both at the community and household level, with contribution from the beneficiary in each of the cases. But during the course of implementation, with the low yield of rice and in anticipation of food shortage, the communities were unable to contribute at a household level. Hence the communities primarily prioritized mitigation activities at a community level with contribution from the community in form of labor, food for work or cash. In some cases even labor was a shortage in the villages with most of the young population migrating to earn living in town.

The project team has taken up the initiative to take forward the proposals prepared by the communities which are not being implemented under this pilot due to lack of funding, to the existing micro finance institutions for possibility of funding. Success of such initiative would ensure long term sustainability of the pilot project.

Participatory Evaluation:

A participatory based evaluation of the project was adopted and carried out by the Village disaster volunteers in cooperation with the VCD and Commune councils.

Refresher Training:

Refresher training for VDV was conducted at the end of the project period to refresh the understanding on CBDRR so that they can carry on working on disaster preparedness and risk reduction for their communities after the completion of pilot intervention.

Development of Svay Rieng Provincial DRR Action Plan (2008-2010)

In partnership with the Svay Rieng PCDM, CWS and ADPC assisted the DCDM's and the NGOs working on DRM in Svay Rieng in developing the Provincial Action Plan for 2008-2010. A consultative process was adopted to develop this plan with active involvement of NCDM, all 7 DCDMs, I/LNGOs and UN agencies working in various fields of development in Svay Rieng. The final output is attached with this report. (Output 4)

The process of development of the Svay Rieng Provincial DRR Action Plan started in May 2007 with consultation of the deputy provincial governor who is also in charge of the PCDM. With the consensus of the governor, the first consultation workshop was organized on the 14th of June 2007 in Svay Rieng town, with participation of PCDM and all 7 DCDM members, provincial department of agriculture and planning, NGOs and International organisations working in the field of DRR in Svay Rieng.

The objective of the workshop was to build a consensus among the DCDM and DRR and development stakeholders on the need for development of an Action plan. Discussions took place on possible template of such an Action plan and large reference was drawn from the Flood Preparedness Program developed in the neighboring province of Prey Veng by the PCDM with support from NCDM, MRC and ADPC under the component 4 of the Flood MMP program.

The outcome of the workshop was establishment of a plan development committee for each of the district, which were responsible for developing the first draft of the action plan for the particular district. Over the next 1.5 months, the plan development committee worked together to develop the first draft of the individual district plans. After which a wider consultation was held, which brought all the stakeholders together, to discuss the draft district plans and to provide inputs. Following the revisions, the district plans were compiled to form the Svay Rieng Provincial DRR Action Plan, which was launched in the provincial workshop held in September 2007.

The consultative process adopted by CWS and ADPC for engaging the concerned government departments of disaster management, working with stakeholders from the field of DRR as well as development, helped too identify the gaps, need, priorities of all stakeholders and accordingly reflect it in the provincial action plan document.

2.3.2. Community Based Flood Risk Reduction implemented by Chamroen Chiet Khmer (CCK)

Under the TA, the pilot project on Community Based Flood Risk Reduction was implemented by Chamroen Chiet Khmer (CCK) in the Takeo Province of Cambodia over a period of July 2006 to March 2007. The final project report is attached as **Output 2**

CCK was established by Oxfam GB and its partner organization in 1996 and has been deeply involved in various development activities in the Takeo Province. With their long standing commitment to work in the Takeo Province, this pilot project was implemented in 9 villages in Takeo Province; as shown in the table below.

Province	District	Communes	Villages
Takeo	Koh Andeth	Prey Yuthka	Ta Gnim
			Ta Phan
			Ta Hearn
			Prey Bay
		Prey Khla	Bantey Thleay
		Kro Pom Chouk	Chhruy Poun
	Borey Cholsa	Kampong Krasang	Borey Cholsa

Most of the selected target areas of this pilot are classified as the poorest villages in the communes and have not been much supported by the national/international organisations. Most of these villages are located at the Vietnam border areas with minimum access to infrastructure, education and common property resources. Infrastructure development in Vietnam; building of dams have also accelerated the occurrence of floods in the Takeo province. The province is affected by both floods and droughts which results in low crop production, poor health condition, damage to infrastructure etc, thus having negative impact on the development.

Activities under the pilot project:

The following paragraphs highlights the main activities conducted under the pilot with a brief description of each. The detailed description of each of the Activity is provided in the Project Completion Report submitted by CCK (see Annexure 15).

Baseline assessment of impact of floods on the Communities:

In the initial two months of the project, a baseline assessment was carried out by the CCK Project Team in the target villages to understand the impact of the floods on the communities. The assessment was carried out through primary survey, focused group discussions, interview etc. Some of the findings of the assessment are:

The primary source of livelihood is agriculture. Because of the lack of agricultural system and annual flooding, the farmers are able to cultivate only one crop in a year; the dry season rice.

Because of the continuous flood for more than 3 months in a year, the villagers are unable

to take up livelihood options like livestock rearing.

Access to infrastructure becomes limited and difficult during the flood seasons and boats are the only form of communication.

The continuous flooding compels the communities to work in the stagnant water, which makes the more vulnerable to infectious diseases and often leads to gynecological problems in women.

The continuous flooding also leads to temporary suspension of schools, and the only way the children can commute to schools is by boat and which is not very safe.

Some of the coping mechanism has been selling of assets like land, working as wage labor, sending younger generation to work in Phnom Penh and Vietnam etc.

Due to the remoteness in location of the village and with poor communication systems, the warning signals for storms usually don't reach the communities

Election of Village Committee for Disaster Management:

From each of the target villages the village committee for disaster management was elected with a composition of 2 men and 3 women. These committees actively took part in all the activities of the project.

Capacity Building:

Trainings were conducted in close collaboration with NCDM and CRC on the following topics:

- Disaster preparedness
- Community leadership
- Gender and disaster risk reduction
- Rescue and relief
- Awareness on health and sanitation
- Agriculture techniques

The training participants included officials from Provincial Committee for Disaster Management (PCDM), WAP, Coordinators of Provincial Seila Program, District Deputy Governor, Chief of office of Women's Affair, health officials, members of commune councils, village chiefs and village committee of disaster management. Posters on preparedness and risk reduction of floods, prevention from cholera and dengue, flood information booklet for teachers etc were distributed during the trainings.

Village disaster reduction planning:

The CCK project team and the elected village disaster management committees interacted with the communities and tried to identify their priorities for reducing the risk of disasters. The outcome was identification of the most vulnerable families in each of the villages and their needs. The needs identified by the communities can be divided into two types of intervention, community level and household level. The community needs included, requirement for Boats and Fishing gears, Improvement of house, digging ponds and at the household level the needs were primarily for water filters and planting of trees. Once needs were prioritized, the communities were encouraged to develop proposals which they submitted to CCK for implementation. Based on the proposals CCK decided to

provide the most vulnerable families with the above mentioned requirements. The communities would need to contribute in cash or kind to at least a minimum of 5% of the total cost. To lead this process of implementation in a participatory way and to engage the communities in taking decisions procurement committees were formed in each of the target villages. The committees comprised of one member from the commune council, the village chief, two beneficiaries and one team member from CCK. Out of these five members it was compulsory to have two women members. This committee took the decision on procurement. To make the initiative sustainable, CCK took the initiative to form savings groups from each villages comprising of the beneficiaries. The beneficiaries as part of their contribution were requested to deposit certain sum of money in the savings groups. This sum is intended to be used by the family in the future in times of disasters or other emergencies and also for maintenance of the boats and houses provided in this pilot. Guidelines were developed for the functioning of the savings group and on its constitution.

Development of DRR Plan of BoreyChulsa District in Takeo Province (2008-2010)

In partnership with NCDM and ADPC, CCK assisted the DCDM of BoreyChulsa District to develop the flood risk reduction plan for the year 2008-2010. The first draft of the action plan was prepared by the DCDM of BoreyChulsa District and CCK. This draft plan was presented for a large consultation with wider stakeholders to receive feedback. The inputs were incorporated and the plan accordingly revised. The final output is attached with this report. **(Output 5)** The DCDM of BoreyChulsa District would be using this action plan for flood risk reduction measures for the 2008 and depending on the experience would revise or update it accordingly.

2.3.4 Project Monitoring

The ADPC project team based on Phnom Penh made regular visits to each of the target villages, assisted the NGOs in carrying out consultations with the communities, the provincial and the district department of disaster management project, participated the District Integration Workshops and helped raise awareness on integrating disaster risk reduction activities as a priority in commune development planning.

The ADPC project team from Bangkok during the field visits, tried to link the initiatives under this project with other ongoing ADPC activities in flood preparedness in Cambodia thus ensuring sustainability of the project.

2.3.5 Initiatives for sustainability of the Project

Though the primary objective of the pilot projects were to test the principles, approaches and outcomes of CBDRM as provided in the Strategy document, yet from the very beginning several initiative were taken to sustain the impact of these pilot projects. Some of them are as follows:

- Involvement of the NCDM, PCDM and DCDM in various activities of the project
- Capacity building of the CCDM members
- Village DM Volunteers elected under the project are also recognized by the Provincial Red Cross Branch as Red Cross Volunteers
- Initiative to link DM in the process of preparing Commune Development Plan
- Initiative to link up with local microfinance organization
- Partnerships with local government and stakeholders to develop Provincial /District Risk Reduction Action Plan

2.3.6 Challenges

Following challenges were identified during the implementation of the pilot projects

- The pilot projects were originally designed for 9 months, but it was realized in order to have its impact felt, it must be implemented for a longer duration. This led to the delay in the over all TA implementation, but the results obtained are far more sustainable than originally conceived.
- The project starting time of July, was not a preferred time due to its clash with the monsoon season, this also led to a late start of the project activities.
- Concept of CBDRM was new to most of the communities.

2.4 2nd National Workshop on Community Self Reliance and Flood Risk Reduction, April 2007

The National Workshop was organized by MoWRAM and NCDM in partnership with ADB, ADPC and Hatfield Consultants on 6th of April, 2007 to present the outputs of the TA to the wider stakeholders involved in development planning and disaster risk reduction in Cambodia.

The workshop had two fold objectives, to present the CBDRR Strategy document for final comments from the various stakeholders and to present the experiences of the two pilot projects implemented under the TA by Church World Service (CWS) and Chamroen Chiet Khmer (CCK).

Prior to the workshop a one day field visits was organized on 5th April, 2007 to the pilot project site in Svay Rieng Province. Participants from various NGOs along with MoWRAM, NCDM, Hatfield Consultants and ADPC joined the field trip.

The workshop was attended by more than 60 participants from various government agencies like MoWRAM, Ministry of Planning, NCDM, UN Agencies like UNDP and WFP, NGOs, microfinance and research institutes. **Annex 17** provides the agenda and the list of participants of the workshop. Rich discussion took place around the need for the CBDRR Strategy and specific inputs from wider stakeholders to improve it. The workshop also strongly suggested to use the CBDRR strategy document developed under the TA as the base to develop Provincial and District Risk Reduction Action Plans. Based on this suggestion, Output 3 and 4 were developed. Since it was realized that within the time frame of the TA it would not be possible to develop detailed Action Plans for each of the target provinces, a road map was produced for developing and implementing flood and drought risk reduction programs (2008-2012) to support high risk/vulnerable communities in four Mekong delta provinces of Cambodia. This Road Map forms the Part B of the Output 1 under the TA.

ANNEX 1

MINUTES OF MEETING WITH MOWRAM DURING TA INCEPTION MISSION, NOVEMBER 2005

An Inception Mission for the TA was fielded the period 1–4 November 2005. The Mission, comprising Mr. C. Wensley (Project Officer/Mission Leader) and Mr. I. Fox (Principal Project Specialist) together with the TA consultants¹, met with staff of MoWRAM and representatives of key stakeholders including the National Committee for Disaster Management (NCDM), Cambodian Red Cross and NGOs (Oxfam and Care) to discuss the implementation of the Project. A wrap-up meeting, chaired by H.E. Veng Sakhon, Secretary of State, was held in Phnom Penh on 4 November 2005.

Meeting with MoWRAM – 2nd November 2005

During the first meeting with MoWRAM modalities of TA implementation were discussed. H. E. Veng Sakhon assigned Mr. Mao Hak, Director of Hydrology and River Works as **Project Director** from the Executing Agency for the TA, who would assume day-to-day responsibility for coordination with the consultants.

The mission requested that a **National Steering Committee** be established for guiding the implementation of the TA, chaired by the Ministry of Economy and Finance, having members from MoWRAM, Ministry of Agriculture, Ministry of Rural Development, Ministry of Women's Affairs, National Committee for Disaster Management and Cambodian Red Cross. It was also requested that members of the UN Disaster Management Team (comprising various UN agencies working on Disaster Preparedness and Management) also be invited to the Steering Committee. It was discussed and agreed that the Executing Agency will provide **office space** for TA consultants within the Department of Hydrology. The mission and TA consultants were assured of support from MoWRAM and the respective Provincial Departments of Water Resources and Meteorology working at the provincial level in Kandal, Takeo, Prey Veng and Svay Rieng in implementation of the TA.

Meeting with MoWRAM – 4th November 2005

The mission tabled a draft of the TA Aid Memoire, which was reviewed and approved by H E Veng Sakhon, Secretary of State, Mr. Pich Veasna, Director of Planning and International Cooperation as well as Mr. Long Saravuth, Deputy Director, Hydrology and River Works. The TA consultants requested that the MoWRAM issue invitation letters for the International consultants, which will enable them to acquire the necessary multiple entry visas for Cambodia, which allow employment in the country. It was agreed that this be requested by the ADB mission members. TA Consultants also requested for names of contact persons at the Provincial Departments of Water Resources and Meteorology for contacting during visits to of target provinces.

¹ TA Consultants' Team comprised of Mr. Loy Rego, Team Leader, Mr. Thanongdeth Insiengmay (Deputy Team Leader), Mr. Richard Bleakley (Social Development Specialist), Mrs. Supriya Mehta (Community Development Specialist), Mr. Ross Sovann (National Institutional Development Specialist and also from NCDM) and Mr. Uy Sokco (National Community Development Expert). The wrap up meeting was attended only by the project Team Leader and Community Development Specialist.

The consultant team also requested letters that will enable the consultants to seek tax exemption on income from this project, as well as on purchases of equipment made under this project.

MINUTES OF TRIPARTITE MEETING FOR DISCUSSING INCEPTION REPORT, FEBRUARY 2006

TA Consultants presented the Inception report to representatives from MoWRAM and ADB. Various national and international personnel from the consultant team, including the representative from Hatfield, attended the meeting. The presentation consisted of the following:

- Cambodia institutional and geographical context
- TA progress to date (including details on specific activities)
- Analysis of NGO interventions on flood risk reduction in Cambodia, including listing key constraints in effectiveness of such interventions
- Next steps in TA implementation

The report was well received both by ADB and MoWRAM and the following comments were made on the report, as well as future expectations from the TA:

1. The analysis of NGO interventions on flood risk reduction was found very useful and ADB expressed its interest in promoting a programmatic approach, in its own interventions towards flood risk reduction, as also recommended by the TA. Mr. Wensley explained that 3 TAs are expected in 2007, looking at loans or grants for flood risk mitigation, for which ADB is also working closely with MRC. It is expected that the outcomes of as well as the processes followed for this TA 4574 will guide these future assignments, particularly in the context of up-scaling flood risk reduction initiatives. ADB emphasized the need for documenting the processes of decision making followed for implementation of TA activities and preparation of TA outputs, bearing in mind the expected outcomes. The documentation need not be lengthy, but the steps followed for a given assignment need to be documented.
2. MoWRAM expressed interest in the Pilot implementation and to explore how results of this pilot can be replicated in other provinces which are not within the purview of this project.
3. ADB also looks forward to lessons learned through TA and pilot activities and to see TA findings in flood risk reduction and their relation with sustained community livelihoods in Cambodia.
4. Since Floods are an integral part of the cycle of hydrological events, consultant efforts under the TA looking at multiple hazards, particularly droughts and floods as recurrent hazards that communities face, were appreciated.
5. MoWRAM highlighted the importance of improving access to early warning information for communities affected by floods.
6. Mr. Mao Hak also emphasized the need for increasing linkages and liaison between NGOs and Government agencies as well as communities and international agencies such as MRC in flood risk reduction. He also emphasized the benefits of technical exchange between government agencies.
7. ADPC recommended in the Inception Report to focus pilot implementation on Prey Veng and Takeo provinces since these provinces have recurrent exposure to flood events. ADB supported this recommendation. Mr. Mao Hak from MoWRAM agreed with and endorsed this TA recommendation.

8. Regarding the simple GIS, ADB keen to see recommendations during the TA on the opportunities of maintaining the underlying database so that it can be current and continue to provide decision support on an ongoing basis to disaster management practitioners and agencies.
9. Schedule for forthcoming TA activities was discussed briefly. ADB expressed a preference to have the first stakeholders' workshop under the TA before the pilot implementation by NGOs are undertaken. Both TA consultants and ADB felt that the workshop must discuss the overall outcomes of the TA with all stakeholders including the community based risk reduction strategy. Most participants agreed on a date around 1st week of May as preferred and most timely.
10. It was discussed that TA activities need to be planned bearing in mind the flood season. Since time is limited, ADB expressed agreement in supporting the TA team to 'recommend' direct selection of NGOs rather than competitive bidding, based on their demonstrated competencies and accordingly discuss with the selected NGOs regarding their interest in working in pilot implementation. It was agreed by the meeting that the TA team will present recommendations on selection of NGOs to MoWRAM and ADB along with draft ToR for pilot implementation by the NGOs by 17th March, 2006. It was also agreed that ADB and MoWRAM will provide their comments on the above documents in a week.
11. TA consultants were advised to reformat Table 1 of the Inception report to make the data provided more reader friendly.
12. In addition, consultants were advised to include a table on schedule of consultants' deployment for inclusion in the Inception report to complement the Schedule of TA activities' implementation.
13. ADPC appreciated the comments on the TA as well as the possible link with other programs in the future and undertook to document the process steps as requested by ADB.
14. TA consultants explained that GIS will be transferred not just to counterparts, including the MoWRAM and NCDM, but also to partner agencies which have provided the data being used within the GIS and the Seila program. ADPC will try to set time aside for including GIS in the forthcoming training program and handing over of intellectual outcomes.
15. MoWRAM informed that a steering committee will be constituted under its chairmanship and requested copies of the Inception report to forward to Project Steering Committee members.
16. ADB and MoWRAM advised that the Inception Report will be accepted once the minutes of the meeting and consultant schedule are submitted as addendum to the Inception report.

MINUTES OF TRIPARTITE MEETING FOR DISCUSSING FIRST INTERIM REPORT, MAY 2006

The Tripartite review meeting was held on 19 May 2006 in Siam Reap where meeting participants were attending the 4th Annual Flood Forum organized by the MRC.

The following attended the meeting:

- Mr. Mao Hak, Department of Hydrology and River Works, MoWRAM
- Mr. Christopher Wensley, Principal Project Specialist, Mekong Department, ADB
- Mr. Loy Rego, Team Leader, TA 4574 CAM & Director DMS Team, ADPC

- Mr. Thanongdeth Insisiengmay, Deputy team Leader, TA 4574 CAM, and Program Manager, DMS team, ADPC

TA Consultants presented the Interim report to representatives from MoWRAM and ADB, reporting on progress made to date and anticipated next steps.

The report was well received both by ADB and MoWRAM and the following comments were made on the report, as well as future expectations from the TA:

1. ADB and MOWRAM expressed their satisfaction at the progress being made on the TA, especially the initiation of steps to start the pilot projects through issue of a TOR and receipt of proposals, as well as the development of outline of the community based Hydro-meteorological disaster risk reduction strategy.
2. The ADB and MOWRAM noted that invitations to submit proposals had been issued to seven NGOs namely Cambodian Red Cross, OXFAM, CARE International in Cambodia, World Vision International (WVI), Church World Service (CWS), Chamroen Chiet Khmer (CCK – a local NGO based in Takeo province working with OXFAM) and CEDAC (Cambodian Center for study and development in Agriculture). ADPC reported on the constraints experienced by some NGOs in submitting proposals and undertaking the pilot projects, related to the availability of trained human resources, workload of current staff members, and desire to work in their chosen target areas and remain focused on ongoing longer term projects; as well as reservations about the limited duration for the pilot and the schedule overlapping with the flood season. ADB expressed that it was important to learn lessons from this experience, and while planning for wider scale implementation, to build in a continuing dialogue with NGOs and an awareness of their constraints and ongoing work programs.
3. The meeting noted that a proposal in Khmer had been received from CCK, a copy of which along with its English translation would be given to MOWRAM. Mr. Mao Hak informed the meeting that MOWRAM had already been working with CCK and OXFAM on establishing Early warning systems by installing flood markers and billboards in 13 villages. He raised a query as to whether the proposed villages are the same or new villages. ADPC informed that they are visiting the sites and meeting with CCK next week and would seek clarifications. The meeting was also pleased that a local NGO like CCK could be involved in pilot project implementation that would increase potential for sustainability.
4. The meeting noted that CWS had confirmed its interest in submitting a proposal targeting Flash floods and drought risk in Svay Rieng province, that this proposal would be submitted by the 19th May, and that the ADPC team would meet with them the following week.
5. The meeting was informed that CEDAC is a Cambodian NGO working on community based agriculture extension services and providing services related to water management and community based irrigation, which has an impact of disaster risk reduction for the communities. CEDAC was working in one of the villages surveyed in Prey Veng, and it was considered appropriate to make an effort to involve them in the TA, at least in the training programs with a view to develop their capacity as an implementer of the CBDRR

strategy. The meeting noted that the TA team would meet with CEDAC next week.

6. While noting that only two proposals may be received for pilot project implementation, the meeting requested the TA team to develop criteria for selection of the pilot projects, to facilitate development of an approach to selection of NGOs for undertaking the pilots.
7. The meeting appreciated the survey of community needs that had been undertaken in 20 villages in the 4 provinces and annexes to the main report containing the 2 provincial reports for Prey Veng and Takeo provinces (annex 3) as well as one sample village report (annex 4). While reviewing the summary narrative in the main report, it was noted that the detailed reports contained much more detailed information on the beneficial dimensions of floods. The meeting was pleased with the discussion in the report on the needs of credit for flood vulnerable communities, and that the development of self-help or micro-credit groups was included in the CBDRR strategy outline. The ADB expressed its interest in beginning examination during the pilot projects of the possibility of microcredit and/or self help groups being involved in implementing mitigation options.
8. The meeting expressed its concurrence with the approach being taken in the development of the community based Hydro-meteorological disaster risk reduction strategy as outlined in Annex 6 of the report, as well as the menu of CBDRR interventions listed in Annex 5 of the report. The TA team informed that this is being further developed, and that a workshop involving a range of stakeholders was planned to discuss the strategy. After some discussions it was agreed to hold this workshop in the last week of June or early July 2006.
9. In response to a query, the TA team informed ADB that training material for a training workshop would also be developed.
10. Mr. Wensley referred to the discussion at the last TPR meeting in February where MOWRAM highlighted the importance of improving access to early warning for communities at risk from floods, and expressed his greater appreciation of its significance in view of the ongoing work being done on extending and improving early warning and dissemination, as reported at the Flood Forum. The TA team pointed out that access to flood season information and early warning was one of the subheadings of the menu of CBDRR interventions. ADB queried whether more work could be done under the TA on identifying ways for improving access to early warning and expanding its coverage. The TA team expressed its willingness to work with MOWRAM officials to develop an outline of such an approach in one of the provinces, identifying minimum number of locations, costs and the beneficial results to improved national forecasting from the availability of information from the field.
11. The work done so far on the GIS development was discussed. The need for handing over the system to a suitable counterpart in MOWRAM and NCDM was discussed. Provision of a suitable description of all parameters used, as well as a guide to facilitate periodically update information by RCG officials after the project life was emphasized. MOWRAM also requested that the GIS be demonstrated during the training course.

12. The meeting also noted that as requested consultants had submitted a table on schedule of consultants' deployment for the period in the Interim report to complement the Schedule of TA activities' implementation.
13. ADPC also drew attention to delays in receiving proposals from NGOs and the request from NGOs for a longer period of implementation of the pilots. ADPC requested for consideration of a time extension and for additional time for consultants within the overall available budget of the TA by drawing on contingencies. ADB and MOWRAM expressed their willingness to agree to an extension of activities till April 2007 and advised ADPC to request for contract variation of time and personnel for their consideration, closer to the date of current project completion.

MINUTES OF TRIPARTITE MEETING FOR DISCUSSING SECOND INTERIM REPORT, OCTOBER 2006

The review meeting was held on 20 October 2006 in Phnom Penh. The following attended the meeting:

- Mr. Mao Hak, Department of Hydrology and River Works, MoWRAM
- Mr. Christopher Wensley, Principal Project Specialist, Mekong Department, ADB
- Mr. Ian Makin, Project Engineer, Southeast Asia Department, ADB
- Mr. Thanongdeth Insiengmay, Deputy team Leader, TA 4574 CAM, and Program Manager, DMS team, ADPC
- Ms Hnin Nwe Win, Project Manager, DMS team, ADPC
- Mr. Arghya Sinha Roy, Program Coordinator, DMS team, ADPC
- Mr. Uy Sokco, National Community Development Expert, TA 4574 CAM, ADPC
- Mr. Prom Tola, National Community Development Expert, TA 4574 CAM, ADPC

TA Consultants presented the Interim report 2 to representatives from MoWRAM and ADB, reporting on progress made to date and anticipated next steps. The report and a presentation on the progress till August 2006, was also earlier made by the project team to H.E. Veng Sakhon, Under Secretary of State in MoWRAM on 15th September 2006.

The report was well received both by ADB and MoWRAM and the following comments were made on the report, as well as future expectations from the TA:

1. ADB and MOWRAM expressed their satisfaction at the progress being made on the TA, especially development of the CBDRR Strategy document, conducting the workshop to seek inputs on the CBDRR Strategy, conducting the training for the staff of the selected NGOs who are piloting the implementation project and the progress on the ongoing pilot projects and submission of the First Report by the NGOs on Needs Assessment.
2. The meeting expressed its concurrence with the approach being taken on addressing the issue related to both floods and droughts in the project.
3. The ADB noted that the NGOs selected for implementing the pilot projects have different capacities. While CWS is an international NGO, CCK is a local NGO, hence the implementation procedure and challenges faced by each are very different. ADB expressed its interest in documenting in the CBDRR

Strategy the lessons learnt from these NGOs in the implementation of the pilot project. ADPC agreed that this could be suitably documented in a suitably titled project document as a supplement to the strategy document.

4. ADB expressed its concern in sustainability of the pilot project in terms of association of the two NGOs in the target areas. ADPC reported that the two selected NGOs, namely CWS and CCK have been working in the target areas for long time and have other ongoing projects in the districts and hence the outputs/results of the pilot project would feed into their other projects. In terms of long term sustainability, ADPC reported that the TA team is in close communication with the NGOs and is ensuring that there is initiation of integration of outputs of the pilot project with the government processes of commune and district planning and strong linkage is established with the government agencies like PCDM, DCDM and CRC. ADPC also expressed that greatest sustainability could be achieved with a longer project duration and slower pace of inputs and finance.
5. The meeting expresses its concern on the pilot project being implemented by CCK in Takeo province, in ensuring sustainability of the planned mitigation activities. ADPC reported that they are in discussion with CCK staff to ensure sustainability of the project by establishing linkages with the existing self help groups in the areas, and ensuring contribution from the beneficiaries for the procurement of the assets. ADPC is also facilitating the involvement of CRC and NCDM in the pilot projects to ensure its longer term sustainability.
6. MOWRAM asked a query on the monitoring of the pilot projects. ADPC reported that regular monitoring of the progress on the pilot project is being undertaken by the TA team, with TA consultants visiting the field sites every month and attending important activities planned under the project. The TA team is also establishing communication and supporting the NGOs in establishing contacts with the government focal points in the district and province on disaster management.
7. ADB expressed its satisfaction with the outputs of the project so far and mentioned that the 2nd Interim Report is very thorough. ADB informed that outputs of this project would be of valuable learning for ADB and would be an important case study for future ADB strategy on flood management mitigation program in Cambodia, MRC members and other countries of the region. Under the current ADB-funded Component 2 of the MRC's FMMP a certain amount of fund has been allocated for the non-structural measures. ADB plans to have future projects related to non-structural measures and is interested to know how these projects can be delivered and up-scaled by the Governments.
8. ADB expressed the need to partner with MRC in the project, to share the outputs and lessons learned. ADPC reported that it is in close working relation with MRC and the TA outputs till date has been shared with MRC. The MRC officials have attended the National Workshop conducted under the TA on providing inputs to the CBDRR Strategy and also an informal workshop has been conducted for the staff of the MRC to disseminate the GIS outputs produced under the TA.
9. ADB expressed its interest on the greater and active involvement of MoWRAM on the project. MoWRAM informed they have been involved in all the

activities of the project, have supported conducting the National Workshop on CBDRR Strategy, the MoWRAM officials have attended the training conducted by ADPC on Community Based Disaster Risk Reduction and also the workshop on GIS outputs. MoWRAM informed that their officials have also acted as key resource person in the Training on Community Based Disaster Risk Reduction. MoWRAM also informed that their staff had accompanied the TA team for the field visit in Takeo on 19th October and ADB expressed its gratitude for that. MoWRAM expressed its willingness to involve in all future activities of the project.

10. ADB expressed its concern to MoWRAM on involvement of NCDM in the project, as NCDM is the key government focal point for Disaster Management. MoWRAM expressed its willingness to do so. ADPC reported that NCDM has been involved in various activities of the project. Staff from NCDM has attended the National Workshop on CBDRR Strategy, NCDM officials have also acted as key resource person at the training on Community Based Disaster Risk Reduction and also attended the workshop on GIS outputs. ADPC also expressed their willingness to facilitate the involvement of NCDM if required. ADB also mentioned that the CBDRR Strategy could be published under the collaboration between ADB, MoWRAM, NCDM and ADPC.
11. ADB confirmed its interest to conduct another workshop under the TA, at the end of the implementation project to disseminate the experience of the project. ADPC informed that they have planned for such a National Workshop at the end of the project period.
12. The ADB requested the ADPC to submit a table on schedule of consultants' deployment for the period in the Interim report 2. ADPC agreed that they would submit the schedule of consultants shortly.

ANNEX 2

LIST OF AGENCIES CONTACTED DURING VISITS TO NGO PROJECTS

Date	Organization	Location
National		
01 November 2005	Oxfam GB	Phnom Penh
02 November 2005	NCDM	Phnom Penh
02 November 2005	CRC	Phnom Penh
02 November 2005	MOWRAM	Phnom Penh
03 November 2005	CARE	Phnom Penh
04 November 2005	LWF	Phnom Penh
21 November 2005	World Vision Cambodia	Phnom Penh
Prey Veng Province		
07 November 2005	Provincial Department of Water Resources and Meteorology	Prey Veng Town
07 November 2005	Provincial Committee for Disaster Management (PCDM)	Prey Veng Town
08 November 2005	CRC Provincial Office	Prey Veng Town
08 November 2005	CARE Prey Veng	Naek Luang
08 November 2005	CARE DPM-LAF Project village	Kampong Trabaek district
09 November 2005	CRC Early Warning Project village	Pea Meanchey Commune, Peam Ro district
24 November	PADEK	Prey Veng Town
Takeo Province		
10 November 2005	Provincial Department of Water Resources and Meteorology (PDWRAM)	Takeo Provincial Centre
10 November 2005	CRC – CBDP Project Site	12 villages in 4 communes, Trang District
11 November 2005	PCDM	Takeo Provincial Centre
11 November 2005	CCK-OXFAM Project site	Kaoh Andaet district
19 December 2005	World Vision's project ADP Samraong	Samraong district
Svay Rieng province		
22 November 2005	Church World Service project site	
22 November 2005	PCDM	Svay Rieng Provincial Centre
23 November 2005	Participatory Local Governance project	Svay Rieng Provincial Centre
23 November 2005	CRC-CBDP Project site	Svay Chrum District
23 November 2005	PADEK Project site	Provincial office
23 November 2005	CRS Project site	Provincial office
Kandal province		
25 November 2005	PDWRAM	Kandal Provincial Centre
25 November 2005	PCDM	Kandal Provincial Centre
25 November 2005	CRC – CBDP project	
16 December 2005	ADP Ksach Kandal	Ksach Kandal district
21 December 2005	ADP Leuk Dek	Leuk Dek district

ANNEX 3

LIST OF VILLAGES WITH NGO PROJECTS ON FLOOD RISK REDUCTION

Prey Veng province

ADPC Flood Emergency Management Strengthening Project

District	Commune	Village
Peam Chor		
Sithor Kandal		

CRC target area: EWS

District	Commune	Village
Peam Ro	Peam Meanchey	Borlech
		Chamkar Veng
		Boeung Phsot
	Borlech Prasat	Boeung KaEk
		Chambork Brang
		Prasat Lech
		Preak Rang
	Nak Loeung
		Nak Loeung
		Stung Slot
		Stung Santepheap

CRC target area: CBDP

District	Commune	Village
Peam Ro	Peam Meanchey	Thmey
		Boeung KaEk
		Boeung Phsot
	Peam Ro	Chamkar Veng
		Borlech
		Chak Khlagh
		Peam Ro
	Borlech Prasat	Thkakov
	
		Prasat Khang Lech
		Prasat Khang kert Cherng
	Nak Loeung	Preak Rang
		Preak Cham
		Stung Slot
		Stung Santepheap
Peam Chor	Koh Chek	Nak Loeung
		Koh Chek
		Meanchey
	Bong Ek	Koh...
		Spearn
		Bong Ek
		Preak Sambour
Kampong Trabek	Kampong Trabek
	
		Svay Lech
		Svay Kert

Peam Bantea

....

.....

Peam Bantea
Phsit Kramourn
Chamnornng Teark
Krachab Leu
Krachab Krom
Takeo

CARE: (Living above flood project)

Communities living above flood project		
District	Commune	Village
Kampong Trabek	Kamsorm Ork	Kamsorm Ork
		Kroch
	Cham	Trapang Run
		Ka Thom
		Cham
	Kampong Trabek	Rolous
		Preak Pdao
		Roka Thom
		Anlounng Reach
		Kampong Svay Khangkiet
Preah Sdach	Banteay Chakry	Korko
		Ngek Ngork
		Proh Sva
	Beng Doal	Sam Bour
		Ta Ok
		RokaKonsat
	Senareach Oudam	Beng Doal
		Trapang Braboh
		Chey Akhort
		Khla Kham

CARE: Disaster Preparedness Action Planning (DPAP) project (4 districts / 20 communes/ 115 villages)

Ba Phnom district: (30 villages)

Chheu Kach Commune	Sdao Kaung Commune	Theay Commune	Reak Chhey Commune	Rong Damrey Commune
Village:				
Prey Kduoch	Krang Chen	Kg. Sleing	Sach Sor	Ty Tangeuy
Kruos	Tmey	Kveut	Kork Sandek	Chheung Teuk
Kamheng	Tung Neak	Torp Sdach	Treuy Ngor	Prey Phngeam
Reach				
Svay Prokral	Siem	Chork	Chheu Treing	Svay Kney
Klaing	Thnung	Kamreing	Chhuol Thmey	Kdey Dong
Tropaing Sala	Trobek	Sdao	Thmor Traing	Pong Posh

Peam Chor district: (26 villages)

Angkor Ang Commune	Kg. Prasate Commune	Kraing Tayong Commune	Reussey Srok Commune	Koh Sampeou Commune
Village:				
Angkor Ang	Tahuy	Rokar Dos	Edth	Ampeou Prey
Prek Treing	Teuk Vil	Pong Teuk	Chheu Teal	Ksach
Veal Robong	Kg. Prasate	Kraing Score	Beung Orksor	Svay Andong
Krom				
Veal Robong	Tapeu	Kraing	Ta Pong	Por Thmey
Leu		Preyphdao		

	Kraing Kruoch	Pring Kraing Tayong	Taso Por Kpos	Tuol Seung
Preah Sdach district: (29 villages)				
Boeung Dol Commune	Rear Thor Commune	Preah Sdach Commune	Senareach Oudom Commune	Banteay Chakrey Commune
Village:				
Rokar Konsate	Tamao	Tuol Chey	Trapaing Proboss	Pros Sva
Boeung Dol	Chhnes Cheyleu	Ampil	Kla Kham	Kor Koo
Sambuor	Taheal A	Anlung Char	Sennory	Damrey Slap
Ta Ouk	Taheal B	Taketh	Chey Arkhorl	Chey Ta
Sorya	Chhnes Cheykrom	Prey Run	Kleng Kong	Nget Ngort
Park Pry1		Thnot Torl	Kamrieng	Mrinh
Kampong Trabek district: (30 villages)				
Kg. Trabek Commune	Cheang Dek Commune	Chame Commune	Peam Montear Commune	Kansom Ork Commune
Village:				
Anlung Chork	Kruoch	Chame	Angkor Ang	Kruoch
Anlung Reach	Cheang Dek	Ka Thom	Peam Montear	Kansom Ork
Kg. Svaykeut	Ankrong	Prosdach	Set Kromuone	Ba Laing
Prey Pdao	Ouknha Seing	Roluose	Chamnong Teark	Tropaing Run
Khmer Islam	Ponhea Koeut	Veal	Krachab Krom	Torp Siem
Rokar Thom	Boeung Kantep	Prey Kansa	Sahakor	Chruol
PADEK:				
District	Commune		Village	
Preah Sdach	Krang Svay		Sangkae Chong Pou Krang Svay Tuol Mean Kun Sonan Chai Peay Neay Pring Kouk Sampov Srah Kaev Sdau Samraong Tnaot Chroh Peani Thum Boeng Snao Lvea Svay Kdieb Prey Kduoch Kampong Thnal Ta Kouk Prum Khsach Trapeang Chhuk	
	Lvea			
	Rumchek			

Kampong Trabek	Ansong	Ta Ngak
		Tuol Trea
		Chi Puk
		Srah
		Chongruh
		Satthea
		Prey Phdau
		Ta Nal
		Prey Phnha
		Kouk
		Cheung Tuek
		Sala
		Krasar Chet
		Loek
		Ampil
		Kreul
		Angveah Muoy Roy
		Ansaong
		Ta Pung
		Sambuor
		Ta Aong
		Banteab Bos
		Trapeang Roka
		Kou Khchak (in 2007)
		Kou Khchak
		Prey Thum
		Kou Kraok
		Skar
		Prey Kuy
		Hab
		Chamreh
		Trapeang Trav
		Romeas Chhor
		Kraol
		Prey Snuol
		Trav
		Ta Ho
		Thum
		Pouthi Vongs
		Pou
		Tbaeng
		Ruessei
		Ta Mung
		Chrey Sema
		Prey Ruessei
		Khla Pear
		Chhkae Koun
		Doun Yur
		Chea Khlang
		Chres
		Thnong
		Angkor Tret
		Trabaek Lech
		Trabaek Kaeut
		Kok
		Ta Ream Lech
		Ta Ream Kaeut

	Voat Trach
	Ruessei Thlok
	Sraloung Muoy
	Sraloung Pir
	Sraloung Bei
	Ta Laeuk
Popueus	Boeng Rach
	Khsaok Cheung
	Khsaok Kandal
	Khsaok Tboung
Me Bon	Thnal Chey
	Chachak Ti Muoy
	Chachak Ti Pir
	Me Bon
	Roka Khsok
	Phnum Kong
	Thkov
	Ha Bour

Svay Rieng province**CRC:**

District	Commune	Village
Svay Chhrom	Basac	Svay Ta Plo Sala Rien Ba Yab
	Kampong Chamlong	Ta Sa Ang Chheang Roussey Veal Lagnert

CWS:

District	Commune	Village
Rom Doul	Porng Tek (3 villages)	Sek Youm Mous Monleu Thmey Veal
	Bos Morn	Thmey
Romeas Haek	Than Thnong (3 villages)	Chamnort Trach Kor
	Doung	Trapong Kralagn Bos Sankor Prey Kdey Ta Vang Ta Sours Boeung Se Ou Mos
Svay Chrum	Korki	Mony Preksa Basac
		Svay Ta Plo Sala Rien
Kampong Ro	Troas	Kror Krous
	Prey Thom (almost villages)	

CRS:

District	Commune	Village
2 districts	6	

PADEK (drought disaster)

District	Commune	Village
Romeas Haek		
Kampong Ro		
Rom Doul		
Chantrea		

Takeo province**CRC**

District	Commune	Village
Trang	Ang Kagn	Krang Chher Neang
	Smoung	Dor May
		Smoung
		Trapong Chrey
	Tror Lach	Skous
		Tror Lach
		Tonle
	Thlork	Chhil
		Roveang
		Svay
		Krang Thom
		Trapong Sla

CCK

District	Commune	Village
Borey Cholsa	Chey Chok	Tarakom
		Anchanh
		Chey Chok
		Kok Banchar
		Banteay Sleuk
	Borey Cholsa	Sangkae Chur
		Khoek Yom
	Kampong Krosang	Anglong Tean
		Sangkum Meanchey
Koh Andeth	Prey Yuthka	Kdol Chrum
		Taphin
		Pong Andoek
Kiri Vong		Preak Ksach

3

World Vision Cambodia

District	Commune	Village
Samrong	Sla	Sla Lech
		Sla Kaeut
		Angk Chang'er
		Trapeang Trav
		Kantrong Prich
		Boeng Kantron

		Trapeang Srang Pou Ampil Kanhchang Srei Bandit Srei Prasaeur A ROUNG Leak Roteh Trapeang Reang Prey Choar Veah Puoh Trapeang Khlouk Angkonh Tram Kol Kab Nuem Pou Khvav Boeng Ou Trapeang Thnong Trapeang Puon Prey Nhuek Svay Tong Tuol Ta Chen Trapeang Trabaek Khnach Cheung Khnach Tboung Chheu Teal Pech Entrea Romon Bei Pey Pech Changva Angk Reang Koun Romeas
	Khvav	
	Boeng Tranh Khang Cheung	

Kandal province

CRC:

District	Commune	Village
Kien Svay (2000-2004)	Bantey Dek	Kandal Krom Kandal Leu Khsom Preak Treng Chey Outom Chhroy Dorn Preak Takeo
	Samrong Thom	Khoh Ras Leu Khoh Ras Krom Veal Thom Preak Ta Oung 3 Peam Ta Ek
	Khoh Ras	Ta Chhor Kdey Kandal Ta Skor
	Peam Ougna Oung	Sithor Kert Sithor Lech
	Sarika Keo	
Ksach Kandal (2003-2004)	Sithor	

Lerk Dek (2002-2004)	Kampong Chamlong	Kampong Lvea
		Toul Pong Ro
		Prey Bang
		Me Bang
		Kampong Chamlong
	Khpob Ateav	Tboung Domrey
		Preak Dambang
		Boeung Krom
		Boeung Leu
		Boeung Kandal
	Peam Rang	Peam Rang Krom
		Peam Rang Leu
		Thmey

World Vision Cambodia

District	Commune	Village
ADP Ksach Kandal	Sanlong	6
	Vihear Sour	2
	Sithor	2
	Kampong Chamlong	1
	Rokar Chhonling	5
	Chey Thom	6
	Preak Dach	
ADP Lerk Dek		Koh Kantheav
		Preak Dach
		Preak Touch
		Ta Hing
	Khpob Ateav	Boeung Kandal
		Boeung Kroam
		Boeung Leu
	Peam Reang	peam Reang Kroam
		Peam Reang Leu
		Thmey
	Sandar	Chong Koh
		Dang Kdaong
		Kandal

ANNEX 4

RESEARCH QUESTIONS FOR FIELD SURVEY

The objective of this survey is to identify specific community needs in the context of floods, both in communities where NGOs have worked on flood risk reduction in the past and communities where no interventions have been undertaken. It is expected that the outcomes of this research will guide the process of identifying possible interventions at household, community or higher administrative levels for flood risk reduction.

The research questions have been formulated based on review of NGO interventions in communities for flood risk reduction, existing documents from NGOs and other agencies which have been implementing their programs across the country, the TA inception report, bearing in mind the objectives of the survey and the requirements for Community-Based Risk Reduction Strategy and as outlined in the TA paper. Therefore, the research questions are provided here. It is emphasized that follow up questions based on community responses will be asked, which may not be listed here fully, but will be reflected in the village reports.

Survey protocol: The surveyors are requested to introduce themselves and the objective of the TA on which we are working. The objective of the survey, as stated above, must be clearly stated to the community and it must be clarified that while based on our interaction with the community, future interventions on flood risk reduction or household/community level flood mitigation will be guided as per needs identified by the community; this does not imply actual project investment by any of the agencies represented by us, or otherwise, in the immediate, or foreseeable future.

The surveyors need to fill in a few sentences about their perception on the economic status of the community – by observing the following:

- Assets in houses (TV/radio, bicycle/moto, livestock)
- Predominant material of house construction
- Condition of houses
- Condition of roads/lanes etc

1. What is the poverty status of the villagers (Well-being ranking)?

- Are women headed households well off compared with the average villager?
- Based on your definition, who is vulnerable group in the village? And what are the criteria of vulnerability? How is this vulnerability affected by normal or worse than normal flooding?
- What and how vulnerability's coping strategy when they get shock and crisis by flood/drought?
- Any special groups of villagers encountered chronic poverty due to flood (and how)? Have any special groups of villagers faced a poverty transformation (improved or worsened) from one generation to next generation due to impact of flood? Any other reasons?
- Any households or special groups of villagers is moving up or down economically after affected by natural disaster? What is the factor of moving up and moving down after affecting by flood?

2. Livelihoods

What are the main livelihood activities/strategies in the selected areas?

- What are the main livelihood activities in this village? (Any changes over time? Why?)
- What types of business are/were more secure when people affected by flood?
- Are there differences in livelihoods in term of gender? (And changes over time? and why?)
- Are there differences in livelihoods in terms of ethnicity minority? (And changes over time? and why?)
- What is the impact of floods on livelihoods? Are there any benefits due to floods? And who are/were benefits more from the floods? And why?
- How does impact of flood to agriculture production? (Livestock, rice, and other crops)
- How do you ensure continued livelihoods during floods?
- What are your livelihood's coping strategies during and after flood impact? Does any migration to get outside village? How do you know the job opportunities? Any differences in term of gender and vulnerable groups?

3. How do informal and formal institutions shape and influence on the natural disaster?

A. Informal institutions:

- How many local institutions exist in your village (for instance pagoda, village elder association, farmer association...)?
- Which agencies – informal institutions have the villagers received help from either before, during or after floods?
- Any different/discrimination among poverty well-being, gender, and ethnicity?

B. Formal institutions:

(Questions for communities where NGOs and/or other agencies (government agency's body, commune council, Cambodian Red Cross) interventions have taken place)

- What was the type of NGO and/or other agencies intervention for flood risk reduction? How do they assess the impact (criteria) of flood for ensuring effectiveness and efficiency of its program intervention?
- Was the NGO intervention at community level or at individual household level? And any different interventions in term of gender and ethnicity?
- How those institutions (NGOs, commune councils, and other government agency's body) collaborated to each other in term of rescuing and relief during and after flood? How the effective and efficiency were/are? And thought of thing need to be improved and strengthen in the future?
- What roles and responsibilities of commune council contribute to flood intervention?
- How did this intervention help in reducing their vulnerability to floods?
- Was the community consulted in this intervention?
- How could this intervention be made more relevant to the community?
- Does the community still perceive risks from floods? What kind of intervention will help in further reducing these flood risks?

C. Access by local community to public and/or private services (Physical infrastructure, health, education, and credit)

- What services and infrastructure are available on this flood safe area?

- How does community access infrastructure and public service (health, education and credit etc.) in the course of regular flood? (By gender, ethnicity, and vulnerability groups?)
- What are the main health problems faced by the community after floods? Do all members of the community have access to health care? If not why (before, during and after flood impact)?
- Does your children access to school before, during and after flood impact? And Why and how? (by gender and vulnerability)
- How does household/ community access to formal and informal credit? Does formal credit (MFI) is functioning well to loan you? How and Why? Does informal credit service you well? How and Why? Can you cover the cost of high interest rate from the moneylenders?
- How does loan use for (food, investment, rebuild house etc.)? How many villagers were/are moving up and moving down economically or indebtedness due to credit, after flood? Why thought/form of improvement and strengthening in term of credit do you want to see as a good will to improve livelihoods of villagers, after flood disaster's impact?

4. What are the social and economic situations after local villagers affected by flood?

- How do men and women articulate their respective experiences with and perceptions of natural disaster?
- How are children affected by floods? Is education affected? What are the strategies used by community to continue education during floods?
- How are women affected by floods? Do their tasks change during floods? How do they cope?
- How are the elderly affected by floods? What is their role during floods? How do they cope?
- How are the disabled affected by floods? Is flood emergency response sensitive to their needs? How do they cope?
- Are/were any lives lost in this village due to flood? What is the strategy of the community/other agencies to ensure that lives are not lost due to floods?
- Is there any kind of insecurity at the community level during flooding? How? Why? What are the causes of insecurity? Is there any form of crime and violence at the community level during flooding and/or after flood?
- Do men and women face different types of insecurities and/or violence at the community and/or household levels during flood period? Is insecurity experienced differently by ethnicity or economic status of the individual/household?
- What are the types of social networks that exist in the community?

5. Community coping strategies/preparation and their indigenous knowledge to flood disaster

- How often is the village flooded by normal and severe flooding? What is the source of this flooding? How long does the flooding last? What is the extent of flooding (water levels, percentage of village land flooded)
Is flooding perceived as a problem by the community? Does it have any benefits?
- How do you define regular and severe floods respectively in the context of your village (by water level, by the degree of impact to economic, social and environment is substantial low, or by individual/household and community perception etc.)?

- Where do villagers evacuate to in the event of severe flooding? Is there a flood safe area?
- How does the community identify when to move to a safer area? Does the village have access to flood early warning?
- If yes, from whom and where (Radio? TV /Newspaper, CRC volunteer etc.)? And does this news is access to everyone in your village? In what way of communication? If no why? Is this information relied upon by villagers?
- What measures do individual households or the community take prior to and during the flood season to minimize impact/damage?
- Do you and your community have indigenous knowledge about dealing with floods? (What, why and how?)

ANNEX 5

SUMMARY REPORT OF COMMUNITY NEEDS IDENTIFIED IN COMMUNITY SURVEY, PREY VENG PROVINCE

The following document represents a summary of feedback received from communities during field survey undertaken during the TAs, which have been translated into a province-wide profile of community needs in floods and droughts. The views expressed in this document do not necessarily represent the authors' view.

Profile of Prey Veng Province

Prey Veng province is located towards the eastern part of Cambodia where the province is often affected by seasonal floods caused by the Mekong River. Prey Veng is also one of the provinces frequently affected by droughts. Rice-based farming system is the predominant livelihood of the local people. As water level from Mekong River have significantly changed during the past decades, wet season rice is not commonly practiced due to irregular flooding, while fields/area with receding rice cultivation has substantially increased in order to cope with the floods and droughts. A second livelihood strategy of local people is seasonal migration to nearby urban areas. The economic growth in urban areas in Cambodia absorbs labour force from rural areas on a daily wage basis to work on construction sector, garment sector and agricultural labor. In connection to this development, the field survey revealed that a trend of marked increase in both male and female migrants in recent years. These seasonal migrations and/or in some cases permanent migration to cities is a mechanism for local people to cope with food insecurity and poverty. Ministry of Planning and World Food Program (2002) suggest that Prey Veng province was ranked as the third poorest province, with a poverty rate estimated at 54 percent, after Pailin and Siem Reap province.

There are recently more than 100 NGOs and other development agencies working actively in Prey Veng province, of which only few agencies have been working on flood risk reduction and preparedness for flood affected districts. These agencies include CARE International in Cambodia and Cambodia Red Cross (CRC), which have been mainly working on flood preparedness by building safe areas, providing water and sanitation for safe area, household safety hills, raising homesteads, training for community members, access to early warning etc. However, these interventions are project based and not sustained long enough.

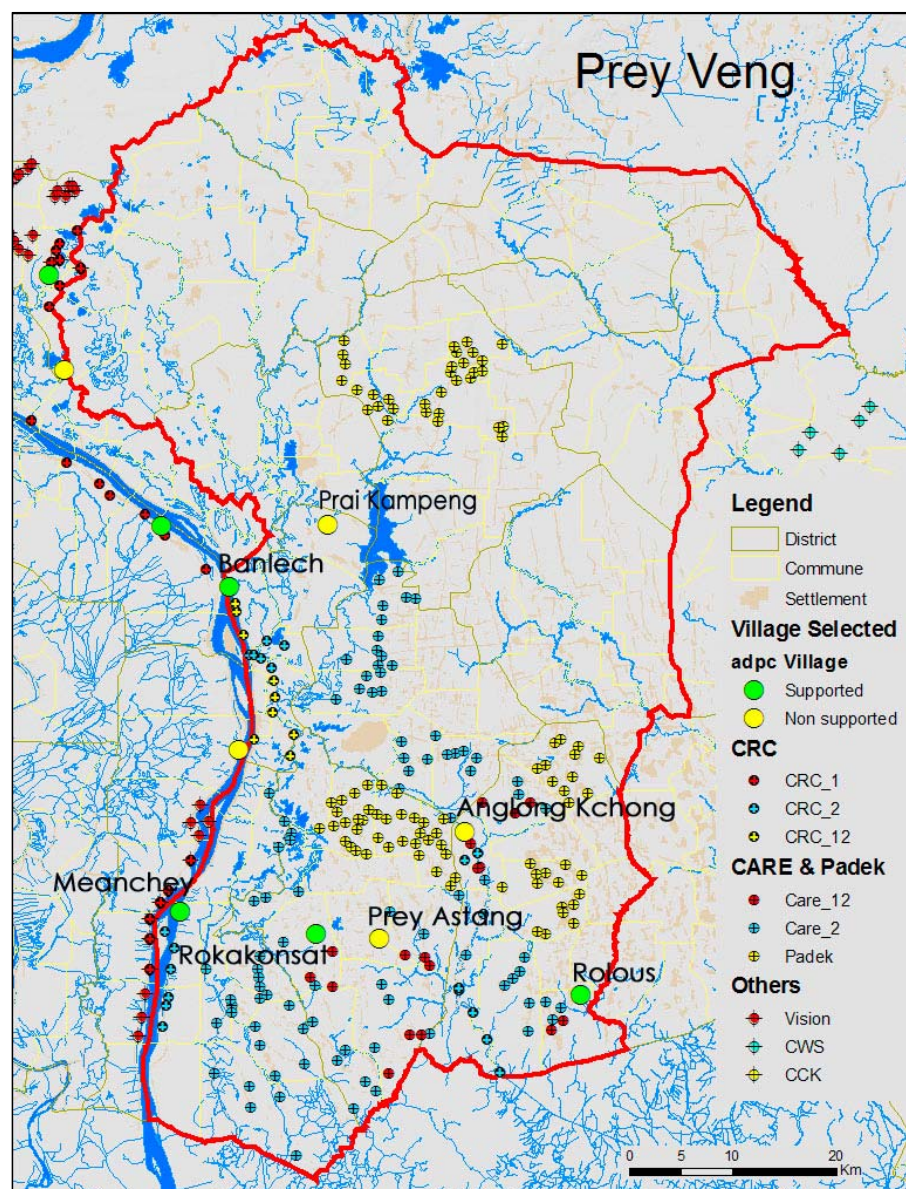
In Prey Veng province, based on the methodology for selection of villages described in the report, the following villages were selected and surveyed:

Table 1: List of surveyed villages and their corresponding communes/districts

Village's study site	Commune	District	Province	Name of NGO support
1. Rokakonsat	Beong Doal	Preah Sdach	Prey Veng	CARE
2. Prey Astang	Angkor Reach	Preah Sdach	Prey Veng	None
3. Anlong Chok	Kompong Trabek	Kompong Trabek	Prey Veng	None
4. Rolous	Cham	Kompong Trabek	Prey Veng	CARE
5. Banlech	Peam	Peam Ro	Prey Veng	CRC

	Meanchey			
6.Prey Kampeng	Prey Kandeang	Peam Ro	Prey Veng	None
7.Mean Chey	Koh Chek	Peam Chor	Prey Veng	CRC

Figure 1: Location of surveyed villages



What tools were used?

Participatory research and rapid assessment have been used in order to collect necessary data, such as formal and informal focus group discussions (FGDs), and in-dept individual interview. Participatory Rural Appraisal (PRA) tool was used to obtain well-being ranking, timeline, seasonality analysis, livelihood analysis, mobility analysis and natural resources mapping in communities. The use of each tool was varied from one village to another based on geographic area, workable tool for specific FGD and/or tool that works best for FGD. For each village studied, at least two FGDs were used to collect necessary information, such as formal/open or mixed FGD (men and women) and women's FGD. In some cases, an informal FGD was used for verifying responses from other discussions to

achieve a complete picture of community needs and identify new issues that were not addressed in the research questions. FGD with women was separately conducted to highlight the specific issues that women experience in term of flooding impact on their livelihoods and risk reduction strategies. In terms of formal focus group discussions, different stakeholders participated including: pagoda committee members, teacher, chief of village, men, women, poor households, commune council members, widowed women who are head of households. Additionally, the participants attained each focus group discussion comprise of 10-20 persons, which including male and female.

1. Impact of Food to Local People's Livelihoods

How to define vulnerability to flood risk?

Local people viewed poverty differently across seven villages studied. Based on well-being ranking which is defined by local people, the category of poverty of each study village is divided into three to four classes depended entirely local people view and/or perception: well-off, middle income, poor and destitute/extremely poor households (See more detail in village reports). The poor and destitute households comprised 35-85% of total population in the surveyed villages. These households often face food insecurity over the course of year, living in thatch house or are sometimes homeless, are either landlessness or hold limited productive assets, lack access to capital investment and have limited labor force within family (particularly in women headed households, with young children). Middle income or well-off households, which comprised 15-65% of total households in a village, may hold a productive asset in the village, such as land, better housing conditions, access to capital investment and having enough rice for year round consumption or some surplus for sale. Several FGDs across the seven villages suggested that most of 'poor/destitute households' include disabled, or women headed households and elderly headed households. During the course of flooding season, most of those households are most vulnerable to the natural calamity. In some exceptional cases, the better off households are also vulnerability to flood risks, where houses are located opposite to direction of water flow during the course of flood and prone to loss of valuable assets and the location may be threatening to lives.

An example of well being ranking is provided below:

Well-being ranking of Rokakonsat village

Category	Percent (%)	Estimated no. hh (#)	Criteria
Well-off	15%	39	<ul style="list-style-type: none"> - House with tile roof - Owned at least 2 cows - Having enough rice for consumption over the year period - Owned at least 1 ha of riceland - Access to capital for investment
Medium	35%	91	<ul style="list-style-type: none"> - House with thatch roof - Owned not more than one cow - Owned 0.5-1.0 ha of riceland - Having enough rice only 8-10 months per annum
Poor	40%	104	<ul style="list-style-type: none"> - Some have thatch house and other are homeless - Owned not more than 0.5 ha of riceland - Not having draft animals
Destitute	10%	26	<ul style="list-style-type: none"> - Homeless - Landlessness - Selling labour
Total	100%	260	-----

The following section describes the positive and negative impacts of floods to local people's livelihoods, which vary by poverty status and gender.

Positive Impact of Flood

Table 2 reveals that both severe and normal floods provide diversified benefits to local community study sites, such as security, fish catch and deposit of rich soil fertility.

Table 2: Summary of Positive Impact of Flood by Village Study Sites

Village's study site	Security	Catching fish	Deposit rich soil fertility
1. Rokakonsat	+++	++	++
2. Prey Astang	+++	+	N
3. Anlong Chok	+++	++	N
4. Rolous	+++	++	N
5. Banlech	+++	++	+++
6. Prey Kampeng	+++	+	N
7. Mean Chey	+++	++	+++

Note: +++: very good, ++: good, +: fair, and N: none affect at all

The selected study sites experienced occasional thefts, particularly of animals (in night time) due to insecurity during dry season. However, during flooding where village roads were under water, there were no such thefts. As the result, between June and October, there was a period of very good security for all study sites.

Floods in the Lower Mekong during the wet season can provide habitat and nutrition for fish. The bigger the flood, higher the fish catch. For all study sites, in the course of flood, 20-40% villagers are able to catch fish for supporting home consumption and some others with good fishing skills and fishing gears could catch fish for earning income. Few villagers also make *prahoc* (fish paste), which is used as sole source of protein intake when water recedes. It is noted that in order to catch fish, it is necessary to have fishing gears and boat, because the productive fishing areas are far from safety hills and homes. Therefore, only better off households and few poor households with access to these facilities benefit from fishing. Some of the poorest households, particularly women headed households were marginalized from this benefit of fishing activities due to lack of credit to purchase fishing equipment or limitation of skills and labour.

Flood often make soil more productive in Banlech village located very close to the branch of Mekong River. Every year flood has deposit humus to villagers' rice fields which bring rich soil fertility to support agricultural crops. Also, floods are a natural means of removing farm parasites such as rats from the fields. Again in this case, the landless poor and households holding very small pieces of land are marginalized from this benefit.

Negative Impacts of Floods

Key informant interviews and FGDs for most of study sites suggested that since 1979, floods from Mekong River severely impacted livelihoods of local villagers, attributed both to

increased Mekong floods and also some trans-boundary considerations¹. Some local villagers revealed that they were not able to cultivate wet season rice, since 1979, when water reached villages earlier than usual, which devastated rice fields. Also, in border areas, the dykes in Vietnam designed to irrigate Vietnamese fields have modified the hydrology, which has changed local people's livelihoods and rice cultivation practices. Local people now tend to focus on recession (receding flood water) rice than that of traditional wet season rice. However, it appears that local people in the studied villages are not ensuring maximum use of flood water. For instance, for some areas, water is everywhere during the course of flooding season, however, during dry season, water disappears due to lack of infrastructure to retain and store flood water to irrigate crops in dry season.

Table 3 shows the negative impacts of flood, while the level or scale of impacts is experiencing differently within and across the village study sites, based mainly on diverse geographical area, gender, and poverty ranking. There are three main indicators of negative impacts of flood, such as environmental, social and economical impact, which are affected directly and indirectly to community and individual households.

Trans-boundary considerations in Flooding

Communities located close to the Vietnam border in the province experience both positive and negative effects due to their proximity to the border as follows:

- Some community members seek employment as daily wage labour in neighbouring provinces of Vietnam as construction workers;
- Community members sometimes find cheaper gasoline from Vietnam for their water pumps or boats;
- Communities are able to access flood forecast from Vietnamese government on radio;
- Some villagers sell their local produce in neighbouring provinces in Vietnam;
- Instances of community members accessing primary health care in Vietnam were also heard.

On the other hand, the increased flooding in some areas of Cambodia is attributed to the dykes constructed along the border in Vietnam.

¹ It is noted that all of these issues were addressed by local people during the course of interview. Therefore, any sensitive issues are not necessary to reflect the idea of research team.

Table 3: Summary of Negative Impacts of Flood by Village Study Sites

Village's study site	Environmental impact		Social Impact				Economical Impact				
	Soil erosion	Pollution	Migration	Education	Stress	Life lost ²	Animal health	Asset lost	sold out animal in advance	Health problems	Indebtedness
1.Rokakonsat	---	---	---	---	---	-	---	---	---	--	---
2.Preystang	n/a	--	no	--	--	n/a	---	---	n/a	---	--
3.Anlong Chok	---	--	-	--	--	no	---	---	--	--	--
4. Rolous	n/a	--	n/a	--	n/a	n/a	--	---	n/a	--	--
5. Banlech	no	--	-	---	---	-	--	---	---	--	--
6.Preystang	n/a	---	no	--	--	-	---	---	n/a	---	--
7.Mean Chey	n/a	n/a	n/a	--	n/a	n/a	n/a	---	n/a	-	n/a

Note: ---: very negative, --: negative, -: fairly negative, no: no negative impact, and N/A: not available data

² Lives lost before and up to 2000

Environmental Impacts

Soil erosion: As agricultural-base farming systems, soil productivity is essential element to improving rice productivity. However, after flood where water recedes, which led to cause soil erosion. FGDs with few villages suggested that village farmers often apply more fertiliser from year to year if they intended to improve rice yielding. Despite other villages where data were not available, however, through in-dept interview and field observations suggested that soil erosion were happen the same as those villages which data are available. Additionally, land slide along river bank has been occurred in Anlong Chok village. This phenomenon has impact to local villagers who's their Riceland and village land are bordering to river bank (Kampong Trabek River).

Unsafe potable water and sanitation: Safety hills often carry overload for both human and animals and lack of toilet facility over there. And also, for those whose have private safety hills at home often lack of toilet facility. This can cause environmental pollution and harmful for health. Except better off households, the rest of local people drink unsafe drinking water which could cause health problems during the course of flooding period.

3.2.2. Social Impacts

Migration: Economic growth, characterized by increasing market integration and infrastructure improvement, has absorbed an expanding labour force from rural areas. Migration is an important means for maintaining or improving local people's livelihoods. Despite some study villages do not have enough data on migration, however, the trend of migrations have been significantly increased due to natural calamity (Key informants interview and individual in-dept interview).

In Rokakonsat village, for instance, there were more than 50% of households migrate during the course of flooding period. Villagers who migrate do so individually or in groups. Some male migrants work as labourers in Phnom Penh, while others travel from their village to other provincial town or Thai border. Few female and single migrants travel to Phnom Penh to work in the garment sector. Most of them migrated to earn income for supporting their families during and after floods. Although migration has a positive impact to improve livelihoods of local villagers, however, FGDs suggested that migration have negative impact to women, especially those women whose husbands work outside the village. For example, many of these women reported they were overloaded with work when their husbands were away. In addition to taking care of children, they must manage the entire process of during the course of flood. Some women also impressed fear for their personal security at night while their husbands are away.

Health issues in migration: Male migrants are also at risk for acquiring sexual diseases, including HIV/AIDS. There were 5-10 men of few villages were died due to infect AIDS, which was then transmitted to their wives and children.

Education: Flood has impact on education most of village study sites. A school holiday often extended due to flood for every year. Formal school holiday often starts from July to October; however, water often recedes in November. As the result, children often go to school on November. Interviewed with teachers and directors of kindergarten and primary school suggested that informally they decided to extended school holiday till November because both parents and teachers often worry about incidence of small kids along the way from their house to school where water is everywhere along the way, while most of them do not know how to swim.

Life lost: Despite life lost were not found in the recent year. However, since 1995-2000, there were three study villages where few households lost their children during the course of flood. In Rokakonsat, for instance, there were two kids were lost life during a severe flood in 2000 whom their mother was widowed woman. Those two kids was tried to assist their mother to search for weed to feed animals during the flood period, while they didn't know how to swim.

Stress: During the course of flooding season, especially living in the safety hills, villagers from most of study villages often get stress, and most of them are worse off households, particularly the female household heads/widow with children were doing triple roles during this incident. Some of those were usually stressed because they were worry about nobody take care at home, indebtedness, food insecurity, and feeding to animals etc.

Economical Impacts

Assets lost: FGDs discussion with all study villages suggested that flood occurs a 3-4 consecutive years have impacts to economic development in the village, such as infrastructure and household assets. Since 2000 to 2004, the trends of villagers' livelihoods have been moving down remarkably. The economically moving down because flood devastated rice crops, house, and animals. As the resulted, they are indebtedness to moneylenders and other micro-credit institutions. Some villagers from few study villages revealed that they are landlessness because of flood destroyed their agricultural crops, while they sold out land to pay back loans, which were used for purchasing food consumption and agricultural input.

Animal health: Animal raising often infected by diseases during and after flood. The accessible to animal services by those study villages are differently. Few villages such as Rokakonsat, Rolous, and Mean Chey village are lacking veterinary services. While in Banlech village can access to district veterinary services for vaccination. The other village like Anlong Chok is existed village veterinary; however, quality of village veterinary is still limitations. More interestingly, few villages used medical doctor as a mean to treat their animals, while the effective level of treatment is estimated to be less than 50%.

Sold out poultry and livestock in advance: Seven to ten days before flood invades the villages, majority of local people who raised poultry and livestock often sold out some of those assets to traders, with no reflecting the market prices. Although it is a good strategy to reduce risk but farmer profit would be lost. As villagers are worry about flood, they sold out their livestock and poultry to traders and earned less profit, as compared to non-flood season. Women head of households were more intention to sell out their poultry and livestock before flooding, because they often used this money to purchase rice and other food stuff in order to survive during the course of flood.

Human Health problems: As all study sites are isolated and remote villages, during the course of flood, local people lacked of medical support when they face health problems. When villagers were sick, they usually managed to meet private medical doctor or district hospital in urban areas. Most often they used to travel a long journey from village to hospital. Additionally, in some case, lack of transportation means poses a threat to villagers to access health service. More interestingly, only Rolous village where local villagers often access to medical services from Vietnam because it borders to Vietnam. FGDs discussion suggested that the common diseases often infect local people's health include diarrhea, flu, cholera, and dengue fever.

Indebtedness: as flood and drought continue in a consecutive 2-3 years, local people from the study sites often got suffered from this natural calamity. FGDs suggested that majority of worse off households were often indebtedness to moneylenders, while the

interest rate is extremely high, with estimated to be more than 100 % per annum. The main reasons of indebtedness include food shortage and health problems during the course of flood, and agriculture crop's failure.

Flood Risk Reduction and Coping Strategy

There are two main NGOs have been actively working on flood disasters, such as CARE and Cambodian Red Cross (CRC). One local NGO like CEDAC, is working indirectly on the flood disaster in the study areas at Prey Veng province. Additionally, commune councils have also provided its service to community whose impact by flood during the course wet season. There are observed that those institutions have been working on different approaches and strategies. Generally speaking, it is found that some development agencies working the study sites are operating its flood risk reduction depended on project-based approach, while others have shown the long-term approach. However, there is a need to have local institutionalized approach and sustainability activity. Moreover, there is a difference between supported and non-supported villages by those development agencies' assistance in term of direct aid relief; however, there is slight difference in term of building capacity local people to improve their livelihoods through agricultural development, access to finance for investment for the vulnerability group and extension services, job creation alternative, and AIDS/HIV infections.

Furthermore, available local resources to mitigate flood is over-looked. For instance, local villagers at Banlech can cultivate bamboo for making bamboo floating during the course of flooding season, while at Prey Kampeng logged palm tree for making boat. However, other villages 'study for both supported and non-supported area does not yet introduce this idea to local communities.

CARE International in Cambodia

The objective of CARE's Disaster Preparedness Action Planning is to implement a model for bottom-up disaster preparedness that is tested at commune, district and provincial levels. The project will build the capacity of local authorities and villagers to identify, implement and monitor appropriate forms of disaster mitigation and preparedness measures. The main activities include; i) Mitigation Action Planning, ii) Preparedness Action Planning, iii) Disaster Mitigation through Savings. The community action plans in project areas included repairs of farm to market roads, dams, irrigation canals, bridges and schools, repair or construction of safety-hills, provisions for boats, radios and wells. In total 71 boats, 123 radio sets 12 community safety hills and 350 family safety hills were supported.

CARE is also implementing the Disaster Preparedness & Mitigation – Living Above the Floods (DPM-LAF) project. The major activities implemented under this project includes drawing contest, participatory disaster risk assessment, select vulnerable households, establish stages of complaint, action planning, establish purchasing committee, and implementation of action plan. Training and field visits for community members were organized on Disaster Risk Management and Humanitarian Accountability, ALNAP participatory and SPHERE, First Aids and Resolution for complaint.

In the supported village study suggested that CARE has been actively provided an aid relief to villagers in 2001 and 2005, respectively. The working strategy of CARE to supported-area study tends to be short-tem approach, which based on project-based approach. In 2001, CARE has provided machine boat, pumping machine, wells, and other agricultural materials those vulnerable groups which most of them are poor and destitute households. In the second phase of project, in 2005, CARE has provided fund for repairing house and household's safety hills, and community safety hills. Both aid relief

which donated by CARE are reflecting accountability and transparency, as it has followed participatory approach.

The process of offering aid relief is based entirely on villagers who attain meeting make decisions to whom are vulnerable groups would be best candidate to receive aid relief. It is noted that for those who are vulnerable group were received household's safety hill based on food for work, however, all of them are elderly villagers whom they could not adapt a food for work approach to construct their household's safety hills. In addition, a community safety hills also were not adapted by local villagers while there was lacking common land to construct it. Moreover, in term of follow-up and monitoring systems are still limitations for some study areas, for instance, in Rokakonsat village, CARE International has provided a machine boat, since 2001, to support villagers during the course of flood. However, the boat has not been using in efficient way including lack of accountability and transparency. FGDs suggested that the machine boat which was provided by CARE would be used for community need during the course of flood. Villages used the CARE complaint mechanism for registering some complaints about the use of community assets.

Cambodian Red Cross (CRC)

The Cambodia Red Cross (CRC) is one of the most active and earliest institutions in Cambodia, working towards disaster risk reduction and management. It has countrywide presence through network members in provinces and districts down to the village level. This institutional arrangement makes use of Red Cross Volunteers at the village level to undertake certain activities such as dissemination of warnings, evacuation, relief, and search and rescue. CRC's activities cover the whole spectrum of the disaster management cycle, from preparedness and mitigation to relief and response. Together with the International Federation of Red Cross and Red Crescent (IFRC) – Cambodia, CRC also provides capacity building programs to its volunteers and Commune Disaster Management Team (CDMT) on community-based disaster risk management strategies and practices. Additionally, The CRC in collaboration with American Red Cross have also undertaken a project on Flood Early Warning System with the Mekong River Commission under which flood forecast provided by the Mekong River Commission (which it produces in collaboration with the Dept of Hydrology, MoWRAM)

Most of study villages suggest that CRC have been working on providing training on Red Cross Volunteers (RCVs) for both support and non-support village. The content of training includes Community Based Disaster Preparedness (CBDP), and Community Based Flood Management Program (CBFMP), Community Based First Aid (CBFA). Furthermore, exchange experiences and field visit across the province have been taken place among RCVs. Field visits and exchange experiences over flood risk management have been done for those CRVs in the supported area, for instance, Banlech village. Two RCV of Banlech village were invited to participate exchange field visit to Kratie and Sting Treng in order to get insights and learn about flood risk reduction and strategy for those local community whose live along the upper Mekong regions. Moreover, CRC helps to establish Flood Early Warning System (EWS) project which aim is to reduce risk to higher than normal annual floods of vulnerable communities through improved flood warnings. Furthermore, in 2005, CRC help to establish a structure of development community, which includes for both flood risk reduction and saving groups. However, it is a starting-up phase where there is not yet implemented due to lack of technical and financial supports.

CEDAC

CEDAC is a non-profit research and development of non-governmental organisation specialized in the field of ecological agriculture and rural development. The center was

set up in August 1997 by a group of seven Cambodians, with initial support from GREAT (a French NGO).

The programs implemented in the study areas including:

- Farmer and nature program including: implementation of the field projects; support to farmer-led experimentation and farmer-to-farmer extension; organisation and management support to farmer organisation and networks
- Agro-based enterprise development program including: credit and marketing support to farmer groups and associations; community based agricultural-tourism; support to the development of community-based agro-processing enterprises.

More specifically, CEDAC strive to work on helping community to establish farmer association. The main objectives of farmer association include promoting agricultural productivity through System of Rice Intensification (SRI) and home gardening program, agricultural marketing, saving groups and etc.

In Prey Astang village, CEDAC has helped villagers whose have negative impacts from the flood through establishing saving group. The members of the saving group can borrow money to purchase agricultural inputs and purchasing fishing gears. With this approach, local villagers can access to credit for investment with a low interest rate of 3% per month. Additionally, through establishing a farmer association, local villagers can benefit from new agricultural technique aim at increasing agricultural productivity, which leads to improve food security.

Commune Councils (CCs)

Commune councils have play an important role for supporting and dissemination about flood disaster to the communities whose living above the flood. The level of supporting to communities is limited because financial and technical constraints within commune. It is interesting to note that during the election campaign, the main agenda and commitments of candidacy were mainly focused on building infrastructure, such as rural roads, canals and health issues. However, in term of commitment to assist flood risk reductions were likely reluctant to include in the agenda. Despite technical and financial constraints, most of CCs in the study sites often provide best effort to assist the communities. For instance, CCs often advise chief of villages one month before flood coming how to evacuate local villagers to safer areas, providing vaccinations to animals and children and pregnant women during flood for some study areas, and reporting the impact flood disaster to other development agencies for direct aid relief.

Table below is briefly about the flood risk reduction strategy, which is adopted and adapted by local people across the study sites, with assistance from different stakeholders and initiated by local people itself.

Table 4: Summary of Flood Risk Reduction Strategy

	Media and other sources			Indigenous knowledge	Measure the level of water
	TV	Radio	CCs/NGOs		
Support village	Received information about the flood from TV but it was not well informed to those villagers whose did not have access to media.	Some village, the villagers received information about the flood from radio but it was not well informed to those villagers whose did not have access to media. Some village, who have radio and TV often received information about the flood and shared those information to those who haven't.	Informed to all the village chiefs one month in advance for potential damage by floods Sharing flooded warning information to all the village chiefs by commune chief who is a key actor of CRC. CCs had providing information about flood preparation to all chiefs of village within commune. The CBRR (Commune Base Risk Reduction) strive to disseminated information to village chief and the Village CRC volunteer in whether to ensure the villagers have well prepared and mitigation with the coming flood. CRC has trained the villagers how to secure people when flood coming.	The villagers remarked the level of flood by looking at the speed of water flow from the up-stream Mekong River and the water turbid; if water flows strong and turbid then it mean that the flood is severe	Four water level posts and two boards (warning board and information board) supported (Banlench village) by Red Cross Volunteer (RCV). They monitor water level two times per day and write down on the warning board and write down the water level information from MRC/DHRW (through province and district officials) of "tomorrow" and "a day after tomorrow" on the warning board. RCV has educated the villagers on how to read and get information from the warning board.
Non-supported village		From July every year the villagers started follow up the water information from radio in order to know the level of water.	CCs informed to all the village chiefs about the water level. CCs play an important role to advise every village to cope with flood. Chief of village or village representative have been invited to meeting one month in advance before floods.	The water color from the river becomes dark it is a symbol that the village would be seriously affected. Sound of water flow from the canal near by the village also indicates the strength of water which may reach the village very soon.	Measuring the level of water within the village by using high of a person.

				<p>From the elderly experience has noticed that, in every dog year (Khmer year) the village faced severe flooding, thus they assume that in the next dog year, it will be have high level flooding so the villagers will be ready when this year coming.</p>	
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Conclusion Remarks

Practical need

Community priority need is very common across the study sites include construction of reservoir, canal and embankment, which aimed at maximizing use of flood water to irrigate their agricultural crops. Additionally, they also demand community safety hills, private safety hills and access to safe drinking water by constructing wells. Few villages without NGOs support are prioritized need on machine boat, which it could use as community transportation means to move their assets from house to community safety hill. Furthermore, the machine boat could facilitate in carrying out patients from village to health service center during the course of flood.

Moreover, the gender practical need in the course of flood has also received from the women focus groups discussion, particularly the group of female head the family/widow with children, elderly and disable people. As an example in Prey Astang and Prey Kompeng villages, women are looking for short term solution such as rice and food (e.g. Can fish), tent while staying in the safety hill and cooking materials (pot and dish), capital for investment even a small amount, poultry and pig for raising, rebuild and elevate house (because their nowadays houses have a lot of holes and very small) and individual safety hill under their house for keeping chicken or pig in the flooding time.

Strategic need

Here are providing some policy implications based on villagers' priority need and some field survey data, and observations.

Association: Most of study sites, the local people work individually or by forming a relative group in order to prepare and cope with flood, except Banlech village where CRC assisted to establish Support and Information Feed Back's Committee , which is aimed at coping with flood risk reduction.

There are lacking community approach and sense to work together. Local people were heard about associations such as farmer association and elderly association which have been introduced by NGOs to other areas, which aimed are to assist community members to access agricultural technology, market information, capital investment through self help group, and perhaps flood risk reduction strategy and preparedness. Local people for all study sites intent to establish the association; however, there are lacked of support for both technical and financial issues.

Self help group: Villagers lacked of cash for investment, especially for those whose worse off households or vulnerability to flood risk. Hence, there would be a potential to establish a saving group which under umbrella of association, which this can be reduce high interest rate. As the result, for those vulnerability to flood risk can access to capital for both investment and purchasing food during and after flood.

Home gardening program: There are some program interventions that can work out to strengthen local community needs, such as home gardening program. To improve villagers' livelihoods, the home gardening program can be done and training for those whose are living at the safety hills during flood and after water recedes. Vegetable and fruit trees can support for both consumption and sale for earning income, especially for those whose are worse off households.

Improving seed storage and seed selection: Few study villages, the majority of local people have raised concern about the rice seed quality. Rice seed were stored during the course of flooding season have low germination rate. It maybe local people lack of experiences for seed storage or perhaps those rice seed is a high breed variety because they often cultivate recession rice by using early IR varieties. Therefore, improve seed storage and seed selection can help improve food security of local people after flood.

Veterinary services: Most of study villages are lacked of good extension service for animal husbandry. There is a potential to train a villager to be a village veterinary which can assist animal treatment in the villages, with a cost effectiveness and efficiency. For those villages whose have village veterinary, there should be some form of further strengthening capacity and skills so that in the future they will be able to deliver good quality service to local people.

Optimum use available local resources to cope with flood: Local available resources are the best alternative use for coping with flood risk. There is necessary to allocate some local resources to make boats like bamboo that can be planted in the village, while during the flood these materials would be made a floating bamboo. Experiences from Banlech village suggested that villagers often use floating bamboo as a means of transportation during the course of flood. While at Prey Kandeang village, local villagers often use palm stem to make boat which are available for transportation mode during the course of flooding season.

Improving health services and training AIDS/HIV: Generally speaking, access to health service for most of study villages is weak, especially during the course of flooding season. Therefore, this needed to be strengthening in the future. More interestingly, for those whose migration to get job in the Phnom Penh and elsewhere are potentially to infect AIDS/HIV disease. As the resulted, there should be some development agencies/NGOs help to train migrants about AIDS/HIV before they leave village to search for job.

Improving social network of migrations: Villagers often migrated to search for job in Phnom Penh and other areas. Some of them loan credit from moneylenders which can used to pay transpiration cost and food during the course of search job. Some of villagers became indebtedness because they could not find a job as they didn't have a network. Hence, it is possibility to assist villager migrants in order to establish a social network for migration, as recently a mobile phone service is available in the village so that this can be used as a means to communicate with a network aimed at identifying job opportunity effectively.

Set up a monitoring system: for those are provided aid relief like CARE and CRC should establish a regular monitoring system that can help project to improve effectiveness and efficiency for the aid relief.

ANNEX 6

VILLAGE REPORT FOR ROKAKONSAT VILLAGE, BOENG DAOL COMMUNE, PREAH SDACH DISTRICT, PREY VENG PROVINCE

1. Village Background

Rokakonsat village is located in Beong Doal commune, Preasdach district, Prey Veng province. Wet season rice cultivation plays a central role for supporting livelihoods of local villagers for both household consumption and income generation. The second significant livelihood for villagers is by migrating out of the village for job opportunities in cities as garment workers or daily wage labour during and after the flooding season (July-November). Additionally, fishing during the flood season is the primary source of protein intake of those villagers. Some households who have good fishing skills can catch fish not only for household consumption but also for sale.

Situating in the lower Mekong Basin, Rokakonsat village often come under flood every year, with standing water estimated between July to October or up to November. There are two main sources of water direction to cause a flood in the village; firstly, overflow from Por Borey embankment, on the West part of village, while the second source of water is from Tourl Tamao embankment, on the North part of village.

In 2000, the village was severely flooded; most of the village infrastructure was damaged including school and roads. Villagers define a 'severe flood' based on water level and its impact to majority of individual household asset/economic. Severe flood occurred in 2000, made the water level in the village was arisen up to 1.5 -2 m in height. All villagers were not ready to prepare to cope with this phenomenon, such as food, fuel wood, animals, and transportation to safety hills. All of them evacuated to village pagodas which have been used as safety hills while every households were lost their asset include house, animals and other agricultural materials.

CARE is an international NGO working with the most vulnerable individuals and households to identify resources, experiences and address through sustainable solutions the root causes of vulnerability and poverty. The main activity of CARE in the Rokakonsat village is to thrive to work on Disaster Preparedness and Mitigation living above flood project. Through focus group discussions suggested that there have been two main programs intervention with the different timeframe, 2001 and 2005, by CARE for those whose are vulnerable households¹. These interventions have been focusing on relief aid for both individual households affected by flood and community flood risk reduction.

2. Methods

With one day field survey, a research teams consider to apply a participatory research and rapid assessment in order to acquire a necessary data, such as formal and informal focus group discussions (FGDs). A Participatory Rural Appraisal (PRA) tools have been used such as well-being ranking and timeline. The participants attained each focus group discussion comprise of 10-20 persons, of which female and female head of household consisted of 5-8 persons per

¹ Criteria of vulnerable household which defined by CARE is a combination of female head of households/many children, chronically ill, households living in the thatch house/flooded, elderly, and poor households with many children.

FGD. In term of formal focus group discussion, there were participated from Pagoda committee, teacher, chief of village, men, women, poor households, widowed women who are head of households. A separately discussion with women group were conducted in order to get better understanding and highlight about the gender mainstreaming and participation in the flood preparedness and risk reduction .

3. Findings

Who are vulnerable villagers in the context of flood risk?

In the village, villagers identify four category of well-being: well off, medium, poor and destitute, and these can summarise as below.

Category	Percent (%)	Estimated no. hh (#)	Criteria
Well-off	15%	39	<ul style="list-style-type: none"> - House with tile roof - Owned at least 2 cows - Having enough rice for consumption over the year period - Owned at least 1 ha of riceland - Access to capital for investment
Medium	35%	91	<ul style="list-style-type: none"> - House with thatch roof - Owned not more than one cow - Owned 0.5-1.0 ha of riceland - Having enough rice only 8-10 months per annum
Poor	40%	104	<ul style="list-style-type: none"> - Some have thatch house and other are homeless - Owned not more than 0.5 ha of riceland - Not having draft animals
Destitute	10%	26	<ul style="list-style-type: none"> - Homeless - Landlessness - Selling labour
Total	100%	260	-----

Villagers identify the term of 'vulnerability to flood risk' as those whose are belonging to poor and destitute category and some of those medium and/or well-off households whose their house locate opposite to water direction during the course of flood period, which could damage their assets and threat to their life.

Flood benefit

Flood in the Lower Mekong during the wet season can provide habitat and nutrition for fish. In Rokakonsat village, in the course of flood, 30-40% villagers who most of them are poor households are able to catch fish for supporting home consumption, and some others whose have good fishing skills and fishing gears can catch fish for earning income between 5000-6000 Riels per day. Furthermore, villagers can also catch fish to make prahoc (fish paste) estimated to be 40-50 Kg per household. This prahoc can keep as a main source of protein intake when the water recedes.

3.1. Impact of floods to local community

Although local villagers have been living above the water during the wet season for every year floods still have negative impacts in different dimensions to local villagers including environment, social, and economic.

Environmental impacts

As agricultural-base farming systems, soil productivity is essential asst for improving rice production and productivity. However, after floods period, water recedes cause soil erosion from year to year. FGDs with villagers suggested that village farmers often apply more fertiliser from year to year if they intended to improve rice yielding. Safety hills often carry overload for both human and animals and lack of toilet facility over there. Moreover, most of local people drink unsafe drinking water which could cause health problems during the course of flooding period.

Social impacts

Migration: Economic growth, characterized by increasing market integration and infrastructure improvement, has absorbed an expanding labour force from rural areas like Rokakonsat village. Migration is an important means for maintaining or improving a household's livelihood. There were more than 50% of households migrate during the course of flooding period.

Villagers who migrate do so individually or in groups. Some male migrants work as labourers in Phnom Penh, while others travel from their village to other provincial town or Thai border. Few female and single migrants travel to Phnom Penh to work in the garment sector. Most of them migrated to earn income for supporting their families during and after floods. Although migration has a positive impact to improve livelihoods of local villagers, however, FGDs suggested that migration have negative impact to women, especially those women whose husbands work outside the village. For example, many of these women reported they were overloaded with work when their husbands were away. In addition to taking care of children, they must manage the entire process of during the course of flood. Some women also expressed fear for their personal security at night while their husbands are away.

Men who migrate are also at risk for acquiring sexual diseases, including HIV/AIDS. There were 5-10 men were died due to infect AIDS, which was then transmitted to their wives and children.

Education: Flood has impact on education in the village. A school holiday often extended due to flood for every year. Formal school holiday often starts from July to October; however, water often recedes in November. As the result, school children often go to school on November. Interviewed with director of primary school suggested that he decided to extended school holiday because he was worry about insecurity of small kids along the way from their house to school where water is everywhere along the way, while most of them do not know how to swim.

Life lost: There were two kids were lost life during a severe flood in 2000 whose their mother was widowed woman. Those two kids was tried to assist their mother to search for weed to feed animals during the flood period, while they didn't know how to swim.

Stress: During the course of flooding season, especially living in the safety hills, villagers often get stress, and most of them are poor and destitute households. Some of those were usually stressed because they were worry about nobody take care at home, indebtedness, and feeding to animals etc.

Economical impacts

Flood occurs a 3-4 consecutive years have impacts to economic development in the village, such as infrastructure and household assets. The result of FGD suggested since 2000 to 2004, the trend of villagers livelihoods have been moving down remarkably. The economically moving down because flood devastated rice crops, house, and animals. As the resulted, they are indebtedness to moneylenders and other micro-credit institutions.

Animal health: In 2000, there were 200 cows were died and the rest were sick. Although draft animals is essential to support rice cultivations and transportation means of villagers, lacking of extension service for animal husbandry still continue to be in the critical stage. More recently, villagers often use a medical doctor as a mean to treat their animals, while the effective level of treatment is estimated to be less than 50%.

Sold out poultry and livestock: a week before flooding, villagers who raised poultry and livestock were sold out some of those assets to traders, with no reflecting the market prices. As villagers are worry about flood, they sold out their livestock and poultry to traders and earned less profit, as compared to non-flood season. Women head of households were more sensitive to sold out their poultry and livestock before flooding, because they often used this money to purchase rice and other food stuff in order to survive during the course of flood.

Health problems: As an isolated and remote village during the flood, villagers lacked of medical support when they face health problems. When villagers were sick, they usually managed to meet private medical doctor in the upper areas, they used to travel at least two hours from a safety hills to the private clinic, while they wait private doctor there in order to bring him to safety hills, sometimes a took a day because doctor was also busy with other villagers. Additionally, in some case, lack of transportation means also pose a threat to villagers to seek private clinic during the course of flood. In 2001, CARE has offered a machine boat for villagers, but it does not effective use in the sense of community (see a detail in the section 3.2). It is noted that, in late 2005, Government has offered commune health centre, and it would be good for villagers to used these health centre services during and after flood.

Economically moving downs: as flood and drought continue in a consecutive 2-3 years, villagers often got suffered from this natural calamity. FGDs suggested that majority of villagers' livelihoods were moving down because of indebtedness to moneylenders, while the interest rate is extremely high, with estimated to be 100-120 % per annum. The main reasons of indebtedness include food shortage and health problems during the course of flood, and agriculture crop's failure. In addition, flood also cause to damage villagers' house.

Flood risk reductions and its effectiveness

Community has local experiences to cope with flood, as they adapted and lived above the flood during wet season for the long period of time. In recent, there were two embankments were repaired by Government (?) to reduce and/or cope with flood such as Tourl Tamao and Por Borey, which has length of 500 and

2,000 meters, respectively. These embankments can reduce flood risk so that villagers are able to cultivate wet season rice with a less damage from floods.

Here we would like to provide experiences which have been coping by villagers including before, during, and after floods, and how the public services can be accessed by local villagers.

Flood preparation

Traditionally, within a week before water reaching to village, most of villagers prepare food and fuel woods, and repair and check their own pillar's house to cope with flood, and constructed shell above water level for loading chicken, pig, agricultural materials and other assts. For those who are poor and destitute households often get loan from moneylenders that would be used for food reservation. A social capital existed within kinship relation in the course of flood preparation. Between 1-2 days before flood, elderly villagers were moved to safety hills which were assisted by their relatives without cost involvements. In case of flood reaching village, some of well-off and medium households have owned small boat (made of palm tree) can transport agricultural materials, cloths, rice and other assets to the safety hills, while for those whose are boat-less were hiring boats from their neighbouring in order to carry their assets from home to safety hills. There are three safety hills (pagoda campus) which are available to accommodate villagers during the flood period, however, there are no toilets and clean water facility. Some well-off households have constructed their owned safety hills at home, and they can stay over there during the course of flood period, except year 2000 which every villager were moved to the safety hills.

Commune councils play an important role to announce one month in advance for a potential damage by floods to all chief of villages, however, the measure are taken to support for flood preparation is still limited due to budget constraints.

For those villagers who have radio and TV often received information about the flood, but those information were not well informed to other those villagers whose didn't have access to the media

During flood

There are three safety hills which is available to accommodate local people from different villages. Although security is not a main concern in the safety hills, however, majority of villagers often visited their home in order to ensure that all everything are safe. Women head of households are more impacts during flood season, once they need to taking care their children while at the same time they also look after their assets at home.

Access to health service during flood period is extremely difficult due to lack of transportation means facility and the private clinic is very far from a safety hills. It would take at least two hours to the private clinic. CARE International has provided a machine boat, since 2001, to support villagers during the course of flood. However, the boat has not been using in efficient way including lack of accountability and transparency. There were several complaints mechanism by villagers to CARE. Informal Focus Group discussions with women appear that women often infected disease during the flood season, especially for those whose stand and swim in the water for longer times in order to collect animal feeds.

Fishing is an important occupation during flood season. For those who are medium and well-off are able to purchase gillnet for catching fish. However, for some of those who are poor and destitute households are lacking capital investment to buy fishing efforts, because they could not afford to loan and/or high interest rate to payback.

After floods

When water recedes in late October or early November, villagers often manage to treat their animal disease, while majority of cows were infected. In the village, there were lacked of extension service for animal husbandry. Practically speaking, villagers use the service from medical doctor to treat their animals which cause a low level of effectiveness.

For those who are poor and destitute households often lack of rice, seeds, and poultry to cultivate, as most of those were completely consumed during the flood. There was no intervention from stakeholders to assist them, except Cambodian Red Cross (CRC) and CARE. CRC through chief of village report to commune council and to district officials has provided aid relief such as rice and some seed to local villagers. CARE has been actively provided an aid relief to villagers in 2001 and 2005, respectively. In 2001, CARE has provided machine boat, pumping machine, wells, and other agricultural materials those vulnerable groups which most of them are poor and destitute households. In the second phase of project, in 2005, CARE has provided fund for repairing house and household's safety hills, and community safety hills. Both aid relief which donated by CARE are reflecting accountability and transparency, as it has followed participatory approach. The process of offering aid relief is based entirely on villagers who attain meeting make decisions to whom are vulnerable groups would be best candidate to receive aid relief. It is noted that for those who are vulnerable group were received household's safety hill based on food for work, however, all of them are elderly villagers whom they could not adapt a food for work approach to construct their household's safety hills. As the resulted, all of this household's safety hills were failed. In addition, a community safety hills also did not adapted by local villagers while there was lacking common land to construct it.

4. Future direction for community-based flood risk reduction

Here are providing some policy implications based on villagers' priority need and some field survey data, and observations.

Association: Local villagers work individually or by forming a relative group in order to prepare and cope with flood. There are lacking community approach and sense to work together. Local villagers were heard about associations such as farmer association and elderly association which have been introduced by NGOs to other villagers. They are eager to establish the association; however, there are lacked of support for both technical and financial issues.

Sustainable development: CARE and CRC have been provided aid relief, as a short term strategy for villagers' livelihood improvement. Villagers do not have the sense of community that are harmony and working together, therefore, those relief do not sustain or exist a longer term in the community.

Home gardening program: There are some program intervention that can work out to strengthen local community and needs, such as rice productivity improvement and home gardening program. To improve villagers' livelihoods,

the home gardening program can be done and training for those whose are living at the safety hills during flood and after water recedes. Vegetable and fruit trees can support for both consumption and sale for earning income, especially for those whose are poor and destitute households.

Village veterinary: Majority of villagers are lacked of extension service for animal husbandry. There is a potential to train a villager to be a village veterinary which can assist animal treatment in the villages, with a cost effective and more efficient than that the existing services.

Set up a monitoring system: for those are provided aid relief like CARE should establish a regular monitoring system that can help project to improve effectiveness and efficiency for the aid relief.

Maximise use available local resources to cope with flood: In addition to relief aid of boat, there is necessary to allocate some local resources to make boats like bamboo that can be planted in the village, while during the flood these materials would be made a floating bamboo. Experiences from Ponley village of Peam Ro district suggested that villagers often use floating bamboo as a means of transportation during the course of flood.

Improving health services and training AIDS/HIV: Generally speaking, a village's health service is weak, especially during the course of flooding season. Therefore, this needed to be strengthening in the future. More interestingly, for those whose migration to get job in the Phnom Penh and elsewhere are potentially to infect AIDS/HIV disease. As the resulted, the villagers should be trained migrants about AIDS/HIV before they leave village to search for job.

Saving groups: Villagers lacked of cash for investment, especially for those whose are poor and destitute households. Hence, there would be a potential to establish a saving group which under umbrella of village and/or farmer association, which this can be reduce high interest rate. More importantly, those whose are poor and destitute households can access to capital for both investment and purchasing food during and after flood.

Improving social network of migrations: Villagers often migrated to search for job in Phnom Penh and other areas. Some of them loan credit from moneylenders which can used to pay transpiration cost and food during the course of search job. Some of villagers became indebtedness because they could not find a job as they didn't have a network. Hence, it is possibility to assist villager migrants in order to establish a social network for migration, as recently a mobile phone service is available in the village so that this can be used as a means to communicate with a network aimed at identifying job opportunity effectively.

5. Reference

CARE (2005), Disaster Preparedness and Mitigation Living Above the Floods Project: A final report.

Annex 7: List of communes selected based on ranking of vulnerability indices – Kandal Province.

District	Commune	ID	Density	Vulnerability Level*				Vulnerability Index				Overall Rank†	Group‡
				Flood	Poverty	Rice	Access	Flood	Poverty	Rice	Access		
Khsach Kandal	Roka Chonlueng	80312	2.6	1	3	3	2	105.3	104.3	107.7	101.2	9	1
Kaoh Thum	Preaek Thmei	80411	5.8	2	2	1	0	108.2	101.0	100.9	96.4	5	2
Saang	Kaoh Khsach Tonlea	81004	6.3	2	1	1	0	106.2	100.2	100.0	99.9	4	2
Khsach Kandal	Sanlung	80313	2.8	1	0	2	0	103.4	99.0	104.0	99.9	3	3
Kandal Stueng	Boeng Khyang	80104	2.9	1	0	1	1	103.9	95.8	101.3	100.8	3	3
Kandal Stueng	Preaek Kampis	80114	6.2	1	0	1	1	102.4	95.9	100.3	100.6	3	3
Khsach Kandal	Chey Thum	80302	2.0	1	0	1	1	105.0	99.1	101.5	100.8	3	3
Kaoh Thum	Kaoh Thum Ka	80404	8.3	1	0	1	0	104.3	98.2	101.1	97.3	2	3
Kaoh Thum	Preaek Chrey	80409	2.2	3	3	0	3	114.9	116.8	93.4	104.0	9	4
Lvea Aem	Barong	80602	1.2	3	3	0	3	122.7	104.1	91.6	108.3	9	4
Lvea Aem	Preaek Kmeng	80609	1.3	3	3	0	3	116.4	103.8	93.2	107.8	9	4
Lvea Aem	Kaoh Reah	80605	4.1	3	3	0	2	112.0	102.7	96.7	102.7	8	4
Lvea Aem	Sambuor	80612	3.5	3	3	0	2	111.0	102.6	95.2	101.5	8	4
Saang	Prasat	81006	0.7	3	2	0	3	112.5	102.1	94.3	105.9	8	4
Leuk Daek	Khpob ateav	80503	1.3	2	3	0	3	109.2	104.2	93.2	106.1	8	4
Lvea Aem	Preaek Ruessei	80611	3.4	3	1	0	3	116.5	100.8	94.9	106.5	7	4
Ponhea Lueu	Kaoh Chen	80905	2.6	3	2	0	2	122.6	101.1	92.9	101.9	7	4
Leuk Daek	Peam Reang	80504	1.4	2	2	0	3	106.1	101.3	92.0	103.9	7	4
Lvea Aem	Kaoh Kaev	80604	2.4	2	3	0	2	109.2	109.7	92.5	102.0	7	4
Lvea Aem	Tuek Khleang	80615	3.3	3	1	0	2	112.0	101.0	94.6	101.0	6	4
Mukh Kampul	Svay Ampear	80711	4.0	3	1	0	2	114.1	100.7	94.1	101.3	6	4
Leuk Daek	K'am Samnar	80502	1.7	2	1	0	3	108.2	100.0	92.7	110.7	6	4
Lvea Aem	Preaek Rey	80610	2.4	2	1	0	3	108.0	100.4	93.5	103.7	6	4
Saang	Krang Yov	81005	2.9	3	1	0	1	112.6	100.1	99.3	100.1	5	4
Saang	S'ang Phnum	81010	3.0	3	1	0	1	110.8	100.2	99.6	100.6	5	4
Khsach Kandal	Vihear Suork	80318	2.7	2	2	0	1	106.2	101.7	98.0	100.6	5	4
Leuk Daek	Preaek Dach	80505	1.1	1	1	0	3	105.3	100.3	98.2	103.2	5	4

* Level of vulnerability (syn.: exposure, dependency): 1 = Low, 2= Medium, 3 = high, 0 = above 'vulnerability' threshold (index score ≤ 100).

† Overall Rank = sum of levels (Flood + Poverty + Rice + Access).

‡ Ranking criteria and score; select communes where vulnerability level > 0.

Group 1	Communes found among the vulnerable classes (level > 0), in all four vulnerability indices
Group 2	Communes vulnerable in terms of Flood + Rice + Poverty
Group 3	Communes vulnerable in terms of Flood + Rice
Group 4	Communes vulnerable in terms of Flood + Access + Poverty

Annex 7: List of communes selected based on ranking of vulnerability indices – Takeo Province.

District	Commune	ID	Density	Vulnerability Level*				Vulnerability Index				Overall Rank†	Group‡
				Flood	Poverty	Rice	Access	Flood	Poverty	Rice	Access		
Kaoh Andaet	Thlea Prachum	210506	1.7	2	2	2	2	106.1	102.2	103.1	101.6	8	1
Bourei Cholsar	Kouk Pou	210305	2.1	3	3	1	0	114.6	102.9	100.0	100.0	7	2
Bati	Pot Sar	210210	2.8	1	2	3	0	100.8	102.3	111.0	98.3	6	2
Treang	Thlok	211013	2.4	1	2	2	0	100.0	102.2	102.2	96.5	5	2
Kaoh Andaet	Pech Sar	210502	1.6	2	0	2	1	107.0	99.9	103.2	100.3	5	3
Treang	Chi Khmar	211003	2.9	1	0	3	0	102.4	98.7	105.1	99.1	4	3
Treang	Sambuor	211009	2.3	2	0	2	0	107.0	99.4	102.2	96.5	4	3
Treang	Smaong	211011	2.7	1	0	3	0	101.4	98.8	105.3	98.3	4	3
Kiri Vong	Angk Prasat	210401	1.3	2	0	1	0	108.4	99.2	100.9	98.9	3	3
Prey Kabbas	Char	210604	2.9	2	0	1	0	107.2	96.2	101.2	99.2	3	3
Prey Kabbas	Prey Lvea	210610	3.3	1	0	2	0	101.9	96.5	102.5	97.6	3	3
Treang	Sanlung	211010	1.7	1	0	2	0	101.3	99.3	103.8	98.9	3	3
Prey Kabbas	Kampeaeng	210605	3.5	1	0	1	0	101.3	97.4	100.0	98.7	2	3
Prey Kabbas	Pou Rumchak	210608	3.1	1	0	1	0	100.4	99.1	100.4	97.5	2	3
Prey Kabbas	Prey Kabbas	210609	2.9	1	0	1	0	102.0	96.3	100.3	97.7	2	3
Bourei Cholsar	Bourei Cholsar	210301	0.6	3	3	0	3	116.9	105.7	95.1	107.2	9	4
Bourei Cholsar	Chey Chouk	210302	0.7	3	3	0	3	110.6	105.3	92.4	116.3	9	4
Angkor Borei	Kouk Thlok	210103	0.5	2	3	0	3	109.6	105.1	93.7	103.6	8	4
Bourei Cholsar	Kampong Krasang	210304	0.5	2	3	0	3	109.1	106.6	95.9	115.3	8	4
Kiri Vong	Kamnab	210403	1.1	3	3	0	2	119.4	103.4	96.5	102.0	8	4
Kaoh Andaet	Prey Yuthka	210504	0.8	3	2	0	3	114.5	102.4	96.2	103.1	8	4
Prey Kabbas	Kampong Reab	210606	3.0	3	3	0	2	121.0	104.4	94.0	101.1	8	4
Kaoh Andaet	Krapum Chhuk	210501	1.3	2	3	0	2	108.6	102.7	98.3	101.9	7	4
Angkor Borei	Prey Phkoam	210106	2.0	2	3	0	1	109.1	103.2	97.1	100.6	6	4
Kaoh Andaet	Prey Khla	210503	1.4	2	3	0	1	108.5	102.7	99.7	101.0	6	4
Angkor Borei	Angkor Borei	210101	2.8	3	1	0	1	111.8	100.8	95.7	100.1	5	4

* Level of vulnerability (syn.: exposure, dependency): 1 = Low, 2= Medium, 3 = high, 0 = above 'vulnerability' threshold (index score ≤ 100).

† Overall Rank = sum of levels (Flood + Poverty + Rice + Access).

‡ Ranking criteria and score; select communes where vulnerability level > 0.

Group 1	Communes found among the vulnerable classes (level > 0), in all four vulnerability indices
Group 2	Communes vulnerable in terms of Flood + Rice + Poverty
Group 3	Communes vulnerable in terms of Flood + Rice
Group 4	Communes vulnerable in terms of Flood + Access + Poverty

Annex 7: List of communes selected based on ranking of vulnerability indices – Prey Veng Province.

District	Commune	ID	Density	Vulnerability Level*				Vulnerability Index				Overall Rank [†]	Group [‡]
				Flood	Poverty	Rice	Access	Flood	Poverty	Rice	Access		
Preah Sdach	Boeng Daol	140903	2.2	3	3	3	3	113.2	103.8	105.3	107.2	12	1
Preah Sdach	Seena Reach Otdam	140911	2.4	3	3	3	3	110.9	104.6	104.2	104.1	12	1
Kampong Trabaek	Cheang Daek	140303	1.4	3	2	2	3	109.9	101.0	102.8	104.0	10	1
Peam Chor	Ruessel Srok	140609	2.0	3	2	2	3	110.7	101.5	103.8	109.3	10	1
Preah Sdach	Angkor Reach	140901	2.8	2	2	2	3	109.4	102.0	103.5	105.2	9	1
Preah Sdach	Chey Kampok	140904	2.9	2	2	2	3	108.6	101.1	102.2	103.4	9	1
Preah Sdach	Rumchek	140910	3.8	2	3	2	2	107.0	103.3	103.0	102.0	9	1
Peam Ro	Prey Kandleng	140708	2.2	2	3	1	2	107.6	103.0	100.8	102.5	8	1
Preah Sdach	Krang Svay	140906	3.4	2	1	3	2	108.4	100.8	104.8	101.2	8	1
Kampong Trabaek	Cham	140302	2.5	2	1	1	3	106.0	100.4	100.1	103.5	7	1
Kampong Leav	Baray	141101	1.7	2	3	1	1	106.9	103.6	100.7	101.0	7	1
Kampong Trabaek	Kampong Trabaek	140307	2.9	3	2	2	0	110.6	102.1	104.0	98.3	7	2
Sithor Kandal	Phov Ti Pir	141205	1.5	2	0	3	3	107.3	99.1	104.2	108.7	8	3
Sithor Kandal	Chrey Khmum	141202	1.8	1	0	3	3	104.4	99.9	108.9	106.0	7	3
Kampong Trabaek	Prey Poun	140312	3.7	1	0	3	2	100.3	100.0	105.7	102.4	6	3
Pea Reang	Prey Snlet	140808	1.7	2	0	1	3	108.1	96.8	100.8	108.9	6	3
Sithor Kandal	Phov Ti Muoy	141204	2.0	2	0	2	2	107.7	98.7	102.1	102.5	6	3
Sithor Kandal	Prey Daeum Thnoeng	141208	1.9	1	0	2	3	100.9	99.1	103.3	105.0	6	3
Kampong Trabaek	Chrey	140304	2.9	1	0	2	2	101.3	98.9	102.7	101.5	5	3
Preah Sdach	Lvea	140907	2.5	2	0	2	1	106.6	99.9	102.6	100.8	5	3
Pea Reang	Roka	140811	2.3	1	0	1	2	103.8	96.9	101.5	101.8	4	3
Sithor Kandal	Rumlech	141210	2.6	1	0	2	1	103.2	98.2	102.3	100.5	4	3
Pea Reang	Prey Phov	140807	1.8	1	0	1	1	101.0	99.1	100.7	100.0	3	3
Peam Chor	Angkor Angk	140601	1.5	3	3	0	3	115.9	103.3	94.9	104.1	9	4
Peam Chor	Kampong Prasat	140602	1.2	3	3	0	3	115.9	103.1	93.7	109.8	9	4
Peam Chor	Kaoh Sampov	140605	0.6	3	3	0	3	117.5	104.7	94.7	108.8	9	4
Peam Chor	Krang Ta Yang	140606	2.6	3	3	0	3	114.3	105.2	99.3	111.0	9	4
Kampong Leav	Preaek Anteah	141105	2.9	3	3	0	3	113.1	102.8	94.1	107.8	9	4
Kampong Trabaek	Peam Montear	140308	1.5	3	2	0	3	115.1	101.8	96.8	104.1	8	4
Peam Chor	Kaoh Chek	140603	1.7	3	2	0	3	110.9	102.1	95.5	109.9	8	4
Peam Chor	Kaoh Roka	140604	1.3	3	2	0	3	111.4	101.8	92.5	114.3	8	4
Peam Chor	Preaek Sambuor	140608	1.5	2	3	0	3	108.3	103.0	92.9	112.3	8	4
Peam Chor	Svay Phluoh	140610	1.8	3	2	0	3	110.2	102.4	94.2	104.1	8	4

Annex 7: List of communes selected based on ranking of vulnerability indices – Prey Veng Province. (Cont'd.)

District	Commune	ID	Density	Vulnerability Level*				Vulnerability Index				Overall Rank†	Group‡
				Flood	Poverty	Rice	Access	Flood	Poverty	Rice	Access		
Pea Reang	Preaek Ta Sar	140806	1.7	2	3	0	3	108.2	105.0	93.5	108.5	8	4
Preah Sdach	Preah Sdach	140908	2.2	3	2	0	3	113.6	102.1	99.5	106.2	8	4
Kampong Leav	Preaek Chrey	141106	2.1	3	2	0	3	116.3	102.0	91.6	105.2	8	4
Pea Reang	Mesa Prachan	140805	3.5	3	1	0	3	111.5	100.5	97.3	104.8	7	4
Preah Sdach	Banteay Chakrel	140902	1.6	3	2	0	2	114.7	101.4	95.6	102.1	7	4
Preah Sdach	Reathor	140909	2.0	3	1	0	3	110.8	100.8	96.7	105.6	7	4
Pea Reang	Kampong Prang	140803	1.8	1	3	0	1	105.4	103.4	98.4	100.4	5	4
Peam Chor	Preaek Krabau	140607	3.0	2	1	0	1	106.0	100.9	96.1	100.6	4	4

* Level of vulnerability (syn.: exposure, dependency): 1 = Low, 2 = Medium, 3 = high, 0 = above 'vulnerability' threshold (index score ≤ 100).

† Overall Rank = sum of levels (Flood + Poverty + Rice + Access).

‡ Ranking criteria and score; select communes where vulnerability level > 0.

Group 1 Communes found among the vulnerable classes (level > 0), in all four vulnerability indices

Group 2 Communes vulnerable in terms of Flood + Rice + Poverty

Group 3 Communes vulnerable in terms of Flood + Rice

Group 4 Communes vulnerable in terms of Flood + Access + Poverty

Annex 7: List of communes selected based on ranking of vulnerability indices – Svay Rieng Province.

District	Commune	ID	Density	Vulnerability Level*				Vulnerability Index				Overall Rank†	Group‡
				Flood	Poverty	Rice	Access	Flood	Poverty	Rice	Access		
Kampong Rou	Banteay Krang	200201	0.8	2	2	3	1	105.7	101.9	104.4	100.2	8	1
Svay Chrum	Svay Thum	200515	2.6	1	2	1	2	100.7	101.7	100.6	102.6	6	1
Kampong Rou	Tnaot	200212	1.7	1	2	1	1	104.3	102.3	101.0	101.0	5	1
Svay Chrum	Kruos	200511	2.2	1	2	1	1	101.1	101.1	100.6	100.6	5	1
Kampong Rou	Thmei	200211	1.3	3	2	1	0	110.0	102.3	100.5	98.3	6	2
Kampong Rou	Svay Toea	200210	2.3	1	1	2	0	104.0	100.0	102.2	97.2	4	2
Svay Chrum	Basak	200502	1.5	1	2	1	0	101.5	101.0	100.9	98.4	4	2
Svay Chrum	Chek	200506	3.1	1	1	2	0	100.4	100.0	102.0	97.4	4	2
Kampong Rou	Reach Montir	200206	1.2	1	1	1	0	101.4	100.5	100.5	98.4	3	2
Chantrea	Chres	200104	1.2	1	0	1	3	100.4	99.0	101.4	103.1	5	3
Kampong Rou	Samyaong	200208	0.9	1	0	2	1	102.3	99.0	102.9	100.1	4	3
Chantrea	Chantrea	200103	0.6	2	3	0	3	108.5	104.1	96.0	103.9	8	4
Chantrea	Tuol Sdei	200110	0.3	2	3	0	3	108.9	109.5	99.1	103.9	8	4

* Level of vulnerability (syn.: exposure, dependency): 1 = Low, 2 = Medium, 3 = high, 0 = above 'vulnerability' threshold (index score ≤ 100).

† Overall Rank = sum of levels (Flood + Poverty + Rice + Access).

‡ Ranking criteria and score; select communes where vulnerability level > 0 .

Group 1	Communes found among the vulnerable classes (level > 0), in all four vulnerability indices
Group 2	Communes vulnerable in terms of Flood + Rice + Poverty
Group 3	Communes vulnerable in terms of Flood + Rice
Group 4	Communes vulnerable in terms of Flood + Access + Poverty

ANNEX 8

REQUEST FOR PROPOSALS AND TERMS OF REFERENCE FOR PILOT PROJECT IMPLEMENTATION

1. Introduction to TA

Asian Disaster Preparedness Center, with funding from the Asian Development Bank, is currently implementing advisory technical assistance (TA) to Cambodia for Community Self-Reliance and Flood Risk Reduction (TA 4574-CAM). Ministry of Water Resources and Meteorology (MoWRAM) of the Royal Government of Cambodia (RGC) is the TA Executing Agency. The purpose of the TA is to reduce the vulnerability of rural communities to floods and droughts. Its output will be improved participatory flood risk management for targeted vulnerable communities in the lower Mekong River basin provinces of Cambodia. TA 4574-CAM is being financed under the Poverty Reduction Cooperation Fund (PRF). The project area comprises the flood - and drought - affected districts of Kandal, Prey Veng, Svay Rieng, and Takeo provinces.

A primary purpose of the TA is to provide MoWRAM and its Provincial DWRAMs (Departments of Water Resources and Meteorology) opportunities to adopt participatory risk reduction strategy as standard operating procedure when undertaking flood mitigation programs. It is also expected that the outcomes of as well as the processes followed for this TA would be directly applicable to future ADB and MoWRAM flood management programs at community level in Cambodia, including ADB's 2007 flood management project to be identified under the ongoing TA in support of MRC's flood management and mitigation program.

The TA is being implemented in two phases over a total duration of 14 months:

- (i) Phase I - **Strategy development** (6 months)¹ to formulate a methodology for mobilizing communities to plan, design, and Implement preparedness, prevention, and mitigation measures; and
- (ii) Phase II - **Pilot projects' implementation by NGOs** (8 months)² to implement the community based disaster risk reduction (CBDRR) strategy; and technical capacity development activities undertaken by ADPC.

2. Request for Proposals

For the second phase of TA implementation, ADPC is **inviting short proposals** from NGOs having experience in community based disaster risk reduction in Cambodia. The second phase includes 2 pilot projects of community based disaster risk reduction activities in Cambodia. Under each pilot project, it is expected that at least 2 communities in Prey Veng and Takeo provinces will be targeted (details under sub -section on "Location and Coverage of Pilot Project Implementation")

It is expected that the allocated amount of USD 140,000 (US Dollars One Hundred and Forty Thousand Only) be disbursed in 2 grants of up to USD 70,000 each (US Dollars Seventy Thousand Only), one for each of the pilot projects. Annex 2 of the document sent to NGOs provided a format for submission of short proposals by NGOs; and Annex 3 of that document briefly summarized key elements of a

¹ Currently being implemented from an office based at the Department of Hydrology and River Works, MoWRAM

² During the capacity development phase, the TA consultants will operate from a suitably located field office in the target area.

community based disaster risk reduction strategy.

3. Terms of Reference for Pilot Project Implementation

3.1. Approach for TA pilot project implementation

The partner NGOs undertaking pilot project implementation of community based risk reduction initiatives utilizing the CBDRR strategy developed under the TA may opt for one of the following approaches:

- Build on one of their recently completed or ongoing initiatives by adding complementary activities on community organizing, community capacity building, non-structural/structural household or community scale flood or drought mitigation measures, identified in consultation with the community in order to make the initial risk reduction intervention more comprehensive; or
- Identify a new site for pilot project implementation

The pilot projects are expected to serve as a model for replication in future risk reduction initiatives utilizing the proposed CBDRR strategy. Implementation of pilot projects in the identified target areas will be done by selected partner NGOs. Pilot project activities will be selected based on community needs, capacities, effectiveness in costs versus benefits to the communities, and replicability over a broad area, in accordance with the CBDRR strategy.

3.2. Pilot project activities

Upon selection, the partner NGO will undertake:

- A process of target area finalization;
- A survey of baseline information within targeted areas, which can serve for identifying the most vulnerable sections of the community and for measuring impact towards end of pilot projects;
- Participatory risk assessment through engaging with the community in a step-by-step process of mapping community hazards, vulnerabilities and capacities;
- Guided consultation of community in identifying most appropriate risk reduction action. The risk reduction actions thus identified may be (particularly in communities where NGOs have worked before) complementing earlier initiatives through community organizing activities in preparedness action planning, community safe area improvement, provision of material resources at household level which will reduce household flood vulnerability, etc. as will be outlined in the comprehensive menu of possible community disaster risk reduction interventions;
- Participatory action planning for implementation;
- Implementation of activities identified based on community consultation. Specific physical works, identified and designed by the community themselves, under the guidance of partner NGOs, will be implemented by the communities. Such works could include family and community safety hills; raising of essential structures; provision of flood refuges for families; emergency equipment (e.g., boats, radios, and communication facilities); rehabilitation and flood-proofing of schools, clinics, and temples; provision of flood-proof storage for food and other essential goods; and direct drought recovery assistance (seeds, fishing nets, boats, house repairs).

It is expected that to-the-extent possible, the community be encouraged to contribute in cash or in kind (through material or human resources) an equivalent of up to 5% of the cost of assistance being provided to the community.

The partner NGO will provide regular feedback to ADPC, MoWRAM and ADB in terms of lessons from community consultation, which can help in enhancing the CBDRR strategy on an ongoing basis.

3.3. Location and coverage of Pilot Project Implementation

The target area for the proposed pilot project must be located in either Prey Veng or Takeo provinces. ADPC and Hatfield consultants will provide NGOs with a list of vulnerable communes within these two provinces to identify suitable sites for pilot project implementation (provided as annex to the document sent to NGOs). Under each pilot project, it is expected that at least 2 villages located within one district will be targeted.

3.4. Duration of pilot project implementation: it is expected that the pilot project be initiated by May 2006 and concluded by end of November 2006.

3.5. Total Budget: USD 70,000 (US Dollars Seventy Thousand Only)

As mentioned earlier, total budget available for the pilot projects is USD 140,000 (US Dollars One Hundred and Twenty Thousand Only) which will be disbursed in two separate grants. Therefore for each individual pilot project, a maximum total budget of USD 70,000 (US Dollars Seventy Thousand Only) is available. Proposals with budget higher than USD 70,000 will not be considered.

3.6. Deadline for submissions: The short proposals must reach ADPC through email to supriya@adpc.net with a copy to ajrego@adpc.net, no later than close of business on **May 5, 2006**. Submissions that arrive any later than this date will not be considered. It is also required that the NGOs confirm interest in submitting proposal through brief email or fax (+662 524 5350, 5360) latest by **April 18, 2006**.

3.7. Reporting during implementation of TA pilot project

The partner NGOs identified for undertaking pilot projects will liaise closely with the Asian Disaster Preparedness Center. ADPC will conduct training on CBDRR strategy and it is expected that partner NGOs exchange information on an ongoing basis with national consultants engaged by ADPC. Following reports are to be provided to ADPC:

1. Based on community consultation, a report on **Pilot Project Implementation Action Plan** and outcomes from the baseline survey of target community, to be provided within 6 weeks of commencement of pilot project;
2. **Progress report** on pilot project implementation to be provided within 16 weeks of commencement;
3. **Pilot project completion report** within 24 weeks of project commencement, for inclusion into documents for the TA completion workshop, which will be organized by ADPC towards the end of the TA in December 2006 for facilitating a dialogue with stakeholders regarding CBDRR Strategy and sharing lessons from the pilot project implementation. The project completion report must therefore document lessons learned from pilot project implementation and provide inputs that will help enhance the CBDRR strategy.

3.8. Expected outcome of the pilot project implementation

- Successful demonstration of use of CBDRR Strategy in implementing community based risk reduction activities,
- Integrating lessons learned from pilot project implementation into CBDRR Strategy

3.9. Partner NGO Selection Process

The proposals received from the NGOs by the 28th April will be reviewed within one week by ADPC. NGOs would, if needed, be invited for discussions on the proposal and specific pilot project work plan. Recommendations from selection will be sent to ADB and MoWRAM for approval. It is therefore expected that by 1st week of May, the selected NGOs will be invited for contract finalization and signing. The process of partner NGO engagement will be in accordance with ADB's *Guidelines on the Use of Consultants* and other arrangements satisfactory to ADB for the engagement of consultants.

ANNEX 9

RECOMMENDATION FOR SELECTION OF NGOS FOR TA PILOT PROJECT IMPLEMENTATION

1. Invitations to submit proposals had been issued to seven NGOs working actively with communities in Cambodia, namely Cambodian Red Cross, OXFAM GB in Cambodia, CARE International in Cambodia, World Vision International (WVI), Church World Service (CWS), Chamroen Chiet Khmer (CCK – a local NGO based in Takeo province working with OXFAM) and CEDAC (Cambodian Center for study and development in Agriculture). Some NGOs cited constraints related to the availability of trained human resources, workload of current staff members, and desire to work on ongoing longer term projects; as well as reservations about the limited duration for the pilot and the schedule overlapping with the flood season, as reasons for their inability to submit proposals for the TA. Most agencies expressed their appreciation of the TA and their interest in continuing to be informed regarding outcomes of the TA.
2. A total of 3 proposals have been received by ADPC for undertaking the pilot project under the TA from CCK, CEDAC and CWS. ADPC personnel have already had one meeting with each of these agencies during which ADPC discussed about the NGOs' current capacities and past and ongoing projects, the proposals submitted by the NGOs as well as ADB, MoWRAM and ADPC's expectations from the TA pilot project implementation. As discussed during the tripartite meeting on the Interim report, the priority of the TA to initiate risk reduction actions that may be more sustainable by the communities themselves, and having contributions and ongoing engagement from the community in cash or in kind, were emphasize.
3. A proposal in Khmer was received from CCK, which was duly translated into English by professional translators, as well as TA national consultants, to ensure accurate understanding of the proposal. Similarly, 1 proposal each in English language was received from CWS and CEDAC, along with budget for the proposed action. ADPC team visited CCK's office in Romenh commune, Takeo province and also one of their proposed project sites in Chruy Poun village, Kropom Chouk commune, Koh Andeth district. Similarly, ADPC team also visited CWS's offices at Svay Rieng town, Svay Rieng province as well as their office at Phnom Penh. The team also visited Basak village and met with Village Development Committee members from Basak, Sala Rien and Svay Ta Phlo villages, Basak Commune, Svay Chrum district, Svay Rieng Province. With CEDAC, the team visited their office in Phnom Penh. In each case, the team provided comments on the proposal and sought responses from the NGOs to the team's comments.
4. The proposals were reviewed for responsiveness to the Terms of Reference in the following ways:
 - Past Experience of the organization
 - a. In working with implementing community based activities
 - b. In disaster risk reduction
 - Future sustainability and replicability
 - a. Sustainability/effort towards integration with commune development processes
 - b. Contribution from community

- c. Replicability (by MoWRAM and otherwise)
 - Project Content
 - a. Relevance to disaster risk reduction
 - b. Proportion of mitigation action in overall project budget
 - c. Understanding community needs
 - d. Capacity building component in project design
 - e. Gender participation
 - Ease of Project Management
 - a. Effectiveness of communication with ADPC
5. Each of the above criteria were assigned a percent weight, and a score on a scale of 1-10 (10 being the best) was assigned for each of the criteria to each of the 3 NGOs. The score was multiplied by the weight to derive the total score for each NGO. The final result is shown below:

	% Weight	CCK		CEDAC		CWS	
		Score (Scale 1-10)	Total Score	Score (Scale 1-10)	Total Score	Score (Scale 1-10)	Total Score
Past Experience							
Experience with communities	15%	9.25	138.75	8.25	123.75	9.25	138.75
Experience in DRR	10%	7.5	75	2	20	5	50
Future sustainability and replicability							
Sustainability/Integration with commune processes	10%	4	40	6.5	65	6.5	65
Contribution from community	5%	3.5	17.5	6.5	32.5	7.5	37.5
Replicability	10%	7	70	8	80	9	90
Project content							
Relevance to disaster risk reduction	15%	8.5	127.5	5.75	86.25	8.75	131.25
Proportion of mitigation action in overall project	10%	9.25	92.5	9.25	92.5	9	90
Understanding of community needs	10%	6.5	65	5.5	55	8	80
Capacity Building component	5%	6	30	7.5	37.5	9.25	46.25
Gender participation	5%	8.25	41.25	3.75	18.75	7.5	37.5
Ease of Project Management							
Communication with ADPC	5%	2.5	12.5	8.25	41.25	9	45
Total			710/1000		652.5/1000		811.25/1000

6. From the above table, CWS and CCK are the 2 best ranked proposals. It is therefore recommended that CWS and CCK be selected to undertake the implementation of the pilot project under TA 4574 in Cambodia. We believe that with both agencies, we will have a fruitful collaboration and effective testing of community based risk reduction processes. Their proposals are attached for your review and approval.

Annex 10

Agreement Church World Service (CWS)

Grant Agreement Number: ADBTA-Cambodia-DMS-01-06

GRANT AGREEMENT

This Grant Agreement (Hereinafter called 'Agreement') is entered into this June 30, 2006, by and between the Asian Disaster Preparedness Center, hereinafter called the ADPC, under its Technical Assistance on Community Self Reliance and Flood Risk Reduction (hereinafter 'TA 4574-CAM'), and the **Church World Service**, House No. 229, Street 51, Boeung Keng Kang I, Chamcarmon, Phnom Penh, Kingdom of Cambodia, hereinafter called the 'NGO'. The TA 4574-CAM is funded by the Asian Development Bank (hereinafter called 'ADB'), and has the Ministry of Water Resources and Meteorology as its Executing Agency (hereinafter MoWRAM).

For the purpose of this Agreement:

Dr. Suvit Yodmani, Executive Director, ADPC, shall act as representative of the ADPC

WHEREAS, ADPC has been engaged by the ADB to provide Technical Assistance for Community Self Reliance and Flood Risk Reduction in Cambodia, TA 4574-CAM (detailed in Annex 5: TA Activities' implementation in the 2 phases of Strategy Development and Pilot Project implementation)

WHEREAS, implementation of TA 4574-CAM includes development of a Community Based Hydro-Meteorological Hazard Risk Reduction Strategy (CBRR Strategy) by ADPC, and pilot implementation of this strategy by non-government agencies based in Cambodia (Approach briefly outlined in Annex 6: Standard processes and procedures in CBRR)

WHEREAS, the NGO has submitted a proposal a proposal to ADPC, indicating their willingness and interest in undertaking pilot implementation of the CBRR Strategy

WHEREAS, the ADPC wishes to have the NGO perform the services hereinafter referred to, and

WHEREAS, the NGO is willing to perform these services

Now therefore the ADPC and the NGO hereby agree as follows:

1. Services:

- (i) The NGO will ensure that all activities and services undertaken as part of this AGREEMENT shall be provided in the name of the TA 4574 CAM and on behalf of the ADB, MoWRAM and ADPC
- (ii) The NGO shall perform the services specified in Annex 1: Scope of Services, as per the process steps identified in Annex 2: Terms of reference and Annex 6: Standard processes and procedures in CBRR, which is made an integral part of this Agreement ('the Services')
- (iii) The NGO will recognize as significant partners, liaise and communicate with the ADB and MoWRAM, as and when advised by ADPC
- (iv) The NGO shall complete project services and produce deliverables within the allotted timeframe, and as outlined in Annex 3: Implementation workplan and deliverables
- (v) The NGO and ADPC agree with and will work within the Budget as summarized in Section 6 of this agreement and as detailed in Annex 4: Detailed Budget
- (vi) The NGO shall submit to ADPC the reports in the form and within the time period specified in Section 7 on 'Reporting and Evaluation' of this Agreement

- and as per Annex 3: Implementation workplan and deliverables
- (vii) The NGO shall receive payments against specific outputs and outcomes, and according to the amounts specified in Section 5, point 4.

2. Purpose of Grant Agreement:

The purpose of this Grant Agreement is to provide financial support to the NGO for implementation of “**Community Based Disaster Risk Reduction**” Pilot Project under TA 4574 CAM, in the province of Svay Rieng, Cambodia, as more fully described in Annex 1: Scope of Services and Annex 2: Terms of Reference of this Agreement.

3. Period of Grant Agreement:

The NGO shall perform the services during the period commencing July 1, 2006 and continue through to March 31, 2007 or any other period, which ADPC and the NGO may subsequently agree in a written amendment to this Agreement.

4. Termination:

Project termination may be initiated by ADPC or the NGO with written notice that must be received at least three months in advance of the actual date of termination. Should project funding from ADB be cancelled, ADPC may terminate the project with only one-month notice in writing. Should termination occur, reimbursement will be made for expenditures already incurred based on a statement of expenditure and original receipts and/or refunds of payments made where advance expenditures have not been incurred.

5. Grant Amount, Method and Schedule of Payment:

1. The total cost of the Services is USD 68,428 (*US Dollars Sixty Eight Thousand Four Hundred and Twenty Eight Only*) from ADPC (based on funds from the TA 4574-CAM). Under no circumstances can the total amount provided by ADPC exceed USD 70,000. The amount will be used by the NGO in undertaking the Services as specified in Annex 1 and Annex 2 and the budget set forth in Annex 4.
2. If there are cost savings, remaining dollar amount from the original budget amount in USD may be used for justified additional expenditures over the amount originally provided in the budget set forth in section 6 and Annex 4, if approved in writing by ADPC.
3. For purposes of this Agreement, the NGO is committed to mobilize from the community, in cash or in kind, not less than USD 2025 equivalent of contribution from the communities where the NGO will undertake implementation of the Services as described in Annexes 1 and 2. If, for some reason, the amount received by the NGO is less than the ADPC obligated amount of USD 68,428, the expectation for the contribution from the community will be proportionately reduced.
4. The NGO shall receive payments according to following schedule and amounts specified, based on an invoice for the specified amount received from the NGO:
 - **USD 17107**, i.e. **25%** of total cost as advance
 - **USD 13685.6**, i.e. **20%** of total cost upon submission of a **report** containing (i) Baseline Survey and Community Needs Assessment; and (ii) Proposed implementation plan for Services (with emphasis on plan for community based risk mitigation measures) prepared in consultation with the beneficiary community; submitted **within 8 weeks** from commencement of the Services
 - **USD 13685.6**, i.e. **20%** of total cost upon submission of **first progress report** containing (i) Report of training activities conducted; (ii) Summary of mitigation and community organizing activities initiated and implemented (iii) Statement of

expenses for the first quarter; submitted **within 16 weeks** from commencement of the Services. The above payment will only be released when the statement of expenses exceeds a total amount of USD 20,000 only.

- **USD 13685.6**, i.e. **20%** of total cost upon submission of **second progress report** containing (i) Progress of implementation of community based mitigation activities; and (ii) Statement of expenses for the second quarter, submitted **within 26 weeks** from commencement of the Services. This payment will only be released when the statement of expenses for the second quarter exceeds a total amount of USD 15,000 only.
- Up to a maximum total of **USD 10264.2**, i.e. **15%** of total cost, upon submission of (i) **project completion (final) report**; (ii) submission of full statement of expenditure for remaining eligible costs, submitted **within 34 weeks** from commencement of the Services.

For each of the above payments the NGO must furnish and invoice to ADPC, against which the payment will be released upon completion of expected outputs and review of the statement of expenditure required to the satisfaction of ADPC. The payment shall be made in US Dollars, not later than 30 days following acceptance of submission by NGO of the invoices, outputs and supporting documentation to the ADPC.

6. Financial Reporting and Budget

The NGO will be responsible for submitting a statement of expenses to ADPC, with necessary supporting documents and receipts in original (such as timesheets for project personnel, receipts for use of vehicles/transportation, hotel receipts, mitigation and equipment costs, training costs etc.) every quarter, and along with the respective substantive reports, as mentioned under section 5, point 4 (expected dates for quarterly statements of expenditure are October 1st, 2006 and January 1st, 2007 and full statement of expenditure by April 1st 2007) in order to be eligible for the next payment. For all equipment and such items purchased, list of items and quotations from at least three (3) suppliers must be forwarded to ADPC prior to actual purchase.

The budget is summarized herein, and detailed budget attached as Annex 4. Revisions or variations to this budget resulting from Force Majeure, the changing demands on the ground and implementation exigencies shall be mutually agreed through consultation between ADPC and the NGO and will require prior written approval of ADPC, provided the total ADPC funded amount shown in Section 5, point 1 is not exceeded.

Budget Summary

Heading	Qty	Unit	Duration	Unit Price	Total Amount
1. Baseline survey cost conducted at 9 villages					450
2. Training activities (2a + 2b+ 2c)					7,580
2a. CBDRR for 9 VDV's and 36 VDCs, 9 Village Chiefs, 4 Commune Council Members 5 days (2 courses)					3,991
2b. Community based first aid for 9 VHV's, 9 VDV's, 4 CC member 6 days (1 course)					1,679
2c. Disaster management and reporting for 9 VDV's, 9 Village Chief, 4 CC members, 6 CWS and CNGO staff, 5 days (1 course)					1,910

3. Follow up workshop with 9 VDV's, 4 CC members facilitated by CNGO and CWS staff					238
5. Public Awareness Raising, conducted by staff					225
6. Visibilities (6a + 6b)					1,485
6a. Public Awareness Visibility					1,350
6b. ADPC/ADB Visibility Printing					135
7. Mitigation Activities*					42,525
Mitigation Activities and visibility	9	village	1 activity	4,500	40,500
Value of contribution from community (in cash or in-kind)	9	village	1 activity	225	2,025
8. Communication					135
10% of communication cost	0.20		9	75	135
9. Travel and Subsistent Expenses (9a + 9b)					2,070
9a. Program staff travel to monitor project activities					1,620
9b. Program staff travel to monitor project activities					450
10. National Personnel Costs (10a + 10b)					9,018
10a. Indirect Staff Salaries					3,131
10b. Direct Staff Salaries					5,887
11. Miscellaneous					3,258
Total Budget with value of community contribution					67,194
Total Budget without value of community contribution					65,169
GRAND TOTAL					68,428

* - Detailed cost estimate/proposed implementation plan must be submitted to ADPC prior to the commencement of the activities.

7. Reporting:

Following reports are to be provided to ADPC:

- **Report** containing (i) Baseline Survey and Community Needs Assessment; and (ii) Proposed implementation plan for Services (with emphasis on plan for community based risk mitigation measures) prepared in consultation with the beneficiary community; submitted **within 8 weeks** from commencement of the Services
- **First progress report** containing (i) Report of training activities conducted; (ii) Summary of mitigation and community organizing activities initiated and implemented; submitted **within 16 weeks** from commencement of the Services.
- **Second progress report** containing progress of implementation of community based mitigation activities; submitted **within 26 weeks** from commencement of the Services.
- **Project completion (final) report:** (ii) submission of full statement of expenditure for remaining eligible costs, submitted **within 34 weeks** from commencement of the Services. The lessons from this report will be included into documents for the TA completion workshop, to be organized by ADPC towards end of the TA 4574 CAM in March 2007 for facilitating a dialogue with stakeholders regarding CBRR Strategy and

sharing lessons from the pilot project implementation. The project completion report must therefore document lessons learned from pilot project implementation and provide inputs that will help enhance the CBRR strategy.

8. Intellectual Property Rights:

All reports or work products, in any form, prepared by the NGO in performing the Services shall be the sole and exclusive property of ADB, and may be made available to the general public at ADB's sole discretion. The NGO may take copies of such documents and data for uses related to the Services under conditions acceptable to ADB, but shall not use the same for any purposes unrelated to the Services without the prior written approval of ADB.

The NGO shall indemnify ADB, the Government and ADPC from and against all claims, liabilities, obligations, losses, damages, penalties actions, judgments, suits, proceedings, demands, costs, expenses and disbursements of whatsoever nature that may be imposed on, incurred by or asserted against, ADB, the Government and ADPC during or in connection with the Services by reason of: (i) infringement of alleged infringement by the NGO of any patent or other protected right, or (ii) plagiarism or alleged plagiarism by the NGO.

9. Ownership of Project-financed Equipment and Civil Works

Ownership of office and similar equipment procured by the NGO using ADB funds shall be handed over to the Executing Agency through ADPC upon completion of the assignment. Civil works, equipment and goods relating to the flood mitigation activities of the TA shall be turned over to recipient communities upon completion of the assignment. A certificate of handover shall be submitted to ADB through ADPC.

10. Performance Standards

The NGO undertakes to perform the services with the highest standards of professional and ethical competency and integrity.

11. Confidentiality

The NGO shall not, during the term of this Agreement and within two years after its expiration, disclose any proprietary or confidential information relating to the Services or this Agreement without approval from ADPC.

12. Assignment

The NGO shall not sub-contract any portion of this Agreement without ADPC's prior written approval.

13. Non-Partisan and Secular role

In relation to carrying out the Services defined in this Agreement, the NGO and its personnel will not engage in any partisan political activities and will ensure all representation to beneficiaries and stakeholders is secular in nature.

14. Settlement of Dispute

If any dispute arises in the future during the execution of the present contract for reasons whatsoever, that dispute will be settled by mutual discussion between both the parties without involving any other person(s) alien to the present contract.

15. Modification and Repudiation of Contract

For modification and change to any clause of the present contract and also for the extension of it, both parties must have concurrence to the effect of modification, change and extension of the contract.

Dr. Suvit Yodmani
Executive Director
Asian Disaster Preparedness Center

Date: _____

Annex:

Scope of Services

Terms of reference (Refer to Annex 2 of this Report)

Implementation workplan and deliverables

Detailed Budget

TA Activities' implementation in the 2 phases of Strategy Development and Pilot Project implementation

Standard processes and procedures in CBRR (Refer to Annex 6 of this Report)

Scope of Services

<i>Name of NGO:</i> Church World Service – Cambodia		<i>Title of past assignment</i>
<i>Start date</i> 1 st July, 2006	<i>End date</i> 31 st March 2006	<i>Location (Villages/Communes/Districts and Provinces) within Cambodia where disaster risk reduction interventions were undertaken: 9 villages, 2 communes 1 district, Svay Rieng province</i>
<i>Assignment/Project cost in US\$: 68,428.00</i>		<i>No. of staff/consultants engaged for the assignment (foreign, national)</i> National staff: 16 Expatriate staff: None
<i>Funding agency:</i> Asian Disaster Preparedness Center		
<i>Brief description of objectives and action:</i> <ul style="list-style-type: none">• Increase capacity of rural communities to prepare themselves more effectively and efficiently for coping with natural disasters and mitigate their impacts.• Increase community's belief that it can affect the outcome of a natural disaster on their members.		
<ul style="list-style-type: none">• In order to respond to the needs of the communities, the project will work closely with the existing community structures including VDCs, Commune Councils, village authorities, VHVs, VLA and the communities themselves. The project will establish Village Development Volunteers (VDVs) and build their capacity so that they can contribute to achievement of the disaster risk reduction objectives.• Linkage and collaboration with the Cambodian Red Cross (CRC) and the National Committee for Disaster Management at all levels are required.• Involve communities/villagers in the process of participatory needs assessment, participatory planning for the disaster risk reduction.• Organize village meetings and awareness raising and encourage community contribution either in cash where possible or in-kind labors. They will be empowered to take responsible for planning and implementing disaster risk reduction and mitigation through the processing of pilot project. Therefore, they could deal with any disasters occur in their communities appropriately after the project withdraws from their villages.		

Rationale:

The reason for this critical site selection is that since the “new elections” of VDCs in 2005 and additional capacity building related to leadership, effective meeting facilitation, roles and responsibilities of VDCs, gender and development – they will contribute to the effective planning and implementation of this pilot project focusing on the most at-risk villagers especially women and children. The two communes are Prey Thom in Kompong Ro district and Pothireach in Svay Chrum district in the target area of CNGO partner's villages.

Poverty Profile:

The specific target areas for this pilot project are 1 commune in Kompong Ro district and one commune in CNGO partner's villages in Svay Chrum district, Svay Rieng province. Over 45% of families are poor and have food sufficiency only for 4 – 5 months. These communes face drought almost every year that affected the livelihood of the community. The community own small plot of farming land, very low job opportunity, which caused many villagers went to seek daily labor wages in Vietnam and to Phnom Penh. Frequent drought, lack of water resources, low production and frequent illness make the people of the target area vulnerable and deteriorates their livelihood day-by-day. The average income from daily labor wage is from 3000 – 5000 Riels per day.

A. Description of the pilot project methodology

Pilot project objectives:

- Build capacity of CWS key staff on Emergency Response Planning using CWS global framework.
- Using modified framework orient participating CBO's to critical thinking and analysis.
- Build capacity of participating CBOs (VDCs, VHV, VDV, VLA).
- Build capacity of existing national government committee for disaster management team on problem identification related to disaster risk reduction.
- Provide capacity building on disaster risk reduction plan to selected CBOs and key community agents, so that they are capable to integrate their village development plan into commune development plan.
- VDV, VDC and VHV are capable to provide appropriate assistance/support to the most at-risk families in the community where floods and droughts are likely to threaten their lives, properties and their livestock.
- Promote improved timely communication of emergency situations to agencies providing relief.

Corresponding Outcomes:

- VDCs, VDV, VHV and other participating members are able to use first aid techniques to assist affected community members.
- VDV, VDC and VHV use their knowledge and skills gained to educate villager on the precaution of the disaster risk. Villagers know how to avoid risk of flood and drought, actively participate, and contribute to the village development plan and implementation.
- VDV, VDC, VHV (possibly commune councils) increase timely communication of emergency situations and appeal for support from other organizations providing relief.

List of Proposed Activities:

1. Needs Assessment and baseline survey: The project staff and CNGO partner staff conduct a base line survey and a risk assessment in participatory manner by involving and consulting with the community and concerned agencies such as WFP, NCDM, CRC... etc.
2. Selection VDV: Organize village meeting and conduct election. Lesson learned from community based disaster preparedness and mitigation experience, VDV should be persons from members of VDC because they are more active and have desirable experience in community organizing, village development planning and resources mobilization.
3. Contact "facilitate" NCDM to provide trainings on community based disaster risk reduction, disaster management and reporting. Connect "facilitate" CRC to provide trainings on community based disaster risk reduction and first aid. CWS will also use the existing academic resource persons to provide training on Community Development Concept and Community Organizing as well if require.
4. Public awareness raising on community based disaster risk reduction and public health concerns to the interest groups, conducted by staff prior to the flood season.
5. Capacity Building:
Below are the proposed trainings to be provided to VDV, VDC, VHV, Village Chief and Commune Council members by NCDM and/or CRC to build up their capacity so that they will be able to prepare for and mitigate the impact of disasters.
 - Community level:
 - Community based disaster risk reduction (each village: 1 VDV, 4 VCD,

- 1 village chief)
 - Disaster management and reporting (each village: 1 VDV, 1 Village Chief)
 - Community based first aid (each village: 1 VHV, 1 VDV)
 - Commune level:
 - Community based disaster risk reduction (each commune: 2 CC members)
 - Disaster management and reporting (each commune: 2 CC members)
 - Community based first aid (each village: 2 CC members)
 - CWS staff and CNGO staff
 - Disaster management and reporting (CWS staff (4) and CNGO staff (2))
6. Follow up the capacity building/mentoring for VDV: The workshop will be conducted to reflect on the actions taken and their action plans on disaster risk reduction within communities. More, identify areas of additional support in terms of capacity and capability in implementing CBDRR.
 7. Refresher training for VDV will be conducted by the end of the project period to fill up the understanding on CBDRR so that they can carry on working on disaster preparedness and risk reduction for their communities after the completion of NGO intervention.
 8. Mitigation activities:
People in the community, under the facilitation of VDV and VDC members, will then identify the problems of the community and submit a short proposal to the organization to implement a community based disaster risk reduction activity based on the priority of needs and the fund availability of the organization. Below activities are the possible activities, which would be proposed by communities.

No	Mitigation Activities	Purpose	Estimated Price
Community level			
1	Water pumping machine grant	To collect water from the existing sources to irrigate the paddy rice fields. The pump will be under control of water pump user committee. The committee will earn some money from their services so that they can save for machine maintenance.	\$1,200/machine user group
2	Construction of small-scale check-dam for water retention	To store water after the raining season to extend the water availability for few more months up to the harvest season. The construction will be based on food for work technique so that community would benefit from this micro project to support their living at least up to the harvest season.	For FFW: 3.5Kg of rice per 1m ³ <i>(\$0.30/1kg of rice)</i>
3	Construction/re-excavation of community ponds for water collection and retention	To store water for human and/or animal consumption in dry season and for home gardening purposes. The construction will be based on food for work technique so that community would benefit from this micro project to support their living at least up to the harvest season.	For FFW: Layer1: 3kg of rice per 1m ³ Layer2: 4kg/m ³ Layer3: 5kg/m ³

4	Construction of hand pump wells	To collect underground water for human and animal consumption and for home gardening.	\$230/hand pump
5	Rehabilitation of existing small-scale irrigation systems such as canal, culvert and water gate.	To improve access to water of the community through the existing unused irrigation system. The construction will be based on food for work technique so that community would benefit from this micro project to support their living at least up to the harvest season.	For FFW: 3.5Kg/m ³ And \$300/culvert, or water gate
6	Provision of drinking water filter	To improve the community health situation during pre and post disaster. Common diseases and problems would occur such as malnutrition, lack of drinking water, diseases arising due to consumption of contaminated water etc.	\$15/water filter
7	Repairing road	To improve the access to the health center and school. During the flood season roads are cut off or disappeared by the floodwater, therefore people have difficulties to access to the nearby functioning health center and school on time.	For FFW: 3.5Kg/m ³

Household level			
8	Protecting livelihoods and promoting alternative livelihoods, such as using drought/flood resistant seed, dry season planting, planting alternative crops that require less water.	To improve the availability of food within community in order to meet the food security. The idea would be raised up, and then CWS will collaborate with NGO working on System of Rice Intensification (SRI) such as CEDAC and others to provide technical training and appropriate seeds based on the community needs and the availability of fund.	NA
9	Self Help Group (saving group) enhancement through grant provision	To allow households save cash for household risk mitigation and preparedness. Normally the poorest households rarely join or not allowed to join the group, as their livelihoods are vulnerable and not able to payback the loans. However, the sense of solidarity in the community has been improved, the poorest could borrow from the group with small amount of money and eventually they treat it as contribution to the most vulnerable villagers.	\$300 - \$500 per group
10	Rice bank enhancement through rice grant provision	Allow households access to rice during and post disaster period, and avoiding high risk of borrowing from private money/rice lenders, which requires	\$100 - \$200 per rice bank group

		very high interest rates.	
11	Home gardening	Wherever the community can access to water, the home garden is encouraged and enhanced by seed money grant.	NA
12	Rainwater catchments	Rainwater collection techniques would be raised up such as jumbo jar and family pond to enable people accessing the water in the poor water season or drought period.	NA

Risk Management and Assumption

CWS believes that the provision of capacity building to the community is the only way to reach the community development sustainability. All VDV's selected and communities are motivated to participate in the mitigation activities, maximizing the use of their own community resource and ownership.

Mitigation activities:

- If the rainfall continues longer than expected, it would affect food for work activities, therefore household mitigation will be encouraged.
- If most of adult leave the village to work on daily labor wages in the neighboring country, the some food for work mitigation projects would be replaced by machine such as pond, and irrigation system construction.
- Community farmland affected by mitigation project activities is resolvable with full participation by the local authority and the community themselves
- Availability of community land for community pond digging in case this activity is proposed.
- No delay in staff recruitment
- No heavy flood

Methodology:

CWS chooses Svay Rieng province as target area for this pilot project. There are many reasons connected to our decision. **Firstly**, this province faced severe disaster through both flood and drought during the last 5 years. **Secondly**, villagers' lives especially those living in remote rural areas along the border of Cambodia and Vietnam, whose lives depend entirely on timely and sufficient rainfalls for paddy rice production, have been dramatically affected, both land owners and landless who depend on season income such as daily labor wages to feed their families. To compound matters the village layout in the deep east does not lend itself to liberal association and the exchange of news. In contrast to the move traditional close cluster of homes at the head of a swathe of paddy land with extended families in a simple compound, Svay Rieng families are separated by their paddy land. **Thirdly**, daily contact and communication is intentional with less opportunity for haphazard. **Finally**, the irrigation systems and knowledge about disaster risk mitigation and reduction is poor.

Another critical reason is that CWS has had relatively long partnership experience with Cambodian Farmer Economic Development (CFED) and a strong relationship with the local government in this province. They will be trained on various topics related to disaster risk reduction, mitigation and management to ensure that the objectives and corresponding outcomes stated in this pilot project are attained.

The establishment of additional CBO's (Water User Groups) in relation to the Water and Sanitation project has shown that community can accumulate adequate 'significant' change to be open to the ideas associated with mitigation (i.e. influence on potential negative impact as well as local decision making and benefits reaching the target

population). This is a hopeful signal for such change in a parallel approach.

The main beneficiaries are the poor, landless and marginal farming households living in drought and flood prone areas. The project will work directly with Village Development Committees (VDCs) and Village Disaster Volunteers (VDVs) who will gain knowledge and skills in Community Based Disaster Risk Reduction and be able to mobilize appropriate responses to disasters when they occur in their villages.

The direct beneficiaries from training will be 67 people (34% are women), from mitigation project will be at least 450 households and from disaster public awareness sessions will be 3,182 interested people (1,273 women). Direct beneficiaries from disaster awareness session would also participate in mitigation projects and some of the beneficiaries from training activities might participate in mitigation projects as well. Therefore, the total direct beneficiaries from this project (training, micro project and awareness) would be 3,249 people and a total of 450 households.

CWS coordinates and work closely with NCDM, CRC, WFP and ADPC at the national level. CRC and NCDM to provide capacity building using their experienced staff, appropriate curricula and training courses. CWS obtains information from NCDM, CRC and WFP through regular meetings and communication. If required CWS will participate in the monthly coordination meeting with NGOs implementing CBDRR activities, especially those who are under the ADPC/ADB funding in order to share experiences and lesson learned.

The proposed target areas and beneficiaries for this pilot project are provided in the table below:

Table 1: Target Villages and Population Statistics

No	District	Commune	Village	No of Household	Total No of Female	Total No of Male
1	Kampong Ro	Prey Thom	Prey Thom	304	655	544
			Kakruos	156	337	296
			Ta Koeng	118	245	243
2	Svay Chrum	Pouthi Reach	Chensa	108	284	293
			Tbaeng	121	289	264
			Anhchanh	101	227	288
			Ta Mom	149	403	320
			Prey Khla	159	449	345
			Prasat	171	466	416
Total	2 Districts	2 Communes	9 Villages	1,387	3,355	3,009

Table 2: Proposed Target Beneficiaries:

No.	Beneficiaries	Total	Women
1	VDVs	9	40%
2	VDC	36	40%
3	VHVs	9	60%
4	Village Chief	9	at least 5%
5	Commune Councils	4	25%
6	Interested People (public awareness)	3,182 (50% of total population)	40%
7	Beneficiaries of mitigation activities	At least 450 households (50 households of each village)	

The proposed manpower assignment to oversee and undertake the execution of the pilot risk reduction project are;

1. Field Project Assistant (fulltime)
2. Emergency Response Coordinator (60%)
3. Deputy Director for Program Support (2.5%)
4. Program Manager for CD (5%)
5. CD Program Officer (5%)
6. Partnership Program Officer (5%)
7. Finance Manager (2.5%)
8. Finance Assistant (5% X 3)
9. Admin Manager (2.5%)
10. Reporting, Monitoring and Evaluation Officer (5%)
11. Drivers (10% X 2)
12. CNGO staffs (30% x 2)

Monitoring and Evaluation:

CWS community based field Project Assistant work closely together with communities and their organizations as well as with local authorities. They provide day-to-day monitoring support to the project implementation and report to the ER Coordinator. The ER Coordinator provides technical assistance on disaster risk reduction to the project implementation; monitors the CBDRR project activities. The ER Coordinator in cooperation with the Field Project Assistant collected data and draft project activity progress report submits to the Community Development Program Manager. The Community Development Program Manager supervises the ER Coordinator, conducts quarterly field monitoring to identify the progress of the project and make sure that the project staff are implementing their work on the right track to achieve the planned activities. The Community Development Program Manager reports to the Deputy Director for Program Support. She is responsible for accurate final data collection, planning, implementation, monitoring and evaluation and compilation of the project activities report. Collaborate closely with the authorities, CRC, DCDMs, NCDMs and other NGOs at district and provincial levels. The Reporting, Monitoring and Evaluation Officer provides quarterly field monitoring to the project site along with the Program Manager; and support in the internal evaluation of the pilot project; and editing project progress and final reports. The evaluation of this pilot project will be conducted internally by CWS staff and maybe participated by ADPC staff if they could manage to join at the completion of the project implementation. The Country Director has the overall responsibility for the CWS program communication and liaison at international level.

[illegible]

No	Activities	Time Frame																																												
		Jul					Aug					Sep					Oct					Nov					Dec					Jan					Feb					Mar				
		1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5					
7	Follow up the capacity building/mentoring for V DVs																																													
8	Refresher training for V DVs																																													
9	Planning and proposal submission by villagers for the mitigation activity																																													
10	Mitigation activities																																													
11	Final reporting																																													

Report on Baseline Survey and Community Needs Assessment, Implementation plan

First Progress Report on Training Activities and Mitigation action
First Statement of Expenses

Second Progress Report on progress of Mitigation action
Second Statement of Expenses

Project Completion Report
Final Expenditure Statement

Detailed Budget						
Heading	Qty	Unit	Duration	Unit	Unit Price	Total Amount
1. Baseline survey cost conducted at 9 villages						450
Baseline survey material	9	village	1	time	10	90
Staff per diem (4 PnP staff)	4	person	10	day	6	240
Driver per diem (2 drivers)	2	person	10	day	6	120
2. Training activities (2a + 2b+ 2c)						7,580
2a. CBDRR for 9 VDV's and 36 VDCs, 9 Village Chiefs, 4 Commune Council Members , 5 days (2 courses)						3,991
Community participants						
Meals for participants	58	person	5	day	2.50	725
Transportation cost for participant	58	person	2	time	1.00	116
Accommodation for participants	58	person	8	day	2.50	1,160
Venue and closing ceremony	1	place	2	time	200	400
Trainer						
Meals for trainer	3	person	14	day	5.00	210
Accommodation for trainer	2	room	12	day	10	240
Transportation cost for trainer	1	round trip	2	time	200	400
Training materials and stationary	2	course	1	time	100	200
Training course fee	2	course	1	time	270	540
2b. Community based first aid for 9 VHV's, 9 VDV's, 4 CC member 6 days (1 course)						1,679
Participants						
Meals for participants	22	person	6	day	2.50	330
Transportation cost for participant	22	person	2	time	1.00	44
Accommodation for participants	22	person	5	day	2.50	275
Venue and closing ceremony	1	place	1	time	200	200
Trainer						
Meals for trainer	3	person	8	day	5	120
Accommodation for trainer	2	room	7	day	10	140
Transportation cost for trainer	1	round trip	1	time	200	200
Training materials	1	course	1	time	100	100
Training course fee	1	course	1	time	270	270
2c. Disaster management and reporting for 9 VDV's, 9 Village Chief, 4 CC members, 6 CWS and CNGO staff, 5 days (1 course)						1,910
CNGO staff						
Meals allowance	2	person	5	day	3.00	30
Transportation	0	person	0	day	0.00	0
CWS staff						
Meals allowance for SVR staff	2	person	5	day	3.00	30
Perdiem for PNH staff	2	person	7	day	6.00	84
Accommodation for PnP staff	2	person	6	day	5.00	60
Community participants						
Meals for participants	29	person	5	day	2.50	363
Transportation cost for participant	29	person	2	time	1.00	58
Accommodation for participants	29	person	4	day	2.50	290
Venue and closing ceremony	1	place	1	time	200	200

Trainer						
Meals for trainer	3	person	7	day	5	105
Accommodation for trainer	2	room	6	day	10	120
Transportation cost for trainer	1	round trip	1	time	200	200
Training materials	1	course	1	time	100	100
Training course fee	1	course	1	time	270	270
3. Follow up workshop with 9 VDV's, 4 CC members facilitated by CNGO and CWS staff						238
Participants						
Meals for participants	12	person	1	day	2.50	30
Transportation cost for participant	12	person	2	time	1.50	36
Accommodation for participants	12	person	0	day	2.50	0
Venue and closing ceremony	1	place	1	time	50	50
Facilitator						
Meals allowance for SVR staff	2	person	1	day	5.00	10
Meals allowance for CNGO staff	2	person	1	day	6.00	12
Perdiem for PNH staff	2	person	3	day	5.00	30
Accommodation for facilitator	1	room	2	day	10	20
Workshop materials	1	course	1	time	50	50
4. Refresher training on CBDRR for 9 VDV's, 9 Village Chiefs, 36 VDCs, 4 CC members, 5 days (2 courses)						3,469
Participants						
Meals for participants	58	person	5	day	2.50	725
Transportation cost for participant	58	person	2	time	1.50	174
Accommodation for participants	58	person	4	day	2.50	580
Venue and closing ceremony	1	place	2	time	200	400
Trainer						
Meals for trainer	3	person	14	day	5	210
Accommodation for trainer	2	room	12	day	10	240
Transportation cost for trainer	1	round trip	2	time	200	400
Training materials	1	course	2	time	100	200
Training course fee	1	course	2	time	270	540
5. Public Awareness Raising, conducted by staff						225
Refreshment	9	village	1	time	15	135
Loud speaker rent	9	training	1	time	10	90
6. Visibilities (6a + 6b)						1,485
6a. Public Awareness Visibility						1,350
Printing posters and leaflets	9	village	1	set	150	1,350
6b. ADPC/ADB Visibility Printing						135
Printing ADPC/ADB visibility	9	village	1	set	15	135
7. Mitigation Activities						42,525
Mitigation Activities and visibility	9	village	1	activity	4,500	40,500
<i>Value of contribution from community (in cash or in-kind)</i>	9	<i>village</i>	1	<i>activity</i>	225	2,025

8. Communication						135
10% of communication cost	0.20	com. cost	9	month	75	135
9. Travel and Subsistent Expenses (9a + 9b)						2,070
9a. Program staff travel to monitor project activities						1,620
Per diem	1	person	9	week	30	270
Accommodation	1	person	9	week	50	450
10% of vehicle running costs	0.10	vehicle	9	month	1,000	900
9b. Program staff travel to monitor project activities						450
Motobikes running costs	1	motobike	9	month	50	450
10. National Personnel Costs (10a + 10b)						9,018
10a. Indirect Staff Salaries						3,131
Deputy Director for Program Support (2.5%)	1	person	9	month	38	346
Program Manager for CD (5%)	1	person	9	month	57	517
Partnership and CD Program Officers (5%)	2	person	9	month	33	599
Finance Manager (2.5%)	1	person	9	month	26	234
Finance Assistant (5%)	3	person	9	month	21	573
Admin Manager (2.5%)	1	person	9	month	15	133
Drivers (10%)	2	person	9	month	23	422
RME officer (5%)	1	person	9	month	34	307
10b. Direct Staff Salaries						5,887
ER Program Assistant (60%)	1	person	9	month	223	2,008
Project Assistant	1	person	9	month	352	3,168
CFED Staff (30%)	2	person	9	month	27	486
Medical Insurance	1	person	9	month	11	97
Medical Treatment	1	person	9	month	10	90
National Vaccination Allowance	1	person	9	month	4	37
11. Miscellaneous						3,258
5% of the total Budget						3,258
Total Budget with value of community contribution						67,194
Total Budget without value of community contribution						65,169
GRAND TOTAL						68,428

Annex 11

Agreement Chamroen Chiet Khmer (CCK)

Grant Agreement Number: ADBTA-Cambodia-DMS-02-06

GRANT AGREEMENT

This Grant Agreement (Hereinafter called 'Agreement') is entered into this June 30, 2006, by and between the Asian Disaster Preparedness Center, hereinafter called the ADPC, under its Technical Assistance on Community Self Reliance and Flood Risk Reduction (hereinafter 'TA 4574-CAM'), and the **Chamroen Chiet Khmer**, Rominh commune Koh Andeth District, Takeo province, Kingdom of Cambodia, hereinafter called the 'NGO'. The TA 4574-CAM is funded by the Asian Development Bank (hereinafter called 'ADB'), and has the Ministry of Water Resources and Meteorology as its Executing Agency (hereinafter MoWRAM).

For the purpose of this Agreement:

Dr. Suvit Yodmani, Executive Director, ADPC, shall act as representative of the ADPC

WHEREAS, ADPC has been engaged by the ADB to provide Technical Assistance for Community Self Reliance and Flood Risk Reduction in Cambodia, TA 4574-CAM (detailed in Annex 5: TA Activities' implementation in the 2 phases of Strategy Development and Pilot Project implementation)

WHEREAS, implementation of TA 4574-CAM includes development of a Community Based Hydro-Meteorological Hazard Risk Reduction Strategy (CBRR Strategy) by ADPC, and pilot implementation of this strategy by non-government agencies based in Cambodia (Approach briefly outlined in Annex 6: Standard processes and procedures in CBRR)

WHEREAS, the NGO has submitted a proposal a proposal to ADPC, indicating their willingness and interest in undertaking pilot implementation of the CBRR Strategy

WHEREAS, the ADPC wishes to have the NGO perform the services hereinafter referred to, and

WHEREAS, the NGO is willing to perform these services

Now therefore the ADPC and the NGO hereby agree as follows:

1. Services:

- (i) The NGO will ensure that all activities and services undertaken as part of this AGREEMENT shall be provided in the name of the TA 4574 CAM and on behalf of the ADB, MoWRAM and ADPC
- (ii) The NGO shall perform the services specified in Annex 1: Scope of Services, as per the process steps identified in Annex 2: Terms of reference and Annex 6: Standard processes and procedures in CBRR, which is made an integral part of this Agreement ('the Services')
- (iii) The NGO will recognize as significant partners, liaise and communicate with the ADB and MoWRAM, as and when advised by ADPC
- (iv) The NGO shall complete project services and produce deliverables within the allotted timeframe, and as outlined in Annex 3: Implementation workplan and deliverables
- (v) The NGO and ADPC agree with and will work within the Budget as summarized in Section 6 of this agreement and as detailed in Annex 4: Detailed Budget
- (vi) The NGO shall submit to ADPC the reports in the form and within the time period specified in Section 7 on 'Reporting and Evaluation' of this Agreement and as per Annex 3: Implementation workplan and deliverables

- (vii) The NGO shall receive payments against specific outputs and outcomes, and according to the amounts specified in Section 5, point 4.

2. Purpose of Grant Agreement:

The purpose of this Grant Agreement is to provide financial support to the NGO for implementation of “**Community Based Disaster Risk Reduction**” Pilot Project under TA 4574 CAM, in the province of Svay Rieng, Cambodia, as more fully described in Annex 1: Scope of Services and Annex 2: Terms of Reference of this Agreement.

3. Period of Grant Agreement:

The NGO shall perform the services during the period commencing July 1, 2006 and continue through to March 31, 2007 or any other period, which ADPC and the NGO may subsequently agree in a written amendment to this Agreement.

4. Termination:

Project termination may be initiated by ADPC or the NGO with written notice that must be received at least three months in advance of the actual date of termination. Should project funding from ADB be cancelled, ADPC may terminate the project with only one-month notice in writing. Should termination occur, reimbursement will be made for expenditures already incurred based on a statement of expenditure and original receipts and/or refunds of payments made where advance expenditures have not been incurred.

5. Grant Amount, Method and Schedule of Payment:

1. The total cost of the Services is USD 70,000 (*US Dollars Seventy Thousand Only*) from ADPC (based on funds from the TA 4574-CAM). Under no circumstances can the total amount provided by ADPC exceed USD 70,000. The amount will be used by the NGO in undertaking the Services as specified in Annexes 1 and 2 and the budget set forth in Annex 4.
2. If there are cost savings, remaining dollar amount from the original budget amount in USD may be used for justified additional expenditures over the amount originally provided in the budget set forth in section 6 and Annex 4, if approved in writing by ADPC.
3. The NGO shall receive payments according to following schedule and amounts specified, based on an invoice for the specified amount received from the NGO:
 - **USD 17500**, i.e. **25%** of total cost as advance
 - **USD 14000**, i.e. **20%** of total cost upon submission of a **report** containing (i) Baseline Survey and Community Needs Assessment; and (ii) Proposed implementation plan for Services (with emphasis on plan for community based risk mitigation measures) prepared in consultation with the beneficiary community; submitted **within 8 weeks** from commencement of the Services
 - **USD 14000**, i.e. **20%** of total cost upon submission of **first progress report** containing (i) Report of training activities conducted; (ii) Summary of mitigation and community organizing activities initiated and implemented (iii) Statement of expenses for the first quarter; submitted **within 16 weeks** from commencement of the Services. The above payment will only be released when the statement of expenses exceeds a total amount of USD 20,000 only.
 - **USD 14000**, i.e. **20%** of total cost upon submission of **second progress report** containing (i) Progress of implementation of community based mitigation activities; (ii) Summary of any further training activities; and (iii) Statement of expenses for the second quarter, submitted **within 26 weeks** from commencement of the Services. This payment will only be released when the statement of expenses for the second quarter exceeds a total amount of USD 15,000 only.

- Up to a maximum total of **USD 10500**, i.e. **15%** of total cost, upon submission of (i) **project completion (final) report**; (ii) submission of full statement of expenditure for remaining eligible costs, submitted **within 34 weeks** from commencement of the Services.

For each of the above payments the NGO must furnish and invoice to ADPC, against which the payment will be released upon completion of expected outputs and review of the statement of expenditure required to the satisfaction of ADPC. The payment shall be made in US Dollars, not later than 30 days following acceptance of submission by NGO of the invoices, outputs and supporting documentation to the ADPC.

6. Financial Reporting and Budget

The NGO will be responsible for submitting a statement of expenses to ADPC, with necessary supporting documents and receipts in original (such as timesheets for project personnel, receipts for use of vehicles/transportation, mitigation and equipment costs, training costs etc.) every quarter, and along with the respective substantive reports, as mentioned under section 5, point 4 (expected dates for quarterly statements of expenditure are October 1st, 2006 and January 1st, 2007 and full statement of expenditure by April 1st 2007) in order to be eligible for the next payment. For all equipment and such items purchased, list of items and quotations from at least three (3) suppliers must be forwarded to ADPC prior to actual purchase.

The budget is summarized herein, and detailed budget attached as Annex 4. Revisions or variations to this budget resulting from Force Majeure, the changing demands on the ground and implementation exigencies shall be mutually agreed through consultation between ADPC and the NGO and will require prior written approval of ADPC, provided the total ADPC funded amount shown in Section 5, point 1 is not exceeded.

Budget Summary

Code	Description	Unit	Quantity	Unit Cost	Total Cost
A.1.1	Staffing Salary				\$ 6,030
A.2	Sub total A.2 Staff capacity building	3 training sessions			\$3,000
A.3.1	Baseline Survey	Set	7	\$98.5	\$690
A.3.2	Translation of the baseline survey report	Set	1	\$840	\$840
A.3.3	Translation of monthly activities report	Time	3	\$160	\$480
A.3.4	Cost of staff travelling	Time/month	120	\$ 20	\$2,400
A.3.5	Buy a raw boat for 226 families*	Boat	226	\$ 140	\$ 31,640
A.3.6	wooden for house repairing 48 families*	House	46	\$ 400	\$ 18,400
A.3.7	Fishing net for 226 families*	Net	226	\$ 15	\$ 3,390
A.3.8	Water filter for 226 families*	Water filter	226	\$ 8	\$ 1,808
A.3.9	Cost of transport material to project site	Time	60	\$ 20	\$ 1,200
A.3	Sub-total Operation project				\$ 60,848
A.4	Contingency				\$122
Grand Total					\$ 70,000

* - Detailed cost estimate/proposed implementation plan must be submitted to

ADPC prior to the commencement of the activities.

7. Reporting:

Following reports are to be provided to ADPC:

- **Report** containing (i) Baseline Survey and Community Needs Assessment; and (ii) Proposed implementation plan for Services (with emphasis on plan for community based risk mitigation measures) prepared in consultation with the beneficiary community; submitted **within 8 weeks** from commencement of the Services
- **First progress report** containing (i) Report of training activities conducted; (ii) Summary of mitigation and community organizing activities initiated and implemented; submitted **within 16 weeks** from commencement of the Services.
- **Second progress report** containing (i) Progress of implementation of community based mitigation activities; and (ii) Summary of any further training activities, submitted **within 26 weeks** from commencement of the Services.
- **Project completion (final) report:** (ii) submission of full statement of expenditure for remaining eligible costs, submitted **within 34 weeks** from commencement of the Services. The lessons from this report will be included into documents for the TA completion workshop, to be organized by ADPC towards end of the TA 4574 CAM in March 2007 for facilitating a dialogue with stakeholders regarding CBRR Strategy and sharing lessons from the pilot project implementation. The project completion report must therefore document lessons learned from pilot project implementation and provide inputs that will help enhance the CBRR strategy.

8. Intellectual Property Rights:

All reports or work products, in any form, prepared by the NGO in performing the Services shall be the sole and exclusive property of ADB, and may be made available to the general public at ADB's sole discretion. The NGO may take copies of such documents and data for uses related to the Services under conditions acceptable to ADB, but shall not use the same for any purposes unrelated to the Services without the prior written approval of ADB.

The NGO shall indemnify ADB, the Government and ADPC from and against all claims, liabilities, obligations, losses, damages, penalties actions, judgments, suits, proceedings, demands, costs, expenses and disbursements of whatsoever nature that may be imposed on, incurred by or asserted against, ADB, the Government and ADPC during or in connection with the Services by reason of: (i) infringement of alleged infringement by the NGO of any patent or other protected right, or (ii) plagiarism or alleged plagiarism by the NGO.

9. Ownership of Project-financed Equipment and Civil Works

Ownership of office and similar equipment procured by the NGO using ADB funds shall be handed over to the Executing Agency through ADPC upon completion of the assignment. Civil works, equipment and goods relating to the flood mitigation activities of the TA shall be turned over to recipient communities upon completion of the assignment. A certificate of handover shall be submitted to ADB through ADPC.

10. Performance Standards

The NGO undertakes to perform the services with the highest standards of professional and ethical competency and integrity.

11. Confidentiality

The NGO shall not, during the term of this Agreement and within two years after its expiration, disclose any proprietary or confidential information relating to the Services or this Agreement without approval from ADPC.

12. Assignment

The NGO shall not sub-contract any portion of this Agreement without ADPC's prior written approval.

13. Non-Partisan and Secular role

In relation to carrying out the Services defined in this Agreement, the NGO and its personnel will not engage in any partisan political activities and will ensure all representation to beneficiaries and stakeholders is secular in nature.

14. Settlement of Dispute

If any dispute arises in the future during the execution of the present contract for reasons whatsoever, that dispute will be settled by mutual discussion between both the parties without involving any other person(s) alien to the present contract.

15. Modification and Repudiation of Contract

For modification and change to any clause of the present contract and also for the extension of it, both parties must have concurrence to the effect of modification, change and extension of the contract.

Dr. Suvit Yodmani
Executive Director
Asian Disaster Preparedness Center

Date: _____

Mrs. Hem Sakhon
Chamroen Chiet Khmer
Rominh commune Koh Andeth District, Takeo
province, Kingdom of Cambodia
Date: _____

Annex:

Scope of Services

Terms of reference (Refer to Annex 2 of this Report)

Implementation workplan and deliverables

Detailed Budget

TA Activities' implementation in the 2 phases of Strategy Development and Pilot Project implementation

Standard processes and procedures in CBRR (Refer to Annex 6 of this Report)

Scope of Services

Name of the Project	: Community Flood Risk Reduction
Location of the Project	: (Prey Yuthka, Kro Pum Chouk and Prey Khla communes) and (Kampong Krosang commune) Koh Andeth Borey Cholsa districts Takeo Province.
Duration of The Project	: May 1th to November 30st 2006
Project Cost	: 70, 000.00 USD
Beneficiary Groups	: 226 families

I. Description of CCK's history and experiences in the Province

During 1992 Oxfam's GB has been directly implemented the project where located in Mea Neak, Deom Po and Sameong villages Romenh commune Koh Andeth district, Takeo Province. There are several development programs such as rice bank, non-formal education, small scale business, rehabilitation of small scale irrigation scheme, digging pond, and humanitarian emergency relief. However, the project activities were completely by May 1996. In fact the service delivery by Oxfam ended, however, Oxfam had turned over their strategy to play as the key donor by funded to national organizations to operate the project. After then, the Oxfam G.B and their colleagues have been established a national organization which called CCK (Cham Reoun Cheat Khmer) and hand over all the activities to CCK to continuously carry out since from May 1, 1996 up to now.

The main office of CCK located in Chom Bok Em village Romenh commune Takeo province, which is 42 Km in the Southern part of the province along the national road # 2 and opposite of the Koh Andeth district governor. CCK has been legality registered in Ministry of Interior and has been allowed to carry out their mission and activities since November 11 1998.

Vision

The villagers who lived in the rural areas of Takeo province will have adequate quality of living and having the knowledge and leading the community by themselves.

Mission

To improve the quality of living of the villagers by strengthening the local community participation in terms of problem solving, agriculture technique, and small scale business skills.

To empowering the local participation in decision making for improving the capability in leading the community toward the development, juridical and strengthening the gender equality within the community.

Objectives of the Project

The overall objectives of the project are to increase food security for the most vulnerable families in Koh Andeth & Borey Cholsa districts, through providing the knowledge based agriculture cultivation, and understanding of flood risk disaster preparedness and mitigation coping mechanism, and then

To empowering the woman participation in decision making in all development activities, and leading the responsibility in the community.

Goal of the Project

To minimize the burden of the vulnerable families who lived in the remote area of Takeo province, toward the contributed of poverty reduction of the vulnerable villagers who suffer by flood natural disaster.

II. Problem Identification/Solving

Most of the selected target areas that undertaken by CCK were classified as the poorest villages in the commune, which has no been supported by the national/international organization at all, those selected villages were located near by Vietnamese border which has no access to the infrastructure, education and common property resources.

Every year the villagers who lived in the selected target area were suffered by flood/drought natural disaster. It caused to low crop production, poor access to infrastructure, lack of drinking water, changing livelihood, health care service and economic is moving down. More over, those families who are women head of households, disabled family and destitute become worst off, as compared to the rich/medium segments in the village.

Poverty assessment which conducted by CCK revealed that among the selected target areas some of the villagers faced with food insecurity, landless and sold labor for daily consumption. Additionally, the women group became worse off due to domestic violent and stressful. During the course of flood the vulnerable families were faced in the front line of food insecurity, no income, jobless and evacuated to live in safer areas. Given the flood constraints, it caused a severe stressful to the women and shortage of food.

Understanding of the constraints caused by the flood disaster, it is therefore CCK has been developed a project proposal which will be operated in two flood affected districts (Koh Andeth & Borey Cholsa) which comprised of 7 villages and 4 communes in Takeo province. The project will focused mainly on vulnerable facilities who are suffered by flood.

III. Constraints faced by the Community

3.1 Food Security

During 1979-1995 most of the villagers who lived in the selected target area has never faced with food insecurity since they have access to rice crop cultivation in both wet season rice and floating rice. In contradiction, starting from 1996 to now the natural environment changed severe flood occurred for every year, it caused to low crop production, animal and asset lost and damaged of local infrastructure. However, the villagers have turned over of their main livelihood to plant dry season rice. At the same, this initiative of planting dry season rice has caused to low crop production due to lack of seed, technique, and no water (the farmers has afford to buy the water for rice farming from the contractor with the cost of 850 Kg rice / ha). The micro credit is not available in the village, so they have to borrow the money from the money lender in the village with high interest rate 10-20%/ month. Given flood constraints, it is therefore the villagers faced with 9 months of food insecurity (starting from June-February). The vulnerable family strives to survive by employing as the labor almost whole year round just for only payback to reduce debt while they borrow during the course of flooding season (6 months). Furthermore, some families who strongly faced with food insecurity, which caused to their children dropped school and turned to selling labor as the rice harvesting and other job in the village.

3.2 Health care & Sanitation

The commune health center has been existed in each commune and locates near the village that makes it easy for the villagers access to health care service. Refer to the selected commune there is only Prey Yuthka that the commune health center located close to village, and the commune health center at Prey Khla, Kro Pum Chouk, and Kompong Krasang were located very far from the village 3-7 Km, these make difficulties for the villagers to access in both dry and wet season. There are some issues found in these villages including, malnutrition, lack of sanitation, latrine facility (only 3% in the selected target areas that can access to latrine), and lack of drinking water during the course of flood which caused to having a serious diseases such as diarrhea, cholera. And then they have not access to the health care services that provide by commune health care center. Therefore they have turned to access with Vietnamese health service even they paid with high cost of transportation, and service charge. Given this constraints, some times the villagers has to borrow the money with high rate of interest for medical treatment.

3.3 Access to Drinking water

General speaking, the villagers in the selected target areas has not access to safe drinking water; they regularly used water from other sources such as: sub branch of Takeo stream, lake, and flood water without properly boiled. The vulnerable families don't have a giant jar to stock the water during rainy season for domestic consumption, especially during the course of flood. At mean time, they have to travel about 0.5 -1 Km long to carried the water which contained in small container 50-80 liters, wile young boy and girl who potentially asked from the parent to collect the water. Given drinking water constrains, the villagers regularly affected to the health and it burden, especially to the vulnerable families.

3.4 Access to shelter

The selected target areas were severe affected by flood for every year, during the course flood the water level in the village was about 1-4 meter, which it caused 30% of house in the village were under the water and 50% below the house's floor. For those whose' house were under the water were escaped to temporally live in public safety hill (e.g; school, pagoda) and their relative house. And there are most of families moved to settle in other safe village where they can access to job opportunity for their livelihood purpose. It is therefore they don't have stable job and moved around to find the job opportunity for their daily livelihood. On another hand, when the flood receding their house and house asset were damaged, and it become burden to them to live without properly shelter. Given this issues, it indicates that they were become indebtedness due to the course of flood.

3.5 Gender Issues

Following the recent assessment and group discussion within 7 selected villages that conducted by CCK working group, it revealed that most of the women and men were poorly understood about their right and role to participate in the community development. Large proportion of the men still leads the family and makes decision in the family, there is rarely found any women who lead the family. There is a big concerns regarding to the high disparity between women and men to access to the education, the study showed that most of the young women were not access to the education (they dropped schooling and turned to help family to earn income for their family's livelihood and/or get married earlier). What is interesting here is that they are poorly access to the any extension program that introduce by national/international NGOs regarding to the women rights and domestic violent.

3.6 Access to Infrastructure

The rural road infrastructure played an important role for the local communication and as well as the growth of local economic. As a result, 06 villages in Koh Andeth district were access to the local road by dry season and water way was popular access by boat during the wet season. In contradiction, the selected village in Borey Cholsa district were not accessing to the rural road in both dry and wet season. The villagers faced with the high cost of transportation while if they want to transport local product to sell in the market, the average cost is 5000 -15000 Riels/person/ per trip. It is therefore the local communication from/ local net work was poorly performed. The critical situation for villagers here is that when their family member get sickness and cost them a lot not only medical treatment but also the transportation. Given constraints of local infrastructure service, it caused poor of education service, health care services and community development program. In fact, the primary school had in every village but the problem here is that there are only 04 months that the children access to the education program in the school.

In summary, the issues which are addressed above can be summarized in the Table as follow:

Table 1: Summary the issues of flood Constraints

Community Problems that founded by CCK	Problem Ranking by the villagers
<ul style="list-style-type: none"> • Lack of resource to make income • Homeless and flood affected houses • Having diseases, diarrhea, cholera and fever • Lack of floating cloth • lack of animal shelter • Food shortage • Lack of floating rice seed • House damaged by flood • Storm • Not access to drinking water, and domestic consumption • Landless • Lack of transportation mean during the course of flood • Not access to the local road • Lack of capital for rice crop farming • Lack of latrine • lack of irrigation scheme 	<ul style="list-style-type: none"> • Lack of resources to make income generation during the course of flood (e.g. boat and fishing net) • Non- shelter • Lack of drinking water, and domestic • Latrine facility • Lack of capital for rice crop farming • Lack of irrigation scheme • Lack of local infrastructure

IV. Community Needs

4.1 Boat and Fishing Gear:

Calamity started from June till February, during the course of flooding, it causes the vulnerable household's limited access to fishing ground for their livelihood, if they have no boats and fishing gears. Every year, the vulnerable households always get a loan from the Vietnamese traders in order to buy the boats and fishing gears, and then partly of income from catching fish return to the moneylender and the remaining kept for buying rice. So, boat will help them to access with income generation in both dry and wet seasons (e.g;

catch fish, collect aquatic resources (water lily and water spinach...). General speaking, the local villagers used the boat for every means of traveling and transport product.

4.2 House Improvement:

Generally, the vulnerable families lived in thatch house and/ or even small house thatched to the ground which regularly affected by any mean of natural disaster (storm, heavy rain and flood), especially during the course of flooding, their house were sick under the water, so they have to escaped to safe area. Related to this matter, house improvement could be done to minimize the risk.

4.3 Water Filter:

In fact, the poor and destitute households have no jar/ concrete tank for storing the rain water. During the dry season, they collected the water from the river for domestic consumption for every day. Normally, the flood started in July then brought the water level up to 1 m in depth with contaminated of bacteria and virus and bad smell. During November the time of flood receded while the quality of water very bad which contaminate of grass decomposed. Mean while they rather used the river water for drinking without boiling. So, it is very risk for them, the assessment show that most of them faced with some diseases such as diarrhea, epidemic and rash. However, the water filters could be introduced to the vulnerable family to produce the clean water for drinking.

4.4 Capacity Building:

The villagers and local authorities in the target areas has never received the training course on living above flood thus they could not manage the situation but also take a risk during the course of flooding. On the other hand, the Village Committee for Disaster Management (VCDM) will be establishing soon, but they also are not ability to manage and lead the community during the course of flooding. That why, it is very important to provide the training course to the VCDM and community on preparedness disaster to lead and manage the community for risk reduction.

4.5 Community participation:

The meeting was held in the target villages; the task group of the CCK has promoted /informed to the villagers that all the projects do need the community participation (beneficiary) amount 5% of total cost of project. They replied that they have agreed but CCK task group continue asked that where did you take budget from? They replied that they will take a loan and some families replied that they could contribute only the labor, and some families replied that they are very poor standard of living so they could only contribute the labor. According to the conclusion of the CCK's task group mention that they can contribute the labor is better than the budget.

V. Role & Responsibility for key stakeholders

- **Chamroen Chiet Khmer (CCK)**
 - Communication with the local authorities and NGOs
 - Ask for other law approval
 - Manage and use the budget through the guideline
 - Implementing the project with the community to get the successful through the planning

- Coordinate and deal with other issues
- Follow up and monitor of the project implementation
- Take part the project evaluation
- Report writing
- **Donor**
 - Provide budget on time
 - Provide technical support and modality to the NGO partner
 - Compromise the project
 - Monitor and Evaluate the project
- **Local authority**
 - Fully support and coordinate the process of the project
 - Take part to deal with some issues and provide the law approval
 - Participant in project monitoring and evaluation
- **Target group**
 - Take part to provide the ideas, decision making, plan development, plan implementation, project monitoring and evaluation.

VI. Methodology for project implementation

- **First step:**
 - Key stakeholders meeting with local authorities: district, commune and village levels and NGOs
 - Conduct the assessment on priority need among the target village
 1. Meet with village head and Village Development Committee (VDC) and then conduct the interview with them for collecting the information on general information, village map, list of villager's name and other NGOs in the village.
 2. Disseminate the project objectives to villagers through meeting.
 3. Conduct the interview with men and women group on priority issues and needs.
 4. Identify the community priority needs and issues (Men – Women)
 5. Meeting with villagers for conducting the community assets
 6. Develop the budget proposal
- **Second step:**
 - To develop the monthly work plan
 - Develop the VCDM (comprise 2 men and 3 women)
 - To conduct direct interview with the beneficiaries group
 - Develop the marketing committee (The composition of the committee is comprised of CCK, local authority, and target group)
 - To develop the procurement committee
 - Public broadcasting of the name of the beneficiaries, person who received the materials and price (open for complaining)
 - Official providing the list of the beneficiaries to the district governor, commune, village head and VCDM as a document
 - Distribution process such as materials and contracts
 - Strengthening the capacity building for the VCDM and local authority

- Meeting with VCDM and local authority (Inception, Mid-term and Final)
- **Third step:**
 - Follow up and monitoring
 - To involve in project evaluation
 - Write up the progress report included budget spending then submit to the donor

Table2. Logical Frame Work Approach

Long Term Strategy	Measure Indicators	External Factors
<ul style="list-style-type: none"> ▪ Committee and villagers within 7 target villages will have improved their standard of living and have capacity for flood and storm disasters preparedness and risk mitigation 	<ul style="list-style-type: none"> ▪ VCDM have received the training course and ability to disseminate to villagers around 90%. ▪ The vulnerable household within the target villages were improved and understood clearly (100%) on disaster preparedness 	<ul style="list-style-type: none"> ▪ Take part and support from local authority and community
<p>Short Term Strategy</p> <ul style="list-style-type: none"> ▪ By the end of November 2006, there are 226 vulnerable households within 7 target villages will have strong shelter, sufficient food intake, water sanitation and the knowledge on the disaster preparedness. 	<p>Measure Indicators</p> <ul style="list-style-type: none"> ▪ Rice shortage emerged from the flood disaster has reduced from 9 months to 3 months a year and enough water sanitation. ▪ 48 households ceased to evacuate to community safety hill due to strong and high house. 	<p>External Factors</p> <ul style="list-style-type: none"> ▪ Villagers within the target area has good relationship and coordination
<p>Outputs</p> <ul style="list-style-type: none"> ▪ Committee has established and received the training course 	<p>Measure Indicators</p> <ul style="list-style-type: none"> ▪ VCDM consist of 35 members: 21 women, 11 commune and village authorities and other 3 villagers who have received the training course and then took this knowledge to disseminate to other villagers. 	<p>External Factors</p> <ul style="list-style-type: none"> ▪ Villagers understood and took part on preparedness disaster activity.
<ul style="list-style-type: none"> ▪ 226 boats and 226 packages of fishing gears has provided to target vulnerable households 	<ul style="list-style-type: none"> ▪ There are 226 households has the boats and fishing gears for making the business and traveling during the course of flooding. 	<ul style="list-style-type: none"> ▪ Villagers and local authorities participate to prevention and maintain.
<ul style="list-style-type: none"> ▪ The frame house and 	<ul style="list-style-type: none"> ▪ There 48 households have better 	<ul style="list-style-type: none"> ▪ Local authority has coordinated the

house fixing up amount
48 houses has provided
to villagers on plan.

- 226 water filter (brand: rabbit) has provided to vulnerable households.

accommodation and no
longer under the water
anymore during flood
season.

- 226 households have good health due to safe drinking water.

wooden transportation
for fixing up the house.

- Company provide water filter with good quality and on time, and the villager preferred to use it.

Activities

- Communicate with local authorities and NGOs
- Conduct the assessment
- Write the proposal
- Select the disaster activities among the villages
- Select the beneficiary
- Develop purchasing, contribution plan
- Form the procurement committee
- Ask for materials transportation approval
- Purchasing and contribution process
- Provide 3 training courses to VCDM and local authorities
- Meeting with VCDM and local authorities for 3 times
- Follow up and monitoring
- Write the final report

External Factors

- Local authority and NGOs have agreed and supported
- All the villager both men and women take part for making decision
- VCDM and local authorities has gained the understanding from meeting and training and then disseminate to other villagers.

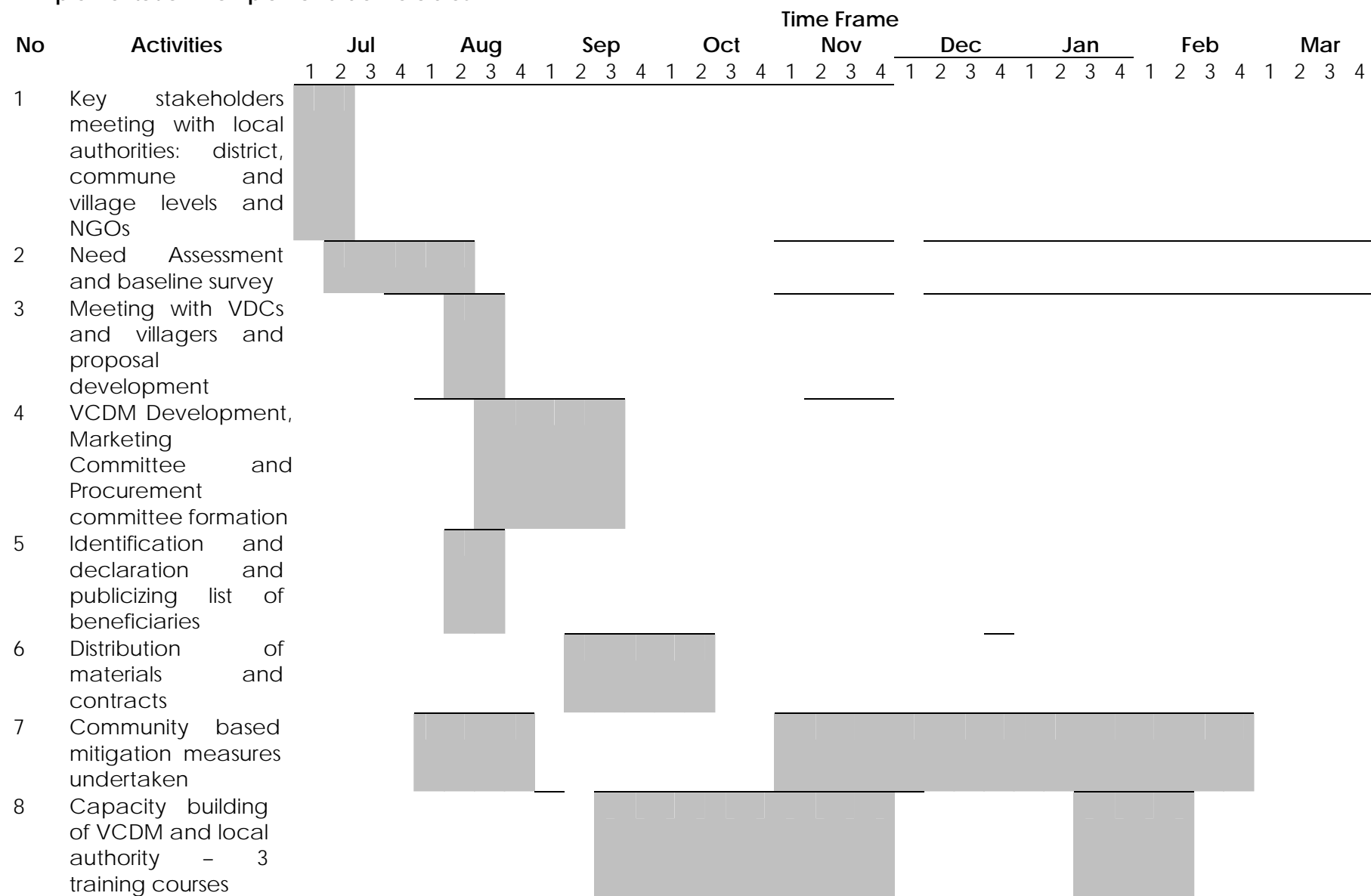
Table 3: Village Poverty Assessment

Well off	Medium	Poor	Destitute
-Rice field land from 4 to 10 ha	-Rice field land from 2 to 3 ha	-Rice field land from 2 to 3 ha	-No rice field land
-3 to 10 Cows and pigs	-House: brick roof / zinc/ thatch	-Sufficient food intake	-Thatch house, bamboo pillar
-House: 2 roof of brick tile	-Sufficient food intake	-Small house made from thatch	-No animal raising
-Tractor	-There is animal raising	-Occupation: tenant farmer	-Sufficient food intake
-Children study at the University	-Children study at	-Rice shortage 9	-No boat
			-Worker and earn money from day to

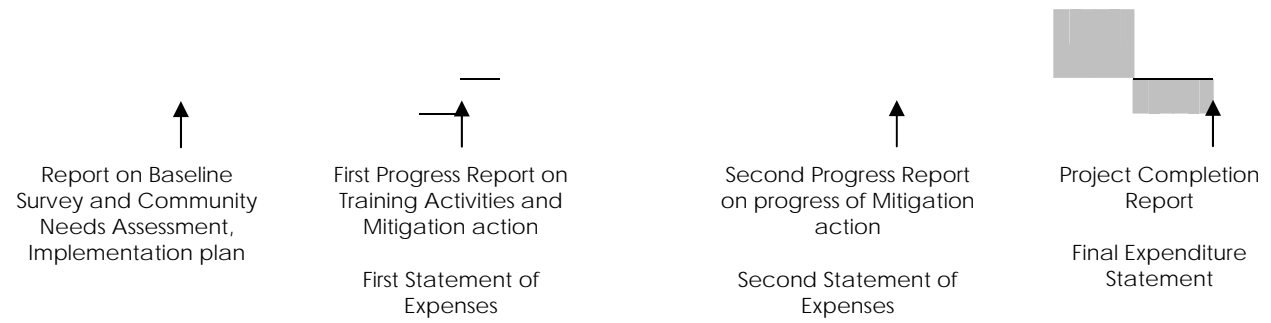
-Threshing machine	high school	months	day
-Motor bike	-Water pump (5HP)	-Children study at 3	-More than 5
-1 set of Karaoke,	-T.V (black and	or 5 grades	members in the
tape recorder	white), tape	-1 Old bike cycle	family
-Engine boat	recorder	-1 Old small boat	-There is a chronic
-Big water pump	-There is no debt	-1 Small radio	disease
-There are a loan	-There is a boat	-There is a debt	-Could not borrow
		-More than 5	the money from
		members in the	anyone
		family	-Children do not
			attend the school

Statistics of target villages												
District	Commune	Village	No HH	No Population		Wealth Ranking				Widow	Women headed HH	Disable
				Total	Female	Rich	Medium	Poor	Destitute			
Koh Andeth	Prey Yuthka	Ta Gnim	130	592	301	0	85	27	18	16	14	4
		Ta Phan	120	599	297	2	49	43	26	3	17	9
		Ta Hearn	193	888	462	48	71	44	30	12	12	5
		Prey Bay	115	470	228	10	33	35	37	6	11	2
	Prey Khla	Bantey Thleay	366	2011	991	27	215	71	53	14	07	13
	Kro Pom Chouk	Chhruy Poun	86	487	244	2	25	37	22	6	08	7
Borey Cholsa	Kampong Krasang	Borey Cholsa	98	480	230	15	41	27	15	3	07	6
	Total		1,108	5,527	2,753	104	519	284	201	60	76	46

Implementation workplan and deliverables



- 9 Community based project evaluation
- 10 Report preparation



Budget Detail of CCK						Budget Detail					
Co de	Descripti on	Unit	Qua nty	Uni t Co st	Tot al Cos t	Monthly Spending					
						Jul-06	Au g-06	Se p-06	Oct -06	Nov -06	De c-06
A.1	Operation/Admin										
A.1 .1	Staffing Project										
A.1 .2	Salary facilitator s	Person/month	6	\$ 200	\$1,200	\$200	\$200	\$200	\$200	\$200	\$200
A.1 .3	Project staffs	Person/month	12	\$ 150	\$1,800	\$300	\$300	\$300	\$300	\$300	\$300
A.1 .4	Health Insuranc e	Time/month	6	\$ 25	\$150	\$25	\$25	\$25	\$25	\$25	\$25
A.1 .5	Supplem entary salary to project leader	Person/month	6	\$ 50	\$300	\$50	\$50	\$50	\$50	\$50	\$50
A.1 .6	Office material and other docume nts	Month	6	\$ 50	\$300	\$50	\$50	\$50	\$50	\$50	\$50
A.1 .7	Fuel for, motor bike, generato r, water supply	Month	6	\$ 50	\$300	\$50	\$50	\$50	\$50	\$50	\$50
A 1.8	Compute r mainten ance and print	Month	6	\$ 50	\$300	\$50	\$50	\$50	\$50	\$50	\$50
A 1.9	Office phone/fa x for the staffs	Month	6	\$ 30	\$180	\$30	\$30	\$30	\$30	\$30	\$30
A 1.10	Buy new lap top	Lap top	1	\$ 1,500	\$1,500	\$1,500					
Sub total A.1					\$ 6,030						
A.2	Staff capacity building (03 training sessions)										

A.2.1	Training on Flood risk reduction strategy (46 trainees)	Session	1	\$500	\$500	\$500					
A.2.2	Training on gender and primary health care education (46 trainees)	Session	1	\$500	\$500		\$500				
A.2.3	Training on leadership (46 trainees)	Session	1	\$500	\$500			\$500			
A.2.4	Meeting with VCDM and CCs	Time	3	\$500	\$1,500	\$500		\$500			\$500
Sub total A.2					\$3,000						
A.3	Operation project										
A.3.1	Baseline Survey	Set	7	\$98.5	\$690	\$450	\$240				
A.3.2	Translation of the baseline survey report	Set	1	\$840	\$840			\$840			
A.3.3	Translation of monthly activities report	Time	3	\$160	\$480		\$160		\$160		\$160
A.3.4	Cost of staff travelling	Time/month	120	\$20	\$2,400	\$400	\$400	\$400	\$400	\$400	\$400
A.3.5	Buy a raw boat for 226 families	Boat	226	\$140	\$31,640			\$14,000		\$17,640	
A.3.6	wooden for house repairing 48 families	House	46	\$400	\$18,400						\$18,400

A.3 .7	Fishing net for 226 families	Net	226	\$ 15	\$ 3,39 0	\$ 3,3 90			
A.3 .8	Water filter for 226 families	Water filter	226	\$ 8	\$ 1,80 8	\$ 1,8 08			
A.3 .9	Cost of transport material to project site	Time	60	\$ 20	\$ 1,20 0	\$1 00	\$1 00	\$10 0	\$90 0
Sub total A.3					\$ 60,8 48				
A.4 Contingency									
A.4 .1	Continge ncy	Total	1	\$1 22	\$12 2				
Sub total A.4					\$12 2				
Grand Total					\$ 70,0 00				

Annex 12

Summary Report of the National Consultative Workshop on the strategy for community based disaster risk reduction in Cambodia

Introduction

The National Consultative Workshop was jointly organized by MOWRAM, ADPC and ADB on 21st of August, 2006 in Phnom Penh. The primary objectives of the workshop were:

- To present the draft of Community Based Disaster Risk Reduction strategy, which describes the following :
 1. Process of facilitating communities to participate in DRR
 2. Menu of options for community and household based disaster preparedness and mitigation against flood & drought
- To receive feedback from the participants on the strategy

The Expected outputs were:

- Reviewed and revised menu of possible community based risk reduction interventions;
- Inputs to revision of the draft strategy on community based risk reduction practices, based on lessons from good practices
- Revisions to draft strategy for integrating DRR considerations into Seila program

The detail workshop agenda of the Workshop was as follows:

Workshop Agenda

8:00 am – 8:30 am	Registration
8:30 am – 9:15 am	Opening Ceremony
9:15 am – 9:45 am	Presentation about ADB TA on Community Self Reliance and Flood Risk Reduction – Progress to date and expected outcomes from the workshop
10:05 am – 10:30 am	Findings of survey assessing NGO assistance to communities in disaster risk reduction <ol style="list-style-type: none"> i. Summary of survey of community needs ii. Summary of NGO projects reviewed
10:30 am – 11:00 am	Proposed community based risk reduction (CBRR) strategy
11:00 am – 12:00 pm	Working groups/Discussion on CBRR Strategy (3 working groups)
02:00 pm – 02:30 pm	Presentations by working groups
02:30 pm – 02:45 pm	Simple GIS for identifying communities at risk
02:45 pm – 03:10 pm	Integration of DRR considerations into Seila program
03:10 pm – 03:45 pm	Explaining the exercise and Parallel working groups

- (1) Options for community based flood risk reduction
- (2) Options for community based drought risk reduction
- (3) Integration of DRR considerations into Seila Program

03:45 pm – 04:15 pm

Working groups recommendations

04:15 pm – 05:00 pm

Concluding remarks, summary of recommendations by ADPC and workshop closing

Participant list for consultative workshop on strategy for community based disaster risk reduction

Name	Institution	Title
Mr. Mao Hak	Department of Hydrology and River Works (DHRW /MoWRAM)	Director
Mr. Ros Sovann	NCDM	Advisor
Mr. Seng Samban	Cambodian Red Cross	Project Manager
Mr. Khum Virak	Cambodian Red Cross	Trainer
Ms. Roussy Sandrine	Action Contre La Faim (ACF) Kampong Cham province	Project Manager
Mr. Mey Long	Action Contre La Faim (ACF), Kampong Cham province	Senior Program Officer
Mr. Min Sophaon	Agronomes et Veterinaires Sans Frontieres (AVSF)	Country Coordinator
Mr. Heng Saly	American Red Cross	EWS Project Assistant
Mr. Aloysius Rego	ADPC	Team Leader
Mr. Thanongdeth Insisiengmay	ADPC	Deputy Team Leader
Mrs. Supriya Prabhu Mehta	ADPC	Community Development
Ms. Hnin Nwe Win	ADPC	Project Manager
Mr. Chum Vuthy	ADPC	Trainer
Mr. Bun Thol	ADPC	Social Development
Mr. Prom Tola	ADPC	Community Development
Mr. Uy Sokco	ADPC	Community Development
Mr. Arghya Sinha Roy	ADPC	Program Coordinator
Mrs. Hem Sakhon	CCK, Koh Andeth district, Takeo province	Director
Mrs. Siv Loeut	CCK, Koh Andeth district, Takeo province	Project Leader
Mr. Kea Kimsan	CEDAC	Training Officer
Mrs. Mao Sophal	Church World Service (CWS)	Community Development Program Manager

Mr. Reaksmey Hong	Church World Service (CWS)	
Mr. Tan Bun Leng	Concern Worldwide	Project Manager
Mr. David Mueller	Lutheran World Federation (LWF)	Country Representative
Mr. Nguyen Huy Dzung	Mekong River Commission (MRC)	Programme Officer
Mr. Sam Sovanna	Oxfam Australia	Country Representative
Mrs. Im Phallay	Oxfam GB	Programme Officer
Ms. Valerie Lewin	Oxfam GB	Humanitarian Support Personnel
Mr. Hengly Vongrith	PADEK, Svay Rieng province	Team Leader
Mr. Moul Phath	Seila Task Force Secretariat (STFS),	Monitoring & Evaluation Officer
Mr. Pheap	UNDP Participatory Local Governance	National Planning Adviser
Mr. Yun Sina	World Vision Cambodia	
Mr. Paul Roelosen	ZOA Refugee Care	Country Director
Mr. Keo Serey Pich	DHRW /MoWRAM	Chief Office
Mr. Tong Send	DHRW /MoWRAM	Vice-Chief Office
Mrs. Ouch Sotheavy	DMRW /MoWRAM	Staff

Workshop proceedings

The workshop was conducted on 21 August, 2006 at Sunway Hotel. In all 28 participants from 19 institutions including MoWRAM, NCDM, UNDP's Participatory Local Governance project, Seila Task Force Secretariat and NGOs working on Disaster Risk Reduction at ADPC participated in the workshop. (Please find details in list of participants attached as Annexure 8)

The workshop was chaired by:

- Mr. Mao Hak, Director, Department of Hydrology and River Works, MoWRAM
- Mr. Loy Rego, Team Leader, ADB TA, and Director, Disaster Management Systems Team, ADPC
- Mr. Chris Wensley, Principal Project Specialist (Portfolio Management), Agriculture, Environment and Natural Resources Division, Asian Development Bank (in absentia)
- Mr. Ros Sovann, Advisor to National Committee for Disaster Management

Mr. Loy Rego welcomed the participants and presented an overview of the project, the strategy and the workshop objectives, followed by a brief summary of TA linkages with other ongoing similar initiatives. Following this, Mr. Chris Wensley's remarks, inviting the participants to deliberate on the proposed strategy and expressing ADB's expectations from the TA and the workshop, were read out. Mr. Mao Hak discussed about MoWRAM's engagement in the TA and encouraged the participants to provide feedback freely so that the CBDRR strategy may be modified to make it more relevant to the Cambodian context.

Following a brief session of participant introduction, Mrs. Supriya Mehta from ADPC made a presentation on the project overview and activities undertaken under the TA, providing the participants with an orientation to the process followed in developing the CBDRR Strategy and its various components. The participants expressed a preference to conduct workshop discussions in Khmer language, which was quickly accepted by all resource persons. Participants were concerned that the TA targeted only the 4 provinces of Prey Veng, Kandal, Takeo and Svay Rieng, to which Mr. Mao Hak from MoWRAM responded citing from the workshop organized by ADB prior to initiating the TA, during which the 4 provinces were identified as target area.

There were two main methods adapted during the course of workshop: (1). presentations made by ADPC teams and (2). group discussions on Standard process of Community Based Disaster Risk Reduction (CBDRR) or Process of facilitating communities to participate in DRR, Menu Options for community and household based disaster preparedness and mitigation against flood & drought, and the integration of CBDRR into Seila Program. In addition, during the course of each presentation made by the ADPC team, interactions, questions, and feedback and comments were actively raised by the participants. For the group discussions, in order to ensure full participation in sharing experiences and opinions, and provide comments and feedback to the topics above, we have randomly split participants into three group discussions so that everyone has a chance to express and share their view on the topics.

Discussions and suggestions from the workshop

a. Standard process of CBDRR: Participants have common agreement to keep the name of document as CBDRR Strategy. However, based on comments and feedbacks two issues were highlighted which needs to be addressed in the process of CBDRR Strategy: (1) inclusion of gender and (2) role of community in the entire process of CBDRR.

It was emphasised that Gender should play a greater roles in the entire process of CBDRR, not only by participation but also involve in decision making in all processes.

In order to ensure the decentralisation at community level, the CBDRR Strategy should be lead by the local community or commune councils with facilitation and support by NGOs and other development agencies. The local communities need to be involved in the entire process including monitoring and evaluation. In addition to that external evaluation should also be present. Officials from different levels of government should also be involved in process. Transparency and accountability must be included all processes of CBDRR, to make sure that all community people are included without any discrimination by social class or political motivation.

b. Menu Options for community and household based disaster preparedness and mitigation against flood & drought: The participants strongly suggested that before going into preparedness and mitigation measures for both flood and drought, it is essential to assess the hazards, vulnerability and risk associated with it.

During the process of actual implementation at community level, sustainability is a core issue especially for CBDRR measures that is related to mitigation or preparedness, because is not directly associated with financial gain for community. Sustainability can be achieved by increased establishment/association of Self Help Groups and Saving Groups and this would function without the continuous support from NGOs. This was supported by CEDAC's sharing of experience on farmer's

groups. It is therefore advised that formation of self-help groups form an essential part of community based risk reduction initiatives.

For Flood preparedness following measures should be included

- Inclusion of rice bank
- Family planning
- Study of Migration and its impacts
- vocation training such as motorbike repair
- Public awareness
- Gender considerations in all interventions

For Drought following measures should be included

- Giant jars as part of drought coping strategy
- Self help groups
- Environmental conservation
- community based irrigation to optimally utilize water
- public awareness
- gender considerations
- vocational training

C. Integration of CBDRR into Seila Program: Participants suggested that Seila is a project and which would come to an end soon, therefore, CBDRR should be integrated the Government system through the commune development planning process. The Commune Council can act as an entry point to attain long term sustainability. In addition, it is expected that in the future there will be more line ministries to integrate CBDRR in their system. A mechanism should be developed to facilitate the integration at the National, Provincial, District and Commune level; as for e.g through National coordinator, provincial coordinator. It was recognised that Capacity Building was essential for Commune Councils, CCDM, DCDM and PCDM

Conclusion remarks

Standard process of CBDRR should highlight ACCOUNTABILITY and TRANSPARENCY, GENDER inclusion in decision making, and COMMUNITY led in the entire process. In addition, involvement of GOVERNMENT should also be encouraged to ensure long term sustainability.

The Menu of options for CBDRR should start from assessing hazard, vulnerability and risk capacity before mitigation measurement and preparedness.

The integration of CBDRR should be targeted into Commune development planning, instead of Seila program, to ensure long term sustainability.

Annex 13

Agenda and list of participants for 6th Meeting of the Cambodian Disaster Risk Reduction Forum (CDRR)

The 6th Meeting of the Cambodian Disaster Risk Reduction Forum (CDRR) was hosted by NCDM and ADPC on 27th March 2007. The primary objective of the meeting was to present the CBDRR Strategy document to the forum members and to seek their inputs. Below are the detailed agenda of the meeting and the list of participants.

07:30 – 08:30	Registration of participants
08:00 – 08:10	Remarks by ADPC representative
08:10- 08:15	Remarks by Mr. Yin Savuth, Chief of Research & Flood Forecasting Office of HDRW, MoWRAM
08:15 – 8:30	Opening Remarks by H.E. Ponn Narith, Deputy Secretary General of NCDM
Morning Session	
08:00 – 08:45	Brief introductions of all participants
08:45 – 9:15	Discussion on objectives of the 6 th CDRR Forum
9:15 – 10:00	CBDRR strategy, presented by ADPC
10:00 – 10:15	Coffee Break
10:15 – 12:00	Open discussion and/or group discussion, and feed back collection
Afternoon Session	
13:30 - 14:00	Menu of Disaster Risk Reduction Options, by CRC
14:00 – 15:00	Open discussion and/or group discussion, and feed back collection
15:15 – 15:45	Discussion about agenda for the next meeting, decide venue, and possible date
Close Meeting	
15:45 – 16:15	Remarks by ADPC Representative
16:15 – 16:30	Closing remarks by NCDM representative

List of Participants

No	Name	Institution	Title	Tel, Fax & Email
1	Ses Vongsambath	CCK	Project Coordinator	H/P: 012 951 273 Email:
2	Mao Saohorn	Assistant	PCDM	H/P: 012 524 907 Email: mao_saohorn@yahoo.com
3	Sokry Honey	UNIFEM	Program Assistant	Tel: 023 994 932 Fax: 855-23 994 932 H/P: 012 976 337 Email: honey.sokry@unifem.org
4	Bun Peuvchenda	WVC	ERDM Coordinator	Tel: 023 216 052 H/P: 012 972 929 Email: peuvchenda_bun@wvi.org
5	Hoy Sochivanny	PCC/CEDAW	Director	H/P: 012 973 741

				Email: sochivannyhoy@yahoo.com
6	Long Vanda	ZOA (Anlong Veng district)	Project Assistant	H/P: 012 736 507
7	Keo Sarun	ZOA (Anlong Veng district)	Project Assistant	H/P: 092 312 279
8	Soth Kimkolmony	NCDM		H/P: 012 272 107 Email: soth_mony@yahoo.com
9	Lay Pek Try	CSW	ERP Coordinator	H/P: 012 829 096 Email: pektry@cwscambodia.org
10	Hong Reasmey	CWS	ERP Coordinator	Tel: 023 217 786 H/P: 011 720 662 Email: reasmey@cwscambodia.org
11	Khurshid Alam	ADPC		
12	Heang Suosaravorn	CEDAC	Researcher	H/P: 012 203 334 Email: saravorn2001@yahoo.fr
13	Ung Saron	CFED (Svay Rieng)		H/P: 016 740 217
14	Yun Sina	WVC	Relief Officer	H/P: 012 953 850 Email: sina_yun@wvi.org
15	Andrew Oliver Smith	DRC	CBDP Advisor	H/P: 012 654 247 danishrc08@online.com.kh
16	Bernie O'Neill	ZOA	Project Coordinator	H/P: 012 840 771 Email: bon.tsu@cambintel.com
17	Yin Savuth	DHRW, MoWRAM	Chief of Research & Flood Forecasting Office	Tel: 023 425 645 H/P: 011 974 322 Email: savuthyin@yahoo.com
18	H.E. Mr. Ponn Narith	NCDM		H/P: 016 540 546 Email: narith1818@yahoo.com
19	Seng Samban	CRC		H/P: 012 688 100 Email: sambancrc@yahoo.com
20	Hing Sokunthy	DRC	DRR officer	H/P: 012 664 685 Email: danishrc@online.com
21	Thanongdeth Insiengmay	ADPC	Program Manager	H/P: 012 715 874 Email: thanongdeth@adpc.net
22	Sunara Fernando	CARE	AI/Emergency Response Coordinator	H/P: 012 827 295 Email: sunara.fernando@care-cambodia.org
23	Rodger Doran	WHO	Coordinator	H/P: 012 832 308 Email:
24	Jaiganesh Murugesan	ADPC	Disaster Reduction Specialist	H/P: +66 8966 27948 Email: Jaiganeshm@adpc.net
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27	Latif Khan	Oxfam America	HRPO	H/P: 012 873 300 Email: latif@oxfamamerica.org
28	Chhim Sivuth	PCDM (Oddor Mean Chey province)	Secrtary	Tel: 092 787 841 H/P: 011 778 758
29	Hourn Ratana	ADPC	Disaster Management Associate	H/P: 012 548 203 Email: hournratana@yahoo.com
30	Uy Sokco	ADPC	Community Development	H/P: 012 828 438

			Specialist	Email: uysokco@yahoo.com
31	Roselyn Joseph	WFP	Program Officer	H/P: 012 222 986 Email: roselyn.joseph@wfp.org
32	Ol Seine	ADPC	Candidate	H/P: 012 800 133
33	Khun Sokha	NCDM		H/P: 012 882 198 Email: sokhakhun@yahoo.com
34	Isabella Jean	CDA, MA	Field Associate	Email: ijean@cdainc.com
35	Chum Vuthy	ADPC	National Coordinator	H/P: 012 709 488 Email: vuthy@adpc.net
36	Aloysius James	Action Aid	DiPECHO Project Manager	H/P: 012 895 876 Email: aloysius.james@actionaid.org

Annex 14

Summary report of training on community based disaster risk reduction strategy

Introduction

The training was conducted from 29-31st August, 2006 at Pannasastra International School. In all 25 participants from Church World Service, Chamroen Chiet Khmer, officials from Provincial level from Department of Hydrology and River Works, Cambodia Farmer Economic Development, Officials from PCDM and DCDM of Koh Andaet and Borey Chulsa district of Takeo Province, and Svay Chrum and Kampong Ro district of Svay Rieng Province participated in the training.

The Opening session of the training was chaired by:

- H.E. Ponn Narith, Under Secretary General, National Committee for Disaster Management
- Mr. Long Saravuth,
- Mr. Loy Rego, Team Leader, ADB TA, and Director, Disaster Management Systems Team, ADPC

The table below provides the schedule of delivery of the training course.

Sessions	Resource Person(s)
Introduction and Expectation Check	Loy Rego, Uy Sokco, ADPC
Understanding of Disaster Concepts	Khun Sokha, NCDM
Understanding of Disaster Management Framework	Khun Sokha, NCDM
Use of GIS in Identifying Target areas	Mr. Pierre Dubeau, Hatfield Consultants
Community based risk reduction – proposed shared approach	Bun Thol, ADPC
Mechanisms and Structure of Commune Committee for Disaster Management	H.E Ponn Narith, NCDM
Hazard, Vulnerabilities and Capacities Assessment	Mr. Chum Vuthy, ADPC
Departure for field work to Lvea Em	
Group Exercise in HVCA	Mr. Zubair Murshed and Mr. Chum Vuthy, ADPC
Present outputs of field work by each group in the field	Chum Vuthy, ADPC
Return from the field work	
Menu of options for community based preparedness and mitigation	Uy Sokco, ADPC
National, Provincial and local level governance for Disaster Risk Reduction and proposed integration into Commune Investment Plan or District Integration Workshop	Bun Thol, ADPC
Community needs in disasters in Cambodia, Gender considerations	Prom Tola, ADPC
Flood forecasting	Mr. Long Saravuth, MOWRAM
Flood Early Warning Systems – approach used under “Flood Emergency Management Strengthening” Project of GTZ-MRC-ADPC	Mr. Chum Vuthy, ADPC
Community Based Preparedness Program	Mr. Chum Vuthy, Mr. Zubair

	Murshed, ADPC
Presentations by group of Preparedness Program	
Closing Remarks	

The list of participants who attended the training is as follows:

Church World Service (CWS)
Mr. Pich Phourith, Program Officer for Community Development Unit, Svay Rieng
Mr. Hong Reaksmeay, Project Assistant
Mr. Ou Vannkea, Project Assistant, Community Development Unit, Svay Rieng
Cambodia Farmer Economic Development (CFED)
Mr. Ung Saron, Staff, Svay Rieng
Mr. Phem Many, Staff, Svay Rieng
Chamroen Chiet Khmer (CCK)
Mrs. Hem Sakhan, Director
Mrs. Siv Loeut, Staff of PCDM on deputation to CCK
Mr. Um Sokun, Project Coordinator
Mr. Ses Vong Sambath, Project Coordinator
Mr. Neang Vannak, Staff
Mr. Mao Sophors, Staff
Department of Hydrology and River Works (Provincial level)
Mr. Heng Sodara, Director of Provincial Department of Water Resources and Meteorology (PDWRAM), <u>Takeo Province</u>
Mr. Sok Sokhom, Deputy Director, PDWRAM, <u>Takeo</u>
Mr. Tea Ea, Deputy Director, PDWRAM, <u>Prey Veng</u>
Mr. Chheung Sokhoun, Staff, PDWRAM, <u>Prey Veng</u>
Mr. Prak Lak, Staff, PDWRAM, <u>Kandal</u>
Mr. Nhem Vannak, Deputy Director, PDWRAM, <u>Kandal</u>
Mr. Ken Chhum, Deputy Director, PDWRAM, <u>Svay Rieng</u>
Mr. Ieng Saren, Head, PDWRAM, <u>Svay Rieng</u>
Takeo Province, PCDM and DCDM of Koh Andaet and Borey Chulsa
Mrs. Kea Sophou, Vice Chief of Provincial Cabinet, <u>Takeo</u> Province, PCDM Secretariat
Mr. Rous Rath,

Chief of Administration under District Governor, <u>Borey Chulsa</u> DCDM, Takeo
Mr. Ses Vong Kosal, Head of Office, <u>Koh Andaet</u> DCDM Secretariat, Takeo
Svay Rieng Province PCDM, and DCDM of Svay Chrum and Kampong Ro
Mr. Phok Yin, Deputy Secretary, PCDM <u>Svay Rieng</u> Secretariat
Mr. Tan Sarun, Deputy of District Administration Office, <u>Svay Chrum</u> DCDM Secretariat, Svay Rieng
Mr. Chen Chhieng, Deputy of District Administration Office, <u>Kampong Ro</u> DCDM Secretariat, Svay Rieng

Summary of sessions from the Training

Day 1:

The First session of the first day of the training conducted by Mr. Loy Rego and Mr. Uy Sokco of ADPC, provided the participants with an introduction to the project and the training course, the expectations of the participants from the training.

The Second session was conducted by Mr. Khun Sokha of NCDM who presented in detail an overall understanding on the concepts of Disasters.

The Third session was also conducted by Mr. Khun Sokha of NCDM to present an overall understanding of the Disaster Management Framework.

Mr. Pierre Dubeau from HATFIELD Consultants conducted the Fourth Session, where he presented the use of GIS on identifying target areas for intervention of community based disaster risk reduction measures

The Fifth session was conducted by Mr. Bun Thol who presented the proposed shared approach on Community Based Disaster Risk Reduction.

H.E. Ponn Narith, Under Secretary General, NCDM presented in the Sixth Session the Mechanisms and Structure of Commune Committee for Disaster Management in Cambodia

The Last session of the day was conducted by Mr, Chum Vuthy of ADPC who presented the concepts and procedures for carrying out Hazard, Vulnerabilities and Capacity Assessment.

Day 2:

On Day 2 of the training a Field Exercise was carried out by the participants to identify and assess the hazards, vulnerabilities and capacity in the community. The exercise was carried out in Lvea Em District in Kandal Province. The participants were divided into two groups. The first group conducted the exercise in the Koh Ras Village of Koh Ras Commune and the second group in Veal Thom Village in Peam Ougna Oung Commune. Volunteers from Cambodian Red Cross helped the participants in familiarising them with the disaster situation in the site. The participants carried out the exercise, prepared the Community Map and carried out the Hazard, Vulnerability and Capacity Assessment. At the end of the day the participants presented their findings and a discussion followed. Mr. Zubair Murshed of ADPC also presented a Community Based Preparedness table which was later filled out by the participants and presented on the next day.

Day 3:

The First Session of the Day 3 was conducted by Mr. Uy Sokco to present the menu of options for community based disaster preparedness and mitigation. The menu of options has been compiled by ADPC and included in the CBDRR Strategy developed under the TA.

Mr. Bun Thol presented in the Second Session importance of National, Provincial and local level governance in Community based Disaster Risk Reduction and proposed integration of CBDRR into Commune Investment Plan or District Integration Workshop.

Mr. Prom Tola presented in the Third Session, Gender considerations for Community Needs in disasters in Cambodia.

In the Fourth Session of the Day 3, Mr. Long Saravuth of ----- presented his expertise on Flood forecasting.

A detailed session on Flood Early Warning Systems; approach used under "Flood Emergency Management Strengthening Project of GTZ-MRC-ADPC" was conducted by Mr. Chum Vuthy of ADPC.

The Sixth session of the day on Community Based Preparedness Programs was conducted by Mr. Zubair Murshed and Mr. Chum Vuthy of ADPC.

In the last session of the day, the participants made presentations on Community based disaster preparedness program.

Annexure 15

Agenda

2nd National Workshop, ADB TA 4574 CAM; Community Self Reliance and Flood Risk Reduction06th April, 2007

Venue: Sun Way Hotel, Phnom Penh

Organised by

Ministry of Water Resources and Meteorology (MoWRAM)

Asian Development Bank (ADB)

And

Asian Disaster Preparedness Center (ADPC)

In Association with

Hatfield Consultants

08:30 – 09:00	Registration of participants
09:00 – 9:45	Opening Session
	Address by Dr. Bhichit Rattakul, E.D. <i>a.i.</i> , ADPC
	Address by Mr. Christopher Wensley, ADB
	Opening Address by Mr. Mao Hak, MoWRAM,
	Key Note Address by H.E. Dr. Nhim Vanda, Senior Minister, First Vice President, NCDM
	Master of Ceremony Mr. Aloysius Rego, ADPC
	Introductions of participants & Group Photo
09:45 – 10:15	Presentation on the Activities carried out under the TA , (by ADPC)
10: 30 –11.15	Presentation on the Key TA Outputs: <i>Guidelines and Action Plan</i> (by ADPC)
11.15 – 12.00	Presentation on Development of a Flood Vulnerability GIS Application (by Hatfield)
12.00 – 12.45	Presentation on Proposed Guidelines, Process and Outcomes and Menu of Options (by ADPC)
13:45 - 14:05	Presentation of CBDRR Pilot Project (by CCK)
14:05 -14:25	Presentation of CBDRR Pilot Project (by CWS)
14:25 15:00	Presentation on Proposed Mainstreaming of CBDRR with CDP (by ADPC)
15:15 – 16:00	Presentation on Institutionalisation of CBDRR with into National Policies (by ADPC)
16:00 – 16.30	Presentation on Action Plan for implementation of CBDRR in the 4 target provinces (by ADPC)
16.30 – 17.00	Closing Session
	Closing Remarks by ADB
	Closing Remarks by MoWRAM
	Closing Remarks by ADPC

Participant List for Field Visit to Svay Rieng province
ADB TA 4574-CAM, Community Self Reliance and Flood Risk Reduction
Date: 05 April, 2007

No	Name	Title
1	Mr. Ou Vankea	CWS
2	Mr. Khaio Sat	Deputy Kampong Ro district governor
3	Mr. Sok Sat	Prey Thom commune head
4	Mr. Som Savoeun	Deputy of Association for Development Increase the Family Economics (ADIFE)
5	Mr. Keo Sokhorn	Staff of ADIFE
6	Mr. Mom Samay	Pouthi Reach commune council
7	Mr. Tep Ly	Deputy Svay Chrum district governor
8	Mr. Ream Sophon	Director of CFED
9	Mr. Ung Saron	CFED
10	Mr. Um Sakun	CCK
11	Mrs. Im Phallay	LWF
12	Mr. Sing Sareth	CFED
13	Mr. Pich Rachana	Reasmey Kampuchea newspaper
14	Mr. Thomas Boivin	Hatfield
15	Mr. Mel	ADPC
16	Mrs. Hnin Nwe Win	ADPC
17	Mr. Steve Iris	CSA
18	Mr. Khurshid Alam	ADPC
19	H.E.Mr. Khoy Sokha	Deputy Provincial Governor
20	Mr. Loy Rego	ADPC
21	Mr. Lay Pektry	CWS
22	Mr. Uy Sokco	ADPC
23	Mr. Sao Sam Oun	Information department
24	Mrs. Mao Sophal	CWS

Participant List for
2nd National Workshop on
Community Self Reliance and Flood Risk Reduction
ADB TA 4574-CAM
06 April, 2007
Sunway Hotel, Phnom Penh, Cambodia

No	Name	Institution
1	H.E. Dr. Nhim Vanda	National Committee for Disaster Management (NCDM)
2	H.E. Mr. Ponn Narith	NCDM
3	Mr. Ross Sovann	NCDM
4	Mr. Soth Kimkolmony	NCDM
5	H.E. Kol Vathana	Cambodia National Mekong Committee (CNMC)
6	Mr. Sok Khom	CNMC
7	Mr. Hak Socheat	CNMC
8	Mr. Mao Hak	MoWRAM
9	Mr. Chour Sophea	MoWRAM
10	Mr. Oum Rina	MoWRAM
11	H.E. Mr. Sok Visal	Ministry of Planning (MoP)
12	Mr. Hel Tony	Ministry of Planning (MoP)
13	Mr. Pich Nhan	Ministry of Public Works and Transport (MPWT)
14	Mrs. San Vibol	Ministry of Industry, Mines and Energy (MIME)
15	Mr. Ma Sovanna	Ministry of Rural Development (MRD)
16	Mr. Hue Chenda	Ministry of Land Management, Urban Planning and Construction (MLMUPC)
17	Mr. Christopher Wensley	Asian Development Bank (ADB)
18	Dr. Troung Hong Tien	Mekong River Commission (MRC)
19	Mr. N.Bakker	Mekong River Commission (MRC)
20	Mr. Tom Boivin	Hatfield consultants
21	Mr. Pierre Dubeau	Hatfield consultants
22	Mr. Steve Iris (CSA)	Hatfield consultants
23	Mr. Pech Sokhem	
24	Mr. Tep Sokha	Oxfam GB
25	Mrs. Im Phallay	Lutheran World Federation (LWF)
26	Mr. Tang Bunleng	Concern World Wide (CWW)
27	Mr. Sok Dara	Agronomes et Veterinaires Sans Frontieres (AVSF)
28	Mr. Hak Makara	Agronomes et Veterinaires Sans Frontieres (AVSF)
29	Mrs. Mao Sophal	Church World Service (CWS)/ Cambodia Farmer Economic Development (CFED)
30	Mr. Ou Vanker	Church World Service (CWS)/ Cambodia Farmer Economic Development (CFED)
31	Mr. Lay Tek Try	Church World Service (CWS)/ Cambodia Farmer Economic Development (CFED)
32	Mr. Ung Saron	Church World Service (CWS)/ Cambodia Farmer Economic Development (CFED)
33	Mrs. Yin Bunsopheaktra	Cambodian Red Cross (CRC)
34	Mrs. Nhek Siphon	Cambodian Red Cross (CRC)
35	Mr. Hing Sokhunthy	Danish Red Cross (DRC)
36	Mrs. Hem Sakhon	Chamroeun Chiet Khmer (CCK)
37	Mrs. Liv Loeut	Chamroeun Chiet Khmer (CCK)
38	Mr. Um Sakun	Chamroeun Chiet Khmer (CCK)

39	Mr. Ses Vong Sambath	Chamroeun Chiet Khmer (CCK)
40	Mr. Neang Vannak	Chamroeun Chiet Khmer (CCK)
41	Mr. Mao Sophors	Chamroeun Chiet Khmer (CCK)
42	Mr. Ven Kab	DCDM, Koh Andeth district, Takeo province
43	Mrs. Kea Sophu	PCDM, Takeo province
44	Mr. Lim Soviet	Centre d'Etude et de Development Agricole Cambodgien (CEDAC)
45	Mr. Keo Raingsey	ACLEDA
46	Mrs. Roselyn Joseph	World Food Program (WFP)
47	Mr. Paul Randolph	US embassy
48	Mrs. Judith Ascroft	Save the Children
49	Dr. Bhichit Rattakul	Asian Disaster Preparedness Center (ADPC)
50	Mr. Loy Rego	ADPC
51	Mr. Thanongdeth	ADPC
52	Mr. Arghya	ADPC
53	Mr. Khurshid Alam	ADPC
54	Mrs. Pannawadee	ADPC
55	Mrs. Hnin Nwe Win	ADPC
56	Dr. Mel Capistrano	ADPC
57	Mr. Prom Tola	ADPC
58	Mr. Uy Sokco	ADPC
59	Mr. Chum Vuthy	ADPC