

**THIRD QUARTERLY REPORT OF 2006
(JULY - SEPTEMBER 2006)**

**GTZ-MRC-ADPC PROJECT
ON
FLOOD EMERGENCY MANAGEMENT STRENGTHENING (FEMS)**

**COMPONENT 4 OF MRC'S FLOOD MANAGEMENT AND MITIGATION PROGRAM
(FMMP)**

**SUBMITTED BY
ASIAN DISASTER PREPAREDNESS CENTER**

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Acronyms

ADPC	Asian Disaster Preparedness Center
CCDM	Commune Committee on Disaster Management
CDMT	Commune Disaster Management Team (CDMT)
CNMC	Cambodia National Mekong Committee
CSO	Civil Society Organization (formerly known as non governmental organization)
DCDM	District Committee for Disaster Management
DCDMS	District Committee for Disaster Management Secretariat
DDMFC	Department of Dike Management and Flood Control, Vietnam
DFPP	District Flood Preparedness Program
DM	Disaster Management
FEMS	Flood Emergency Management Strengthening (Component 4 of the MRC FMMP)
FPP	Flood Preparedness Program
FMM	Flood Management and Mitigation
FMMP	Flood Management and Mitigation Programme (of MRC)
GTZ	Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH
LMB	Lower Mekong Basin
MDI	Mekong Development and Research Institute, University of Can Tho, Vietnam
MOU	Memorandum of Understanding
MRC	Mekong River Commission
MRCs	Mekong River Commission Secretariat
NCDM	National Committee for Disaster Management
NDMO	National Disaster Management Office
NGO	Non-governmental Organization (civil society organization)
NMC	National Mekong Committee
PCC	Program Coordination Committee (PCC)
PCDM	Provincial Committee on Disaster Management
PCDMS	Provincial Committee on Disaster Management Secretariat
PCFSC	Provincial Committee on Flood and Storm Control
PIP	Programme Implementation Plan, FMMP
PMU	Programme Management Unit, FMMP
DCFSC	District Committee on Flood and Storm Control
RFMMC	Regional Flood Management and Mitigation Centre
VNMC	Vietnam National Mekong Committee

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Third Quarterly Report of 2006 July - September 2006

1. Project Brief

Project **GTZ-MRC-ADPC Cooperation on Flood Emergency Management Strengthening - Component 4 of MRC's Flood Management and Mitigation Program (FMMP)**

Project Processing No: **01.2505.4-002.00**

Agreement No: **81073052**

Date of submission: **November 2006**

2. Results, Indicators and Important Assumptions

The activities mentioned in this section refers to the activities specified in the work-plan attached to the Agreement signed with GTZ, as Annex 11 and the draft quarterly plan for the previous reporting period, submitted under section 3 of preceding quarterly report.

Planned Activities to be undertaken from April-June 2006

1. The preparation and implementation of flood preparedness programs in selected provinces and districts is facilitated.

Expected results:

- Provide continuous support to planning and development of FPP in Cambodia.
- Strengthen the capacity of PCDM/DCDM offices
- Distribute Flood Preparedness Programs (FPP) documents, guidelines, maps and forecasts to all districts and communes in the province.
- Implementation of FPPs - Support priority sub-projects including need-based local level training courses in both countries.

Indicators:

- Number of priority sub-projects conducted and number of people whose capacity have been built in selected flood risk management subjects and areas.
- Printed versions of completed FPPs in Cambodia.

Assumptions:

- Active participation of provincial and district focal points of FEMS in various workshops and trainings conducted under the project, as facilitators.
- Active participation of member line agencies of provincial and district disaster management committees in both countries.
- Completed Cambodia FPPs printed and ready for distribution.

2. National capacities to support preparation and implementation of preparedness programs are further developed.

Expected results:

- Preparation of national Guidelines/ Manuals for preparation of Provincial and District FPPs supported.
- Continued support to institutional capacity building of NDMOs to support PCDM/DCDM in preparing FP programs.
- Continued dialogue with partner NGOs on potential collaborative activities and to facilitate the information sharing.

Indicators:

- Meeting/workshop/training programs indicating official endorsement and participation of national representatives at the workshops and meetings at the provincial and district levels as well as their participation in implementation of sub-projects.

Assumptions:

- National counterparts participate actively in FEMS activities implementation.
- Partner NGOs keen to share information and data.

3. Public awareness activities/campaigns in selected provinces and districts initiated in Cambodia and Vietnam.

Expected results:

- Adapt (language, cultural context), republish booklets and posters for children and adults and distribute through appropriate channels.
- Review possibilities/ co-financing arrangements for using/adapting the film “Living with Floods”
- Organize/ facilitate training for children through school teachers.

Indicators:

- Publication of booklets and posters.
- Preparation of materials for school teachers.

Assumptions:

- Agreement reached with partner organizations.
- Design of new posters and booklets completed before end of September 2006.

4. Regional knowledge sharing is facilitated.

Expected results:

- Initiate preparation for good practice documents.
- National knowledge sharing workshops planned.
- Organize visits for provincial level officials to other riparian countries.

Indicators:

- List of potential themes and initial identification of good practices in the region.
- A draft agenda prepared for national level knowledge sharing workshop.
- Participation of provincial focal points in oversea events.

Assumptions:

- Provincial and district authorities in border provinces and districts in Cambodia and Vietnam keen to cooperate.

5. Preparedness for Province-to-Province **trans-boundary emergency assistance** is facilitated.

Expected results:

- Support cooperation between selected neighboring provinces along the Cambodia Vietnam border

Indicators:

- Meetings and dialogues with relevant agencies and government authorities.

Assumptions:

- Both countries, particularly the provincial authorities, open to potential collaborative activities.

3. Status Report on Achievement of Results

Achievements in Cambodia:

1. The preparation and implementation of flood preparedness programs in selected provinces and districts is facilitated.

The FPPs of 2 provinces and 4 districts (all target areas) in Cambodia were finalized and completed around the end of June 2006. By end of September 2006, the FPPs of Prey Veng, Kandal, Peam Chor and Sithor Kandal have been printed out. The designs for Lovea Em and Leuk Dek FPPs have been approved and the documents will be ready for distribution by end of October 2006. The launch meeting for provincial FPPs were held on 8 August 2006 and 28 September 2006 in Kandal and Prey Veng respectively. The documents were distributed to all the member departments of PCDM, all the districts within the province and the international and local NGOs working in the province. Similarly at the district level, the FPP documents were disseminated to all the line departments of DCDM, all the communes and the NGOs working in the district.

All the FPPs have the maps of concerned province and district and the three district FPP documents (Peam Chor, Sithor Kandal and Lovea Em) consist of resource inventory in the district. The resource inventory is to provide the DCDM and PCDM with a list of available local resources that can be deployed in the case of emergency.

The implementation of the priority sub-projects are on-going. They are:

- Building capacity of CCDM in Community Based Flood Management
- Improving the Skills of District and Commune Officials in Damage & Needs Assessment
- Development of resource and capacity inventory at the district level

- Improved dissemination of Early Warning
- Development of program on meeting the needs of Women Headed Household
- A survey on safe area improvement

Review of the activities and their usefulness to the PCDM and DCDM will be conducted at the provincial level review workshops to be held in early October 2006.

2. National capacities to support preparation and implementation of preparedness programs are further developed.

The Flood Preparedness Planning Manual, developed under ECHO-MRC-ADPC Phase II project, will be completed before the end of 2006. As part of the Manual completion process, a writeshop is scheduled to be held sometime at the end of November 2006. The NCDM and PCDM focal points who were involved in flood preparedness program development in Cambodia will be invited to the workshop. Since the Manual was developed based on their experiences, chronicling step by step process of the FPP development, their participation in the Manual finalization workshop would ensure the usability of the manual and consolidate the different aspects needed to develop flood preparedness programs at the provincial and district levels.

The benefits of engaging NCDM focal points, including senior staff, as key resource persons in capacity building programs such as damage and need assessment and CBFM trainings are that direct vertical contacts between national, provincial and district levels are established and that they gain confidence in carrying out similar activities in other places, both ensuring the ownership, replicability and sustainability of the activities.

3. Public awareness activities/campaigns in selected provinces and districts initiated in Cambodia.

In order to raise the awareness of the public in flood risk reduction, following activities were carried out during the reporting period between July to September 2006:

- i. Production of IEC Materials and Organizing Awareness Campaigns
 - Designing and printing of posters on “Prevention of Child Drowning” and “Household Safety Measures”
 - Cultural performances and folk song
 - Re-production of the film “Living with Floods”
- ii. Developing the Capacity of Teachers and Educators in Flood Risk Reduction

Achievement in Vietnam:

1. The preparation and implementation of flood preparedness programs in selected provinces and districts is facilitated.

As reported in the first quarterly report of FEMS project 2006, Institutional Analysis Study was conducted in An Giang Province of Vietnam, with recommendations made for enhancement of existing coordination between and among the provincial and district line

departments (members of provincial and district committee on flood and storm control) and current flood preparedness planning process. They were presented at the regular meeting to launch the Provincial Flood and Storm Control Plan in An Giang in July 2006.

Out of a number of recommendations being made, one particular suggestion was taken up as a recommendation on the strengthening of the existing disaster management institution: the formation of four sub-committees namely (1) Infrastructure and production rehabilitation, (2) Search and rescue, (3) Relief and social welfare and (4) Healthcare, education and environment.

The implementation of priority sub-projects is also on-going. Following activities were undertaken during the reporting period:

- i. Strengthening Search & Rescue systems in An Giang and Dong Thap Provinces
- ii. Improving skills of child caretakers in Emergency Kindergarten Management
- iii. Enhancing the individual safety skills by providing Swimming Lessons to school children

At the completion of these activities, provincial review workshops were organized in An Giang and Dong Thap provinces on 21 and 22 September 2006 respectively. The purpose of the half day workshop is to

- Present the status and lessons learnt through the implementation of the FEMS Priority Activities identified during the project orientation meeting at Province and District levels;
 - Assessment of needs and extension of coverage of these priority activities in all communes of the target districts and other districts in the province;
 - Obtain consensus on future activities of FEMS project in the two target districts.
2. National capacities to support preparation and implementation of preparedness programs are further developed.

The representative from the Department of Dyke Management, Flood and Storm Control (DDMFC) Southern Representative Office, Mr. Chung, has participated in a number of capacity building events and also at the provincial review workshops. His presence ensures the support of the national government towards the FEMS project.

3. Public awareness activities/campaigns in selected provinces and districts initiated in Cambodia and Vietnam.

In terms of public awareness raising activities, following activities have been initiated:

- i. Development and distribution of booklets on flood
- ii. Poster production and distribution
- iii. Re-production of the video "Living with Floods"

Achievement at the Regional Level:

To share the experience of FEMS project after two years period, two national workshops, each in each target country, are planned in November 2006. The workshops are organized

1. To update the national line agencies and other partners on the overall achievements of implementation since the start of the project
2. To discuss and share with the national line agencies the experiences gained from the project implementation, particularly in the flood preparedness program development and its ground implementation through priority sub-project during the flood season 2006
2. To seek guidance and suggestions on future activities in the remaining period of FEMS (till June 07) and beyond

In preparation for the Regional Knowledge Sharing workshop scheduled in May 2007, a list of potential themes for good practice case studies have been drafted as follows. The case studies will cover good practices in the lower Mekong basin countries undertaken by both government and non-government organizations.

- Institutional Development through capacity building of provincial and district disaster management authorities
 - Flood Preparedness Program development and implementation
 - Commune development planning
 - Community Based Flood Management
- Flood Early Warning system
- Gender Mainstreaming
- Public awareness raising
- Alternative Livelihoods/ livelihood restoration
- Re-settlement of vulnerable communities

A mini-study tour was organized at the end of September 2006. A five member team comprising of the Chief Representative of the Southern DDMFC office of Vietnam and four senior officials from the Provincial & District Flood and Strom Control offices of An Giang and Dong Thap Provinces were supported by FEMS to participate in the two day Regional Disaster Emergency Response Simulation Exercise (ARDEX-06) organized by the ASEAN Committee for Disaster Management (ACDM) in Ta Kmao city of Kandal Province in Cambodia during 27-28 September 2006. The simulation scenario was flood disaster on the Bassac River in Kandal province of Cambodia and the response drill was performed by the personnel of Cambodian Army, Navy, Red Cross and the response team from the National Committee for Disaster Management (NCDM) Cambodia. In addition, response team from the ASEAN countries such as Brunei Darussalam, Indonesia, Malaysia, Philippines, Singapore and Thailand also participated in the exercise.

The ARDEX-06 event provided a good chance for the participating Vietnam team to learn from regional level flood disaster simulation exercise involving national, regional and

international response systems. This will help them in further strengthening their provincial and district flood contingency planning as well as in initiating the trans-boundary emergency cooperation between the border provinces of Cambodia and Vietnam.

5. Preparedness for Province-to-Province **trans-boundary emergency assistance** is facilitated.

The ARDEX-06 event also opened up an opportunity for the two neighboring provinces of Kandal-An Giang and Prey Veng-Dong Thap to initiate the dialogue on trans-boundary emergency assistance.

Taking advantage of the presence of disaster management officials from both the provinces, the first half day meeting between the neighboring provinces (Prey Veng and Kandal in Cambodia and An Giang and Dong Thap in Vietnam) was organized on 28 September 2006, hosted by the Kandal Provincial Committee for Disaster Management.

The Kandal Provincial Governor presided over the meeting which was attended by the senior officials of the four provinces as well as officials from the MRC Flood Management and Mitigation Program, National Committee for Disaster Management (NCDM-Cambodia), Department of Dyke Management and Flood Storm Control (DDMFSC-Vietnam) and the FEMS project team of ADPC. The participants from both countries shared the experiences on flood preparedness planning and implementation in their provinces under FEMS project. They also shared the existing mechanism of the trans-boundary provincial and district level meeting between their provinces.

The representative from NCDM Cambodia and DDMFSC Vietnam endorsed the need for further consultations between the bordering provinces on the flood preparedness and emergency assistance issue involving all the stakeholders at the province and district levels.

Detailed description of progress of each activity are given in the table below.

Rating

A = on schedule B = delayed by Months C = jeopardized D = impossible

Results	Rating	Status/ Reasons for deviation
1. The preparation and implementation of flood preparedness programs in selected provinces and districts is facilitated.		
Provide continuous support to planning and development of FPP in Cambodia.	A (On time)	FPPs of all target provinces and districts (2 provincial plans and 4 district plans) completed in Cambodia.
Strengthen the capacity of PCDM/DCDM offices	A (On time)	PCDM and DCDM focal points of the target provinces and districts took the lead in FPP planning process and acted as resource and coordinating person in the implementation of FPP.
Distribute Flood Preparedness Programs (FPP) documents, guidelines, maps and forecasts to all districts and communes in the province.	A (On time)	<p>Cambodia <i>FPP</i>: Printing and distribution of FPPs for Prey Veng and Kandal Provinces and Peam Chor and Sithor Kandal districts have been completed. The remaining 2 district FPPs (Leuk Dek and Lovea Em) will be completed by end of October 2006 and ready for distribution. Maps of respective</p> <p>Vietnam <i>FPP</i>: The suggestions and recommendations resulting from the Institutional Analysis Study are being discussed at the regular provincial and district meetings, especially the recommendation on establishment of four sub-committees.</p>
Implementation of FPPs - Support priority sub-projects including need-based local level training courses in both countries.	A (On time)	<p>Cambodia</p> <p>i. Building capacity of CCDM in Community Based Flood Management</p> <ul style="list-style-type: none"> • “Community Based Flood Management (CBFM)” training conducted in Sithor Kandal district of Prey Veng province from 12-14 July, targeting at the newly established Commune Committee for Disaster Management (CCDM) in the district. Resource persons from NCDM-Cambodia, DCDM of Sithor Kandal, provincial Health Department, provincial Red Cross Chapters, ADPC and Department of Hydrology and River Works (DHRW) participated. • “Community Based Flood Management” training conducted in Leuk Dek district of Kandal province from 18-20 July for the similar target audience. Resource persons from NCDM-Cambodia, DCDM of Leuk Dek, provincial Health Department, provincial Red Cross Chapters, ADPC and Department of Hydrology and River Works (DHRW) participated.

		<ul style="list-style-type: none"> • Follow up activities to orient other remaining members of CCDM are planned. <p>ii. Improving the Skills of District and Commune Officials in Damage & Needs Assessment The DANA trainings were organized in all four target districts on 4-5 July (Lovea Em), 6-7 July (Peam Chor), 24-25 July (Leuk Dek) and 27-28 July (Sithor Kandal). The trainings oriented the DCDM and CCDM members with the existing DANA formats developed by NCDM. A half day field trip was also organized on the 2nd day for hands-on data collection exercise. Feedbacks for the usefulness of the forms were also collected, which NCDM as the key resource person planned to make the forms more user friendly.</p> <p>iii. Development of resource and capacity inventory at the district levels As mentioned earlier, the resource inventory development in three districts (Peam Chor, Sithor Kandal and Lovea Em) is completed, which are being attached to their respective FPP. In addition, the data on the coordinates of the safe areas in these districts are shared with the MRCS and Hatfield consultants working under ADB-TA project to integrate them into the existing digital maps.</p> <p>v. Improved Dissemination of Early Warning System After the installation of flood marks and related communication system in 9 villages in Peam Chor district, the orientation trainings for village chiefs and CCDM for usage and maintenance of flood marks was conducted on 21 July of 2006. Since then the village authorities have started receiving the flood forecasts and collecting real time flood data (from the village flood marks) and regularly send the information to PCDM and PDOWRAM based in Prey Veng provincial town.</p> <p>vi. Development of program on meeting the needs of Women Headed Household The first consultative meeting between ADPC team and the provincial and district Departments of Women Affairs in Prey Veng and Kandal Provinces were held on 14 and 15 August 2006 respectively. Prior to these meetings, a short study was conducted by the National Consultant to compile the special needs of women-headed households in the flood prone areas from the secondary sources (ADPC's Gender Study conducted under ADB-TA 4574 - Community Self Reliance and Flood Risk Reduction Project, CARE's Flood Impact on</p>
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		<p>Women and Girls in Pey Veng Province, etc.). The findings were presented at the provincial meetings. The meeting participants provided suggestions on activities that can be undertaken to meet these needs. These suggestions were shared with a wider audience at the follow-up Provincial Consultative Workshops on 13 September in Prey Veng province and 15 September in Kandal province. The meetings were attended by Commune Women Focal Points (one from each commune of the target districts) and the representatives from the provincial and district Department of Women Affairs. The follow up plan is to engage a local NGO with a gender focus to work with the provincial and district Department of Women’s Affairs and Commune Focal Points to undertake some activities that would meet the needs of the women headed households in the context of flood risk reduction.</p> <p>vii. A survey on Safe Area Improvement</p> <p>An assessment is being conducted to identify the needs for improving the safer areas. ADPC developed the format and the teams from villages of the target areas were oriented on how to use the form and to collect the data. The expected outcomes of this study is an inventory of gaps and suggested improvements of safe areas.</p> <p><u>Vietnam</u></p> <p>i. Strengthening Search & Rescue systems in An Giang and Dong Thap Province</p> <p>Three search and rescue trainings were organized in Tan Hong (4-7 July), Chau Thanh (12-15 July) and Thanh Binh (21-24 August) during the reporting period. Key participants were the personnel responsible for manning the rescue posts set up at major confluence (of canals or of canals and tributaries) within the district. The trainings were jointly conducted by District Military operation and provincial Red Cross.</p> <p>ii. Improving skills of child caretakers in Emergency Kindergarten Management</p> <p>The first training was organized from 18-20 July in Thanh Binh district. Subsequent trainings in Tan Hong, Chau Thanh and Tan Chau districts were conducted on 16-18 August, 4-6 September and 11-13 September 2006. The focus of the training was to develop the skills for the child caretakers (caretakers, emergency kindergarten supervisors and Women’s Union Volunteers) in managing the emergency kindergarten and enhancing their knowledge in child</p>
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		<p>rights, child protection and nutrition issues. The resource persons were invited from the Committee for Population, Family and Children (CPFC), Department of Education (DoET) and Pedagogical University (in Dong Thap) and the Center for Information, Education and Communication (IEC) under the Department of Health (in An Giang).</p> <p>iii. Enhancing the individual safety skills by providing Swimming Lessons to school children Altogether 8 swimming lessons of 5-day duration were provided to school children ranging from age 6 to 14, two each in each target district: Tan Chau (24-28 July and 31 July-4 August), Tan Hong (1-5 and 8-12 August), Chau Thanh (15-19 and 21-25 August) and Thanh Binh (15-19 and 22-26 August). The key trainers are from the provincial Department of Physical Education and Sports.</p> <p>Specific information on the number of participants and the course outlines are given in Annex 1.</p>
<p>2. National capacities to support preparation and implementation of preparedness programs are further developed.</p>		
Preparation of national Guidelines/ Manuals for preparation of Provincial and District FPPs initiated.	A (On time)	Manual to be finalized before the end of the year. A writeshop scheduled in November 2006 for that purpose.
Continued support to institutional capacity building of NDMOs to support PCDM/DCDM in preparing FP programs.	A (On time)	<p>Active participation from NCDM-Cambodia can be seen at all major events under the project, as resource persons and facilitators and providing inputs to training material and public awareness materials development. In addition, the focal point will be invited to Manual Writeshop in Bangkok in November 2006.</p> <p>In Vietnam, focal points from DDMFC are involved in implementation of the flood preparedness activities; reviewing of public awareness materials, organizing of national workshops and implementation of priority sub-projects.</p>
Continued dialogue with partner NGOs on potential collaborative activities and to facilitate the information	A (On time)	In both Cambodia and Vietnam, representatives from partner NGOs take part in all the major events organized under the project. FEMS National Coordinator in Cambodia and PCDM-Prey Veng focal points are invited as resource persons to a planning training conducted by ACF in

sharing.		Kampong Cham on 23-24 October 2006.
3. Public awareness activities/campaigns in selected provinces and districts initiated in Cambodia and Vietnam.		
Adapt (language, cultural context), republish booklets and posters for children and adults and distribute through appropriate channels.	A (on time)	<p>Cambodia</p> <p>i. Designing and printing of posters on “Prevention of Child Drowning” and “Household Safety Measures”</p> <p>A set of 3 posters depicting “before”, “during” and “after” household safety measures for flood risk reduction have been developed, reviewed and approved. A set of two posters on “protection of child drowning” for parents and children, adapting the existing materials produced by Save the Children Alliance in Vietnam, have been developed, reviewed and approved. They are to be printed and distributed by mid November 2006.</p> <p>ii. Cultural performances</p> <p>6 cultural performances were organized in Kandal province, in July 2006, by the provincial Department of Culture and Fine Arts in collaboration with PCDM-Kandal and the Department of Information. The performances were held in villages mainly at school ground or temple ground. Before each performance a film on “Living with Floods” was shown. At the end of each performance, there were questions and answer sessions where audiences were rewarded with project t-shirt for whoever provided the correct answer.</p> <p>4 Cultural and folk song performances were organized in Prey Veng (2 in September and 2 in October) by provincial Department of Culture and Fine Arts in collaboration with PCDM-Prey Veng and the Department of Information. The performance was captured by the Information Department on video tape and the final output would be a VCD that could be distributed to other provinces and districts.</p> <p>The cultural performance is called Hayai, a Khmer traditional and most popular drama. The Bayon TV, one of national TV stations, invited the Kandal cultural troop to the studio for indoor recording of the shorter version of the same performance. The show became part of Bayon TV’s</p>

		<p>permanent program for promoting Khmer traditional heritage. The show was aired nationally on 16 and 19 August 2006 respectively.</p> <p>Specific information on the dates of performance, number of attendees and the venue are given in <u>Annex 1</u>.</p> <p><u>Vietnam</u></p> <p>i. Development and distribution of booklets on flood The booklet has been translated and art works is being prepared.</p> <p>ii. Poster production and distribution A set of two posters on “protection of child drowning” for parents and children, adapting the existing materials produced by Save the Children Alliance in Vietnam, have been developed, approved and printed.</p>
<p>Review possibilities/ co-financing arrangements for using/adapting the film “Living with Floods”</p>		<p><u>Cambodia</u>: Around 300 copies of the VCDs have been made. It forms part of the Information Kit for Teachers and Educators.</p> <p><u>Vietnam</u>: Agreement has been officially received from Vietnam Red Cross and the re-production will proceed shortly.</p>
<p>Organize/ facilitate training for children through school teachers.</p>	<p>A (on time)</p>	<p><u>Cambodia</u></p> <p>After the Information Kit was developed, four orientation workshops were held in Peam Chor (4 September), Lovea Em (6 September), Sithor Kandal (8 September) and Leuk Dek (11 September). “Information Kit” developed for teachers and educators consist of “<i>Living with Floods</i>” CD, Booklet on health (contributed by MoH), Flood Booklet, Information booklet on Household safety measures and Preparedness activities for schools (as safe area) and EWS. The participants were Officials from provincial and district Departments of Education, Youth and Sport and the Principals and technical officers (responsible for curriculum development and revisions) from schools located in high risk areas. The resource persons came from NCDM, ADPC and provincial departments of Health.</p>
<p>4. Regional knowledge sharing is facilitated.</p>		

Initiate preparation for good practice documents.	A (on time)	A list of tentative themes for the case study development has been prepared.
National knowledge sharing workshops planned		The workshops are scheduled in November 2006.
Organize visits for provincial level officials to other riparian countries	A (on time)	One international trip has been organized for a team of representatives from Vietnam to visit Kandal Province, Cambodia.
<i>5. Preparedness for Province-to-Province trans-boundary emergency assistance is facilitated.</i>		
Support cooperation between selected neighboring provinces along the Cambodia Vietnam border	A (on time)	The first meeting was organized on 28 September 2006 between neighboring provinces of Kandal -An Giang and Prey Veng-Dong Thap.

Draft plan for the next 3 months (October - December 2006)

Activities	Time line		
	Oct	Nov	Dec
<ul style="list-style-type: none"> • Continued Implementation of FPPs - Support priority sub-projects including need-based local level training courses in both countries. <ul style="list-style-type: none"> ▪ Preparation of materials for CBFM trainings in Vietnam ▪ Support the mobilization of sub-national/local budgetary resources for program implementation ▪ Engagement of a local NGO to implement programs to meet special needs of women headed households in Cambodia ▪ Assisting already trained CCDM representatives in organizing Orientation sessions for remaining CCDM members in one selected district in Cambodia ▪ Initiating the assessment on the current status and needs in strengthening Search and Rescue capacities in the entire An Giang and Dong Thap provinces ▪ Initiating the assessment on the current status of Emergency Kindergarten in the entire An Giang and Dong Thap provinces (a comparative study) • Adapt (language, cultural context), republish booklets and posters for children and adults and distribute through appropriate channels. <ul style="list-style-type: none"> ▪ Production and distribution of posters in Cambodia and Vietnam ▪ Art work completion and printing of Flood booklet in Vietnamese ▪ Art work completion and printing of Drought booklet in Khmer • Organize/ facilitate training for children through school teachers. <ul style="list-style-type: none"> ▪ Provision of more Information Kits to schools in target areas • Preparation of a generic outline for good practice case study • National Experience Sharing Workshops (Cambodia & Vietnam) • Initiate dialogue for FPP implementation with PCDM/ DCDM in both countries for province-to-province dialogue 	X	x x x x x x	x x x x x x

4. Evaluation of achievement of objectives

As mentioned in the April-June Quarterly Report 2, the implementation of priority sub-projects in both countries has laid a good foundation for both vertical and horizontal collaboration among the line agencies of disaster management committees at various levels.

The invitation from other partner NGOs for the FEMS team and the national and provincial focal points in Cambodia to participate in their trainings as resource person indicates the widespread positive impact the project has been able to create and proved the confidence that is attached to the capacity of the government counterparts who have been involved in the project from the beginning.

The training materials developed for CBFM trainings in Cambodia were adapted for similar trainings under ADB-TA 4574 in Takeo and Svay Rieng provinces, with FEMS personnel

involving as key resource person. It shows that the issues addressed under the project are usable in the context of floods anywhere in the country.

The flood preparedness activity has become part of Kandal and Prey Veng PCDM agenda before the flood season 2006. PCDM of both provinces conducted their own flood preparedness meeting in August to delegate the tasks to the Secretariat and its members under the overall framework of the FPP. PCDM submitted 3 monthly report on the FEMS implementation to NCDM.

The project activities and its benefits have been recognized by national and provincial authorities. At the meetings with the project team in August H.E. Nhim Vanda, First Vice-President of NCDM, expressed his appreciation of the achievements made so far and rendered his support for the future project implementation. The authorities clearly stated that FEMS implementation is in line with the national poverty reduction policy.

In Vietnam, the collaboration between the district Military Operation and the Vietnam Red Cross in conducting search and rescue trainings was ground-breaking as a resource-rich but traditionally conservative organization like Military partnering with resource poor but community-outreach-rich agency like Red Cross opens up doors to get access to additional human and material resources.

The trans-boundary cooperation has always been very sensitive in both Cambodia and Vietnam. But FEMS approach demonstrates that in order to be able to forge partnerships, a good common ground with mutual understandings of urgent/ high priority issues can be the first steps before any agreement can be reached to chart out and implement solid collaborative activities.

Through the FEMS implementation local resources have been utilized to ensure longer term sustainability at local level. PCDM/DCDM and PCFSC/DCFSC have acted as coordinator in mobilizing human resources from local line departments and institutions, e.g. In Cambodia: the departments of health, culture, information, women affairs, etc., in Vietnam: Vietnam Red Cross, district Military operation unit, Committee for Population, Family and Children, department of education and training, University of An Giang and Pedagogical University of Dong Thap, Women and Youth Unions, etc.

5. Status of contributions rendered

These sessions will cover the contributions rendered over the reporting period of July to September 2006.

5.1 Contributions by the partner – MRCS/FMMP

Target: To ensure coordination between FMMP components.
To facilitate information sharing with NMCs in Cambodia and Vietnam.
To provide support in project implementation.

Actual: Regular Program Management Unit (PMU) meeting held at the RFMMC.
Quarterly Meeting of the Program Coordination Committee (PCC) held
The quarterly reports shared with the NMCs.
Information sharing between MRCS' project on-going.
MRCS/FMMP representatives participated at the 1st province-to-province meeting in September.

Rating: Activities are on track.

5.2 Contributions by the third party – NMCs and NDMOs

For NMCs

Target: To ensure the components implemented in Cambodia and Vietnam are effectively coordinated.
To support/participate in provincial/district workshops.

Actual: The agreement in Vietnam has been signed.
CNMC representatives participated in many planning workshops and are informed of the dates and venues of each activity.
VNMC provided support in communicating about project to PCFSC and in implementing the priority sub-projects.
Details information on the progress were presented at the regular PCC meeting in which FMMP National Coordinators from CNMC and VNMC also attended.

Rating: On time.

For NDMOs

Target:

Vietnam

To facilitate the coordination between ADPC and line agencies as well as other NGOs working in the same field in Vietnam.
To work with ADPC in public awareness activities to be undertaken in Vietnam.

Cambodia

To work with ADPC and PCDMs/DCDMs in implementation of priority sub-projects including organizing public awareness activities/ trainings, in collaboration with lead line departments.
To plan for national experience sharing workshop.
To facilitate the coordination between ADPC and line agencies as well as other NGOs working in the same field in Cambodia.
To provide support for province to province meetings.

Actual: DDMFC-Vietnam is reviewing flood and drought booklet to be published under FEMS.

NCDM-Cambodia senior management member and focal point actively provide advice and guidance and participated in all major capacity building activities and workshops/meetings as resource persons.

National experience workshop dates tentatively confirmed in November.

NCDM-Cambodia participated at the 1st province-to-province meeting in September.

Rating: Activities are on track.

5.3 Contributions by GTZ

Target: To maintain the mechanism to conduct regular information sharing process between GTZ, MRC and ADPC.

To establish a mechanism for information sharing with NMCs.

To ensure the effective coordination between the two funded components 4 and 5.

Actual: Regular information sharing is being facilitated.

Monitoring process has been undertaken by GTZ Principal Advisor from Vientiane MRC Headquarter.

Rating: On time.

6. Recommended action (referring to sections 3 and 4)

The following actions are recommended for all key agencies, in the implementation of Component 4, for the next three months: July-September 2006.

6.1 Consequences and action required by the Recipient – ADPC

- Together with the PCDM, DCDM, NDMOs and NMCs and other partners, to continue implementation of the provincial and district flood preparedness programs.
- To continue implementing public awareness raising activities.
- To plan for regional and national knowledge sharing and lessons learned workshops.
- To continue with province to province collaborative activities.

6.2 Consequences and action required by the GTZ

- To maintain the mechanism to conduct regular information sharing process between GTZ, MRC and ADPC.
- To maintain the mechanism for information sharing with NMCs.
- To ensure the effective coordination between the two components 4 and 5.

6.3 Consequences and action required by MRCS/FMMP

- To ensure coordination and communication between FMMP components.
- To facilitate information sharing with NMCs.
- To provide support and participate in project implementation.

6.4 Consequences and action required by CNMC and NCDM-Cambodia

CNMC

- To provide support in flood preparedness program implementation at various levels.
- To support/participate in flood preparedness program implementation.

NCDM – Cambodia

- To work with ADPC in flood preparedness program implementation that includes public awareness raising, delivery of trainings and working closely with PCDMs and DCDMs.
- To facilitate the coordination between ADPC and line agencies as well as other NGOs working in the same field in Cambodia.
- To plan for national experience sharing workshop
- To provide support for province to province initiatives.

6.5 Consequences and action required by VNMC and DDFSC – Vietnam

VNMC

- To provide support and participate in project implementation in the target areas.

DDMFSC – Vietnam

- To work with ADPC in public awareness activities.
- To facilitate the coordination between ADPC and line agencies as well as other NGOs working in the same field in Vietnam.
- To plan for national experience sharing workshop
- To provide support for province to province initiatives.

Annex 1 Completed Activities on Priority Sub-Projects

Cambodia

- *Building the capacities of Commune Committee on Disaster Management (CCDM) in Community Based Flood Management*

The training course covers the following topics

1. Mechanisms and structure of Commune Committee for Disaster Management
2. Understanding Disasters in Cambodia
3. Understanding the Disaster Management Frameworks in Cambodia Context
4. Hazard Vulnerability and Capacity Assessment
5. Introduction to Provincial and District Flood Preparedness Planning
6. Flood Forecasting/Flood early warning system
7. Disaster Emergency and Public Health Management

Date	Venue	No. of Participants
20-22 June	Lovea Em District, Kandal Province	40
29 June – 1 July	Peam Chor District, Prey Veng Province	45
12-14 July	Sithor Kandal District, Pey Veng Province	58
18-20 July	Leuk Dek District, Kandal Province	49

- *Improving skills of district and commune officials in Damage and Needs Assessment*

The target audiences from PCDM, DCDM and CCDM were introduced to the following reports developed by NCDM.

- 1) Risk monitoring report
- 2) Flash SOS report
- 3) Initial Report
- 4) District Damage and Need Assessment Report
- 5) Provincial Damage and Need Assessment Report
- 6) National Damage and Need Assessment Report.

Date	Venue	No. of Participants
4-5 July	Lovea Em District, Kandal Province	70
6-7 July	Peam Chor District, Prey Veng Province	63
24-25 July	Leuk Dek District, Kandal Province	43
27-28 July	Sithor Kandal District, Pey Veng Province	50

- *Development of program on meeting the needs of women-headed households (WHH)*

Date	Venue	Participants
13 September 2006	Prey Veng Provincial Hall	37 (12 men, 25 women)

15 September 2006	Kandal Provincial Hall	38 (9 men, 29 women)
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- Developing the Capacity of Teachers and Educators in Flood Risk Reduction

Date	Venue	No. of Participants
4 September	Peam Chor District, Prey Veng Province	55 (53 men, 2 women)
6 September	Lovea Em District, Kandal Province	55 (51 men, 4 women)
8 September	Sithor Kandal District, Pey Veng Province	60 (55 men, 5 women)
11 September	Leuk Dek District, Kandal Province	40 (37 men, 3 women)

- Cultural Performances*

Kandal Province		
Lovea Em District		
Venue	Date	Attendance
1. Veal Thum village, Peam Oknha Ong commune (at Po Meas Primary School)	9 July	1200
2. Lovea Sar Leu village, Lovea Sar commune (at Tek Khlaing Secondary School)	10 July	950
3. Teuk Khlang village, Teuk Khlang Commune (at Lvea Sar Temple)	11 July	1100
Leuk Dek District		
1. Peam Raing Krom villge, Peam Raing Commune (at Peam Raing Krom Temple)	29 July	1200
2. Preaek Touch village, Preaek Tulap commune (at Prek Dach Temple)	30 July	100 (due to rain)
3. Ta Hing village, Prek Tumlaop commune	31 July	600
Prey Veng Province		
Peam Chor District		
Venue	Date	Attendance
1. Tahu village, Peam Raing Commune	18 September	2300
2. Angkor Angk village, Preaek Tulap commune	19 September	1900
Sithor Kandal District		
1. Prey Toeung village, Peam Oknha Ong commune	5 October	1500
2. Preaek Chankran village, Lovea Sar commune	6 October	2300

Vietnam

1. *Building the Capacity of DCFSC/DRC in Search and Rescue*

Training covers the following issues:

- Overview of natural disasters and Flood Storm Control and Victim Rescue planning and activities at the provincial and district levels
- Institutional Structure and Coordination Mechanism for Search and Rescue at all levels
- Search and rescue planning at district and commune levels
- Emergency response and safety considerations S&R operation
- Demonstrations and practical exercises on Cardiopulmonary Resuscitation (CPR), rescue of drowning victims, fixing broken bones, treatment for bleeding and bandaging, transfer of victims

Date	Venue	No. of Participants
26-29 June	Tan Chau District, An Giang Province	30
4-7 July	Tan Hong District, Dong Thap Province	30 (26 men, 4 women)
12-15 July	Chau Thanh District, An Giang Province	29
21-24 August	Thanh Binh District, Dong Thap Province	49 (42 men, 7 women)

2. *Improving Skills in Commune Emergency Kindergarten Management (EKM)*

Course contents include:

Section 1: Organization of Daily Activities for the Children

Section 2: Talking and Telling Stories

Section 3: Child Nutrition

Section 4: Water and Sanitation, Child Group Management and Family Consultation

Section 5: Preparation of Food and Child Feeding techniques

Section 6: Care for Child's Sleep and Personal Hygiene

Section 7: Preparedness for and Treatment to Child Diseases during Flood season.

Section 8: Organizing EK activities, making toys with local materials

Section 9: Organizing EK activities by reading poems, traditional songs, funny quizzes, learning and singing children's songs.

Section 10: Building confidence for child-caretakers

Section 11: Organization and Management of EK during flood season

Date	Venue	No. of Participants
18-20 July	Thanh Binh District, Dong Thap Province	40 (2 men, 38 women)
16-18 August	Tan Hong District, Dong Thap Province	40 (2 men, 38 women)
4-6 September	Chau Thanh District, An Giang Province	38 (2 men, 36 women)
11-13 September	Tan Chau District, An Giang Province	44 (44 women)

3. *Strengthening the Individual Safety Skills by Providing Swimming Lessons to School Children*

Date	Venue	No. of Participants
24-28 July 31 July-4 August	Tan Chau District, An Giang Province	47 boys, 12 girls 29 boys, 33 girls
1-5 August 8-12 August	Tan Hong District, Dong Thap Province	58 boys, 36 girls 27 boys, 23 girls
15-19 August 21-25 August	Chau Thanh District, An Giang Province	31 boys, 9 girls 48 boys, 24 girls
15-19 August 22-26 August	Thanh Binh District, Dong Thap Province	15 boys, 25 girls 14 boys, 26 girls

Annex 2

Minutes of the 1st meeting on Trans-boundary Province to Province Emergency Assistance

The first half day meeting between the officials of neighboring provinces (Prey Veng and Kandal in Cambodia and An Giang and Dong Thap in Vietnam) was organized on 28 September 2006 by the Kandal Provincial Committee for Disaster Management. It was organized to take advantage of the presence of the provincial and district counterparts from Vietnam, who came for the ACDM ARDEX Exercise. The purpose of the meeting was to initiate the dialogue on cooperation between the selected neighboring provinces along the Cambodia-Viet Nam on flood preparedness and emergency assistance.



The Kandal Provincial Governor presided over the meeting which was attended by the senior officials of the four provinces as well as officials from the MRC Flood Management and Mitigation Program, National Committee for Disaster Management (NCDM-Cambodia), Department of Dyke Management and Flood Storm Control (DDMFSC- Vietnam) and the FEMS project team of ADPC. The participants from both countries shared the experiences on flood preparedness planning and implementation in their provinces under FEMS project. They also shared the existing mechanism of the trans-boundary provincial and district level meeting between their provinces.



Mr. Nicholas Bakker, Chief Technical Advisor of FMMP team, welcome such initiatives and stressed that this experience will help MRC in implementing the component-3 of FMMP which focused on Mediation of Trans-boundary Flood Issues in the Mekong River Basin. The representative from NCDM Cambodia and DDMFSC Vietnam

endorsed the need for further consultations between the bordering provinces on the flood preparedness and emergency assistance issue involving all the stakeholders at the province and district levels.

Annex 3 Information Kit for Teachers and Educators

FLOOD RISK REDUCTION AT LOCAL LEVEL

Flood Risk Reduction Measures at the Household Level

Note: This section provides an overview of interventions that can be undertaken at the household level by the community themselves for reducing the flood risks. They are divided into three phases: *Preparedness* (before flood and well before the warning is received), *Response* (after the flood warning is received and when the flood occurs) and *Recovery* (after the flood water recedes). These interventions can help the communities in Mekong Delta of Cambodia to “live with the floods”.

With the community implementing household level flood risk reduction measures, the following benefits can be ensured:

- Protection of lives
- Protection of assets
- Enhanced self-reliance and resilience
- Early/quick recovery from the devastating effects of disasters.

Before the flood - Preparedness

Before a warning is issued

- Be aware of the flood risks within the community.
- Gather the family and discuss plan on where to go if there is a need for evacuation and what to take in that case.
- Be ready to evacuate at a moment’s notice.
- Have boat/rafts or other mode of transportation ready for access (big enough for family).
- Make sure everyone in the family can swim.

Strengthening the features of the house

- Ensure the homesteads is raised above expected flood level (including toilet).
- Install appropriate measures such as confining barriers and hand-rails along veranda to protect babies/children from falling into water.
- Raise decks for cattle/livestock/poultry to protect from floods.
- Construct family bridge connecting the road and the house.
- Create embankments around the house to keep floods out.

Storage of food, water and other necessary items

- Prepare homestead vegetable garden (on floating soil beds or on elevated area or on the balcony of stilt houses). Store seeds and equipment for homestead garden.

- Prepare dry space to store fuel wood for use during long inundation period. In addition, planting fuel wood tree around the house is highly recommended.
- Keep the water container ready for storage of drinking water (higher than flood level to avoid contamination). Activities include cleaning water filters, stocking coagulants for water purification or fuel wood for boiling water, etc.
- Stock food for family (particularly dried food that require little cooking).
- Stock fodder for animals.
- Stock medicinal supplies for use, especially for typical water borne or vector borne diseases such as diarrhoea and malaria, as well as suitable medical supplies for cattle, poultry and other livestock.

Access to flood season information/ early warning

- Monitor information from flood bulletin boards in the community, providing flood forecast (if they are installed in the village). If they are located at a nearby village, establish a link with the other village to receive up-to-date data.
- Listen regularly to radio/TV or other sources of information to keep informed of daily weather condition. Indigenous knowledge shared by elders should also be taken seriously.
- Share information with neighbours.

Livelihood security

- Prepare/purchase fishing nets to adapt livelihoods to ensure continued income generation during flood seasons. Home grown vegetables can also be sold during floods.
- Explore additional alternate livelihoods less prone to flood impact, such as traditional handicrafts, wickerwork etc (especially for housewives for additional family income).

Access to safe areas

- Identify nearest evacuation point or safe area (pagoda or school located on elevated ground).
- Identify the safest short route to safe area as well as alternate route in case of unforeseen route blockages. Make sure all the family members know the routes.

Access to health care facilities

- Know the locations of nearest hospital/clinics and how to get there.

Community-wise activities

- Participate in community volunteer group and help in any way one can.
- Know your neighbour (especially if they are aged or disabled).
- Participate in community committees for safe area maintenance.

After the warning is issued

- Listen continuously to radio for follow up emergency instructions.
- Follow the instructions of the flood advisory.

If the family is to stay put at home,

- Sit down with the family members and share the essential tasks.
- Anchor household assets so that they don't get swept away by floods.
- Move household valuables to a higher level within the house.
- Keep important documents in water-proof bags.
- Store drinking water in cleaned containers.
- Move livestock to higher ground.
- Switch off all power supply mains to prevent electrocution and associated fire hazards.

If the evacuation is the only option (to a community safe area or a relative's house),

- Do so as soon as possible before the access road is cut-off.
- When moving to safer place, carry a battery powered radio to keep track of flood progress.
- Make sure necessary items are assembled to be brought to safe shelter (special items for infants, elderly, or disabled family members).

During flood – Response

Outside the house

- If come upon flood waters, stop, turn around and go in another direction. Climb to higher ground. If it's moving swiftly, even water six inches deep can knock people off their feet.
- Do not go swimming or boating in swollen rivers, streams and canals. It may not be detectable on the surface how fast the water is moving or see holes and submerged debris.
- Restrict children from playing in flooded areas (particularly around storm drains, ditches, ravines or culverts).
- Watch out for snakes and other poisonous animals in flood water.

At home

- Listen continuously to radio to monitor and flood situation.
- Monitor information from flood bulletin boards in the community for up-to-date data.
- Make sure there are enough warm clothes for everyone in the family.
- Collect rainwater in clean containers.
- Avoid using gas or electrical appliances.
- Use soap and detergent to clean up after getting in touch with floodwaters.

At the safe area/shelter

- Make sure every family members are accounted for as soon as arriving at the shelter.
- Do not go home until the area is declared safe.

Seeking external help

- Know where and how to contact the local disaster management authority.
- Know how to ask for help when needed. Directions can be obtained from the local authority before the flood.

Health care

- Drink clean or preferably boiled water ONLY.
 - Throw away all food that has come into contact with flood waters. Contaminated flood
-

water contains bacteria and germs.

- Ask for information regarding the status of the nearest health facilities, i.e, whether the facilities are inundated. In that case where to go.
- Watch out for visits of health mobile team.
- If there is a pregnant women, ailing adults or young babies in the family, the above mentioned information are crucial to know.

After the flood -Recovery

Outside the house

- Offer assistance to neighbours who might need help.
- Avoid disaster areas since that might hamper rescue and other emergency operation.
- Continue to listen to radio or TV and return home when it is declared safe to do so.
- Monitor information from bulletin boards in the community to receive up-to-date data.
- Stay out of any building surrounded by flood water.
- Report broken utility lines to the appropriate authorities to get them repaired as soon as possible to prevent further hazard and injury.
- Check for sewage and water line damage and report them to respective authorities.

At the shelter

- Before returning home, make sure the house is safe to return.
- Make sure the household valuables are properly packed.
- All family members must be briefed on the potential damaged the house might be in.

When returning home

- Use soap and detergent to clean up after getting in touch with floodwaters or flood-contaminated surfaces.
- Use battery powered lantern or flashlight to examine existence of potential hazards inside the house such as leaked pipes, damaged walls and ceilings, broken electric wire and other electrical appliances, etc.
- Find and protect valuable items by washing mud off.
- Mud and water can make floors and other surfaces very slippery so step carefully and clean the house properly. Wear sturdy shoes.
- Open up the house to lower the indoor humidity.
- Open closet and cabinet doors to let air circulate. Doors and drawers may get stuck because of swelling.
- Remove and clear the debris around the house.
- Watch out for poisonous animals. Use a stick to poke through the debris.
- Use boiled water for drinking.

Access to micro-credit scheme

- Explore micro-credit scheme within the community for post-flood rehabilitation of livelihoods if their farm implements have been swept away due to floods.
- Carefully assess the damage at the house and the farm. Record them properly for later insurance claim.

Flood Risk Reduction Measures in School

Note: This section provides an overview of interventions that can be undertaken at the school to ensure the safety of its students, teachers and staff.

The main role the schools can play in reducing flood risks can be described as follows:

- **As public awareness raising hub** – through parents, students and teacher networks (using both formal education and informal social systems).
- **As safe shelter** – if the schools are located on higher ground.
- **As a support system to young flood victims of school age.**

Specific preparedness measures the school can employ to provide a safe place for its occupants (students, teachers and staff) as well as to facilitate recovery from flood hazards are listed below.

- Be familiar with the flood history in the area.
- Be familiar with the geographical feature of the area where the school is.
- Know how to contact local disaster management authority.
- Have a school disaster plan and share it with the students and parents. It should clearly define actions to take in case of hazards (not just flood).
- Have some of the senior students trained in first aid and water rescue (or other life saving techniques depending on the frequent hazard in the area).
- Provide swimming lessons to the children as part of the school sport/extra-curricula activity.
- Inform the students of safety measures at household level as part of the school lessons.
- Help students to brainstorm on family safe plans. Invite subject experts to school and hold seminars.
- Provide health related information to students, teachers, school staff and parents, especially on water borne diseases. Invite subject experts to school and hold seminars.
- Maintain an emergency contact list containing contact details of local emergency management agencies. It should be shared with the students and their parents.
- Organize evacuation drills and exercises for students.
- Document properly the school property and its assets.
- Identify safe areas in the community and address safe evacuation routes. This is particularly important in the case of both quick as well as slow onset disasters.
- Arrange for receipt of monitored information from flood bulletin boards in the community for up-to-date data.
- School staff to continuously listen to radio for flood information.

Upon receiving the warning,

- At the first warning, arrange to stack furniture, equipment and books above likely flood level with books and electrical equipment on top.
- Remove and secure heavy objects that could float and cause damage.
- Be ready to release the student when necessary.

- Keep complete register of the students before the school is declared closed due to an impending hazard.
- Make announcement in the community of the closing of school.
- If the school is sure to get flooded, seal its windows and doors and lock it down securely to prevent break in/ burglary.
- Switch off all power supply mains to prevent electrocution and associated fire hazards.

If the school is to be used as safe shelter,

- Keep first aid kit ready.
- Keep drinking water.
- Make sure the school floor is higher than the anticipated flood level.
- Assess how many people the school can accommodate and inform the local authority.
- Raise the level of toilets on the school compound.
- Construct a bridge connecting the school building and the toilets.
- Keep a portable radio powered by battery.
- Keep flash lights (at least 2) powered by battery.
- Know the routes to a safer area in case the flood is more severe than expected.

After the flood

- Clean up the class rooms thoroughly to make sure all surfaces that get in touch with contaminated flood water are now sterile. Seek help from students and the communities.
- Assess and record all damages and report to the education authority for immediate repair. The schools need to function as soon as possible. One possible mean of generating additional fund include contacting local business owners. Another is contacting the media and requesting for assistance publicly.
- Announce the school opening dates to the community.
- Organize activities where students can help in community rehabilitation efforts.

Supporting the flood affected staff and the students

- Keep records of students and staff who are affected by flood.
- Provide support to affected staff and students. Have a school-wise support plan.
- Give students opportunities to talk things through. This can help them overcome the trauma of loss and grief.
- Recognize varying religious relief.
- Provide activities to reduce trauma, such as writing essays or art projects. Younger kids who have difficulties expressing their emotions can release stress this way.
- Contact parents or relatives of affected students and staff. By working together, healing process can be quicker.
- Train teachers and staff on psycho-social care and support for disaster victims. To be able to recognize children's reaction to traumatic situations can help formulate an appropriate support system.
- Have experience sharing section in the class where students can freely share their own personal experience and receive peer support.

Principal and other senior staff

- Be visible.

- Establish contact with the central administration, other affected schools in the province/district and the local disaster management agency.
- Provide extra support to students and staff with deceased in the family and hold memorial services as appropriate.
- Provide direct interventions.

Accompanying Notes

- This section provides the answer to “what happens after flood warning is received”. It addresses the following questions:
 1. What kind of action can be taken well before the flood warning is received
 2. What to do when the warning is received (in addition to following the instructions given under flood advisory)
 3. What to do when the flood is over (recovery)
- The menu of activities provided here should be shared with the students and their parents.
- The menu of activities given under the heading “*Flood Risk Reduction Measures at the Household Level*” are the steps any family can adopt to create a safer home. It is hoped that the information will go far beyond the education circle and into the community by raising the awareness of the educators, teachers, students and the parents.
- This section is developed with the understanding that teachers and educators are part of the communities and they are also impacted by severe floods and other hazards that occur in their areas.
- The menu of activities given under the heading “*Flood Risk Reduction Measures at Schools*” are the means and mechanisms that can be applied at schools to increase the safety of not just the students, teachers and the school staff but also the community at large from flood damages.

COMMUNITY BASED EARLY WARNING SYSTEM

1. What is an early warning system?

An early warning system is to alert population under threat of a potential disaster (in this case a damaging flood) in the near future, and serve as starting points for individuals and groups to make decisions and take timely protective actions.

The major benefit of establishing a local Early Warning System is to alert the communities living in flood prone areas of an imminent and exceptional flood, which could result in a disaster, and to take appropriate action to minimize the loss.

In Lower Mekong Basin, the flood forecast information are usually issued by the National Hydrometeorological Centers. In Cambodia, Department of Hydrology and River Works of Ministry of Water Resources and Meteorology. The forecasts are sent to various concerned ministries and to the national radio stations which further disseminate the information to the general public. Therefore, it is crucial for the communities living in flood prone areas of Mekong to monitor the flood forecast information regularly during the rainy season.

In Cambodia, it usually involves three stages:

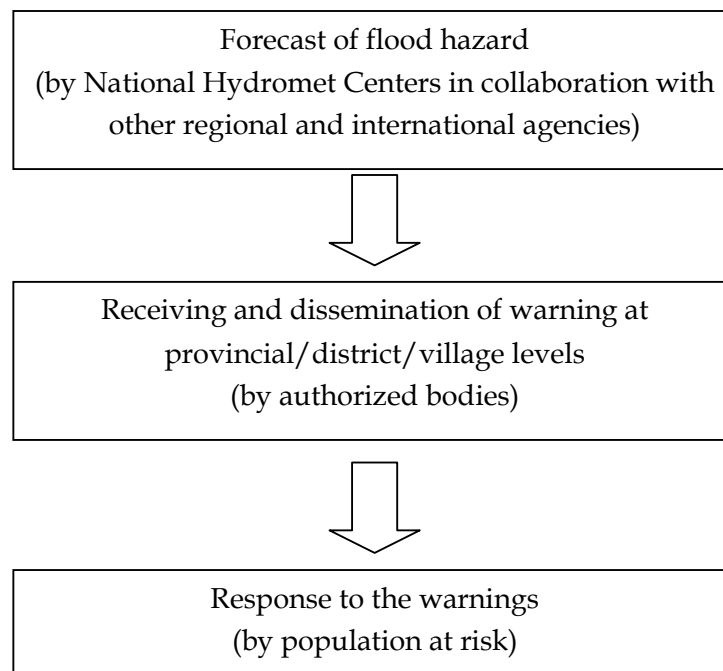
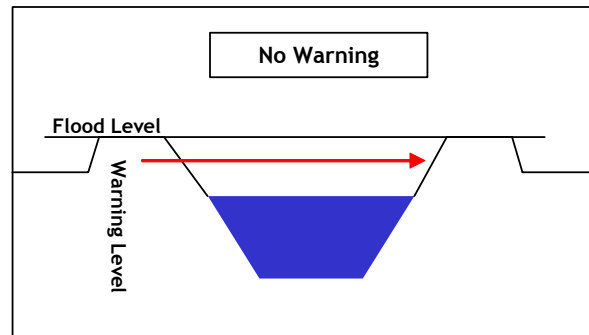


Figure 1: Early warning stages

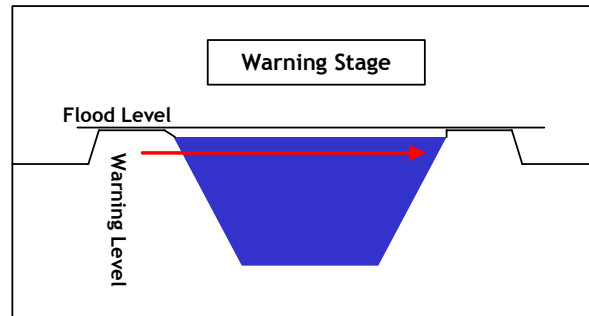
2. Components of Early Warning System

Ideally, a simple and effective Early Warning System is made of four general components, which are closely related. These are as follows:

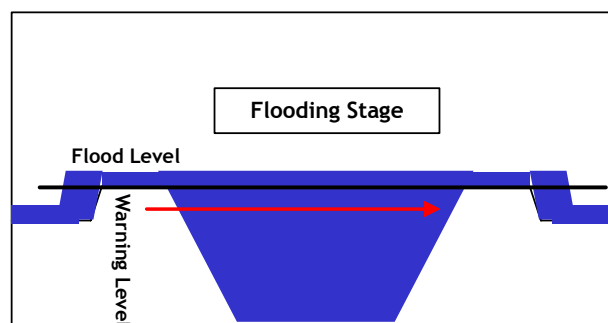
- Hazard (flood) detection and prediction
- Formulation of warning messages
- Dissemination of warning messages
- Community response.



The height of the water is below the alarm level. No risk of flooding.



The height of the water is equal or higher than the alarm level but lower than the flood level.



The water level equal or higher than the flood level.

Figure 2: Various stages of flooding

3. What are flood warning and flood advisory?

It is a message informing of the impending danger (flood), i.e., when water level is higher than the warning level.

In Cambodia, There are two levels of flood bulletins issued to the public:

1. **Flood Warning:** It is issued when flooding is predicted to occur within 24 hours. The warning is maintained as long as the affected areas are inundated and the attendant dangers are present. When the water level is likely to reach the flood level.
2. **Flood Advisory:** A flood advisory contains recommended actions to be taken by the public. It informs the public of an immediate flood situation. The advisory is issued when the hydrological condition deteriorates or when the condition improves but the public is still advised to be cautious. It is an **action-oriented** message telling the intended recipients what to do rather than what not to do.

Table 1: Different information provided by flood warning & flood advisory

Information provided by a flood warning	Information provided by a flood advisory
<ul style="list-style-type: none"> ▪ Specific area that is likely to get affected. ▪ Estimated flood data indicating: <ul style="list-style-type: none"> • Time of detection and the time available before the flood comes • When the flood will occur • How long the flood will last • Where the water will come from and where it will go • Strength and speed of flood ▪ Associated risks <ul style="list-style-type: none"> • Estimated area of inundation • Number of households likely to be affected • Other factors that will affect safety 	<ul style="list-style-type: none"> ▪ Recommended appropriate actions: Depending on the warning level, the community at risk will be given appropriate action to follow. ▪ Information on possible effects/ risks of non-compliance to advice.

The recipients should make sure that the warning message is issued by the designated authority as shown below:

- At the national level - Department of Hydrology and River Works, Ministry of Water Resources and Meteorology
- At the provincial level - Provincial Department of Water Resources and Meteorology (in collaboration with Provincial Committee for Disaster Management PCDM)
- At the district level - District Committee for Disaster Management (DCDM)

4. Flood Early Warning Programs at the Community Levels

In Cambodia, since 2002, Mekong River Commission (MRC), in association with American Red Cross (ARC) and Cambodia Red Cross (CRC), has designed and implemented a project on “Provision of Flood early warning to most flood vulnerable communities” in 38

villages (situated along the tributaries of Mekong) in 6 districts of Kandal, Kratie, Prey Veng and Stung Treng¹ provinces of Cambodia, with funding support from USAID/OFDA and technical assistance from American Red Cross (ARC) and Cambodian Red Cross (CRC).

In Kampong Cham, MRC is collaborating with Action Contre la Faim (ACF) in similar activities, undertaken within selected vulnerable villages (3 villages) in the province. ACF works closely with provincial and district authorities as well as Red Cross Volunteers for the implementation of the project.

In each of the target villages, flood reference markers and 1 bulletin board are installed. The board displays information on real time water level in the tributaries (noted from the flood marks) for the previous and current day. They are also depicted through colour coded warning signs.

The real time data or actual flood level recorded from flood marks are also reported back to DHRW and MRC for calculation of flood forecasts in the tributaries at the point of flood marks. However, it usually takes one year of data inputs from local level to generate accurate forecasts at that particular point in the tributary.

The forecasted information is provided by MRC through the network of local Red Cross volunteers and village teams, who update the board. In return, the real time data is sent back to MRC as feedback for more accurate forecast. The local involvement in the process ensures a long-term ownership and sustainability of the system that will help people mitigate negative flood impacts, adjust themselves to the rhythm of the river and apply the concept of “Living with Floods”. Figure 4 describes the information flow under these projects.

¹ Target areas:
Kandal – Lovea Em and Leuk Dek Districts
Kratie – Kratie Districts
Prey Veng – Peam Ro Districts
Stung Treng – Thala Borivat Districts

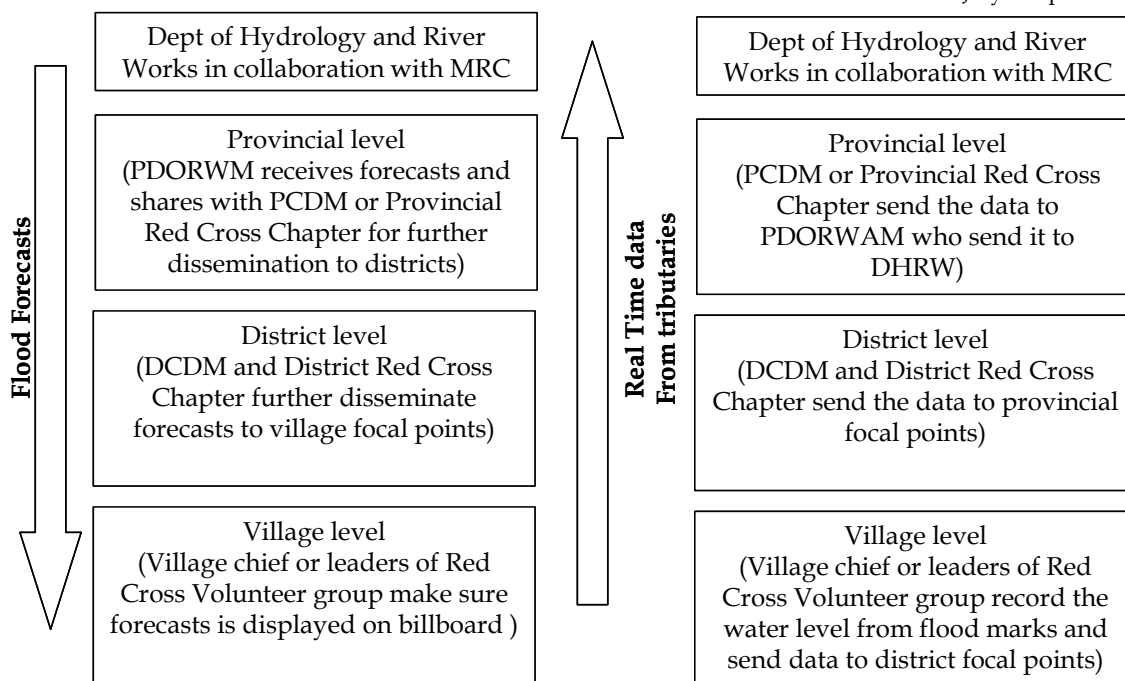


Figure 3: Information flow

A sample of flood signage developed by ACF is given in Table 2.

Table 2: Flood signage

	Preliminary Flood signage developed by Action against Hunger, CAMBODIA
<p>All Clear</p> <p>An all clear will be issued when flood watches or warnings are no longer in force.</p>	
<p>Flood Warning</p> <p>Flooding expected affecting homes, businesses and main roads. Act now!</p>	
<p>Severe Flood Warning</p> <p>Severe Flooding expected. Imminent danger to life and property. Act now!</p>	

This same colour is used also under Asian Disaster Preparedness Center (ADPC) ‘s “Flood Emergency Management Strengthening (FEMS)” project², which is the Component 4 of MRC’s wider Flood Management and Mitigation Program (FMMP).

The flood signage is used to show the level of flood, together with the real time data of water level from the flood marks being installed in the villages, on the billboard as shown below.



Figure 4: Picture of billboard

Accompanying Notes

This section is to provide the Teachers and the Educators with suggestions on how the information given under the heading “Early Warning System” can be used to educate the students. They are listed below.

- All topics described under “Early Warning System” heading are suitable for sharing with students who have started taking science subjects.
- They can be linked especially to such subject matter as “Hydrological Cycle”. With the use of the “Flood Booklet” (provided as part of the information kit), the hydrological cycle can help explain why floods occur.
- The next logical topic should be on “Flood Warning”. The key information to be shared with the students are

² Target areas: Peam Chor district in Prey Veng province

1. The difference between a flood warning and a flood advisory – to avoid unnecessary panic.
2. The key components of the warning and the advisory – to recognize the crucial information required to prepare.
3. Authorities designated to issue warnings - to recognize the authenticity of the warnings.

It is advisable to share these pieces of information with the parents for the same reason.

- The students of all ages can be taught how to interpret the flood signage, together with the usage and importance of flood billboard as shown in figure 4.
- One caution is that the design of the billboard and the information displayed on it might differ from project to project but the most important information to look for is the current flood level and the colour of the signage indicating the extent of danger at one particular place.