



# Mekong River Commission

*FLOOD MANAGEMENT AND MITIGATION PROGRAM (FMMP)*

*COMPONENT 4:*

*FLOOD EMERGENCY MANAGEMENT STRENGTHENING*

*July 2008-Dec 2010*

## Final Progress Report

Submitted to

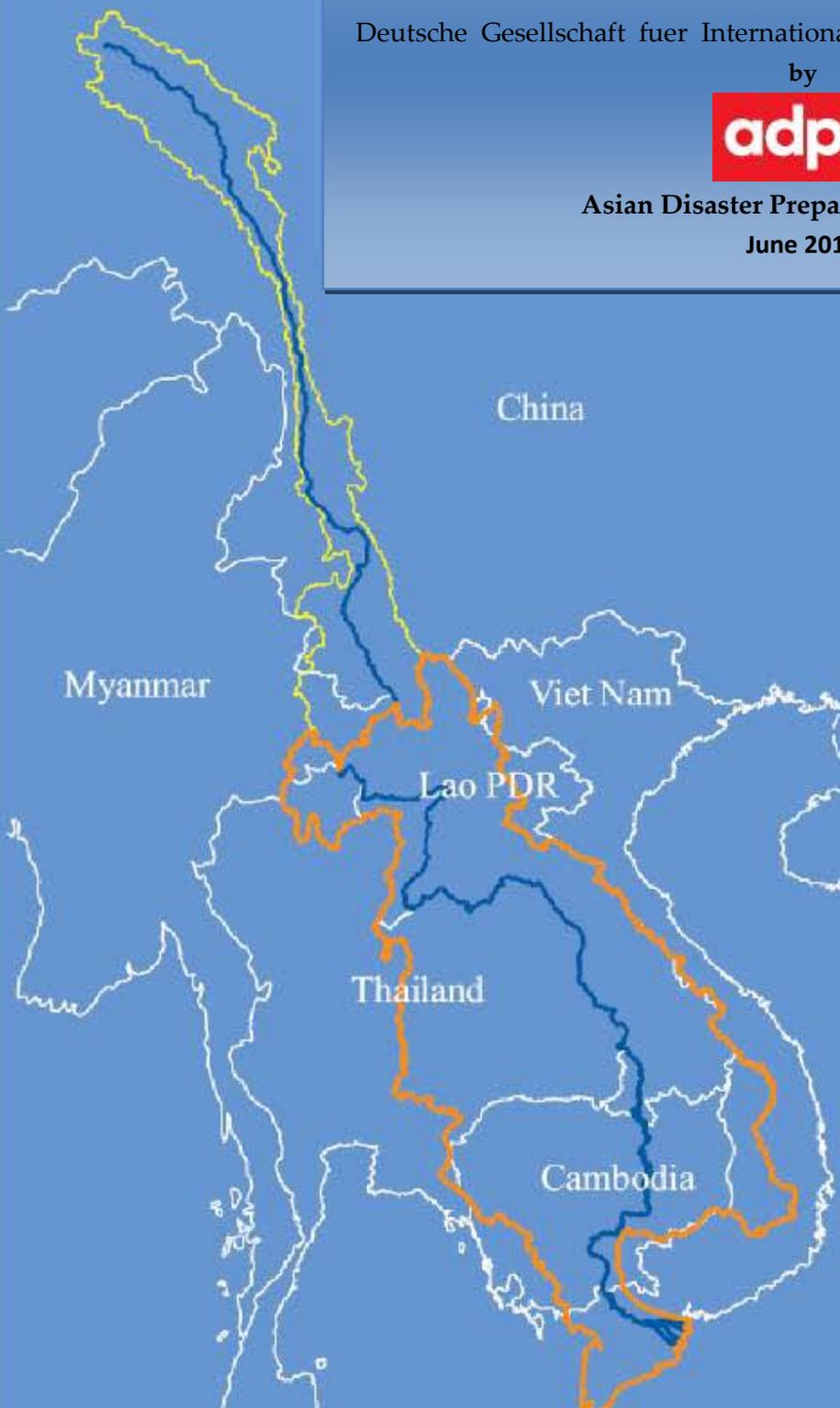
Deutsche Gesellschaft fuer Internationale Zusammenarbeit (GIZ) GmbH

by



Asian Disaster Preparedness Center

June 2011



## Acronyms

ADPC	Asian Disaster Preparedness Center
CBFM	Community Based Flood Management
CNMC	Cambodia National Mekong Committee
CIP	Commune Investment Program
DCDM	District Committee for Disaster Management, Cambodia
DCFSC	District Committee on Flood and Storm Control, Vietnam
DDMC	District Disaster Management Committee, Lao PDR
DDMFSC	Department of Dike Management, Flood and Storm Control, Vietnam
DDPM	Department of Disaster Prevention and Mitigation, Thailand
DFPP	District Flood Preparedness Program
DM	Disaster Management
DRR	Disaster Risk Reduction
DWR	Department of Water Resources
FEMS	Flood Emergency Management Strengthening
FPM	Flood Preparedness Manual
FPP	Flood Preparedness Program
FMMP	Flood Management and Mitigation Programme (of MRC)
FRR	Flood Risk Reduction
FSC	Flood and Storm Control
GIZ	Deutsche Gesellschaft fuer Internationale Zusammenarbeit (GIZ) GmbH
LMB	Lower Mekong Basin
LNMC	Lao National Mekong Committee
MoE	Ministry of Education
MOU	Memorandum of Understanding
MRC	Mekong River Commission
MRCS	Mekong River Commission Secretariat
NCDM	National Committee for Disaster Management
NDIP	National Detailed Implementation Plan
NDMO	National Disaster Management Office
NDMP	Natural Disaster Mitigation Partnership-Vietnam
NGO	Non-governmental Organization (civil society organization)
NMC	National Mekong Committee
PCDM	Provincial Committee on Disaster Management, Cambodia
PCFSC	Provincial Committee on Flood and Storm Control, Vietnam
PDMC	Provincial Disaster Management Committee, Lao PDR
PDPI	Provincial Department of Planning and Investment, Lao PDR
PIP	Programme Implémentation Plan, FMMP
PMU	Programme Management Unit, FMMP
PSDD	Program to Support for Decentralisation and De-concentration
RBM	Results Based Monitoring
RFMMC	Regional Flood Management and Mitigation Center
SFSP	School Flood Safety Program
VCCI	Vietnam Chamber of Commerce and Industry
VNMC	Vietnam National Mekong Committee
WREA	Water Resources and Environment Administration-Lao PDR

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## 1. Brief description of the project

**Project Name: Flood Emergency Management Strengthening:** Component 4 of MRC's Flood Management and Mitigation Program (FMMP)-Phase 2

**Project Duration:** July 2008-May 2011<sup>1</sup>

**Project Processing No:** 07.2125.8-002.00

**Agreement No:** 81104069

The German contribution to the Mekong River Commission's (MRC) Flood Management and Mitigation Programme (FMMP) through its Component 4 "Flood Emergency Management Strengthening" contributes to the overall FMMP objective "*the civil and socio-economic losses due to floods and flooding are prevented, minimized or mitigated while preserving the environmental benefits of floods*" and more specifically to the objective of component 4 "*Emergency management systems in the Riparian countries are more effectively dealing with Mekong floods*" (source: *Project Document on the German Contribution to MRC-FMMP component 4, 2008; GIZ Special Agreement 81104069, 2008 & 2010*). It focuses on flood preparedness and strengthening of flood emergency management in the four MRC Member Countries such as Cambodia, Lao PDR, Thailand and Viet Nam through capacity building, knowledge sharing and public awareness campaigns at the provincial, district and community levels.

The contributions by the Government of the Federal Republic of Germany (FRG) represented by the Deutsche Gesellschaft fuer Internationale Zusammenarbeit (GIZ) GmbH is made possible through an special agreement with Asian Disaster Preparedness Center (ADPC) in two phases (phase I: 2004-2008, agreement no: 8107305 and Phase 2: 2008-2011, agreement no. 81104069) to support the relevant authorities at district, province and national level in regard to three main activities:

- awareness-raising and enhancing of people's capacities in dealing with floods,
- preparation and implementation of flood preparedness programs, and
- preparation of development plans containing flood preparedness and emergency management.

During its Phase 2 implementation (2008-2011), the financial contributions covered a total of 07 most flood provinces and 19 vulnerable districts as shown in [Table 1](#).

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<sup>1</sup> The initial completion date ( 31 December 2010) was extended to 31 May 2011 upon signing of amendment ( ref:- 5032-SCH) between GIZ and ADPC by August 2010.

**Table 1: Geographical Coverage**

Countries	Provinces	Districts
Cambodia	1. Prey Veng 2. Kandal	<ul style="list-style-type: none"> <li>• Peam Chor, Sithor Kandal, Peam Ro</li> <li>• Lovea Em, Leuk Dek, Kien Svay</li> </ul>
Lao PDR	3. Khammouane 4. Savanakhet	<ul style="list-style-type: none"> <li>• Xebangfai, Hin Boun, Mahaxay, Nhommalath</li> <li>• Xaybouly</li> </ul>
Thailand	5. Nakhon Phanom	<ul style="list-style-type: none"> <li>• Nakhon Phanom</li> <li>• Tha Utehn</li> </ul>
Viet Nam	6. An Giang 7. Dong Thap	<ul style="list-style-type: none"> <li>• Chau Thanh, Tan Chau, An Phu</li> <li>• Thanh Binh, Tan Hong, Tam Nong</li> </ul>

A total of 800,000 EUR were made available to ADPC for the following key interventions and activities presented in [Table 2](#);

**Table 2: Key Interventions and Activities**

	Core Area of intervention	Key Activities
1	<b>Flood Awareness and Education</b>	Partnership and capacity building of relevant line ministries such as <i>Education and Training and Information and Culture</i> on flood awareness activities i.e., posters and information booklet, cultural shows, flood information billboards etc and promote public private partnerships
2	<b>Flood Preparedness Programs (FPP) Development &amp; Implementation</b>	Annual and multi-year disaster risk reduction plans at province and district, clear roles and responsibility for each line ministries. Innovative partnership and cost-sharing implementation of flood risk reduction measures i.e., Emergency Kindergarten, Safe Area, Search and Rescue etc.
3	<b>Integration of Flood Risk Reduction into local development planning process</b>	Sectoral plans and implementation of flood Risk Reduction through commune development planning. National and provincial consultation and development of approach and strategy paper on integration of flood risk reduction into development planning process. DRR integration guidelines at National and Provincial levels.
4	<b>Capacity Building for Flood Risk Reduction</b>	Enhanced capacity of provincial, district, commune level disaster management authorities on flood preparedness and emergency management arising from a need assessment flood preparedness programs, the integration into development planning and public awareness campaigns, enhancing people's capacities etc.
5	<b>Standardization of training and capacity building curriculum</b>	National training curricula on flood disaster risk reduction for each member countries and creation of trained Trainers at National and Provincial levels.
6	<b>Flood Knowledge Sharing and Documentation</b>	Regional and National Workshops/Forums , Safer Communities series Case Studies on innovative flood risk reduction practices
7	<b>Trans-boundary Cooperation</b>	Province to Province cooperation meeting (Viet Nam - Cambodia and Thailand-Lao PDR), Joint-Planning for flood Information and resource sharing
8	<b>National Assessment of Existing Capacities on Flood Risk Reduction</b>	Assessment of the national framework of awareness-raising and enhancing of people's capacities in dealing with floods and recommendations to improve the national framework to further enhance the mainstreaming of the activities

## 2. Aim of the financial contribution

### 2.1. Original Objectives

Flood preparedness and flood emergency management strengthening remain core elements of MRC's Flood Management and Mitigation Programme (FMMP), as these directly address the needs of flood vulnerable communities, and also indicate/guide the strengthening and operations of government agencies in the Member Countries (at different levels: national, provincial, district and commune) and of national and international NGOs. This is vital for enhancing communication, coordination and cooperation between these stakeholders, as well as the consistency of national disaster management and mitigation policy implementation

The ultimate objective of the Flood Management and Mitigation Programme (FMMP) is to contribute to a reduction of civil and socio-economic losses due to floods while preserving the environmental benefits of floods. The FMMP Programme covers 5 components. The German contribution focuses on component 4 and 5. The immediate objective of component 4 and 5 is to improve the capacities of authorities and organisations at various levels of the riparian countries to apply more efficiently appropriate disaster preparedness, emergency management and land management policies and tools in the field of flood management. The indicators for the overall German contribution to MRC-FMMP to which ADPC confirmed its contributions are;

- Comprehensive and validated templates for flood preparedness programs are available in all riparian countries, adapted to each member state's conditions and are used by the authorities in selected (pilot) areas.
- Comprehensive and validated templates for the significant integration of flood related issues in development plans are available in all riparian countries, adapted to each member state's conditions and are used by the authorities in selected (pilot) areas.
- Relevant authorities of all the riparian countries have developed an efficient, locally and nationally adapted approach for the production, collection and processing of flood related information and their integration into land management and started its implementation.
- At least 50% of the population and commune authorities in selected districts in all riparian countries express in interviews their satisfaction with the performance of district, province and national authorities dealing with flood preparedness and emergency management.

The FMMP objective of component 4 (flood emergency management strengthening) is: Emergency management systems in the Riparian countries are more effectively dealing with Mekong floods. The objective of the Project promoted by the financial contribution is "Relevant authorities and other stakeholders in all riparian countries have enhanced capacities in flood preparedness and emergency management". The indicators to be achieved at the time of planning are as follows:

- 3 Months after the end of phase II, 50% of the population in 18 districts [4 old + 2 new districts in Cambodia as well as in Vietnam, 4 new districts in Laos and 2 new districts in Thailand] in at least 7 provinces [always 2 in Cambodia, Vietnam and Laos and 1 in Thailand] of all riparian countries is aware of risks caused by floods and has a basic understanding of how to react at household level before, during and after floods.
- By the end of phase II, flood preparedness programs have been developed and/or implemented by the responsible authorities in at least 18 districts [same as above] in at least 7 provinces of all riparian countries.
- By the end of phase II, flood preparedness and emergency management have been significantly integrated in at least 1 provincial development plan per country and 2 district development plans in each of these provinces by the responsible authorities in all four riparian countries.
- By the end of phase II, 50% of the relevant staff of relevant institutions in 18 districts (district and commune level) and at least 7 provinces (provincial level) of all riparian countries gained additional practical knowledge in at least one field related to disaster risk reduction or emergency management.
- Each of the four riparian countries disposes of a training manual on flood preparedness and emergency management adapted to national conditions for all relevant authorities and other stakeholders. After having identified sustainable organisations to do the training, a core group of 5 trainers per country has been trained.
- At least 4 national and 1 regional workshops on knowledge sharing have been conducted, and 8 additional good practice documents produced and disseminated.
- 2 joint plans for flood emergency assistance and improved flood preparedness have been developed, discussed and agreed upon between neighbouring trans-boundary provinces (Lao PDR-Thailand and Cambodia-Vietnam).
- Assessments and recommendations for improvement of the national framework of a) awareness-raising and enhancing of people's capacities in dealing with floods, b) flood preparedness programs, and c) development plans containing flood preparedness and emergency management have been done/provided in all member states.

In order to achieve the above objectives, the measures planned were laid out in the Logical Framework for Component 4, in the initial work plan and the FMMP Project Document for Component 4 agreed by the Member Countries. The specific measures were planned and specified in the **Partnership Agreement** between main implementing partners i.e., MRC-FMMP, NMCs, NDMOs and ADPC, **Project Implementation Plan (PIPs)** and **Quarterly Work plans** were developed in consultation with MRC-FMMP and GTZ.

## 2.2. Modifications during the implementation

National consultations prior to the finalization of the MRC-FMMP Project Document of Component 4 as well as the Project Launch meetings were held immediately after signing of the financial agreement to review and agree on the objectives, indicators, and outputs of the Phase II (2008-2011) implementation. Senior officials of MRC-FMMP, NMCs, NDMOs and the FMMP-Component 4 project team of ADPC participated in the meetings. The following modifications to the original indicators were observed during the implementation;

1. **Geographical Coverage:** The project covered 19 Districts against original planned 18 districts. The details are provided in *Table 1*.
2. **Percentage Population Coverage:** The impact of this project is to be realized through building capacities of the key officials to effectively deal with floods in the Member Countries. The exact percentage to which the project will impact need to be decided during the Result based Monitoring System (RBM), a GIZ-MRC-FMMP agreed monitoring framework.
3. **Flood Preparedness Program:** Development of Flood Preparedness Program in all 19 districts of the targeted 07 Provinces needs to link with existing DRR planning strategies and frameworks. Duplication of plan preparation need to be avoided wherever, annual or multi-year plan are already being prepared.
4. **Integration Guideline:** Integration of Flood Risk Reduction into the local development planning process must align with existing national and provincial socio-economic planning process.
5. **National Training Curriculum and Trainers:** Cambodia, Lao PDR and Vietnam to standardize and adapt national training curriculum through the most consultative process in each country such as DRR Working Group in Cambodia, DMWG in Vietnam and IASC consultation in Lao PDR. In Thailand, assessment of existing curriculums by DDPM National and Regional Training Academy to be done and supplementary training manual to be developed
6. **Knowledge Sharing and Dissemination:** One International workshop combined with Component 5: Land Management to be organized instead of 04 National Workshop and 1 regional workshop to avoid competing with other similar workshops organized by MRC (AMFF) or other stakeholders in the region.

### **2.3. Summary Achievement against main Objective**

The Phase 2 (2008-2011) project implementation achieved fully towards strengthening practical skills of key officials at provincial, district and commune disaster management committees to develop and implement the Flood Preparedness Programs (FPP), thus creating an enabling environment for a people centered approach towards integrated flood risk management. The core interventions and activities (Table 2) have increased communication, coordination and cooperation between these stakeholders, as well as the consistency of national disaster management and mitigation policy implementation of Member Countries.

The core problem identified by MRC and GIZ at the start of the project as well as assessment conducted in 2007-2008 was the limited knowledge and limited capacities of a number of national as well as local authorities in dealing with flood preparedness and emergency management. The investment by GIZ at the end of the project contributes to enhance the flood preparedness at sub-national level as well as alleviation of poverty in the Lower Mekong River Basin and therefore is a contribution to MDG 1 (poverty alleviation) as well as MDG 7 (ensuring environmental sustainability). The key achievements against the key indicators have been the following;

#### ***2.3.1: Building Capacities of Local Authorities in Flood Risk Reduction***

The project during 2008-2011 played a key role in facilitating the development and implementation of flood preparedness programs (FPP) through the most participatory process by the national, provincial and district disaster management committees to improve the coordination of member line departments with clearly defined roles and responsibilities and to reduce flood risks by implementing priority action areas identified in the FPP.

The engagement of the Provincial and District Disaster Management (PCDM and DCDM) focal points from each line agencies in the FPP development process offered them exclusive opportunities to enhance their ability in other aspects of flood risk reduction beyond the emergency response phase and to utilize their knowledge obtained from the trainings and consultative workshops. Following the successful development of FPP, further capacity building activities to the PCDM and DCDM were supported to implement the priority actions of FPP, as a progressive movement towards building of local capacities.

The provincial and district level disaster preparedness planning process by the DM committee members has helped in institutional capacity and confidence building in the local DM officials to deal with the annual Mekong Flooding. The experiences of the provincial and district levels officials show that they were able to demonstrate their built capacities and coordinate better than before in recent disasters including the Ketsana Typhoon that struck Cambodia, Lao PDR and Viet Nam. The FPP manual and the template on which they have prepared the Provincial and District Plans have been useful to perform their roles and responsibilities in coordinated manner.

### ***2.3.2: Developing the Local Capacity Base on Flood Risk Reduction***

A pool of trained human resources (*refer:Trainer's database in Country Progress Report*) in all the 07 target provinces has been created while implementing the flood preparedness and emergency management project activities. These key officials (government staff from relevant line department, officials from training resource institutions, officials from provincial Red Cross Societies and civil society organisations) play an important role as "Trainers" in further training and capacity building activities at local levels.

The Community Based Flood Management (CBFM) trainings for selected commune level disaster member officials have improved the practical skills in flood management and to strengthen their capacities in flood preparedness planning and implementation, enabling them to manage and mitigate the negative impacts of floods.

The National training of trainers (ToT) in each of the target country as well as need based training focussing on public awareness, flood preparedness programs and intergartion of flood risk risk reduction into local development planning process provided opportunity for practicing new tools and product on flood risk reduction.

To meet the challenges of drowning during flooding season, Search and Rescue (S&R) trainings in Viet Nam were provided to the officials and youth organisations in collaboration with the the Viet Nam Red Cross (VNRC) and the the District Military Office. These on the job trainings imporved human skills and strengthen the Rescue Posts<sup>2</sup> at strategic locations at the confluence of rivers/canals and along the waterways (i.e. at locations identified as dangerous during flood season), usually manned by Red Cross Volunteers and Youth Union members.

In Cambodia, district level capacity building on generating reliable and timely data in the immediate aftermath of any disaster were carried out through Damage and Needs Assessment (DANA). The focus was on the optimal usage of existing formats on damage and need assessment (DANA) developed by the national authorities and systematic reporting to the NCDM on immediate needs after disaster. Such capacities in the target provinces played crucial roles during the typhoon Ketsna and the flooding of 2009.

The initial results shows that the project has created a receptive environment for the implementation of a range of dedicated flood risk reduction interventions at the Province, District and Commune level. It looks now on mainstreaming the flood risk reduction activities in line with the national Disaster Risk Reduction (DRR) strategies into local development planning processes.

### ***2.3.3: Promoting Community Awareness and Strengthening Community Resilience***

In efforts to reduce the flood risks, well designed public communication campaigns contributed enormously to educating the public and to conveying the intended message over a large geographical area to a vast and diversified audience. Since 2004, Component 4 has effectively implemented awareness raising initiatives in various forms; IEC (Information, Education and Communication) materials development and distribution,

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<sup>2</sup> Rescue Posts are emergency response points managed by the VNRC volunteers

organizing cultural shows and sector specific activities like school flood safety programmes. One of the key factors contributing to the wide acceptance of the public awareness campaign undertaken so far under Component 4 was the successful mobilization and collaboration of the key disaster management actors in the province. Involvement of the provincial line departments during the implementation of the Phase 2 produced a strong sense of buy-in and ensures sustainability of such approaches.

The School Flood Safety Programmes (SFSP) is one of the innovative activities implemented successfully in all four MRC Member Countries with the objectives of supporting the school authority, particularly the Education Department, in implementing flood preparedness programs in selected vulnerable schools and enhancing the vulnerable communities' capacity in dealing with floods via children as primary risk reduction communicators. The key role is played by the provincial Education Departments are given instrumental role in implementing SFSP activities under the guidance of provincial and district disaster management agencies.

The initiative to educate the community on flood risk reduction through traditional art forms in Cambodia succeeded in enhancing the understanding of roles and responsibilities of these line agencies as well as supporting the communities in their understanding of and ability to respond to and mitigate flood situations. The Royal University of Fine Arts was the key institution in developing the scripts; the provincial officials played the key role in the conceptualization and eventual conduct of the plays. IEC materials on flood risk management such as flood booklet and "Living with Flood" video were provided to the Royal University and the Department of Culture and Fine Arts for their preparatory works.

The availability of limited resources for public awareness has hampered the replication of awareness campaigns over wide area beyond the project geographical coverage. In order to broaden the pool of resources, the idea of public-private partnership has been initiated in Viet Nam successfully. The advantages of the involvement of private agencies in public awareness are that they provide extended networking beyond disaster risk reduction sector and more efficient use of resources and funds. It is envisaged that the roles of private sector can range from sponsorships of awareness raising activities to adoption of flood memorials installed in strategic places.

#### ***2.3.4: Improving participation of Children and Women in flood risk reduction***

In the Mekong Delta, where high water level during flood season can last up to two months in some areas, women have to bear more responsibilities during that time as even their daily household chores call for more concerted efforts; for instance securing food for the family might require travelling longer distances than usual and they have to be more alert to ensure the safety of the children. The burden is even heavier on women who do not have any male relatives to rely on; such as poor women-headed households.

Children, on the other hand, rely on adults to cope with any stressful situation including disastrous events like natural hazards. In most cases, the resulting deaths of children can be attributed to either negligence of adults or lack of knowledge on the parts of both children and adult to react in a disaster situation..

Under the project, specific flood risk reduction activity targeting the women-headed households was implemented in Kandal and Prey Veng provinces in Cambodia in partnership with the Ministry of Women's Affairs (MoWA). A common recommendation emerged was to build the capacity of the commune women and children focal points in two major areas: enhanced knowledge of flood risk reduction, mainly the community based flood risk reduction, and planning on how to disseminate the flood risk reduction information to the target groups of poor women-headed households. The goal was to enable the poor women-headed households to adopt proper and inexpensive flood mitigation measures in order to reduce the cost of recovery and stress thereby helping them to invest more time, money and efforts in income generation activities.

### ***2.3.5: Province-to-Province Trans-boundary Cooperation in Emergency Management***

In strengthening trans-boundary collaborations, existing mechanisms were utilized in creating awareness between the neighboring provinces of Cambodia and Viet Nam as well as Thailand and Lao PDR for exchange of flood information and cooperation in flood response. Between Kandal and Prey Veng provinces of Cambodia and An Giang and Dong Thap provinces of Viet Nam, prospect of promoting trans-boundary flood emergency assistance has been set in motion with bilateral meeting and initiation of a joint planning on flood preparedness and resource sharing. A similar intervention of flood risk reduction cooperation between provinces of Lao PDR (Khammouane) and Thailand ( Nakhom Phanom) was initiated during the Phase 2. The joint planning exercise under a Memorandum of Understanding (MoU) required involvement of the provincial Department of Foreign Affairs and led to a draft strategy for integration of trans-boundary issues into development planning at the provincial levels. It is expected that this will get finalized in upcoming bilateral cooperation meeting between these provinces.

### **2.3.6: Integration of Flood Risk Reduction into Local Development**

Having laid the groundwork for building resilience of the vulnerable communities, it is imperative that the work be continued beyond the project period to realize the intended result. The momentum of flood preparedness plan implementation can only be ensured through linking flood preparedness measures with the local development planning process. The Component 4 realized the need for effective integration of flood risk reduction, particularly the priority action areas of developed flood preparedness programs, into the national and local development planning process for dual purpose of creating larger pool of resources and enhanced sustainability.

At the national level, integration of disaster risk reduction into the national socio economic development planning has just taken shape and the contribution from the GIZ-supported project played as catalyst. Incorporation of Disaster Risk Reduction into the NSDP Update (2009-2013), strengthening of the National Committee for Disaster Management (NCDM) and implementation of the Strategic National Action Plan (SNAP) were influenced by the work carried out under the Component 4 in Cambodia including the implementation of flood risk reduction activities through the commune development planning. Provincial socio-economic plan and financial investment plan has started incorporating disaster risk as

one of the major factor in development projects. In similar instances, the advocacy and capacity building of the Ministry of Planning and Investment officials in Lao PDR led to the inclusion of disaster risk reduction into the 7<sup>th</sup> National Socio-economic Development Plan recently. In Vietnam, Integration of the flood and storm control planning into the socio economic development planning is one of the important activities under the project to support the national and provincial authorities integrating flood preparedness and emergency management in their development planning. The GiZ contribution made valuable impact on facilitating dialogues with planning, development and micro-finance institutions at national and provincial levels for integrating flood preparedness and emergency management into existing local development planning. Thailand, however had already developed policy on integration of disaster risk reduction into development planning process.

In all MRC member countries, unique opportunities exist now for integration of flood risk reduction into local development planning. A situational analysis during the project implementation helped in identifying the needs of communities, identifying vulnerabilities and areas of development that require further flood risk reduction integration to improve flood mitigation and management, and reducing material and financial losses. The modalities applied in each country differ but the aim is still the same to advocate for sustainable development through disaster risk reduction.

### **2.3.6: Regional Knowledge Networking and Dissemination**

Following the 2002 flooding in the Mekong River, various initiatives on flood risk reduction have been carried out in the communities at risk by government agencies (e.g. NDMOs, hydromet services, ministry of natural resources, etc.) and other stakeholders, including UN agencies, international and local civil society organizations with the common objectives of enhancing local governments' and communities' capacities and resilience, improving preparedness and mitigating flood risks. While the Annual Mekong Flood Forums (AMFF) organized by the Mekong River Commission Secretariat through its FMMP program has been providing an opportunity to bring the variety of stakeholders around the globe to discuss the achievements and challenges to the Lower Mekong Basin, the Component 4 continued to showcased the in disseminating the lesson learnt at the province, district and community levels linking with the national frameworks.

The national and regional workshop under the project provided an opportunity for participants of the international, national and local level planning, development agencies and stakeholders to enhance opportunities to share experiences and lessons, identify emerging trends and strategies, develop and enhance people-centered approach to flood and land management and mitigation in the Lower Mekong Basin.

More effective decision-making in flood management required the provision of relevant and accurate flood related information, capacity building of disaster management officials, development of flood management tools, knowledge sharing and public education and awareness. This has been achieved through disseminating existing information and tools by an web-based application at [www.adpc.net/fpp](http://www.adpc.net/fpp).

The multi-lingual (English, Khmer, Vietnamese, Lao and Thai) *Safer Communities* launched as part of the FMMP component 4 illustrates good practices of flood disaster preparedness and mitigation undertaken by either the government or non-government agencies with the goal of reducing the vulnerabilities and risks on the communities living in hazard prone areas in the Mekong Basin. The case study series provided decision makers, development planners, disaster management practitioners, community leaders and trainers with an array of proven ideas, tools, policy options and strategies derived from analyses of real-life experiences, good practices and lessons learned in Asia and the Pacific region, with a specific focus on reducing community's risks and vulnerabilities and building more disaster resilient and better prepared societies.

The first 16 Safer Communities case studies have been developed and disseminated widely with the contribution by GIZ since 2004 under the "Flood Emergency Management Strengthening" project, Component 4 of the Mekong River Commission (MRC) Flood Management and Mitigation (FMMP) program. The focus of these cases has been on flood risk management and their geographical coverage is limited to four MRC member countries of Cambodia, Lao PDR, Thailand and Vietnam. However, good practices from development partners from other countries and for similar hazard profiles are extremely important for cross fertilization of experiences. This documentation series will continue with funding support from other development partners.

In addition, the documentary film "*WHEN THE MEKONG RISES*" conceptualized and prepared under the component 4 presents the story of Mekong floods and the initiatives taken by the Mekong River Commission Secretariat (MRCS) under its Flood Management and Mitigation Programme (FMMP). The informative video captures some of the exemplary moments of flood preparedness and emergency management activities carried out by its Member Countries with technical support from MRC's implementing partner, Asian Disaster Preparedness Center under this project

### **2.3.7: Contribution to National Risk Reduction Frameworks**

Each of the MRC's member countries has a different level of institutional capacity and needs. While Vietnam has approved in 2007 its National Disaster Risk Management (DRM) Strategy 2020, and started implementation with national and externally aided programs and recently launched two major community focused Disaster Risk Management Program (CBDRM; 1002/QD-TTg) and National Target program on Climate Change Adaptation (158/2008/QD-TTg). Cambodia launched its Strategic National Action Plan (SNAP) for DRR in 2008, and has yet to explore sustained implementation mechanisms. Lao PDR on the other hand had a National DRM strategy, but the overall implementation yet to be completed. Following the Typhoon Ketsana in 2009, the Lao PDR government has initiated comprehensive national disaster management planning with World Bank and UNDP support.

The national assessment carried out towards the end of the project (Oct 2010-March2011) clearly shows that good progress made in overall understanding of flood management, mitigation, awareness and understanding of types of flood, damages and associated risk due

the implementation of the Component 4 and the expected outputs delivered through “National Delivery Chains” – Line Agencies, provincial and district authorities, Red Cross and Civil Society Organizations, success and effectiveness of flood preparedness and emergency management remains a challenge due to its scale, upscale and real time testing at a time of flood emergencies

The GIZ contributions to MRCS-FMMP is widely recognized by the member countries as time-bound “pilot” initiatives, covering some of the vulnerable provinces and districts, and improving the competence in dealing with the Mekong Floods, a longer term programmatic approach and up scaling to a wider geographical area is required to ensure that the flood management and mitigation policy objectives are solidly embedded into the national disaster management strategies of the member countries. So far, less than 20% of the vulnerable provinces have been covered under the ECHO-MRCS projects since 2003. Active involvement of national government and local authorities at provincial, district and commune levels in the formulation and implementation of the Flood Preparedness Programs (FPP) has been a major step to ensure consistency, ownership and sustainability, in addition to the activity of integrating Flood Risk Reduction (FRR) into local development plans.

### 3. Results obtained with the Financial Contribution

The overall achievements are presented in *Annex- 1: Key Results Obtained*, where as detail implementation is made available in *Annex-3- Country Progress Report*. These activity progress were reported regularly at the FMMP Program Coordination Committee meeting every quarter and inputs and guidance provided during these meetings were discussed at the field level with national partners. Progresses were also reported to the MRC-FMMP Bi-Annual Reports as well as with periodic progress review meeting between GIZ and ADPC as per the grant agreement. At the country level, FMMP national coordinators and provincial focal points were briefed before carrying out the activities as per the partnership agreement signed among the four implementing partners.

This section 3 provides the main results achieved against each expected outputs during period May 2008-May 2011 in which major field implementation were carried out against the agreed work plan with the national partners (NMCs and NDMOs), MRC-FMMP and ADPC.

#### 3.1. Output 1: Public Awareness

*Selected relevant authorities and other stakeholders in all four riparian countries raised public awareness and enhanced people's capacities in dealing with floods and are enabled to continue doing it without external support (FMMP-C1, C2).*

**Overall Progress estimate: 100%**

#### *Key Result Obtained*

**Table 3: Flood Awareness Activities**

Type	Cambodia	Lao PDR	Thailand	Vietnam
Flood related IEC Materials	Flood Poster Drought booklet Flood booklet Teacher Information Kit WHH Brochure Leaflet on Safer Communities DVS	Flood posters Flood booklet SFSP booklet DVDs	Flood Maps Flood Posters Booklet and Kit	Flood Poster Household Safety Measures Children Drowning Drought booklet Flood booklet Teacher Information Kit
Public Awareness & Cultural Shows at Community Level	Twelve (12) cultural by the Department of Culture and Fine Arts in Kandal and Prey Veng	Public Awareness activities in 20 villages of 4 target districts using IEC materials	Public Awareness Meeting and Training	28 Cultural Shows in six districts
Flood Information Billboard	10 billboards in two target province	20 billboards in 4 target districts	6 flood information billboards in 2 target districts	9 bill boards in two target provinces
School Flood Safety	Teachers Training School Activity	Teachers Training School Activity	Teachers Training School Activity	Teachers Training School Activity
Public Private Partnership				National Forum on PP Partnership Provincial Action Plan on PP

### **3.1.1: Enhancing the awareness of public through development and distribution of IEC materials**

The fundamental strategy in the development of IEC materials related to flood under the Component 4 was to adapt the existing flood risk awareness information and materials to cater to local traditions and culture in the lower Mekong Basin. In pursuit of this objective, a fruitful collaboration with other development partners operating in the targeted areas was sought, particularly in terms of sharing flood risk reduction IEC materials. This resulted in the development and use of public awareness materials based on the cumulative knowledge and experience of major flood risk reduction actors: NGOs, the academic institutions and government ministries. Key line department such as Department of Education, Youth and Sports (MoEYS) in Cambodia, Department of Education in Lao PDR and Thailand and Department of Information and Culture in Vietnam participated in IEC material planning and reviewing. At the regional level, the ASEAN Committee for Disaster Management (ACDM) on Public Education and Awareness (PEA) acknowledged the contributions made by the MRC-FMMP project at larger, and the Component 4 in particular in catering the need of the lower Mekong Basin through public awareness materials in local language. The **Table 3** provides various type of IEC material produced during the implementation of the project.

The achievement of the project has been to promote COMMON IEC MATERIALS by creating multi-stakeholder partnership in each country in reviewing and replication of IEC materials. This is working well in Lao PDR, Cambodia and Vietnam. Efforts were made in Thailand to bring all civil society organizations, Thailand Red Cross, Ministry of Education, Ministry of Information and Ministry of Health to discuss and review common IEC materials

### **3.1.2: Building capacities of District authorities in conducting public awareness activities at commune level**

Public awareness campaign, Cultural shows at community level and School Flood Safety Programme (SFSP) activities were identified as the most important method to reach to the vulnerable communities and create awareness on multiple risks caused by floods and enhance their understanding of how to react at household level before, during and after floods. The **Table 3** provides quantities of various public awareness activities. The **Country Progress Report (annex-2)** provides the details on the status, partnership and results from each public awareness activities.

The key factor attributed towards an increased awareness on flood in the target provinces is the lead role and capacity building of the district level authorities ( ref- 2<sup>nd</sup> RBM Report). While ADPC played key facilitator role, the key Departments at the District levels involved in public awareness took lead in carrying out the public awareness activities in the target communes. These capacities will remain in the districts and will utilize exiting programs and project to continue the public awareness activities in future. Some of the activities are described in detail below

### **3.1.2.a: School Flood Safety Programs**

The School Flood Safety Programs (SFSP) was designed and implemented successfully in all four MRC member countries with the objectives of supporting the school authority, particularly the Education Department, in implementing flood preparedness program in selected vulnerable schools and enhancing the vulnerable communities' capacity in dealing with floods via children as primary risk reduction communicators. The project capitalized educational institutions as major public infrastructure which can create long-lasting impacts on future generations. Thus, in all four countries, the provincial and district Education Departments are given instrumental role in implementing SFSP activities in collaboration with school authorities in the target schools, under the guidance of provincial and district disaster management agencies. Provincial working groups are established comprising of representatives from other member line departments of provincial and district disaster management committees to facilitate coordinate and monitor the implementing activities.

The individual schools prepare the proposals on activities they want to conduct at the schools, together with projected activity costs, which are then submitted to the provincial Department of Education. The provincial Education Departments and local disaster management authorities hold discussions with the Project team and make the final decision on which school should be financially supported for program implementation. The provincial Departments of Education also assumes the responsibility on preparation of reports on on-going activities and submit it to the district authorities. More than 400 schools in Cambodia, Lao PDR, Thailand and Vietnam profited from the campaigns. The programs are also linked to ongoing programs of Provincial Education Department as well as other disaster risk reduction initiatives in the target countries.

### **3.1.2.b: Cultural Shows *through Traditional Art Forms***

The use of community stage plays and folksongs as media for disseminating flood risk reduction information proved to be extremely popular in both Cambodia and Vietnam. Acting and singing troupes are common in both countries and this form of awareness raising has been applied in disseminating messages related to HIV/AIDS and domestic violence. The Component 4 acknowledged that for a large scale public awareness raising to take off, a responsible government agency, specifically a member of the provincial and district disaster management bodies, have to take the lead in formulating a feasible plan. It had to be an agency with prior experience in organizing large scale public campaigns and with substantial knowledge and understanding on information dissemination methods that would appeal to mass population. The idyllic agency was identified as the Office of Culture and Information (OCI) in Vietnam and Department of Culture and Arts (DCA) in Cambodia. Similarly, the Department of Information in Lao PDR and Thailand were partnered for conducting public awareness campaigns

### **3.1.3: Promoting public-private partnership in awareness raising**

The availability of limited resources for public awareness has hampered the replication of awareness campaigns over wide area beyond the project geographical coverage. In order to broaden the pool of resources, the idea of public-private partnership was promoted and initiated under the FEMS Project in Lao PDR, Thailand and Vietnam. The advantages of the

involvement of private agencies in public awareness raising are that they provide extended networking beyond disaster risk reduction sector and more efficient use of resources and funds. It is envisaged that the roles of private sector can range over sponsorships of awareness raising activities to funding the establishments of flood memorials at strategic locations.

During the Phase 2 implementation, Vietnam was identified as the target country to deepen the public private partnership activities. A “National Forum on Promoting Private Partnership in Disaster Risk Reduction” was organized in Ho Chi Minh City in 2009 by the Central Committee for Flood and Storm Control (CCFSC), Viet Nam Chamber of Commerce and Industry (VCCI) and Viet Nam National Mekong Committee (VNMC) with funding support from the Project. More than 60 attendees from MRCS, VNMC, DDMFSC, VCCI Ho Chi Minh, Can Tho, Vung Tau and Cuu Long Delta provincial partners, public and private enterprises, mass organizations such as Women’s Union and Red Cross, non-governmental organizations (NGO) and mass media participated at the Forum.

Cultivating the partnership between public–private sector and vulnerable community has been one of the important agenda with the Department of Dyke Management and Flood Storm Control (DDMFSC), where the public and private enterprises can extend their involvement in community disaster risk reduction and in return, enterprise image can be promoted.

Following the National Forum, an “Action Plan on Promoting Involvement of Private Sectors in Public Awareness Raising on Disaster Risk Reduction” was prepared and submitted by An Giang Provincial Committee for Flood and Storm Control (PCFSC) to Provincial People’s Committee. The Action Plan outlines the possible areas of cooperation between the disaster risk reduction initiatives taken by CCFSC and the VCCI, to create a better environment for sustainable socio-eco development. The areas of cooperation listed are capacity building, public awareness raising and preparation of the community flood preparedness plans. The Action Plan gives full background on disaster situation in the province and how private sectors and community participate in disaster response and recovery. It emphasizes the important role of preparedness before flood and involvement of private sectors in reducing risks.

In An Giang province, the An Giang Business Association (ABA) has shown strong commitment to support local public awareness raising activities. Both ABA and PCFSC have plans to consult with Provincial People’s Committee to involve private sector agencies. A meeting is to be organized in the province for this purpose with invitation extended to partner NGOs working in the province and PCFSC of Dong Thap to share experiences.

## **3.2. Output 2: FPP Development and Implementation**

*Selected provincial and district authorities in all four riparian countries developed and implemented flood preparedness programs and are enabled to up-date them continuously without external support. (FMMP-C1, C2).*

*Overall Progress estimate: 100%*

### **Key Result Obtained**

#### **3.2.1: Development of Flood Preparedness Programs**

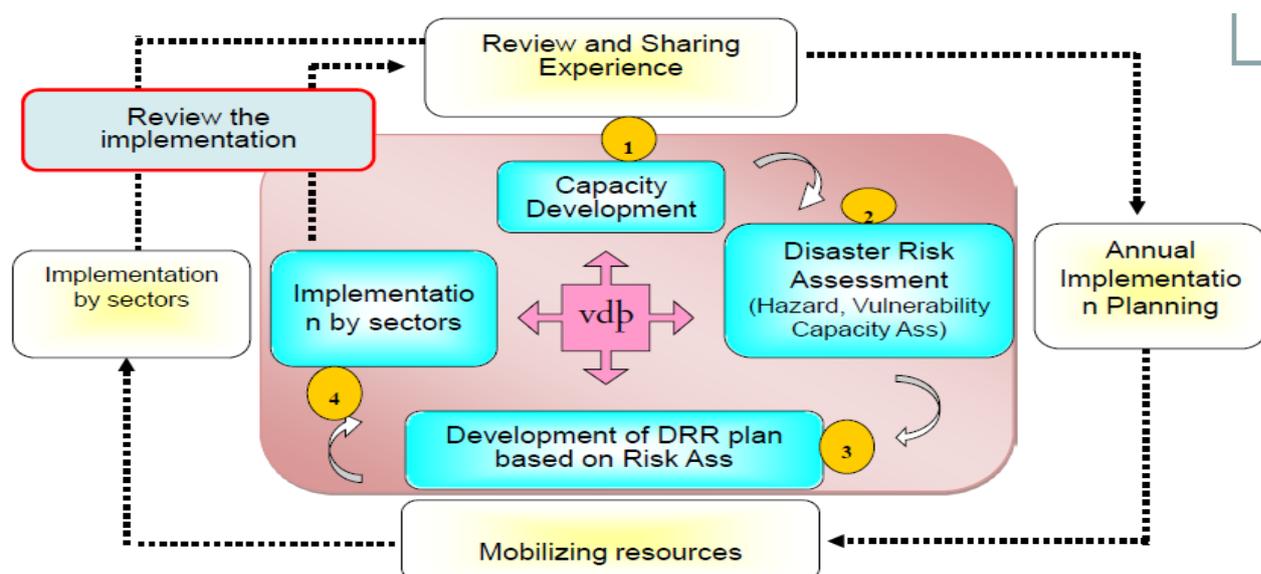
Under Component 4 of MRC's FMMP, one key output on strengthening capacities of authorities at provincial and district levels on development and implementation of Flood Preparedness Program (FPP). The FPP development and implementation was initiated and piloted in the 07 provinces and, 19 District. However, Vietnam and Thailand already had their annual/multi year plans available so the focus to develop plans was in Cambodia and Lao PDR.

Development and implementation of FPP was carried out following steps like (i) started from orientation training to Provincial and District Disaster Management Committees and their members on overall concepts of disaster risk reduction, participatory disaster risk assessment and planning approaches, (ii) conduct disaster risk assessment to analysis and diagnosis of information on disaster situation and hazards occur in disaster prone areas and impacts of disasters in the province and districts, and sectors affected by each hazard. The information was consolidated as a disaster risk statement for province and district (iii) based on risk statement, each line Department developed its sectoral plan in consultation and technical support from PCDM/DCDM Secretariat officers in collaborating with Department of Planning and technical support from the project team. While sectoral plans completed and finalized, PCDM/DCDM Secretariat office compiled as Provincial/District FPP/DRR plan and organizing a lunch workshop for mobilizing resources and implementation, and (iv) for implementation of FPP/DRR plan, each sector is responsible to implement by itself through allocation of existing resources and mobilizing support from national line Ministry and Development Partners to support implementation.

The Sectoral FPP/DRR plan is in line with core program and mandate of each sector, so it is linked directly to Provincial, district and Commune Development and Investment Program. While each sector updates its Development Plan and Investment Program, FPP/DRR plan will be updated by them at the same time.

Benefits of the approach is contribution to enhance roles and responsibilities of line Departments, the members Provincial and district disaster management committees and promotion of integration FPP/DRR into specific sectors and linkage to local socio-economic development planning process at all levels. PCDM/DCDM Secretariat Offices plays coordination roles to its members to implement FPP/DRR plan and build partnership with other development partners to intervention of FPP/DRR plans.

Figure: Steps of FPP/DRR Development and Implementation



The plans contain structural and non-structural methods for flood preparedness, and the specific roles and responsibilities for all organizations involved in flood preparedness (i.e. search and rescue teams and local NGOs). The annual or Multi Year plan are maintained, evaluate and updated by the Province and District DM Committee Secretariat

Table 4: Annual/Multi Year Flood Disaster Reduction Plans

Country	Provincial Plans	District Plans	Line Agency Issued and maintaining	Application Level
Cambodia	1. Kratie (2009-2011)- EC support	<ul style="list-style-type: none"> <li>Kratie (2009-2011)</li> <li>Chhluong (2009-2011)</li> <li>Sambour (2009-2011)</li> </ul>	Provincial/District Governor Office and PCDM/DCDM	Province , District
	2. Kandal (2009-2011)	<ul style="list-style-type: none"> <li>Lvea Em (2009-2011)</li> <li>Leuk Dek (2009-2011)</li> <li>Kien Svay (2009-2011)</li> </ul>	Provincial/District Governor Office and PCDM/DCDM	Province , District
	3. Prey Veng (2009-2011)	<ul style="list-style-type: none"> <li>Peam Chor (2009-2011)</li> <li>Sithor Kandal (2009-2011)</li> <li>Peam Ro (2009-2011)</li> </ul>	Provincial/District Governor Office and PCDM/DCDM	Province , District
	4. Svay Rieng (2009-2011)- )- EC support	<ul style="list-style-type: none"> <li>Svay Churm (2009-2011)</li> </ul>	Provincial/District Governor Office and PCDM/DCDM	Province , District
Lao PDR	5. Khammouane (2009-2010)	<ul style="list-style-type: none"> <li>Nongbok (2009-2010)</li> <li>Xebangfai (2009-2010)</li> <li>Yommalgth (2009-2010)</li> <li>Hinboun (2009-2010)</li> <li>Mahaxai (2009-2010)</li> </ul>	PDMC/DDMC	Province, District
	6. Savanakhet	<ul style="list-style-type: none"> <li>Xaybouly (2009-2010)</li> </ul>	PDMC/DDMC	Province, District

### 3.2.2: Implementation of Flood Preparedness Programs

The Flood Preparedness Programs are detailed documents that contain an action plan for flood preparedness and emergency management for province and districts. These action plan identified priority project that needs to be implemented to reduce the flood risk. Since the Phase 1, technical and financial support has been provided to provinces and districts in prioritizing the flood priority project and cost them out. Some implementation support was proved under the GIZ financial contribution, where as most of the priority projects were either implemented through the provincial funds or yet to be implemented. The documents in **Table 4** provide the list of overall priority project. The **Table 5** below provides an overall list of priority project supported under Component 4.

**Table 5: List of Priority Project ( 2004-2010)**

Country	Demonstration Project	Project Site	Key Interventions
Cambodia	7. Improving Facilities for Safe for Evacuation Planning	<input type="checkbox"/> Bosleav and Dar Communes in Kratie Districts <input type="checkbox"/> Praek Khmeng commune in Lovea Em district, Kandal province <input type="checkbox"/> Angkor Ang commune, Peam Chor district, Prey Veng Province <input type="checkbox"/> Prek Dach Commune, Leuk Dek District Kandal Province <input type="checkbox"/> Koki Thom Commune, Kien Svay District, Kandal Province <input type="checkbox"/> Banlech Prasat Commune, Peam Ro District, Prey Veng Province <input type="checkbox"/> Prek Changkran Commune, Sithor Kandal District, Prey Veng Province <input type="checkbox"/> Praek Khmeng commune, Lvea Em district, Kandal province.	<ul style="list-style-type: none"> <li>• Tube Wells for Drinking Water Supply</li> <li>• 2-3 room Latrine</li> <li>• Water Quality Testing</li> <li>• Health Hygiene maintenance</li> <li>• Water Storage tanks</li> <li>• Repair of Access Road</li> <li>• Flood Information Bulletin</li> </ul>
	8. Building capacity of Commune DM Committee on Community Based Flood Management	<input type="checkbox"/> Peam Chor District, Prey Veng Province <input type="checkbox"/> Sithor Kandal District, Prey Veng Province <input type="checkbox"/> Lovea Em District, Kandal Province <input type="checkbox"/> Leuk Dek District, Kandal Province	<ul style="list-style-type: none"> <li>• Consultation Workshops</li> <li>• Capacity Building Training</li> <li>• Action Plan Development</li> </ul>
	9. Building the capacities of the School teachers and Educators on School Safety Measures	<input type="checkbox"/> Peam Chor District, Prey Veng Province <input type="checkbox"/> Sithor Kandal District, Prey Veng Province <input type="checkbox"/> Lovea Em District, Kandal Province <input type="checkbox"/> Leuk Dek District, Kandal Province	<ul style="list-style-type: none"> <li>• Consultation Workshops</li> <li>• Capacity Building Training</li> <li>• School Awareness campaigns</li> </ul>
	10. Improving skills of District and Commune officials in Damage and Needs Assessment (DANA)	<input type="checkbox"/> Peam Chor District, Prey Veng Province <input type="checkbox"/> Sithor Kandal District, Prey Veng Province <input type="checkbox"/> Lovea Em District, Kandal Province <input type="checkbox"/> Leuk Dek District, Kandal Province	<ul style="list-style-type: none"> <li>• Consultation Workshops</li> <li>• Capacity Building Training</li> <li>• DANA Formats</li> </ul>
	11. District resource inventory development	<input type="checkbox"/> Peam Chor District, Prey Veng Province <input type="checkbox"/> Sithor Kandal District, Prey Veng Province <input type="checkbox"/> Lovea Em District, Kandal Province <input type="checkbox"/> Leuk Dek District, Kandal Province	<ul style="list-style-type: none"> <li>• Consultation Workshops</li> <li>• Capacity Building Training</li> <li>• Resource Inventory</li> </ul>
	12. Development of program on meeting the needs of Women headed household (WHH)	<input type="checkbox"/> Peam Chor District, Prey Veng Province <input type="checkbox"/> Sithor Kandal District, Prey Veng Province <input type="checkbox"/> Lovea Em District, Kandal Province <input type="checkbox"/> Leuk Dek District, Kandal Province	<ul style="list-style-type: none"> <li>• Consultation Workshops</li> <li>• Capacity Building Training</li> </ul>

	13. Improved dissemination of flood early warning	<input type="checkbox"/> Lvea Em District, Kandal Province <input type="checkbox"/> Leuk Dek District, Kandal Province <input type="checkbox"/> Peam Chor District, Prey Veng Province <input type="checkbox"/> Sithor Kandal District, Prey Veng Province	<ul style="list-style-type: none"> <li>• Installation of Flood Information Boards</li> <li>• Installation of Home Flood Marks</li> <li>• Training to Community members on two way EWS</li> </ul>
Viet Nam	Building capacity of Commune DM committee on CBFM	<input type="checkbox"/> Chau Thanh District, An Giang <input type="checkbox"/> Tan Chau District, An Giang <input type="checkbox"/> Tan Hong District, Dong Thap	<ul style="list-style-type: none"> <li>• Consultation Workshops</li> <li>• Capacity Building Training</li> <li>• Action Plan Development</li> </ul>
	Building capacity of DCFSC/DRC in Search and Rescue	<input type="checkbox"/> Tan Chau District, An Giang Province <input type="checkbox"/> Tan Hong District, Dong Thap Province <input type="checkbox"/> Chau Thanh District, An Giang Province <input type="checkbox"/> Thanh Binh District, Dong Thap Province <input type="checkbox"/>	<ul style="list-style-type: none"> <li>• Training to Youth Volunteers</li> <li>• Basic S&amp;R Materials for Rescue Post</li> </ul>
	Improving skills in commune emergency kindergarten management (EKM).	<input type="checkbox"/> Tan Chau District, An Giang Province <input type="checkbox"/> Tan Hong District, Dong Thap Province <input type="checkbox"/> Chau Thanh District, An Giang Province <input type="checkbox"/> Thanh Binh District, Dong Thap Province <input type="checkbox"/> An Phu district, An Giang province	<ul style="list-style-type: none"> <li>• Training to Women Volunteers</li> <li>• Basic materials for EK management</li> </ul>
	Strengthening the skills in safety measures by providing swimming lessons to school children.	<input type="checkbox"/> Tan Chau District, An Giang Province <input type="checkbox"/> Tan Hong District, Dong Thap Province <input type="checkbox"/> Chau Thanh District, An Giang Province <input type="checkbox"/> Thanh Binh District, Dong Thap Province	<ul style="list-style-type: none"> <li>• Training to Children</li> <li>• Swimming Net for practice</li> <li>• CD documentation</li> </ul>
	Structural improvement of Emergency Kindergarten for Management (EKM)	<input type="checkbox"/> Cai Be and Cai Lay Districts, Tien Giang Province <input type="checkbox"/> Phu Loc EK, Tan Chau district, An Giang province	<ul style="list-style-type: none"> <li>• small mitigation work</li> <li>• child friendly education materials</li> </ul>
	Flood Simulation Exercise	<input type="checkbox"/> Tam Nong district, Dong Thap province	<ul style="list-style-type: none"> <li>• Simulation Exercise for Province, District and Commune official</li> </ul>
Lao PDR	Establishment of VDPU of 20 villages (5 villages per district)	<input type="checkbox"/> Xebangfai District <input type="checkbox"/> Yommalgth District <input type="checkbox"/> Hinboun District <input type="checkbox"/> Mahaxai District <input type="checkbox"/> Xaybouly District	<ul style="list-style-type: none"> <li>• Consultative Workshop</li> <li>• Capacity Building Training</li> </ul>
Thailand	Procurements of Flood Maps	<input type="checkbox"/> Nakhon Phanom <input type="checkbox"/> Tha Utehn	<ul style="list-style-type: none"> <li>• GIS Based Maps</li> <li>• Capacity Building Training</li> </ul>

### 3.3. Output 3: FPP Integration into Development Planning

*Selected provincial, district and commune authorities in all riparian countries are regularly integrating flood preparedness and emergency management in their development planning. (FMMP-C1, C2)*

**Overall Progress estimate: 100%**

#### Key Result Obtained

##### 3.3.1: Establishing linkage between Socio-economic development and Flood Risk Reduction Plans

In all MRC member countries, unique opportunities exist for integration of flood risk reduction into local development planning. Each of the country has different planning cycle and DRR planning process. The figure below provides Development Planning cycle as well as Disaster Risk Management planning at national, province, district and commune levels. This patters follows in each of the four Member Country. However, funding mechanism, funding cycle are different.



To establish the linkages, country strategy paper were developed in consulted with the national and provincial DM office and the planning department. The paper highlighted the existing DRR activities, socio-economic development mechanism and the possible integration options. Various national and provincial workshop were held to advocate mainstreaming of disaster risk reduction at the very first step of the local development planning process. The strategy paper later used to develop Sub-National Guidelines in Cambodia and Vietnam. In Lao PDR, the DRR integration into the 07<sup>th</sup> National Socio-Economic Development Plan is just been incorporated.

### **3.3.2: *Mainstreaming Flood Risk Reduction into Commune Development Planning in Cambodia***

In Cambodia, the Commune Development Planning Process (CDP) and Commune Investment Plan (CIP) are widely recognized as the framework for sustainable development, mainly concentrating on strengthening capacity and empowering commune authorities on socio-economic development. This commune planning process is led by Ministry of Interior (MoI) and Ministry of Planning (MoP) at the national level. It is technically and financially supported by the Project to Support Democratic Development through Decentralization and De-concentration (PSDD, formerly called SEILA Program). A CDP takes into account the local situation and constraints on such things as the economy, natural resources and environment, administration and security, and social and gender issues. Its aim is to develop a framework of needs, goals and strategies, and their cost, in order to more independently meet the socioeconomic needs of the commune.

To promote integration flood risk reduction measure in local development plans PCDM and DCDM involved in planning process, while commune councils in target districts of Kandal and Prey Veng province (Levea Em, Kien Svay and Leuk Dek in Kandal and Peam Chor, Sithor Kandal, and Peam Ro in Prey Veng province). The involvement of PCDM and DCDM was to provide technical support to integrate DRR/FPP in the Commune Investment Program (CIP) for 2009-2010.

Similarly, PCDM and DCDM worked closely with PSDD program and Department of Planning in each province to integrate FPP into 3-year Provincial Investment Program as well. Resulting, at the provincial level, activities identified in FPP have been incorporated in 3-year Provincial Investment Program for 2009-2011, while at commune level there is an increase of integration DRR into Commune Investment Program in this year. As of now, total 829 priority activities DRR related projects and activities identified from 63 Commune Investment Programmes in 6 districts in both Kandal and Prey Veng provinces. Among of the priority activities some 677 projects/activities are related to DRR in 5 areas of CIP like economic, social, natural resources and environment management, security and gender and 152 priority activities are exact DRR. For detail information, please see the Cambodia Country Progress Report

### **3.3.3. *Integration of Disaster Risk Reduction into District Development Plan in Lao PDR***

Both in Cambodia and Lao PDR, the process of integrating the Flood Preparedness Programs (FPPs) into the local development planning process depends on a strong PCDM/DCDM led FPP document with sectoral Priority Action Areas that are endorsed by the provincial authorities.

With particular to Lao PDR, the process of preparing socio-economic development plans at the district level was identified as the main point of integration. For this purpose, the Khammoune Provincial Department of Planning and Investment has been provided with guidance and technical support.

The provincial initiative received further boost at the national level multi-stakeholder consultation workshop in 2009 jointly organized by NDMO and Ministry of Planning and Investment (MPI). It was attended by 48 participants from Lao National Mekong Committee (LNMC), the National Disaster Management Office (NDMO), Ministry of Planning and Investment, National Economic Research Institute, Ministry of Agriculture and Forestry, Ministry of Education, Ministry of Public Health, Ministry of Public Works and Transport, Ministry of Water Resources and Environment, Ministry of Finance, Ministry of Public Security, Ministry of Information and Culture, Ministry of Defense, Ministry of Energy and Mine, Ministry of Industry and Commerce, Lao Women's Union, Trade Union, Provincial Disaster Management Committee (PDMC) of Khammouane province, PDMC of Savannakhet province, District Disaster Management Committee (DDMC) of Nongbok district, European Commission (EU), French Red Cross/Lao Red Cross (FRC/LRC), NGOs/INGOs working on DRR in Lao PDR such as World Vision, World Bank, Save the Children, UNDP, Oxfam Australia and CARE International.

The workshop highlighted the importance of and the need for integrating DRR into development planning process and the sectoral ministries, local authorities (provinces and districts) and relevant stakeholders clearly expressed their keenness and readiness to take part in the integration process. Following recommendations were made for the next steps.

- To learn from good examples of the environment sector where the environmental issue had already been integrated in the planning process.
- DRR integration should be compulsory for each sector and initiated at the national level first.
- To set up coordination team/committee in each sector at all levels (national, provincial and district) with clear mandate and permanent focal points.
- To set up disaster database in each sector with designated technical staff.
- To analyze data and information and to conduct more research.
- To identify and prioritize risks.

#### ***3.3.4. Initiating the mainstreaming of disaster risk reduction into development in Thailand***

The Thailand Government's Natural Disaster Preparedness and Mitigation Plan clearly includes the provisions of integrating disaster prevention and mitigation in the development plans of respective agencies and sectors at national and local levels. The new Plan serves as an important reference document for developing DRR integration guidelines as well as for the training materials. Parts of the plan were already translated into English.

#### ***3.3.5. Incorporation of disaster risk reduction into development planning in Vietnam***

Even though the progress of mainstreaming disaster risk reduction into socio-economic development plan in Vietnam is not demonstrated fully under this project, the integration issue has already been identified as a priority of the government agenda; such as a component of the National Program on CBDRM and the National Strategy for Natural Disaster Preparedness and Mitigation to 2020. The present curriculum on Training of Trainers features notably the significance of integration into the development process, particularly for selected sector like agriculture, health, education, road which will be discussed with local authorities including the planning sector in coming quarter.

In An Giang province, the Director of Investment and Planning Department (DIP) has been assigned to be focal point of the integration activity. However, external technical support has been requested and under the FEMS Project, a national consultant has been identified. It is expected that the consultant will provide technical assistance to selected provincial authorities (An Giang and Dong Thap firstly) in the development of guidelines on integrating flood preparedness and emergency management into the provincial socio economic development planning.

### 3.4. Output 4: Practical Knowledge on Flood Emergency Management

*Selected relevant authorities and other stakeholders in all member states have enhanced practical knowledge in flood preparedness and emergency management. (Trainings linked to output 1, 2 and 3) (FMMP-C1 and C2)*

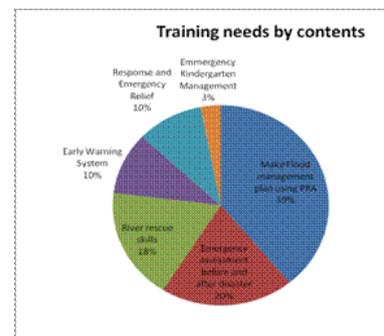
**Overall Progress estimate: 100%**

#### Key Result Obtained

##### 3.4.1: Identifying Training Needs

Capacity building activities in disaster risk reduction can take many forms from formal trainings to awareness raising to learning-by-doing. Regardless of what means or methods are applied the common theme behind the approach is a better understanding of hazard vulnerability and a greater commitment to proactive preventative action. For the lower Mekong Basin countries, the main capacity building gaps reside at the sub-national levels where inadequate resources prevent the disaster management personnel from effectively implementing essential disaster management activities at the ground level.

Each of Member Country reviewed the existing training and capacity building activities and future requirements for on the job training. The Training Need Assessment (TNA) was conducted at the initial phase of the project in 2008-2009. The TNA resulted in identifying training needs and partnership among various development partners to contribute to these recommendations. Some of the main recommendations arising of the four country specific TNA are



- Comprehensive training courses on disaster risk reduction for Provincial and District Committee
- Knowledge, practices, and experiences on development and implementation of disaster risk reduction plan and participatory risk assessment are key components of subject matters for trainings for local authorities and stakeholders, with several reasons to t
- Development of core group of trainers.
- Further training course identified
  - (1) *Emergency Preparedness*
  - (2) *Disaster Response*
  - (3) *GIS on Planning*
  - (4) *Use of Hazard Map*
  - (5) *Community Preparedness*

(6) Flood Response Exercise/Drill

(7) Flood Warning

### 3.4.2: Training Needs Delivery

The TNA helped in developing on the job training course and the project provided support to deliver the course. Some of the training packages delivered since 2004 are presented in **Table 6** below;

**Table 6: Need Based Training Package and Delivery**

Training Course	Duration of Training	Level of Training
Training on Implementation of Flood Preparedness and Emergency Management	5 days	National
National Training of Trainers ( ToT) on Flood Disaster Risk Reduction	4 days	National
Training of Trainers on Flood Risk Reduction	4	Province
Training of Trainers on Public Awareness and EWS	3	Province
Training on Flood Management and Mitigation	4 days	Province
Training on Search and Rescue	3 days	District
Training Curriculum on Emergency Kindergarten Management (EKM)	3 days	District
Training lesson on Swimming Lesson for Children	3 days	District
Training on Damage and Need Assessment	2 days	District
Training on Community Based Flood Risk Management	3 days	Commune
Training on FSC Planning and Implementation	3 days	District, Commune

### 3.5. Output 5: Country specific Training Curriculum

*A training manual on flood preparedness and emergency management adapted to national conditions for all relevant authorities and other stakeholders has been developed in all riparian countries and a core group of trainers from sustainable organisations has been trained. (FMMP-C1, C2)*

*Overall Progress estimate: 100%*

#### *Key Result Obtained*

A major achievement of the Component 4 is capacity building and training for disaster management authorities. Training and capacity building of the national and provincial officials is identified as one of the priority by the Disaster Management authorities in the Member countries. Supports for training and capacity building are provided by many development partners. At the beginning of the Phase 2, few countries which have systematic compilation and depository of DRM related materials, including training curriculums, manuals, and guideline developed by various NGOs, INGOS, and Red Cross and other development partners.

Most of these training curriculums had specific focus on hazard, stakeholders and thematic focus of each organization. The Asian Disaster Preparedness Center (ADPC) has partnered with DM offices in each of the Member Countries and other development partners to support in reviewing the existing training and capacity building materials and standardize a National Training Curriculum by incorporating components of the flood awareness, development and implementation of provincial and district plans and integration of flood risk reduction into development planning process. The Component 4 supported in developing manuals and training curriculums on flood preparedness is to compile theoretical knowledge on disaster management and flood planning together with local knowledge and conditions, and create a resource that can be used to train disaster management authorities in Cambodia, Lao PDR, Thailand and Vietnam. During the phase 2 implementation, the following result were achieved

1. List of Training and Capacity institution in each Member Country
2. Standardized National DRR/FRR Training curriculum for each Country language
3. National level Training of Trainers (ToT) in each Country
4. Trainers Database in each Country

The Training of Trainers (ToT) manuals have the specific purpose of training personnel in the target countries that can then transfer this knowledge to a wider audience throughout the local community or to other disaster management practitioners and authorities. The **Table 7** provides the overall training curriculum developed under Component 4. The detail process and consultation reports are provided in the **Annex-2: Country Progress Report**

**Table 7: Training Curriculum Documents**

Training Curriculum	Language	Target Audience	Main Content
1. National Training Curriculum for Flood Risk Reduction	Khmer, 2009	National and Sub-National officials, Development partners	<ul style="list-style-type: none"> <li>• Training Skills</li> <li>• FPP Development and Implementation</li> <li>• Public Awareness and EWS</li> <li>• Integration of FRR into local development Planning process</li> </ul>
2. Sub-regional Training Curriculum for development of Flood Preparedness Program	English , Khmer, Lao, VN 2005	National and Sub-National officials, Development partners	<ul style="list-style-type: none"> <li>• Flood Risk Assessment</li> <li>• Early Warning System</li> <li>• FRR Measures</li> <li>• Standard Operating procedure</li> </ul>
3. ToT Curriculum on Flood and Strom Control Planning and Implementation	Vietnamese, 2010	National and Sub-National officials, Development partners	<ul style="list-style-type: none"> <li>• Training Skills</li> <li>• Annual FSC Planning</li> <li>• Public Awareness and EWS</li> <li>• Integration of FRR into local development Planning process</li> </ul>
4. National ToT Curriculam on Flood Preparedness and Emergency Management	Lao PDR, 2010	National and Sub-National officials, Development partners	<ul style="list-style-type: none"> <li>• Training Skills</li> <li>• Annual FRR Planning</li> <li>• Public Awareness and EWS</li> <li>• Integration of FRR into local development Planning process</li> </ul>
5. Community Based Flood Management (CBFM) Curriculum	Cambodia, Vietnam, Lao PDR 2007	Commune level	<ul style="list-style-type: none"> <li>• HVCA</li> <li>• Commune level Planning</li> <li>• EWS</li> </ul>
6. District Level Training of Trainers Curriculum on Flood Preparedness and Emergency Management	Cambodia, Lao PDR and Vietnam 2007	District Level	<ul style="list-style-type: none"> <li>• DRR Planning</li> <li>• EWS</li> <li>• Resource Inventory</li> <li>• Public Awareness</li> </ul>
7. Emergency Kindergarten Management (EKM) Curriculum for Vietnam	Vietnamese ,2007	District level	
8. Training Curriculum on District level Search and Rescue planning	Vietnamese, 2007	District level	

The National/Provincial level ToT provided opportunity for the listed trainers in each country to refresh their knowledge on various aspect of flood risk reduction and enable them to carry out wider training programs at their province respectively. It is observed that the trainers are now being engaged by national/provincial authorities and other development partners to organize training courses on flood preparedness program, integration flood preparedness and public awareness to all line departments in their locations. It is also expected that the groups will be able to support other partners in their locations to organize training activities in respective long-run

### 3.6. Output 6: Flood Knowledge Exchange and Experience Sharing

*Relevant authorities and other stakeholders of all four riparian countries exchanged their knowledge and experience in flood preparedness and emergency management.*

**Overall Progress estimate: 100%**

#### **Key Result Obtained**

##### **3.6.1: Enhancement of information sharing through regional, national and local events**

Fully understanding the advantages of partnership building and networking to reduce the flood risks that transcend administrative boundaries, attempts are being made at various levels under the Component 4 advanced information exchange between Lower Mekong Basin countries. The adopted methodologies (website, newsletters, case studies, online dialogue, DRR film festival etc) try to address the gaps in both horizontal and vertical information sharing by creating opportunities for local disaster management authorities to participate in not just the local and national but also regional events. By doing so, the local authorities could learn of good practices beyond their administrative confines that has potential to be replicated in their own localities and at the same time, the regional players discovered for themselves the real needs at the ground levels for more effective programming in the future. The Component 4 builds upon the existing networks and mechanisms in the region to further the goal of greater information sharing. The project products and tools were shared in following events

- UNISDR's Asian Ministerial Conference on Disaster Risk Reduction
- Annual Meetings of Regional Consultative Committee on Disaster Management (RCC)
- Participation at the Annual Mekong Flood Forums
- Participation at the Regional Disaster Emergency Response Simulation Exercise (ARDEX) of ASEAN Committee on Disaster Management (ACDM)
- Participating in Disaster Management Practitioners' Workshop for Southeast Asia
- Regional Workshop on Innovative Approaches to Flood Risk Reduction in the Mekong Basin
- National Information Sharing Networks ( DRR working Groups, JANI, DMWG, CCWG)
- National Level Flood Forums and Workshop

##### **3.6.2: Dissemination and knowledge exchange through *Safer Communities* series**

The multi-lingual (English, Khmer, Vietnamese, Lao and Thai) *Safer Communities* launched as part of the FMMP component 4 illustrates good practices of flood disaster preparedness and mitigation undertaken by either the government or non-government agencies with the goal of reducing the vulnerabilities and risks on the communities living in hazard prone areas in the Mekong Basin. The case study series provided decision makers, development planners, disaster management practitioners, community leaders and trainers with an array of proven ideas, tools, policy options and strategies derived from analyses of real-life experiences, good practices and lessons learned in Asia and the Pacific region, with a

specific focus on reducing community's risks and vulnerabilities and building more disaster resilient and better prepared societies.

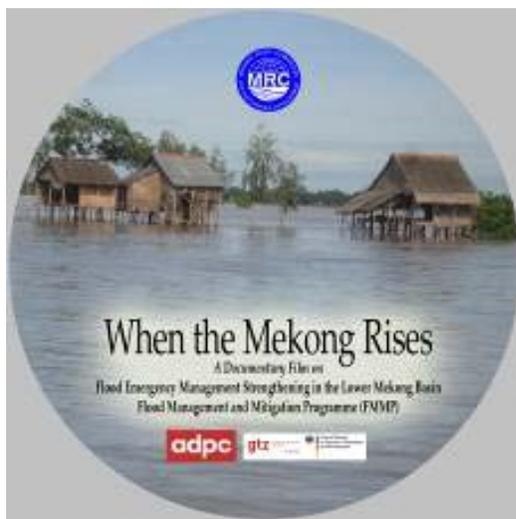
The first 16 Safer Communities case studies have been developed and disseminated widely with the contribution by GIZ since 2004 under the "Flood Emergency Management Strengthening" project, Component 4 of the Mekong River Commission (MRC) Flood Management and Mitigation (FMMP) program. The focus of these cases has been on flood risk management and their geographical coverage is limited to four MRC member countries of Cambodia, Lao PDR, Thailand and Vietnam. However, good practices from development partners from other countries and for similar hazard profiles are extremely important for cross fertilization of experiences. This documentation series will continue with funding support from other development partners. The **Table 8** provides the various case studies developed under Component 4 and disseminated so far

**Table 8: Safer Communities Case Stud**

Training Curriculum	Language
Case Study 1: Enhancing the Capacity of Disaster Management Committees in Cambodia. Developing and Implementing Flood Preparedness Programs	English, Khmer
Case Study 2: Improved Dissemination of Flood Forecasts through Community-Based Early Warning Systems. Building the local Capacity in Flood-Vulnerable Communities in Cambodia	English, Khmer
Case Study 3: Reaching out to the Public. Raising Community Awareness to Flood Risk Reduction in Cambodia.	English, Khmer
Case Study 4: Sustaining the Flood Preparedness and Emergency Management System in Cambodia. Creating the Momentum for Mainstreaming.	English, Khmer
Case Study 5: School Flood Safety Program: Building the Capacity of Teachers and Students in Flood Risk Reduction	English, Khmer
Case Study 6: Lending a Voice to the Most Vulnerable. Mainstreaming Gender Issues in the Flood Preparedness Programs in Cambodia	English, Khmer
Case Study 7: Creating a Safer Tomorrow for the Future Generations. A Comprehensive Approach to Ensure the Safety of Children in Vietnam	English, Vietnamese
Case Study 8: Reaching out to the Public. Raising the Awareness of the Community in Flood Risk Reduction in Vietnam	English, Vietnamese
Case Study 9: Flood Preparedness in Lao PDR Meeting the Challenges of Annual Mekong Flood	English, Vietnamese, Lao, Khmer, Thailand
Case Study 10: Ensuring Safety for the Flood Affected Communities :Safe area improvement in Cambodia	English Vietnamese, Lao, Khmer, Thailand
Case Study11: Public-private partnership for flood risk reduction in Vietnam	English Vietnamese, Lao, Khmer, Thailand
Case Study 12:Emergency kindergarten management and capacity building in Vietnam	English Vietnamese, Lao, Khmer, Thailand
Case Study 13: Good practices on flood and storm control planning in Vietnam	English Vietnamese, Lao, Khmer, Thailand
Case Study 14:Transboundary issues in Vietnam-Cambodia and Lao PDR-Thailand	English Vietnamese, Lao, Khmer, Thailand
Case Study 15: Common IEC material: Multi stakeholder partnership for flood risk reduction in Lao PDR	English Vietnamese, Lao, Khmer, Thailand
Case Study 16: Flood Information Management Systems: Reaching to Practitioners	Vietnamese, Lao, Khmer, Thailand

### 3.6.2: Voices from the Field: Video Documentation: “When the Mekong Rises “

In 2008, a documentary movie “When the Mekong Rises” showcasing the MRC’s efforts through the Flood Management and Mitigation Programme (FMMP), particularly under its component 4 was prepared and appreciated by the Member Countries. Due to time constraints and funding availability, the documentary covered the activities of Cambodia and Vietnam only. However, the national partners of Lao PDR and Thailand have suggested incorporating the activities in their country and making it available in all four languages to reach larger audiences as part of the efforts to upscale and replicate the model at a wider level. During the Phase 2, the documentary in four country languages has covered experiences of Thailand and Lao PDR in addition to existing experiences from Cambodia and Vietnam



This documentary film is about an innovative regional programme being implemented by the Mekong River Commission, to strengthen flood mitigation and management across the Mekong region.

The four countries of the Lower Mekong river basin – Cambodia, Vietnam, Lao PDR and Thailand, face annual flooding. The floods that swept the region in the year 2000 were the most devastating in recent history; and led to the realization that much of the loss from flooding could be avoided if only communities and governments were better prepared to face them.

It was in the wake of this disaster that the Mekong River Commission established the Flood Management and Mitigation Program (FMMP). As part of this

programme, the Asian Disaster Preparedness center (ADPC) has joined hands with the Mekong River Commission to initiate a special capacity building component called the Flood Emergency Management Strengthening (FEMS) program.

Under the FEMS program, pilot projects have been initiated in four provinces of Cambodia and Vietnam. These projects have developed an innovative model of integrated and community based flood preparedness that has proved far more effective in combating floods than past efforts.

The film demonstrates all important aspects of flood preparedness planning through actual field level case experiences. It features key actors involved in planning and implementation at various levels – government officials, community leaders, public awareness communicators and ordinary people.

Through their voices, a vivid picture emerges of the program, which can be used to inspire and guide similar initiatives, in flood affected regions all across the world.

### **3.6.3: International Workshop on “People Centered Flood and Land Management in the Mekong River Basin: Sustained Implementation and Planning for Future Challenges”**

The 3-day international workshop on People Centered Flood and Land Management in the Mekong River Basin: Sustained Implementation and Planning for Future Challenges was jointly organized by the Mekong River Commission Secretariat (MRCS), Asian Disaster Preparedness Center (ADPC) and GFA Consulting Group GmbH with funding support from Deutsche Gesellschaft fuer Internationale Zusammenarbeit (GIZ) GmbH. This workshop during 23-25 February 2011, brought more than 75 key national and sub-national officials of the Mekong Basin countries dealing with flood and land management and mitigation activities and share some of the exemplary interventions carried out in the region. These include; innovative practices of flood and land management and climate inclusive preparedness planning and implementation, Children’s Flood Safety and Public Private Partnership on Flood Risk Reduction.

In addition, participants from civil society organizations, International Red Cross and National Red Cross Societies, technical institutes, international organizations, UN agencies and children and young ambassadors from Lao PDR enhanced opportunities to share experiences and lessons, identify emerging trends and strategies, adaptation to further enhance people-centered approach to flood and land management and mitigation in the Lower Mekong Basin. The three workshop while acknowledging the progress made under the Component 4 and Component 5 funded by GIZ also come up with the following observations;

#### ***Component 4: Flood Emergency Management Strengthening ( FEMS)***

- Expected outputs delivered through “National Delivery Chains” – Line Agencies, provincial and district authorities, Red Cross and Civil Society Organizations
- Delivery Chains provides good indicator of sustainability
- Success and effectiveness of FPP products remains a challenge due to its scale, upscale and real time testing at a time of flood emergencies

#### ***Component 5: Flood Information based Land management( FIBLM)***

- Simple and robust tools to estimate flood behavior at locations across the flood plain
- Local flood maps (1:10,000) showing extend of inundation, depth and duration
- Valuable tools for flood risk management for better land-use planning
- Early Warning System for flood forecasting established at community level

### **6.2: Future Challenges and Suitable Options**

The workshop identified some of the future challenges for continuance of flood and land management activities at MRC are;

- How to upscale FMMP products produced, knowledge and skills built?
- Way forward with “people centered” approaches?
- How to mainstream Flood Information for improved Land Management at National level?
- How to mainstream Flood Preparedness and Emergency Management at National level?
- How to sustain systems (i.e. annual updating of FPPs at particularly Province and District levels) in future?

The suitable options are

1. Linkage with In-country Programs and ownership by member countries

2. Capacity building of “National Delivery Chains” to deliver at sub-national levels
3. Programmatic innovations to mainstream enhanced awareness, understanding, and skills built at national and sub-national personnel in the member countries
4. Up scaling strategy and continued support for practicing existing products and tools
5. Multiply and support “local champions”

**6.3: *Partnerships and Role of Regional Agencies***

- Regional Agencies remains important linkages (technical and coordination) for nationally formulated FMM and FRR programs and projects
- MRCS , ADPC , GFA remains supporter of Integrated approach for Flood and Land Management in addition to its core functions
- Credibility of regional partners are high within development partners
- Determination and commitment to stay the course

**6.4: *National Priorities and Core Areas of Interventions***

- Linking flood and land management into the larger risk reduction strategies to achieve local needs, national development goals, international commitments.
- Enhance Public Awareness through sustained “Delivery Chains” such as national media and knowledge management agencies
- Capacity building for line agencies in formulating and implementing flood and land risk reduction interventions
- Mainstreaming flood and land management approaches into development planning process
- Promote public private partnerships

**6.5: *Up scaling of Flood Information based Land Management issues***

- Up-scaling of flood probability information to larger areas is not only “nice”, it is “crucial”, it is “a must”.
- Users of flood probability information are various, like disaster management agencies, agriculture extension services, and land administration.
- Scale-up of the land management approach will create opportunities for the application at a larger scale, for instance the scale of the agriculture production unit areas.
- Up-scaling of the flood probability information to basin scale will have multiple benefits.
- It will have a significant positive impact on the management of the agriculture sector, on rice production and on food security.
- This application will be even be more valuable in case the impacts of climate change will have to be taken into account.

**6.6: *Knowledge Networking***

- Improve dissemination and use of knowledge management
- Linkages with national, international partnership forums
- Locally adapted knowledge management programs through technical institutions, Red Cross, and civil society partners.
- Creating enabling environment to meet, greet and exchange ideas
- Use of innovative tools (web portals) and knowledge management platforms

**6.7: *Funding Options and Resource Mobilization***

- Regional Partners continue to assist member countries to formulate national programs and investment for preparedness and risk reduction activities
- Core funding from national and sub-national developmental programs
- External Donor funding ( regional and national) mechanism for integrated flood risk reduction interventions
- Community contributions

### 3.7. Output 7: Trans-Boundary Flood Preparedness and Emergency Management

*Trans-boundary province to province cooperation in flood preparedness and emergency management has been deepened (FMMP- C3).*

**Overall Progress estimate: 100%**

#### **Key Result Obtained**

The unique role of Mekong River Commission (MRC) as a regional organization officially recognized to address differences and to facilitate bilateral agreements between its member countries with respect to trans-boundary issues presents a valuable opportunity for its programs to take on the challenge of addressing the trans-boundary matters. For instance, on land-use or structural flood mitigation measures, MRC could serve the member countries, upon invitation, as a neutral facilitator.

MRC holds the exclusive position to build confidence among the neighbouring countries through its ongoing program particularly under the Component 3: Enhancing Cooperation in Addressing Trans-boundary Flood Issues and Component 4: Flood Emergency Management Strengthening (FEMS) Project of the MRC's Flood Management and Mitigation Programme (FMMP). Component 3 of FMMP has essentially identified the need for neighbouring countries to tackle the effects of trans-boundary flooding and FEMS project is already implementing activities that lay the foundations for strengthened trans-boundary collaboration between the border provinces of Cambodia and Vietnam and of Lao PDR and Thailand.

The Component 4 took advantage of the regular trans-boundary meetings already being organized between the neighbouring provinces of Cambodia and Vietnam and of Lao PDR and Thailand, concentrating on trade and security matters. Although these meetings do not address the subject of emergency assistance during floods, provision of support occurs between border provinces as and when needed.

#### **3.7.1: Building the trans-boundary cooperation on flood risk reduction**

A trans-boundary flood issue is officially identified by the MRC as any "existing or potential substantial adverse impact on the natural, economic or social environment within an area of a Riparian State caused by activities in another Riparian State due to a change in water conditions during or after flood season". There are six common regional trans-boundary flood issues identified under the Component 3 of FMMP in the Lower Mekong Basin. They are listed below.

1. Floodplain developments within the Mekong Delta cause bilateral issues between Cambodia and Vietnam due to their upstream-downstream, and vice versa, relationship;
2. Developments in the upstream part of the Lower Mekong Basin, particularly in the Cambodian province of Kratie, impact on the Mekong Delta causing bilateral and multilateral issues for riparian member states;

3. Hydropower projects upstream of the lower Mekong Basin cause multilateral issues between MRC member countries and dialogue partners, China and Myanmar;
4. Hydropower projects in Se San, Srepok, and Se Kong river basins (3S area) cause bilateral issues between Vietnam and Cambodia and between Lao PDR and Cambodia;
5. Bank protection, port development, sand excavation and communication of dam operations in the upper reaches of the Mekong mainstream have caused bilateral issues between Lao PDR and Thailand regarding their left and right bank relationship; and
6. Increased floods on tributaries in northwest Cambodia have instigated bilateral issues between Cambodia and Thailand.

While the Component 3 of FMMP attends to identification of trans-boundary issues at the national and regional level and to building of national capacities to address these issues, FEMS Project (Component 4) look at enhancing the flood emergency management between neighboring provinces of the two sets of countries: Cambodia-Vietnam and Lao-Thailand.

### *3.7.2. Improving the flood emergency assistance between the border provinces of Cambodia and Vietnam*

When Kandal and Prey Veng provinces of Cambodia and An Giang and Dong Thap provinces of Vietnam were selected as target areas under FEMS Project, border provinces situated next to each other, a unique prospect of promoting trans-boundary flood emergency assistance was set in motion. The institutional analysis studies conducted at the beginning of the project revealed the tradition of biannual meetings between border provinces and quarterly meetings between border districts, hosted by each entity in turn. Provincial delegations usually headed by the Provincial Governor from Cambodia and the Chair of the Provincial's People's Committee from Vietnam met and discussed issues on technical cooperation in agriculture, cross-border trade, migration and border security. The outcomes of the meeting were usually a cooperation agreement for the next six-months. Since the meetings were normally only half-day, the discussion issues and related documents to be endorsed were generally agreed upon by the authorities in advance.

In terms of flood emergency cooperation, mutual assistance and relief operations existed. For instance, during 2000 floods, An Giang province donated rice, fuel, food, water pumps, speedboats and mobile shelters to Kandal province. However, FEMS Project consultations with provincial authorities disclosed the need for stronger linkages and cooperation in flood risk reduction and emergency assistance.

Building on this existing mechanism, the provincial disaster management authorities in conjunction with national counterparts worked on the inclusion of trans-boundary emergency assistance and flood preparedness into the regular meeting agenda.

The first half-day preparatory meeting on trans-boundary flood emergency assistance was hosted by Kandal provincial committee on disaster management (PCDM) in 2006 and attended by officials from Kandal and Prey Veng provinces of Cambodia, An Giang and Dong Thap

provinces of Vietnam, MRC-FMMP, NCDM-Cambodia, DDMFSC-Vietnam and FEMS Project team. It was organized to take advantage of the presence of the provincial and district counterparts from Vietnam in the Kandal province, who came for the ASEAN Regional Disaster Emergency Response Simulation Exercise (ARDEX-06). The purpose of the meeting was to initiate a dialogue on cooperation on flood preparedness and emergency assistance between the border provinces.

The second technical meeting was held in early 2007 in An Giang province between Kandal PCDM and An Giang provincial committee on flood and storm control (PCFSC). Representatives from Prey Veng and Dong Thap provinces, Cambodia and Vietnam National Mekong Committees (CNMC and VNMC), NCDM-Cambodia, DDMFSC-Vietnam and FEMS Project team were also present.

The two meetings resulted in a framework for cooperation that consisted of priority disaster management activities listed below:

- Conducting joint search and rescue practices.
- Provision of integrated health care.
- Exchange of forecasts information, monthly exchange from June to November, in urgent cases exchange via the provincial authorities, production of joint electronic newsletter.
- Preparedness and prevention of potential health concerns such as Avian influenza, insect and animal diseases during the flood season.

Three months after the 2<sup>nd</sup> meeting, the above four priority areas of cooperation were successfully lobbied to be included in the agenda of the biannual meetings between Kandal and An Giang.

In the first quarter of 2008, during the study tour of Cambodian disaster management officials to Vietnam, Prey Veng and Dong Thap provinces again discussed issues on trans-boundary flood emergency management and the provincial officials agreed on cooperation in implementing a community-based early warning system.

In the last quarter of 2009, one more technical meeting between Kandal and An Giang provinces was organized in Kandal province with the involvement of the An Giang Department of Foreign Affairs (DoFA). Additional areas were identified such as river bank protection project and bridge construction across the river but unfortunately these items were not included in the regular meeting agenda due to limited resources available under FEMS Project and of the provinces. Nevertheless, the matters will be addressed further under Component 3 of MRC-FMMP with support from FEMS Project.

### **3.7.3: Provincial level joint planning in An Giang and Kandal (VN-CAM)**

The bilateral meeting between the provincial authorities of An Giang and Kandal on transboundary flood preparedness and emergency management taken place on 05.11.2010 in Long Xuyen city, An Giang province. The meeting was jointly presided by Vice Chairman of An Giang People's Committee and Deputy Governor of Kandal province and Vice Chairman of Provincial Committee for Disaster Management (PCDM). The draft joint plan document was reviewed. The meeting was represented by National Committee for Disaster Management (NCDM) of Cambodia, DDMFSC in HCM Vietnam, CNMC and VNMC, and representatives from provincial line Departments. The provinces agreed to meet one more time in Kandal Province to finalize the following agreed joint activities and signing MoU for cooperation.

- *Joint Cooperation on Search and Rescue during Emergency, Caused by the Mekong Flooding.*
- *Dissemination and sharing flood forecast and early warning information during flood season.*
- *Facilitation of Administrative Protocols, and Procedures in providing humanitarian Assistancess and other relevant supports during emergency situation caused by the Mekong flooding.*
- *Integration of flood preparedness and emergency management cooperation into regular meeting between 02 provinces*
- *Cooperate On Construction of River bank to prevent and mitigate river bank erosion*
- *Cooperation on Agricultures and Animal Diseases (Bird flu H5N1, Avian Influenza A-H1N1, and Blue Ear virus, etc.)*
- *Cooperation on Health care*

### **3.7.4.: Intensifying the flood risk reduction cooperation between neighboring provinces of Lao PDR and Thailand**

In 2007, at the provincial flood preparedness program development training held in Khammouane province of Lao PDR, provincial officials from Nakhon Phanom province of Thailand and representative from Thai National Mekong Committee (TNMC) were invited to participate. At the training, a two-hour plenary discussion took place on province-to-province trans-boundary flood assistance within the overall framework of FMMP.

The discussion paved the way for convening of a more extensive meeting in December 2007, attended by Lao and Thai National Mekong Committees (LNMC and TNMC) and Lao and Thai National and Provincial Disaster Management Officers. Both countries shared information on existing disaster risk reduction and development initiatives being undertaken in their respective countries, providing the participants with opportunities to learn of replicable noteworthy community based interventions that were taking place in their neighbouring provinces. The final result of the meeting was the identification of priorities areas for cooperation such as:

- *To share and exchange of flood information and warning through information sharing centre or coordination centre: Khammoune provincial Labour and Social Welfare Department and Nakhon Phanom provincial Department of Disaster Prevention and Mitigation were named as focal points.*

- *To conduct joint training, basically the Training of Trainers (ToT):* Khammoune province will design the training program with complete list of potential trainers from each district/village. The actual training is to take place in Nakhon Phanom province since they already have training facilities in place.
- *To conduct joint academic seminar between the two provinces.*
- *To conduct field trip or educational tour of provincial officials on community based disaster risk management (CBDRM):* Khammoune officials to visit project areas in Nakhon Phanom province.
- *To conduct joint drills and exercises.*

Since the previous governor of Nakhon Phanom province has signed a Memorandum of Understanding (ARDEX Framework in ASEAN Agreement) with the Khammouane Governor on Trans-boundary Emergency Cooperation Assistance, both provinces could work on inclusion of the above mentioned cooperation in the Memorandum of Understanding and link the program with Khammouane Socio-economic Development Plan.

The political support in Lao on trans-boundary issues is significant. At the write-shop for Flood Preparedness Planning Manual for Lao in 2007<sup>3</sup>, the Lao National Mekong Committee (LNMC) accorded importance to the trans-boundary issues by urging its inclusion in the Manual. As a consequent, an additional chapter solely focusing on trans-boundary issues was included in the final version of the Lao Manual. This plainly indicates that trans-boundary issues are not simply confined to resolution of disputes but also to share and learn from one another and replicate good practices.

A preliminary activity for the development of a detail joint plan was carried out in 2009 in the form of a provincial meeting. The meeting decided that internal consultations within respective provincial disaster management offices in Khammoune and Nakhon Phanom would be arranged to draft a plan to be endorsed at the next meeting that is likely to take place in the middle of 2010. It is anticipated that the upcoming meeting will also address to a considerable extent the strategy and approach for integration of trans-boundary issues into development planning at the provincial levels.

### **3.7.5: Provincial level joint planning started in Khammouane and Nakhorn Phanom (Lao-THAI), Thailand**

- Internal meetings of each sides held in Khammouane and Nakhon Phanom to discuss the possible cooperation and draft joint plan was drafted based on the meetings;
- The bilateral Trans-boundary Cooperation meeting on Flood Preparedness and Emergency Assistance between Provincial Disaster Management Committee, Khammouane Province, Lao PDR and Provincial Disaster Prevention and Mitigation Office and Team, Nakhon Phanom, Thailand was held on 10.11.2010 in Thakek, Khammaoune province. The two

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<sup>3</sup> More information on FPP Manual development in Lao PDR is provided in Chapter 2.

provinces which has limited institutional setup for trans-boundary assistance (although they cooperate each other) have reviewed the joint cooperation plan with following key cooperation areas

- *Establishment of the information sharing and coordination center,*
  - *Training of Trainers,*
  - *Academic seminar*
  - *Field trip or education tour and*
  - *Disaster drill*
- The meeting discussed and shared their resources and capacity, required cooperation, limitations and opportunity for cooperation in future and agreed to report the trans-boundary cooperation on flood preparedness and emergency assistance to provincial governors and concerned Ministries and bring this issue for discussion as an agenda of the regular border committee meeting which is conducted once every three years.

### 3.8. Output 8: National Flood Risk Reduction Assessment

*Conduct assessments of existing capacities and needs to mainstream the flood preparedness and emergency management activities in all member states*

**Overall Progress estimate: 100%**

#### **Key Result Obtained**

During the end of the Phase 2, the national framework assessment reports of the four MRC member countries were completed. The main purpose of the report is to assess the national framework of:

- awareness-raising and enhancing of people's capacities in dealing with floods,
- flood preparedness programs (FPP), and
- development plans containing flood preparedness and emergency management

and to make recommendations to the national and provincial partners in mainstreaming of the above activities. The recommendations are useful for the national government, donors and partners to prepare a new support projects and programs to continue or extend the good practices in other needed areas. It would help clarify which areas are to be strengthened and gaps to be filled. The following is a summary of the assessment of each of the four MRC member countries.

#### **Cambodia:**

Government agencies and the population need to know how to best act before, during and after floods. The utilisation of standards and best practices and sharing these with local authorities, partner organization and beneficiaries. NCDM should be a center of knowledge management and take charge in the effective and organized coordination among stakeholders at all levels. NCDM can use legal instrument and its network to reach out wider geographical areas and beneficiaries in vulnerable areas. More funds are required for continuing the activities of FEMS which is mainly of pilot nature and for the long-term the mainstreaming FRR in development planning. The future program should focus on multi-hazard approach.

The FPP should continue to be in line with the decentralization and deconcentration process. It is necessary to have FPP/DRR integration into commune development planning and to ensure sustaining the strong link to the national 5 year development planning.

Regarding the ToT Training the NCDM and its sub-structure can take serious role in mainstreaming the ToT training in the whole country. NCDM should collect curricula from several sources and issues a national curriculum. Most efficiently, a core group would be organized, which has the responsibility to organize trainings in the provinces and districts by themselves. The new decentralized government system might be the key on how to institutionalize and mainstream the awareness-raising campaigns on village-level. As soon as Disaster Management Teams are established on the village-levels - and if they are properly trained, for example indirectly through the core group of Trainers on the national level - an outreach to all villages in the country could be achieved if funds for this can be acquired. If the

institutional set-up on all levels is established well, this could be done in a very efficient way. Campaigns in schools on the other hand fall under the responsibility of the Ministry of Education (MoE). Institutionally the most important anchor-point could be to discuss, how the awareness-raising can be streamlined into the regular curriculum of (for example) secondary schools. In mid-term the topic of Flood Management can certainly most effectively mainstreamed, if it is integrated into the curriculum into those universities and colleges, which are responsible for teachers education.

### **Lao PDR**

Some aspects of sustainability of FEMS's work are already reality, as the use of FPPs, IEC materials and ToT training materials in Attapeu, Sekong and Saravanh by the OSPDM Project (supported by World Bank) or the receipt of ToT materials by the Ministry of Education.

NMDO should be leading agency in the disaster management working group which facilitates exchange of information beyond to what is already being done informally. The working group should enhance experience exchange between the organizations and other forms of knowledge management. Alternatively might the Disaster Risk Reduction Platform which is currently to be promoted by the French Red Cross take a similar role. The NDMO is already an active member of an Inter-Agency Steering Committee (IASC) which coordinates the DM activities among the UN agencies, INGOs, etc. From the side of the Lao government, most importantly NDMO and NDMC need to be strengthened, with NDMO acting as a pro-active secretariat of NDMC. Both an increase of NDMO staff and continuous strengthening of available staff and its effective and greater role in institutional structure of NDMO would be highly useful. By NDMO increasing the status of NDMO the problem of lacking of budget may be resolved.

To sustain the FPP in the existing target areas mainstreaming could be better done with the guidance and financial support of higher-level authorities (e.g. Department of Planning in the Province) this might however not happen by the initiative by the Districts themselves. Stakeholders from all relevant line-agencies should participate in the process, which will automatically increase the number of activities formulated. The resulting FPPs should be distributed back to all line agencies. Districts should try to acquire funds not only from government sources, but also from the private sector and development projects. Many donors would be well-prepared to support activities, which are based on a participatory and needs-based assessment. If the FEMS approach is to be made sustainable within the government structure it needs to be integrated into already available and practiced processes.

Campaigns in schools fall under the responsibility of the Ministry of Education (MoE) and its sub-national departments at provincial and district levels. The Ministry has shown high interest in the approach and awareness-raising activities have already been handed on to the schools under the FEMS. Institutionally however it is the most important anchor-point, how the awareness-raising can be streamlined into the regular curriculum. In mid-term the topic of Flood Management can certainly most effectively mainstreamed, if it is integrated into the curriculum in universities and colleges.

## **Thailand**

There are no major recommendations on the overall regulatory set-up, as the system is generally well-functioning. It has been shown that the overall structure of the Thai government in awareness-raising for flood management is very functional and effective. For the sustainability and outreach of the FEMS's work it should however be analyzed how to advertise the approach to places outside of the target-areas and in ideal to the whole of Thailand. A limiting factor to this is certainly the availability of funds. One crucial idea to raise the availability of such funds might be to combine the responsibilities for compensation payments and awareness-raising at one single institution. Such an institution would have a self-interest to reduce damages though floods by awareness-raising campaigns in order to reduce compensation payments. Currently the budget for these two areas is divided. Provincial DPM and the Tambon Administration Offices decide about budget for disaster management (and sends these priorities to the line-agencies) but the Thai central government pays the compensations (more than 1B \$ yearly). Another idea is not to solely rely on the government structure, but also use public private partnerships.

## **Vietnam**

### **Bridging ground practices to the policy development**

In Vietnam, sustainability of the activity is highly depended on the policy level, where the instruction is given to lower levels for field application. It is, therefore, recommended that a support to the current policies development via a direct connecting and bringing the ground levels implementation results in is needed.

### **Continuous strengthening partnership**

The FEMS has significantly contributed to the partnership building included the sector-coordination, level-coordination. Successfully, it also promoted the public-private partnership in the implementation of the national CBDRM program. It, however, still needs to invest further effort to support government fully achieve what they have identified in the National Strategy and the CBDRM program. In addition while the coordination and partnership at national level is for the policy and guidance development, a similar mechanism would be established at the provincial level where policies and guidance are being practiced.

### **Continuous integrating the climate and disaster risks into the socio-economic development planning**

Given the fact that level of integration is more or less depending on the sectors where the degree of impact from natural disasters is different. Some sectors more or less have the integration of DRR into their development plan. However, this has not been yet seriously considered in a common and understandable ways in planning procedures of all sectors and provinces. Therefore the promotion of the integration would has a direct link with the policy development and generation of awareness and consciousness among decision makers and the country as a whole

### **Continuing to build capacity at local levels at high risk areas**

Although community capacity to cope with climate and disaster risks has been improved in the recent years, there still needs to pay more effort in building up their resilience, especially for the poor communities who have less capacity than others. The CBDRM program is soon being implemented over the 6,000 disaster-prone communes by the join-effort of government, international partners, civil organizations and Vietnamese citizens. A scaling up the successful lessons learned to other high risk areas would be helpful. It, however, would be more sustainability if building resilience capacity should has direct link with the community daily livelihood activities rather than focusing only on the disaster preparedness and prevention. Equally important, the increasing of participation and voice of vulnerable groups and civil society organizations involvement in decision-making, together with the establishment of the community information feedback system will improve the performance of the government service provision in terms of being able to integrate community-based plans into the SEDP and sectoral planning frameworks.

## **5. Problems during the implementation**

No Major problems faced by ADPC in implementation of the project activities as the project activities were executed through a partnership agreement signed between Mekong River Commissions Secretariat, National Mekong Committee and National Disaster Management Committees in Member Countries and Asian Disaster Preparedness Center at the initial stage of project launch. The role and responsibilities identified by each stakeholder were clearly outlined and performed. The establishment of the Result based Monitoring (RBM) System by GIZ at the MRCS helped periodic monitoring of the activities.

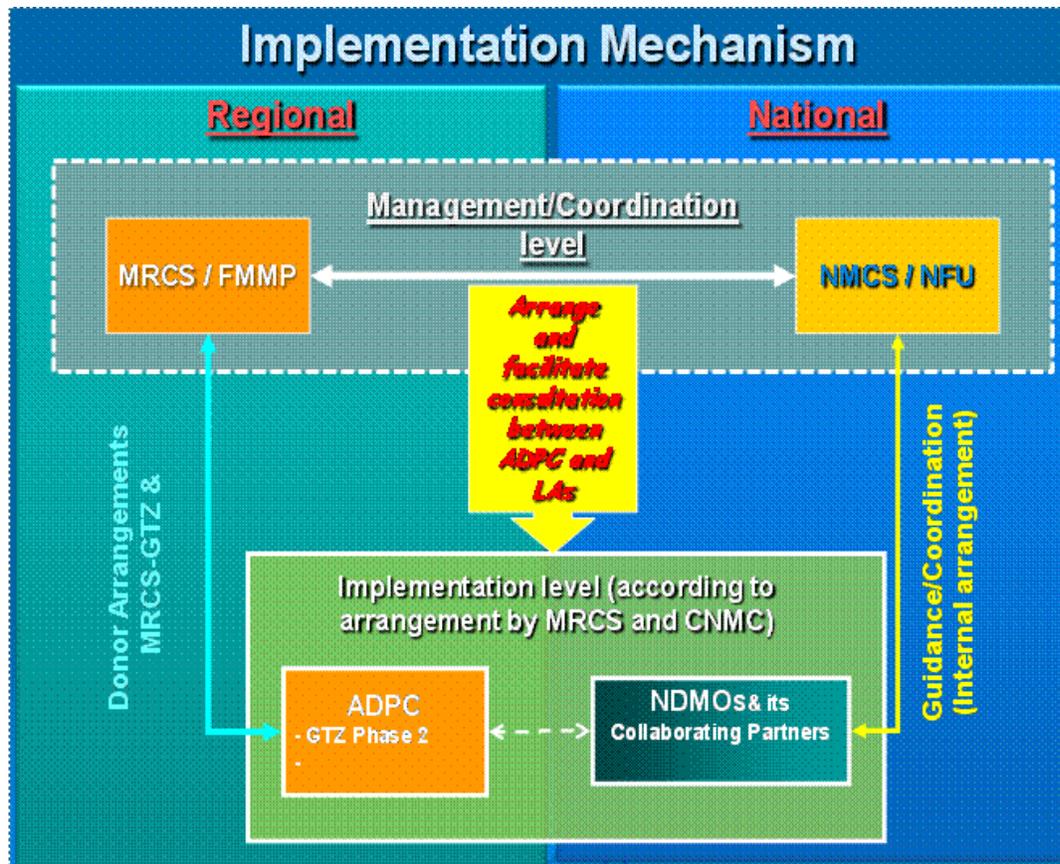
The FMMP Project Coordination Committee (PCC) meeting every quarter helped in reviewing field level difficulties and proper guidance was provided by the National focal points in each Member Countries.

The pro active role played by the National and Provincial Disaster Management Committee in the target provinces ensure major slippage from agreed workplan every quarter.

## 6. Analysis and Assessment

### 6.1. Executing agencies and identification of the target group with the project

#### 6.1.1: Executing Agencies Role at the inception



#### 6.1.2: Executing Agencies' Performance Assessment during Implementation

##### a. Contributions by the MRCS/FMMP

###### Target:

- To ensure coordination between FMMP components.
- To facilitate information sharing and smooth communications and coordination with NMCs in the four MRC member countries.
- To provide support in project implementation.
- To participate in meetings and workshops at local levels

###### Actual Contribution:

- *Overall program monitoring and specific guidance provided*
- *Regular FMMP Program Coordination Committee (PCC) Meeting held.*
- *Progress sharing with MRCS, JPC and Steering Committee*
- *Participation in activity implementation .*

## **b. Contributions by NMCs and NDMOs**

For NMCs

Target:

- To ensure that project implementation in the four MRC member countries are effectively coordinated.
- To support/participate in provincial/district activities/workshops.
- To coordinate the project implementation with concerned line agencies

Actual Contribution:

- *Coordinated meetings and discussion with concerned line agencies*
- *Participated in meetings and workshops at local levels*

For NDMOs

Target:

- To ensure the project implementation in the four MRC member countries are effectively implemented.
- To co-operate and conduct meetings and workshops at different levels.

Actual Contribution:

- Lead role in implementation of agreed activities
- Organized and participated in the review meeting
- Participated in progress review meeting

## **6.2. Methods and Work Procedures (specialist assessment)**

No specialist assessments were conducted on the methods and works procedure. However, GIZ had conducted the 2 result based monitoring mission to which the executing agencies provided all necessary inputs.

In January 2001, GIZ had conducted the computer based evaluation programme "e-VAL" to assess the performance of the project.

### 6.3. Inputs and outputs

The Component 4- Flood Emergency Management Strengthening during its phase 2 implementation addressed flood emergency planning. Specific aspects include capacity building in flood preparedness at district, provincial and national levels; capacity building in flood awareness at the district level; and inter-province and inter-country (trans-boundary) assistance. As per the assessment carried out during the overall FMMP (2004-2010) assessment, it was noted that the five component of FMMP delivered the follow outputs ( **Table 10**)

**Table 10: FMMP I Products**

PRODUCT GROUP	FMMP I COMPONENT					
	C1	C2	C3	C4	C5	Total
1. A Regional Flood Management and Mitigation Centre.	1					1
2. The Monitoring and Sharing of Hydro-Meteorological Data.	5					5
3. Flood Forecasts and Warning Information.	5				1	6
4. Flood Simulation Models.	2	3	1		1	7
5. Knowledge Base of Flood-Related Data and Information.	5	6			1	12
6. Trans-Boundary Flood Risk Management Tools.			3			3
7. Lists of National Flood Risk Management Projects.		4				4
8. Demonstration and Pilot Projects.		5	1	5	4	16
9. Best Practice Guidelines and User Manuals.		11	1	8	1	21
10. Capacity Building and Technology Transfer.	5	4	1	9	5	24
<b>Total</b>	23	33	7	21	13	98

During the same time, the assessment of the Component 4 outputs was also assessed by the NDMOs of the Member Countries. It was noted that

- Expected outputs delivered through “National Delivery Chains” – Line Agencies, provincial and district authorities, Red Cross and Civil Society Organizations
- Delivery Chains provides good indicator of sustainability
- Success and effectiveness of FPP products remains a challenge due to its scale, upscale and real time testing at a time of flood emergencies

Further analysis of input and outputs of Component 4 is provided in **Annex-2**

#### **6.4. Consequences for the target group/region/country**

The countries of Lower Mekong Basin (LMB) have enjoyed significant economic growth in the recent years, that has resulted in the considerable improvement in the living standards of its citizens. Since the first State of the Basin Report in 2003, Lao PDR and Cambodia have moved out of the UNDP's development index of nations with low income classification and all four LMB countries are now classified as middle-income states. Nevertheless, the rapid growth and wealth has many consequences on the Mekong River, its ecosystem and its communities; just to name a few the rising population, encroachment upon natural flood plains and exploitation of natural resources of Mekong Basin. Additionally, the prosperity remains within the confines of the economically strategic urban areas and it has not trickled down to many of the rural population in the Basin who are still living under the poverty line. The strong linkages between their livelihoods, food security and the resources offered by the Mekong is still considerably fragile that any disruption to the ecological and social systems of the Mekong can have serious ripple effects on the lives of the Basin communities.

According to the State of the Basin Report 2010 of MRC, the overall population has increased by about 12 per cent since 2003 (55 million) although the trends vary between countries: 25 per cent increase in Cambodia, by about six per cent in Lao PDR, the same in Thailand and about 10 per cent in Viet Nam. The growing population put pressure on the natural resources such as clearance of forests for agriculture, fuel and fodder needs. At the same time implementation of development activities in terms of infrastructure for roads, railways, and urbanization are changing the natural drainage systems within the Basin.

An additional point stressed by the State of the Basin Report is the changes that have taken place in water related resources in the Basin over the past five years. As per the data collected, almost one in six households have members who have changed occupation because of declining productivity and services of the aquatic ecosystems. The consequences are serious suggesting increase in vulnerability of the communities to declining availability, quality, and diversity of the resources.

Under the scenarios anticipated by the Intergovernmental Panel on Climate Change (IPCC), because of climate change, subsystems of the global water cycle are likely to intensify, resulting in an increase of flood magnitude as well as flood frequency. This in turn can lead to soil erosion with loss of fertile soil and increasing diffusive pollution. The climate change induced erratic rainfall patterns such as high rainfall in short period and increasing dry days may decrease the amount of water recharge for groundwater, decreasing low flow in the river, lake and reservoir regulation and increasing the temperature, thereby affecting the water environment (fauna and flora). The loss of ecosystems can lead to accelerated loss of agriculture (due to land loss, soil salinization and reduced water availability) and also in water shortages. Dry season can get dryer with frequent drought occurrences.

The widespread loss of wetlands<sup>4</sup> in the Lower Mekong Basin also has vital effect on the Basin environment. Over the decades, vast areas of natural wetlands have been converted to other uses such as construction of reservoirs, increase in agricultural land and settlement areas for growing population. Exacerbating the impacts are the increase amount of silt and sediment in rivers and wetlands due to extensive deforestation, agriculture, mining, and road construction in the Basin. Too much silt can clog up the gills of fish, suffocate freshly laid eggs, affect nursery grounds of juvenile fish and reduce the amount of light penetrating the water – reducing plant survival which in turn feed the fish. Furthermore, the anticipated impacts of Mekong mainstream dams construction are far reaching with a possibility of altering the hydrology and river patterns including water temperature and its quality all of which have massive impacts on aquatic life.

Taking into consideration the planned developments in the Lower Mekong Basin over the next 20 years, the impacts of climate change and the poverty reduction in the region, a more coherent and holistic Mekong Basin Management approach is in urgent need.

Up until the Year 2000 Floods, MRC flood management activities were essentially limited to the provision of mainstream flood forecasts along the Mekong River. Since 2004, the Flood Management and Mitigation Programme with its 5 components has undertaken a wide range of activities to assist with the management of flood risk in the LMB. Activities under the FMMP including Component 4 matched within the national legal framework and socio-economic national plans and outputs are directed towards pro-poor development support. MRC does play a strategic role in regional pro-poor development efforts as MRC's programme has major impacts e.g. through basin development planning, environmental protection, social impact assessments, risk management and emerging issues like climate change. The FMMP and its 5 component had strong pro-poor impacts:

- Poor people are the most adversely affected by floods as they usually live in the most flood-prone areas. Appropriate flood preparedness and emergency management is translated into enhanced capacities and effective flood warnings which directly benefited vulnerable communities.
- Flood proofing measures and the emergency flood management strengthening address the poverty alleviation issues directly. Reliable and timely information on an upcoming flood and warning of its consequences may indirectly contribute to poverty reduction.
- Elderly people, women and children belong to the most vulnerable groups of society. Effective capacity building reduce their vulnerability.

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<sup>4</sup> Less than two per cent of the area's original inland wetlands remain.

## 7. Conclusions

Flood preparedness and flood emergency management strengthening remain core elements of MRC's Flood Management and Mitigation Programme (FMMP), as these address directly the needs of the flood vulnerable communities, and also indicate / guide the strengthening and operations of government agencies in the Member Countries at different levels: nation, provincial, district and commune, and of national and international NGOs. This is vital for enhancing communication, coordination and cooperation between these stakeholders, as well as the consistency of national disaster management and mitigation policy implementation.

The experiences so far clearly show that increased capacity of the key officials of the provincial, district and commune Disaster Management (DM) committees has led to a better flood preparedness in the selected provinces in the member countries mainly Cambodia, Lao PDR, Thailand and Viet Nam. Active involvement of national government and local authorities in the formulation and implementation of the Flood Preparedness Programs (FPP) has been a major step to ensure ownership and sustainability, in addition to the activity of integrating Flood Risk Reduction (FRR) into local development plans. The flood preparedness and emergency management initiatives has helped target provinces better prepare for floods.

While the FMMP contributions is widely recognized by the member countries as time-bound "pilot" initiatives, covering some of the vulnerable provinces and districts, and improving the competencies in dealing with the Mekong floods, a longer term programmatic approach and up-scaling to a wider geographical area is required to ensure that the flood management and mitigation policy objectives are solidly embedded into the national disaster management strategies of the Member Countries.

The role and mandate of the MRC, being an inter governmental regional organization, provide it with the unique position and niche, which allows connecting the FMMP with the on-going development and disaster risk reduction efforts in the region, as the MRCS works through its Member Countries to implement programs at the national, provincial and district levels. The MRC has thereby created a receptive environment for the implementation of a range of dedicated interventions at the commune level. The flood management and mitigation tools developed by the MRC have a basin wide approach and can be applied to support local level interventions.

With the current FMMP phase ending in 2010, the formulation of the next FMMP phase would seek a long term partnership with national stakeholders from Member Countries and the donor communities to continue its focus on enhancing capacities of the vulnerable communities on solution based flood risk management. The lesson learnt from the various components of FMMP and particularly from Component 4: "Flood Preparedness and Emergency Management

Strengthening”, points to the significance and benefits of continuing innovative flood focused activities in order to reduce the risk of negative impact by floods on the livelihoods of the people living in Lower Mekong River Basin. Key priorities for a people centered approach to flood management and mitigation in the Lower Mekong basin would need the followings.

*i. Upscaling the implementation of FMM activities*

Although direct engagement of national and local authorities in Flood Preparedness Programs (FPP) development and implementation has yielded positive results, notably in promoting sustainability and ownership of the programs and in initiating mainstreaming of Flood Risk Reduction (FRR) into local development planning, so far, less than 30% of the vulnerable provinces of the LMB have been covered under the MRCS-FMMP projects since 2003. For the positive impacts to be felt throughout the entire LMB, a systematic planning is required to carry out upscaling of past and current FMM activities beyond the MRCS-FMMP pilot areas.

However, care is to be taken in handling this since each of the MRC’s member countries has a different level of institutional capacity and needs. Vietnam has approved in 2007 its National Disaster Risk Management (DRM) Strategy 2020, and started implementation with national and externally aided programs. Cambodia has recently launched its Strategic National Action Plan (SNAP) for DRR in 2008, and has yet to explore sustained implementation mechanisms. Lao PDR on the other hand had a National DRM strategy, but the overall implementation is still to be completed. Bolstered by the presence of such national strategies and the rising awareness in the region towards the importance of FRR, this is the high time for MRC and its partner agencies to expand their activities in LMB.

*ii. Improving the Internal Coordination Structure*

In tune with integrated water resources management (IWRM) approach, the fundamental concept upon which MRC was founded, sustained efforts need to be made to maintain a balance between the wide ranging on-going programs being implemented by MRC<sup>5</sup>. The multi-disciplinary programs of MRC have so much to gain from one another and the linkages are apparent. For instance, the researches being undertaken in Navigation Program could contribute greatly to the economic growth of the basin under its Basin Development Program. At the same time, the flood risk reduction initiatives of FMMP should be viewed as cross cutting issues for all the Basin wide programs. Thus, enhancing the information flow between the programs would momentarily profit, in general, the success of the MRC works in the Basin. Concrete mechanisms such as forums and platforms, that are regular affairs with focused points of discussion, for strengthening collaboration can be defined and included as part of the overall coordination.

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<sup>5</sup>MRC’s ongoing programs: Environment Programme, Basin Development Plan, Water Utilization Programme, Integrated Capacity Building Programme, Agriculture, Irrigation and Forestry Programme, Fishery Programme, Navigation Programme and Water Resources Management Programme.

### *iii. Strengthening the Capacities of the Member Countries*

All four MRC member countries possess more than basic technological know-how to implement some form of water-related risk management measures although the level of capacity may differ. They have extensive experience dealing with flood emergency and know how to prepare for the annual floods. However, in times of the rapid economic growth and increased concerns over the impacts of climate change on the flood patterns in Mekong, the question of keeping abreast with such issues become central to ensuring the sustainable development in the region. Hence, a comprehensive capacity building program based on the concepts of Integrated Water Resources Management (IWRM) is essential to addressing not just the forecasting capacities in the MRC member countries but also the improvement of their understanding on the emerging factors influencing the flood pattern in the Mekong.

Two level of capacity building can be considered:

- *National level:* Capacity building of the national authorities on IWRM concepts to assist them in formulation and implementation of sustainable development policies and programs.
- *Sub-national level:* Capacity building of local authorities on IWRM concepts and provision of assistance to enable them to facilitate awareness raising of the public and to oversee interventions on the grounds are in tune with the IWRM practices.

### *iv. The need for greater engagement with the community*

For flood risk reduction measures to be sustainable and successful, they need to be the products of local decision-making, based on local knowledge, considering the local situations. Early warnings, no matter how accurate they are, can be termed effective only if they reach the affected people who have to respond to such a situation. Hence, increased importance should be attached to the inclusion of more community-based activities in the future flood management and mitigation programs of MRC. To achieve this, greater engagement with community living in the Mekong Basin is imperative. Community consultation at the stage of formulation and development of the program can help identify their needs on the ground and ensure proposed activities are aligned with their needs. Through community consultation, their specific roles and responsibilities can also be clearly defined for the implementation stage and enhance their buy-in and ownership of the programs.

### *v. Coordinating Flood Management Efforts with National Poverty Reduction, Development and Climate Change Adaptation Plans of Member Countries*

Based on the understanding that the basis of sustainable development in communities, that are vulnerable to natural disasters such as those in the Mekong Delta, is to synchronize the needs for socio-economic development with flood risk reduction requirements, future flood management programs should certainly advocate for more coordinated efforts at the national

level in mainstreaming flood risk reduction into the development related plans including their poverty reduction and climate change adaptation strategies.

Its status of inter-governmental organization accords MRC with a unique opportunity to directly work with the national agencies of its member countries. Taking advantage of the presence of National Mekong Committees (NMCs) that can act as advocates of mainstreaming efforts, future programs can take the achievements from Phase I (integration into local development planning under Component 4) further with heightened engagement at the national level.

### Annex- 1: Key Results Obtained (2008-2011)

Expected Outputs	Actual Outputs/Products			
	Cambodia	Lao PDR	Thailand	Vietnam
<b>Output 1: Strengthen Capacities and Build Partnership for Flood Public Awareness</b>				
<ul style="list-style-type: none"> <li>• <b>Flood related IEC Materials</b></li> </ul>	<p><b>Publication</b></p> <p>IEC and public awareness materials had been revised and printed in following quantities are:</p> <ul style="list-style-type: none"> <li>- Flood Poster A1 size = 4605 sheets</li> <li>- Flood Poster A4 size = 6105 sheets</li> <li>- Drought booklet = 921 books</li> <li>- Flood booklet = 921 books</li> <li>- Teacher Information Kit = 621 kits</li> <li>- WHH Brochure = 300 sets</li> <li>- Leaflet on Safer Communities = 300 sets</li> </ul>	<p><b>Publications</b></p> <ul style="list-style-type: none"> <li>• Flood Posters A1: 3000 copies</li> <li>• Children Drowning Protection: 1000 copies</li> <li>• School Safety Posters 1000 copies</li> <li>• Flood posters A4 - 5,000 copies</li> <li>• Flood booklet - 1,000 copies</li> <li>• Teacher information kit- 1,000 copies</li> <li>• 500 DVD on SFSP</li> <li>• 500 SFSP kits</li> </ul>	<p><b>Publications</b></p> <ul style="list-style-type: none"> <li>• IEC materials and training manuals collected</li> <li>• Flood booklet - 2,000 copies</li> <li>• Booklet: Flood, Storm and Landslide - 2,000 copies</li> <li>• Poster A1: Flood, Storm and Landslide - 2,000 copies</li> <li>• Leaflet: Flood, Storm and Landslide - 2,000 copies</li> <li>• Disaster Preparedness Manual – 2,000 copies</li> <li>• Poster A4: 10 Diseases after flood – 2,000 set</li> <li>• DVD: Radio spot: After flood disease protection -1,000 copies</li> <li>• DVD: Radio feature: After flood disease protection – 1,000 copies</li> </ul>	<p><b>Publication</b></p> <ul style="list-style-type: none"> <li>• 1,000 SFSP Kits</li> <li>• 6,000 sets of posters on Household Safety Measures, Children Drowning Prevention</li> <li>• 500 posters on 4 on-site mottos produced and distributed</li> <li>• 1,000 Flood Booklet</li> <li>• 3,000 VCD Living with Flood produced and distributed</li> </ul>
<ul style="list-style-type: none"> <li>• <b>Flood Information Billboard</b></li> </ul>	<p>The Department of Culture and Fine Arts worked with artist and</p>	<ul style="list-style-type: none"> <li>• 20 billboards on what to do before, during and after flood were installed in 20</li> </ul>	<ul style="list-style-type: none"> <li>• 8 Flood billboards installed (4 boards on what to do before, during and after and 4 boards</li> </ul>	<ul style="list-style-type: none"> <li>• 9 bill boards of 3-steps of household flood safety measures were installed in 09</li> </ul>

	<p>constructors to install the billboard. Total 10 billboards were installed in six districts of Kandal and Prey Veng province– 5 billboards in each province.</p>	<p>villages of 4 target districts</p> <ul style="list-style-type: none"> <li>• 20billboards on Mapping which is highlighted flood risk and safety areas were installed 20 villages of 4 target districts</li> </ul>	<p>on hazard maps) in Tha Khor and None Tan Sub-districts</p>	<p>communes of An Phu district, An Giang Province and Tam Nong District, Dong Thap Province</p>
<p>• <b>School Flood Safety Activities</b></p>	<p><b>A. Kandal Province</b></p> <p>1. School Public Awareness Campaign</p> <ul style="list-style-type: none"> <li>- Students: 33822</li> <li>- Authorities and Students' guardinces: 294</li> </ul> <p>2. Teacher-to Teacher Replication: 1419 teachers</p> <p><b>B. Prey Veng Province</b></p> <p>1. School Public Awareness Campaign</p> <ul style="list-style-type: none"> <li>- Students: 1536</li> <li>- Authorities and Students' gabardines: 5</li> </ul> <p>2. Teacher-to Teacher Replication: 689</p>	<ul style="list-style-type: none"> <li>• Preparation meetings with resource persons from PDMC and MPI</li> <li>• Teacher Orientations for school teachers in 4 target districts</li> <li>• 17 SFSP campaigns in 3 target districts (Hinboun, Mahaxai, Yommalath), Khammouane province and 12 SFSP campaigns in Xaibouly, Savannakhet province using existing EIC materials.</li> </ul>	<ul style="list-style-type: none"> <li>• 1 meeting with school teachers</li> <li>• 1 meeting each with target TAOs</li> <li>• School flood safety campaigns in 4 schools in 2 target districts using IEC materials</li> </ul>	<ul style="list-style-type: none"> <li>• Teacher orientation workshop for 48 primary and secondary schools in An Phu district (An Giang province) and Tam Nong District (Dong Thap province)</li> <li>• School Flood Safety Day organized in 10 schools: 5 schools in An Phu district and 5 schools in Tam Nong district.</li> <li>• An Giang and Dong Thap PCFSC and DoET participated in Provincial Partnership Workshop on Child Safety in MeKong Delta held in Tien Giang Province</li> </ul>
<p>• <b>Cultural Shows / Public Awareness Activities</b></p>	<p>Twelve (12) cultural shows were performed by the Department of Culture and Fine Arts in Kandal and</p>	<p>Public Awareness activities were conducted by PDMC and DDMC in 20 villages of 4 target districts (Hinboun , Mahaxai,</p>	<ul style="list-style-type: none"> <li>• A 2-Day training on PA in Nakhon Phanom for TAO officials, school teachers and Village Headmen</li> </ul>	<ul style="list-style-type: none"> <li>• An Giang province: 11 performances (including 03 in Tan Chau district; 06 in An Phu district and 02 in Chau</li> </ul>

	Prey Veng.	Yommalath and Xaibouly districts) using existing IEC materials: posters, booklets	<ul style="list-style-type: none"> <li>• A village meeting on PA in Moo 12, None Tan sub-district of Tha Uthen organized by Village Head who attended PA training</li> <li>• Half Day Training on PA for school children and Civil Defense Volunteers back to back with half day Evacuation Drill for 2 target TAOs</li> </ul>	<p>Thanh district)</p> <ul style="list-style-type: none"> <li>• Dong Thap province: 17 performances (including 09 in Tan Hong district; 04 in Thanh Binh district and 04 in Tam Nong district)</li> <li>• Community meeting on Flood Risk Reduction: 11 meetings in Tan Chau, 12 in Chau Thanh (An Giang province); 4 in Tan Hong, 8 in Tam Nong district (Dong Thap province)</li> </ul>
<ul style="list-style-type: none"> <li>• <b>Public Private Partnership</b></li> </ul>			<ul style="list-style-type: none"> <li>• 1 Meeting with DDPM</li> <li>• 1 Consultative meeting in Nakhon Phanom on PPP on public awareness</li> </ul>	<ul style="list-style-type: none"> <li>• National Forum on PP Partnership held in HCMC on 01 Dec 2009.</li> <li>• Workshop Private sectors together with government on promoting disaster preparedness and response in An Giang on 01 June 2010</li> <li>• Bao Viet Insurance Company signed contract with An Giang Television to post up messages and photos on flood safety information.</li> <li>• Kim Huong Gold Company signed an MoU with An Giang Bussiness Association and An Giang PCFSC to print 1,000 notebooks with 02 first cover and 02 back pages on flood safety information and distributed to most vulnerable school in An Giang province.</li> </ul>

				<ul style="list-style-type: none"> <li>Phuong Toan Company signed an MoU with An Giang Bussiness Association and An Giang PCFSC to print 3,000 notebooks with 02 first cover and 02 back pages on flood safety information and distributed to most vulnerable school in An Giang province.</li> </ul>
<b>Output 2: Flood Preparedness Program Preparation and Implementation</b>				
<ul style="list-style-type: none"> <li><b>Flood Preparedness Program development</b></li> </ul>	<ul style="list-style-type: none"> <li>2 Provincial FPP and 6 District FPP has been updated and published. Those FPPs have been shared to the member of PCDM, DCDM and relevant line agencies in each target province and district.</li> </ul>	<ul style="list-style-type: none"> <li>2 provincial and 5 district FPPs developed and published</li> </ul>	<ul style="list-style-type: none"> <li>Already existed</li> </ul>	<ul style="list-style-type: none"> <li>Already Existed</li> </ul>
<ul style="list-style-type: none"> <li><b>FPP Template consolidated</b></li> </ul>	<ul style="list-style-type: none"> <li>FPP Template developed in Phase I consolidated based on experience gained from the process. Final version of FPP Template has submitted to NCDM for approval</li> </ul>		<ul style="list-style-type: none"> <li>4 meetings with DPM Nakhon Phanom on Provincial and Tambon DPM Plans development and integration</li> </ul>	<ul style="list-style-type: none"> <li>Guideline on Flood and Storm Control Planning in Cuu Long Delta developed, published under logo of DDMFSC and distributed to 13 Cuu Long Delta provinces</li> </ul>
<ul style="list-style-type: none"> <li><b>Priority Project identification and support to implementation</b></li> </ul>	<ul style="list-style-type: none"> <li>Safe Area Improvements in selected districts</li> </ul>	<ul style="list-style-type: none"> <li>Set up 20 VDPU and develop 20 village FPPs in 4 target districts (Hinboun, Mahaxai, Yommalath and Xaibouly)</li> </ul>	<ul style="list-style-type: none"> <li>2 meetings with DPM Nakhon Phanom and DDPM on selecting priority activities</li> </ul>	<ul style="list-style-type: none"> <li>EKM training course , Small mitigation work in Phu Loc Emergency Kindergarten, Phu Loc commune, Tan Chau town, An Giang province.</li> <li>Support Dong Thap PCFSC to conduct one rehearsal drill in Tan Cong Sinh</li> </ul>

				commune, Tam Nong district.(July-Sept 2010)
<b>Output 3: Integration of FPP into Local Development Planning Process</b>				
<ul style="list-style-type: none"> <li>• <b>Country Strategy paper for possible integration</b></li> </ul>	<p>The draft country paper for Cambodia has been drafted and being discussed with the Ministry of Planning to finalize it.</p>	<ul style="list-style-type: none"> <li>• A country paper on DRR integration developed</li> <li>• Deliver a training session on DRR integration for 47 provinces organized by MPI (NDMO&amp;ADPC as resource persons)</li> </ul>	<ul style="list-style-type: none"> <li>• Participated in National DPM Plan review meeting and gave comments on DRR integration</li> <li>• 3 meetings with DDPM (data collection and discussion) on DRR integration</li> <li>• 1 manual and set of ppts collected on DRR integration into provincial and provincial cluster developed by DDPM</li> <li>• DPM Nakhon Panom presented DRR integration for Thailand during International Workshop in Laung Prabang</li> </ul>	<ul style="list-style-type: none"> <li>• A country strategy paper of Integrating flood risk reduction into SEDP developed and shared with country partners</li> </ul>
<ul style="list-style-type: none"> <li>• <b>Guideline for Integrating DRR into Development Planning at Sub-national level developed</b></li> </ul>	<ul style="list-style-type: none"> <li>• Guideline for Integrating DRR into Development Planning at Sub-national level developed through series of consultative workshops taken place like: (i) Consultative meetings with Department of Planning at provincial levels, (ii) consultative meeting with Ministry of Planning and Ministry of Interior/NCDD, (iii) organizing one consultative workshop with all stakeholders like DRR actors, Ministry of Planning, Ministry of Interior, NCDD, other ministries, and (iv) consultative meeting with JAC's members</li> </ul>	<ul style="list-style-type: none"> <li>• DRR integration in 07<sup>th</sup> NSEDP finalized and submitted to MPI</li> </ul>		<ul style="list-style-type: none"> <li>• Provincial guideline developed for An Giang and Dong Thap and shared with country partners</li> <li>• A National consultation workshop on integration of flood risk reduction into SEDP held on 07 Jan 2011</li> </ul>

	<ul style="list-style-type: none"> <li>As of now, final version has been submitted to NCDM for formulating PRAKAS or equivalent procedure</li> </ul>			
<b>Output 4: Training Needs Assessment and institutionalizing Training and Capacity Building</b>				
<ul style="list-style-type: none"> <li><b>Training Needs Assessment</b></li> </ul>	<ul style="list-style-type: none"> <li>The Training Needs completed and the set of Trainers has been identified and trained (Cambodia).</li> </ul>	<ul style="list-style-type: none"> <li>Distribution of TNA questionnaires, 2 times</li> <li>TNA conducted</li> </ul>	<ul style="list-style-type: none"> <li>2 consultative meetings in target TAOs</li> <li>Distribution of TNA questionnaires, 2 times</li> <li>TNA conducted</li> </ul>	<ul style="list-style-type: none"> <li>02 Workshop on Training need Assessment held in An Giang and Dong Thap provinces</li> <li>TNA conducted</li> </ul>
<ul style="list-style-type: none"> <li><b>Needs Based training at local level</b></li> </ul>	<ul style="list-style-type: none"> <li>2 provincial level training conducted</li> </ul>	<ul style="list-style-type: none"> <li>4 Three-days Need based training for VDPU members of 20 villages in 4 target districts on 2-16 June10</li> </ul>	<ul style="list-style-type: none"> <li>2 meetings each with DPM Nakhon Phanom and DDPM on Need based training</li> <li>2 Two-Day Need based trainings on CBDRM focusing on Flood in 2 target TAOs</li> <li>A 2-Day Training on Public Awareness for Flood Risk Reduction organized in Khon Kaen by Disaster Prevention and Mitigation Academy for DPM officials from 30 provinces along Mekong River and flood prone using PA manual and IEC materials</li> </ul>	<ul style="list-style-type: none"> <li>06 district trainings conducted at 06 target districts in An Giang and Dong Thap Provinces by trainers trained under ToT</li> </ul>
<b>Output 5: Development Training Manual and Training of Trainers on Flood Risk Reduction</b>				
<ul style="list-style-type: none"> <li><b>Standardized Training of Trainers Curriculum</b></li> </ul>	<ul style="list-style-type: none"> <li>Support NCDM to finalize and publish Training Manual on DRR. This training manual is distributed to DRR forum members, partner NGOs, UN/Donor and all the province in Cambodia by NCDM.</li> <li>The ToT curriculum, covering the</li> </ul>	<ul style="list-style-type: none"> <li>Meetings with NDMO, MPI, Training Center for Economic and Planning Management</li> <li>Hire a consultant for revising ToT curriculum</li> <li>1 National Consultative</li> </ul>	<ul style="list-style-type: none"> <li>2 meetings each with DDPM (Disaster Prevention Promotion and Disaster Prevention Measures Divisions) and Chulalongkorn University on PA training curriculum</li> </ul>	<ul style="list-style-type: none"> <li>ToT training curriculum developed, produced and distributed to target provinces (one set including 04 booklet and a documentary CD)</li> </ul>

	<p>three main subject matters, including: (i).General concepts on disaster risk reduction (ii).Participatory Disaster Risk Assessment and Disaster Risk Reduction Planning (iii).Integration of DRR/FRR into local development planning process, and (iv).Public awareness, has been finalized.</p>	<p>Meeting on ToT Handbook development</p> <ul style="list-style-type: none"> <li>National training manual developed and printed</li> </ul>	<p>development</p> <ul style="list-style-type: none"> <li>A Writeshop to review draft Training Manual on Public Awareness</li> <li>A 2-Day training on PA in Nakhon Phanom to test the training manual and real practice to be used for revising content of Chapter 5</li> <li>A National consultative meeting on public awareness for disaster risk reduction in Thailand</li> <li>1,000 copies of Training Manual on PA with DVD printed (500 copies handed over to DDPM and distributed in DDPM and provincial offices throughout the country)</li> </ul>	
<ul style="list-style-type: none"> <li><b>List of training institutions</b></li> </ul>	<p>Key Training Institutions in Cambodia were identified as following:</p> <ul style="list-style-type: none"> <li>National Committee for Disaster Management (NCDM)</li> <li>Cambodian Red Cross (CRC)</li> <li>World Education (WE)</li> <li>VBNK</li> <li>SILIKA</li> </ul>	<ul style="list-style-type: none"> <li>1 meeting with University of Champasack</li> <li>Meetings with NDMO, LNMC, Environmental Training Center of WREA, Water Resource Engineering Faculty (Thatong Campus)</li> <li>List of training institutions prepared</li> </ul>	<ul style="list-style-type: none"> <li>Discussion and identification of training institutions during project start up meeting at DWR office</li> <li>List of training institution prepared</li> </ul>	<ul style="list-style-type: none"> <li>Compiled and shared with provincial authorities</li> </ul>
<ul style="list-style-type: none"> <li><b>National/ Provincial level Training of Trainers</b></li> </ul>	<ul style="list-style-type: none"> <li>ToT training was conducted in Prey Veng province, 41 participants from PCDMs, DCDMs,</li> </ul>	<ul style="list-style-type: none"> <li>1 Five-Day National ToT conducted in Vientiane</li> </ul>	<ul style="list-style-type: none"> <li>A 2-Day Training on Public Awareness for Flood Risk Reduction organized in Khon Kaen by Disaster Prevention and Mitigation Academy for DPM officials from 30</li> </ul>	<ul style="list-style-type: none"> <li>A National Training of Trainer was conducted from 29 Mar – 02 Apr (05 days) in Long Xuyen city, An Giang province</li> </ul>

			provinces along Mekong River and flood prone using PA manual and IEC materials (15-16 Dec 2010)	
<b>Output 6: FEMS Information Exchange, Documentation</b>				
<b>• International Workshop</b>	<ul style="list-style-type: none"> <li>The 3-day international workshop on People Centered Flood and Land Management in the Mekong River Basin: Sustained Implementation and Planning for Future Challenges was jointly organized by the Mekong River Commission Secretariat (MRCS), Asian Disaster Preparedness Center (ADPC) and GFA Consulting Group GmbH with funding support from Deutsche Gesellschaft fuer Internationale Zusammenarbeit (GIZ) GmbH. This workshop during 23-25 February 2011, brought more than 150 participants including 75 key national and sub-national officials of the Mekong Basin countries dealing with flood and land management and mitigation activities and share some of the exemplary interventions carried out in the region. These include; innovative practices of flood and land management and climate inclusive preparedness planning and implementation, Children’s Flood Safety and Public Private Partnership on Flood Risk Reduction.</li> </ul>			
<b>• Good Practice Documents</b>	<ul style="list-style-type: none"> <li>Flood preparedness program development in Lao PDR</li> <li>Partnership for raising public awareness on flood risk reduction in Lao PDR</li> <li>Good practices on flood and storm control planning in Vietnam</li> <li>Public-private partnership for flood risk reduction in Vietnam</li> <li>Safe area improvement in Cambodia</li> <li>Emergency kindergarten management and capacity building in Vietnam</li> <li>Transboundary issues in Vietnam-Cambodia and Lao PDR-Thailand</li> <li>Flood Management and Mitigation Information Tools</li> </ul>			
<b>Output 7: FEMS Trans-Boundary Joint Planning and Information Exchange</b>				
<b>Joint Plans between Cambodia-Vietnam and Lao PDR and Thailand</b>	<p><b>Provincial level joint planning in An Giang and Kandal ( VN-CAM)</b></p> <p>The bilateral meeting between the provincial authorities of An Giang and Kandal on trans boundary flood preparedness and emergency management took place on the 5th November, 2010 in Long Xuyen city, An Giang province. The meeting was jointly presided by H.E Huynh The Nang, Vice Chairman of An Giang People’s Committee and H.E Ou Sam Oun, Deputy Governor of Kandal province and Vice Chairman of Provincial Committee for Disaster Management (PCDM). The draft joint plan document was reviewed. The meeting was also represented by National Committee for Disaster Management (NCDM) Cambodia, DDMFSC in HCM Vietnam, CNMC and VNMC, and representatives from provincial line Departments. The provinces agreed to meet one more time to finalise the following agreed joint activities.</p> <ul style="list-style-type: none"> <li><i>Joint Cooperation on Search and Rescue during Emergency, Caused by the Mekong Flooding.</i></li> <li><i>Dissemination and sharing flood forecast and early warning information during flood season.</i></li> <li><i>Facilitation of Administrative Protocols, and Procedures in providing humanitarian Assistancess and other relevant supports during emergency situation caused by the Mekong flooding.</i></li> </ul>			

	<ul style="list-style-type: none"> <li>• <i>Integration of flood preparedness and emergency management cooperation into regular meeting between 02 provinces</i></li> <li>• <i>Cooperate On Construction of River bank to prevent and mitigate river bank erosion</i></li> <li>• <i>Cooperation on Agricultures and Animal Diseases (Bird flu H5N1, Avian Influenza A-H1N1, and Blue Ear virus, etc.)</i></li> <li>• <i>Cooperation on Health care</i></li> </ul> <p><b>Provincial level joint planning started in Khammouane and Nakhorn Phanom (Lao-THAI)</b></p> <p>The bilateral Trans-boundary Cooperation meeting on Flood Preparedness and Emergency Assistance between Provincial Disaster Mangement Committee, Khammouane Province, Lao PDR and Provincial Disaster Prevention and Mitigation Office and Team, Nakhorn Phanom, Thailand was held on 10th November 2010 at Thakek, Khammaoune province. The two provinces which has limited institutional setup for trans boundary assistance ( although they cooperate each other) have reviewed the joint cooperation plan with following key cooperation areas</p> <ul style="list-style-type: none"> <li>• <i>Establishment of the information sharing and coordination center,</i></li> <li>• <i>Training of Trainers,</i></li> <li>• <i>Field trip or education tour and</i></li> <li>• <i>Disaster drill</i></li> </ul> <p>Specific concept note has been prepared and submitted to TNMCS</p>
<p><b>Output 8: National Assessment of existing flood risk reduction capacities and mainstreaming</b></p>	
<p><b>National Assessment report on FPP, Public Awareness and Integration</b></p>	<ul style="list-style-type: none"> <li>• National Assessment report submitted to Member Countries with concrete recommendations for further flood preparedness and emergency management activities.</li> </ul>

## Annex-2: Uptake and Use of Existing Component 4 – FEMS Outputs per Country

### 1- CAMBODIA

PRODUCT	LINE AGENCY USING PRODUCT	UPTAKE, IMPORTANCE & APPLICATION OF PRODUCTS			SUGGESTED PRODUCT IMPROVEMENTS
		UPTAKE <sup>1</sup> BY COUNTRIES	IMPORTANCE <sup>2</sup> TO NATIONAL FMM	APPLICATION LEVEL <sup>3</sup>	
<b>1. Facilitate Flood Preparedness Programs</b>					
<b>A. Guidelines, Manuals and Tools</b>					
1. National Template on development of Annual and Multi year Flood Disaster Risk Reduction Plans	NCDM	Full	5	National and Sub-national	Consolidation and improvement in practical training to line agencies
2. National Curriculum for Disaster Risk Reduction Planning and Implementation	NCDM	Full	5	National and Sub-national	Up-scaling in to more wider geographical area
3. Manual on Flood Preparedness Programs for Provincial and District Authorities	NCDM/PCDM	Full	5	National and Sub-national	Regular Review and update by National Line Agency.
4. Institutional Capacity Analysis for Sub-National Arrangement for Disaster Management	PCDM	Partial	4	Sub-national	Up-scaling in to more wider geographical area
5. Mainstreaming Gender Issues in the Flood Preparedness Programs	Department of Woman Affairs	Full	5	National and Sub-national	Up-scaling in to more wider geographical area
6. Impacts of Floods on Women Headed Households	Department of Woman Affairs	Full	5	Sub-national	Up-scaling in to more wider geographical area
7. Provincial Guideline on Integration of FRR into sub national development planning process	NCDM, Ministry of Planning	Full	5	National and Sub-national	Up-scaling in to more wider geographical area
<b>B. Training in Community CBFM</b>					
1. Training Curriculum on CBFM including Damage and Need Assessment	Commune Authorities	Full	4	Local	Up-scaling in other flood prone areas
<b>C. Capacity Building at Provincial &amp; District levels</b>					
1. Training of Trainers for Provincial and District Facilitators of CDP/CIP Planning	Provincial, District and Commune level Line Department responsible for flood management	Full	5	Sub National Local	Up-scaling in other flood prone areas
2. TOT for Flood Preparedness Program for PFT/DFT					
3. Provincial, district and communt training					

PRODUCT	LINE AGENCY USING PRODUCT	UPTAKE, IMPORTANCE & APPLICATION OF PRODUCTS			SUGGESTED PRODUCT IMPROVEMENTS
		UPTAKE <sup>1</sup> BY COUNTRIES	IMPORTANCE <sup>2</sup> TO NATIONAL FMM	APPLICATION LEVEL <sup>3</sup>	
<i>on Flood Preparedness and Risk Reduction</i> 4. <i>Need Based Training Course on Flood Management and Risk Reduction</i>	t				
<b>2. Strengthen National Capacities to Support Preparedness Programs.</b>					
<b>A. National Guidelines &amp; Training Manuals</b> 1. <i>Training Curriculum for Flood Risk Reduction</i>	NCDM, PCDM, and Development partners	Full	5	National and Sub-National officials, Development partners	Up-scaling in to more wider geographical area
<b>B. Capacity Building in National DM Offices</b> 1. <i>Regional Training (1)</i> 2. <i>Provincial Level Training (6)</i> 3. <i>District Level Training (17)</i> 4. <i>Commune Level Training (15)</i>	NCDM, PCDM, DCDM, CCDM	Full	5	National and Sub National	Focus on EWS and Climate Change issues
<b>3. Raise Awareness of Flood Preparedness Planning</b>					
<b>A. Awareness Materials for Children &amp; Adults</b> 1. <i>Information Booklet on Flood and Drought</i> 2. <i>Teacher Information Booklet</i> 3. <i>Poster:</i> - <i>Household Safety Measure</i> - <i>Children Drowning Prevention</i> 4. <i>Women Headed Household Brochure</i> 5. <i>Leaflet on Safer Community</i> 6. <i>Flood information billboard</i> 7. <i>Cultural Show at Community</i> 8. <i>School Flood Safety Kit</i>	Department of Culture and Fine Arts, Department of Education, Youth and Sport, NCDM, PCDM, DCDM, CCDM	Full	5	National and Local	Continuation and up scaling
<b>3. Facilitate Regional Knowledge Building</b>					
<b>A. Distribute 'Good Practice' Documents</b> • <i>Case Study 1: Enhancing the Capacity of Disaster Management Committees in Cambodia. Developing and Implementing Flood Preparedness Programs</i> • <i>Case Study 2: Improved Dissemination of Flood Forecasts through Community-Based Early Warning Systems. Building</i>	NCDM	Full	4	National Regional	Continuation and up scaling

PRODUCT	LINE AGENCY USING PRODUCT	UPTAKE, IMPORTANCE & APPLICATION OF PRODUCTS			SUGGESTED PRODUCT IMPROVEMENTS
		UPTAKE <sup>1</sup> BY COUNTRIES	IMPORTANCE <sup>2</sup> TO NATIONAL FMM	APPLICATION LEVEL <sup>3</sup>	
<p><i>the local Capacity in Flood-Vulnerable Communities in Cambodia</i></p> <ul style="list-style-type: none"> <li>• <i>Case Study 3: Reaching out to the Public. Raising Community Awareness to Flood Risk Reduction in Cambodia.</i></li> <li>• <i>Case Study 4: Sustaining the Flood Preparedness and Emergency Management System in Cambodia. Creating the Momentum for Mainstreaming.</i></li> <li>• <i>Case Study 5: School Flood Safety Program: Building the Capacity of Teachers and Students in Flood Risk Reduction</i></li> <li>• <i>Case Study 6: Lending a Voice to the Most Vulnerable. Mainstreaming Gender Issues in the Flood Preparedness Programs in Cambodia</i></li> </ul>					
<p><b>B. Regional Workshops</b></p> <p>1. <i>National Forum on FMM initiatives</i></p> <p>2. <i>Regional Workshop on FMM initiatives</i></p>	All line Ministries	Full	4	National and Sub National	
<p><b>B. Study Tours</b></p> <p><i>Cross Country Study tours between Vietnam and Cambodia</i></p> <p><i>Participation in province to province cooperation meeting</i></p>	National and Provincial Authorities	Full	5	National	
<b>Enhance Inter-Province Trans-Boundary FE Assistance</b>					
<p><b>A. Support Coop. between Cam. &amp; VN TB Provinces</b></p> <p>1. <i>Cooperation meetings between the provinces</i></p> <p>2. <i>MoU between An Giang and Kandal province</i></p>	Provincial Authorities	Full	5	Sub-National	Formulation of Trans boundary cooperation agreement on Flood Preparedness
<p><b>B. Facilitate TB FE Preparedness Procedures</b></p> <p>1. <i>Join Planning on flood preparedness and emergency management</i></p>	Provincial Authorities	Full	5	Sub National	

## 1. LAO PDR

PRODUCT	LINE AGENCY USING PRODUCT	UPTAKE, IMPORTANCE & APPLICATION OF PRODUCTS			SUGGESTED PRODUCT IMPROVEMENTS
		UPTAKE <sup>1</sup> BY COUNTRIES	IMPORTANCE <sup>2</sup> TO NATIONAL FMM	APPLICATION LEVEL <sup>3</sup>	
<b>1. Facilitate Flood Preparedness Programs</b>					
<b>A. Guidelines, Manuals and Tools</b> 1. <i>National Training of Trainers (ToT) Manual on Flood Preparedness and Emergency Management. The Manual consists of four volumes:</i> <ul style="list-style-type: none"> <li>• <i>Developing Training Skills for Trainers</i></li> <li>• <i>Manual for Development and Implementation of Flood Preparedness Programs</i></li> <li>• <i>Planning and Conducting Public Awareness on Flood Risk Reduction</i></li> <li>• <i>Integration of Flood Risk Reduction into Development Planning</i></li> </ul>	NDMO, line ministries, Provincial DM Committees (PDMC) and District DM Committees , (DDMC), line departments and NGOs working on disaster management, Universities	Full	5	National and Sub-national	Up-scaling into more wider geographical areas or applying for other similar topics
<b>B. Training at District and Village Level</b> 1. <i>Need Based Training Course on Flood Preparedness and Emergency Management at</i>	Village Authorities	Full	5	Local	Up-scaling in other flood prone areas
<b>C. Capacity Building at Provincial &amp; District levels</b> 1. <i>Training of Trainers</i> 2. <i>Training on Development and Implementation of Flood Preparedness Programs</i>	PDMC, DDMC, Provincial and district line departments and NGOs working on disaster management	Full	5	National Sub National Local	Up-scaling in other flood prone areas or applying for other similar topics
2. <i>Training Need Assessment</i>	National, Provincial and District	Full	5	Sub-national and local	Applying for similar activities

PRODUCT	LINE AGENCY USING PRODUCT	UPTAKE, IMPORTANCE & APPLICATION OF PRODUCTS			SUGGESTED PRODUCT IMPROVEMENTS
		UPTAKE <sup>1</sup> BY COUNTRIES	IMPORTANCE <sup>2</sup> TO NATIONAL FMM	APPLICATION LEVEL <sup>3</sup>	
<b>2. Strengthen National Capacities to Support Preparedness Programs.</b>					
<b>A. National Guidelines &amp; Training Manuals</b> 1. <i>Training Manual on Planning and Conducting Public Awareness on Flood Risk Reduction</i> 2. <i>Training Manual on Integration of Flood Risk Reduction into Development Planning</i>	NDMO, PDMC, DDMC, Provincial and district line departments and NGOs working on disaster management	Full	5	National Sub National Local	Up-scaling in other flood prone areas or applying for other similar topics
<b>B. Capacity Building in National and Sub-National DM Offices</b> 1. <i>Training on the following topics:</i> <ul style="list-style-type: none"> <li>• <i>Training of Trainer on Developing Training Skills</i></li> <li>• <i>Development and Implementation of Flood Preparedness Programs</i></li> <li>• <i>Training on Planning and Conducting Public Awareness on Flood Risk Reduction</i></li> <li>• <i>Training on Integration of Flood Risk Reduction into Development</i></li> </ul>	NDMO, PDMC and DDMC	Full	5	National and Sub National	Up-scaling in other flood prone areas or applying for other similar topics
<b>3. Raise Awareness of Flood Preparedness Planning</b>					
<b>A. Awareness Materials for Children &amp; Adults</b> 1. <i>IEC Information Kits(A4 Posters, Flood Booklet, Teacher's Guide on Flood Preparedness,</i> 2. <i>Flood Booklet</i> 3. <i>A1 Poster on Household Safety Measures before Flood</i> 4. <i>A1 Poster on Household Safety Measures during flood</i> 5. <i>A1 Poster on Household Safety Measures after Flood</i> 6. <i>A1 Poster on School Flood Safety Measures</i>	NDMO, PDMC, DDMC, Village Disaster Prevention Unit (VDPU), line ministries, provincial and district line department	Full	5	National, Sub-National and Local	Up-scaling in other flood prone areas

PRODUCT	LINE AGENCY USING PRODUCT	UPTAKE, IMPORTANCE & APPLICATION OF PRODUCTS			SUGGESTED PRODUCT IMPROVEMENTS
		UPTAKE <sup>1</sup> BY COUNTRIES	IMPORTANCE <sup>2</sup> TO NATIONAL FMM	APPLICATION LEVEL <sup>3</sup>	
<p>7. A1 Poster on Child Protection against Drowning</p> <p>8. A4 Poster on Household Safety Measures before, during and after flood</p> <p>9. Bill Boards on Household Safety Measures before, during and after flood</p> <p>10. Village Hazard and Resources Map showing on Wooden Board</p> <p><b>B. School Flood Safety Program</b></p> <p>1. Cultural Performance (Drama, Singing, Dance)</p> <p>2. Game Play</p> <p>3. Competition (Painting, Poem and Song Writing)</p> <p><b>C. Awareness Campaign at Important Events</b></p> <p>1. Poster Exhibition at Major Events, e.g. World and ASEAN Disaster Day, Major National and Provincial Events, Boat Racing Festivals, etc.)</p>	s, NGOs, Schools and pupils, parents and villagers, etc.				
<b>3. Facilitate Regional Knowledge Building</b>					
1. 2. Regional Workshop on FMM initiatives	All line Ministries and NGOs working on Flood Management	Full	4	National and Sub National	Organize as regular event
<b>Enhance Inter-Province Trans-Boundary FE Assistance</b>					
<p><b>A. Support Coop. between Nakorn Phanom (Thailand) &amp; Khammouane (Lao PDR) Provinces</b></p> <p>1. Cooperation meetings between the provinces</p>	Relevant national and Provincial Authorities	Full	5	National and Sub-National	Strengthen Trans boundary cooperation on Flood Preparedness between 2 border provinces by involvement of relevant ministries and border committees
<p><b>B. Facilitate TB FE Preparedness Procedures</b></p> <p>1. Join Planning on flood preparedness and emergency management</p>	Relevant national and Provincial Authorities	Full	5	National and Sub National	Strengthen Trans boundary cooperation on Flood Preparedness between 2 border provinces by involvement of relevant ministries and border committees

### 3. THAILAND

PRODUCT	LINE AGENCY USING PRODUCT	UPTAKE, IMPORTANCE & APPLICATION OF PRODUCTS			SUGGESTED PRODUCT IMPROVEMENTS
		UPTAKE <sup>1</sup> BY COUNTRIES	IMPORTANCE <sup>2</sup> TO NATIONAL FMM	APPLICATION LEVEL <sup>3</sup>	
<b>1. Facilitate Flood Preparedness Programs</b>					
<b>A. Guidelines, Manuals and Tools</b> <i>1. Training Manual on Public Awareness for Flood Risk Reduction with DVD compiling all IEC materials</i>  <b>B. Training in Community CBFM</b> <i>1. Need Based Training Course on Capacity Building on Flood Preparedness and Emergency Response</i>  <b>C. Capacity Building at Provincial &amp; District levels</b> <i>1. Training Manual on Public Awareness for Flood Risk Reduction</i>  <i>2. Training Need Assessment</i>	DDPM, Provincial DPM, line departments and NGOs working on disaster management	Full	5	National and Sub-national	Up-scaling into more wider geographical areas or applying for other similar topics
	Commune Authorities	Full	3	Local	Up-scaling in other flood prone areas
	DDPM, Provincial DPM, line departments and NGOs working on disaster management	Full	5	National Sub National Local	Up-scaling in other flood prone areas or applying for other similar topics
	National, Provincial and District	Full	3	Sub-national and local	Applying for similar activities
<b>2. Strengthen National Capacities to Support Preparedness Programs.</b>					
<b>A. National Guidelines &amp; Training Manuals</b> <i>1. Training Manual on Public Awareness for Flood Risk Reduction</i>  <b>B. Capacity Building in National DM</b>	DDPM, Provincial DPM, line departments and NGOs working on disaster management	Full	5	National Sub National Local	Up-scaling in other flood prone areas or applying for other similar topics
	DDPM and	Full	5	National	Up-scaling in other flood prone areas or applying for other similar topics

PRODUCT	LINE AGENCY USING PRODUCT	UPTAKE, IMPORTANCE & APPLICATION OF PRODUCTS			SUGGESTED PRODUCT IMPROVEMENTS
		UPTAKE <sup>1</sup> BY COUNTRIES	IMPORTANCE <sup>2</sup> TO NATIONAL FMM	APPLICATION LEVEL <sup>3</sup>	
<b>Offices</b> 1. Training of Trainer on Public Awareness for Flood Risk Reduction	Provincial DPM			and Sub National	
<b>3. Raise Awareness of Flood Preparedness Planning</b>					
<b>A. Awareness Materials for Children &amp; Adults</b> 1. Handbook for personal preparedness and safety during flood, storm and mudslide 2. Leaflet for personal preparedness and safety during flood, storm and mudslide 3. Flood Preparedness Handbook 4. A1 Poster on personal preparedness and Safety during flood 5. A4 Poster of 10 Flood Diseases Protection 6. Video and documentary spots on flood diseases protection	DDPM and Provincial DPM	Full	5	National sub-national and Local	Up-scaling in other flood prone areas
<b>3. Facilitate Regional Knowledge Building</b>					
1. 2. Regional Workshop on FMM initiatives	All line Ministries and NGOs working on Flood Management	Full	4	National and Sub National	
<b>Enhance Inter-Province Trans-Boundary FE Assistance</b>					
<b>A. Support Coop. between Nakorn Phanom (Thailand) &amp; Khammouane (Lao PDR)</b> 1. Cooperation meetings between the provinces	Relevant national and Provincial Authorities	Full	5	National and Sub-National	Strengthen Trans boundary cooperation on Flood Preparedness between 2 border provinces by involvement of relevant ministries and border committees
<b>B. Facilitate TB FE Preparedness Procedures</b> 1. Join Planning on flood preparedness and emergency management	Relevant national and Provincial Authorities	Full	5	National and Sub National	Strengthen Trans boundary cooperation on Flood Preparedness between 2 border provinces by involvement of relevant ministries and border committees

#### 4. VIETNAM

PRODUCT	LINE AGENCY USING PRODUCT	UPTAKE, IMPORTANCE & APPLICATION OF PRODUCTS			SUGGESTED PRODUCT IMPROVEMENTS
		UPTAKE <sup>1</sup> BY COUNTRIES	IMPORTANCE <sup>2</sup> TO NATIONAL FMM	APPLICATION LEVEL <sup>3</sup>	
<b>1. Facilitate Flood Preparedness Programs</b>					
<b>A. Guidelines, Maps and Forecasts</b>					
1. Provincial Guideline on Flood and Storm Control Planning in Mekong Delta of Vietnam	DDMFSC	Full	5	Sub-National	Regular Review and updation by National Line Agency.
2. Integration of Flood Risk Reduction into SEDP	DDMFSC	Full	5	Sub-National	Review and update by National Line Agency with involment of Ministry of Planning and Investment to make it officially in the decree to provinces
<b>B. Improve Management of Emergency Stockpiles &amp; Warehouses</b>					
<b>C. Training in Community CBFMR</b>					
<b>D. Capacity Building at Provincial &amp; District levels</b>					
1. Provincial training workshop on development and implementation of CBDRM program (1002/QD-TTg) 2. District Training on development and implementation of Flood Preparedness Programs 3. Training on Emergency Kindergarten Management (EKM) 4. Training for school teacher on flood risk reduction 5. Rehearsal Drill on Flood and Storm Preparedness and Response	Provincial , District and Commune level Line Department responsible for flood management	Full	5	Sub National Local	Up scaling in other flood prone areas
<b>2. Strengthen National Capacities to Support Preparedness Programs.</b>					
<b>A. National Guidelines &amp; Training Manuals</b> 1. ToT Curriculum on Flood and Storm Control Planning and Implementation					
	DDMFSC	Full	5	National	Consolidation and Review for National level use
<b>B. Capacity Building in National DM Offices</b>					
1. Provincial Level Training (6) 2. District Level Training (10)	DMC DDMFSC	Full	5	National and Sub National	Focus on EWS and Climate Change issues
<b>3. Raise Awareness of Flood Preparedness Planning</b>					

<b>A. Awareness Materials for Children &amp; Adults</b> 1. <i>Information Booklet on Flood Preparedness</i> 2. Poster: - <i>Household Safety Measure</i> - <i>4 on-site mottos</i> - <i>Children Drowning Prevention</i> 3. Flood information billboard 4. Cultural Show Script 5. School Flood Safety Kit	Department of Education and Training, Department of Culture and Information	Full	5	National and Sub National	Continuation and up scaling
<b>B. Training of Children at School and community</b> 1. Teachers Training on Flood Awareness 2. Orientation session for school children 3. Swimming Lesson to Children 4. Community meeting	Department of Education and Training	Full	5	Sub National	Continuation and up scaling
<b>4. Facilitate Regional Knowledge Building</b>					
<b>A. Distribute 'Good Practice' Documents</b> <u>Case study 1:</u> Comprehensive approach to ensure the safety of children in the Mekong Delta, Vietnam <u>Case study 2:</u> Reaching out to the public – Raising the awareness of the community in flood risk reduction <u>Case Study 3:</u> Public Private Partnership in Mekong Delta <u>Case Study 4:</u> Flood and Storm Control Planning experiences <u>Case Study 5:</u> capacity building for Students and Educators on Flood Risk Awareness <u>Case Study 6:</u> Experiences of Child Safety initiatives : Learning from Emergency Kindergarten Management	DDMFSC	Full	4	National	Continuation and up scaling
		Full	4	Regional	
<b>B. Regional Workshops</b> 1. National Forum on FMM initiatives 2. Regional Workshop on FMM initiatives	All line Ministries	Full	4	National and Sub National	
<b>5. Enhance Inter-Province Trans-Boundary FE Assistance</b>					
<b>A. Support Coop. between Cam. &amp; VN TB Provinces</b> 1. Cooperation meetings between the provinces	Provincial Authorities	Full	5	Sub-National	Formulation of Trans boundary cooperation agreement on Flood Preparedness

2. MoU between An Giang and Kandal province					
<b>B. Facilitate TB FE Preparedness Procedures</b> 1. Join Planning on flood preparedness and emergency management	Provincial Authorities	Full	5	Sub National	Integrate the Joint Plan to Provincial Regular Cooperation Plan between An Giang and Kandal provinces.

**Annex-3: Country Progress Report (Separate files)**