

School Flood Safety Program

Building The Capacity of Teachers and Students in Flood Risk Reduction

ABSTRACT

This case study describes the experiences gained in the implementation of a flood risk awareness campaign in two pilot schools in Cambodia under the “Flood Emergency Management Strengthening (FEMS)” Project implemented by the Mekong River Commission Secretariat with support from the Asian Disaster Preparedness Center (ADPC). The project is part of a larger public awareness campaign initiated under the FEMS project and seeks to address the needs of one of the most vulnerable yet often neglected segment of the community population – children. The case study suggests ways in which similar school-based flood risk awareness and child safety programs can be undertaken.



Schoolchildren participate in a quiz contest on flood preparedness as part of the School Flood Safety Program (SFSP).

The initiative for communicating flood risks through schools evolved out of the public awareness campaign launched in June 2005 under the “Flood Emergency Management Strengthening (FEMS)” Project implemented by the Mekong River Commission Secretariat with support from the Asian Disaster Preparedness Center (ADPC). The FEMS project is one of the five major components of the “Flood Management and Mitigation Program (FMMP),” a comprehensive regional and long-term program of the Mekong River Commission (MRC) that aims to prevent and minimize the adverse effects of floods in the lives of people while preserving the environmental benefits they bring.

In Cambodia the FEMS project

provided institutional and capacity building interventions for the two target provinces of Prey Veng and Kandal so that their abilities to manage floods could be significantly increased. The five key activities undertaken under the FEMS project include the following: the preparation and implementation of flood preparedness programs in selected provinces and districts is facilitated, national capacities to support preparation and implementation of flood preparedness programs are further developed, awareness campaigns in selected provinces and districts are conducted, Regional knowledge sharing is facilitated and preparedness for province-to-province transboundary emergency assistance is facilitated.

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INTRODUCTION

In most countries, school teachers are recognized by the public as one of the most reliable sources of information. Indeed, children are sent to school precisely so that they will learn from their teachers. In Cambodia, teachers are highly respected and schools are an important community resource not just as a place of learning but also when disasters such as floods occur. In most rural villages of Cambodia, for example, the use of schools as a safe haven during the occurrence of flooding events is common. As in many other countries, the value of teachers and school officials as disseminators or communicators of disaster risk information has already been recognized.

Hence, the decision to utilize the schools and schoolteachers as a primary channel for flood risk reduction information dissemination was not difficult to make. School teachers in particular are in a very good position to deliver flood safety measures to children, one of the most vulnerable groups in any community.

The dissemination of flood safety information through children not only directly addresses their vulnerability but it also helps ensure, as the children grow up, that future members of the community are equipped with the knowledge and skills necessary to reduce and minimize the adverse effects of floods.

The project identified the key activities needed to be undertaken as the conduct of an orientation and training of local teachers and educators on flood risk reduction and flood safety measures, their dissemination of knowledge and skills acquired to school children and the community at large, advocacy and mainstreaming to ensure that the school-based initiative would be sustained and even replicated in other areas in the future.

THE KEY STEPS

In pursuit of these objectives, the project initiated a process beginning

with the mobilization of relevant local stakeholders, enhancing their understanding and acceptance of flood risk reduction through orientation workshops, the development of simple and appropriate methodologies and tools to aid teachers in communicating flood risk reduction to school children, and the conduct

It is important to teach people flood safety measures while they are young because it is easier to teach children, they absorb the information more...and so when they grow up these practices will already become common behavior"

Mr. Lak Samorn, Dept. of Education Youth and Sports (DEYS), Prey Veng Province

of a Training for Trainers (ToT) for school teachers responsible for actual classroom teaching and school officials in charge of curriculum development.

Mobilizing Stakeholders

Mobilizing and getting the commitment of the key local stakeholders to undertake the school-based flood risk reduction awareness initiative did not present any major problems because the initiative is part of a larger and more comprehensive program towards strengthening local capacities to respond to floods.

By the time the school-based initiative was launched, significant advocacy efforts and resources were already made in raising the awareness of the local government. The rationale and basic principles and concepts of flood risk reduction was already understood by key local stakeholders, particularly provincial and district

government authorities including local education officials.

The FEMS project activated and strengthened the provincial disaster management system headed by the Provincial Disaster Management Committee (PCDM) that counts among its members all the relevant provincial government line departments including the departments of education and health.

The implementation of the school-based awareness and education initiative is part of the initial implementation of the provincial flood preparedness program. Key stakeholders involved in the initiative included the provincial and district disaster management committees, the provincial education department, school principals, teachers and school technical officers.

In addition, a local NGO with specific expertise in education, the Srer Khmer (SK), was invited to participate and provide continued access to technical assistance and support to local stakeholders especially in any future effort to replicate and expand the initiative beyond the two pilot schools.

Development of Information Materials and Tools

With the technical support provided by the project, local stakeholders were able to collect existing flood risk awareness information, education and communication materials, and subsequently review and adapt them to local conditions. The process resulted in the development and implementation of the following:

■ Flood Information Kit

A "flood information kit" was designed and produced to serve as the basic information reference of teachers in the dissemination of flood risk reduction awareness to their students. In the production of the flood information kit, significant attention and effort was given to ensure that the information provided was both accurate and practical.

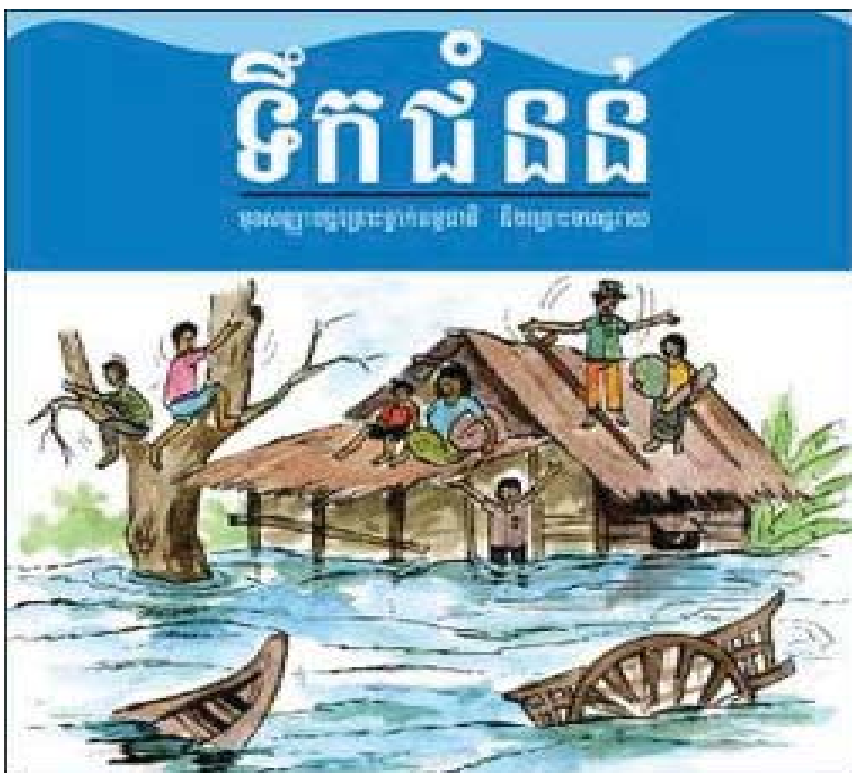
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The flood information kit (above) and the flood booklet (below) were developed for schoolteachers to enable them to conduct better disaster risk awareness among their pupils.



All of the information and materials provided for in the flood information kit were based on existing examples of best practices (i.e., materials and tools developed and field-tested by other national and international organizations).

The flood information kit consists of the following:

- A flood booklet containing household flood risk reduction measures before, during and after a flood.
- A Video CD entitled “Living with Floods” including an accompanying booklet that summarizes the information provided in the video.
- A booklet on “Health Issues during Floods” provides both preventive and curative measures that families should undertake to avoid the common illnesses attributed to floods.

While existing materials were extensively used, the project supervised local stakeholders in the conduct of a thorough review of all the information and materials disseminated to ensure that examples cited and practices recommended conformed to local conditions including existing social and cultural norms and traditions.

The flood booklet is an updated and revised version of an ADPC flood booklet used in a previous community-based disaster risk management program. The booklet provides an introduction to the flood situation in the country, the impact and dangers associated with floods, specific measures that should be done before, during and after a flood. Additional specific information was also provided on flood early warning including appropriate reaction and responses to various levels of warnings.

The “Living with Floods” Video CD was produced with the permission of Oxfam GB in Cambodia who adapted the video into local context from the original version produced by the Vietnam Red Cross (VNRC). Oxfam has used the video extensively in the implementation of its own community-based disaster risk reduction projects in various parts of the country.

The FEMS school flood safety program aims to reduce children's vulnerability to floods through the school system. It is implemented in the project's area coverage of Cambodia, Lao PDR, Thailand and Vietnam.

Mr. Nguyen Trung Nghia, Emergency kindergarten trainer, Vietnam: "As part of this program, the crèche



not only looks after the children's safety, but also incorporates kindergarten functions. So as in any pre-school program, besides the knowledge of sanitation, nutrition, psychology and characteristics of school children, we also train the child caretakers on how to make toys from cheap and available resources in the community."

Mr. Luong Vien Phuong, B Vinh Nhuan Primary School, Vietnam: "In the past, before this program, children died in considerable numbers and houses which were not maintained properly often collapsed. So in school, teachers now incorporate this knowledge



into their teaching. Students then carry that knowledge back home with them. So in this way, students also become little agents who can help the work of the Storm and Flood Control department."



Ms. Hang Thavy, Class 8 teacher, Cambodia:

"After the training, I will take the lessons to my students and teach them how to prepare and protect themselves during a flood without help using flotation devices such as life jackets. Also, I teach about the further dissemination of this message to their parents, friends and the whole community."

Mr. Phan Quoc Tich, parent, An Giang, Viet-

nam: "In the Mekong Delta, we have floods for six months every year but our children rarely have a chance to learn swimming. Now the local authorities are organizing swimming lessons. I bring my daughter to these lessons so she doesn't drown during the six-month flood season."



The "Health Issues during Floods" booklet was produced and is still in current use by the Ministry of Health in its own public health program. The booklet provides an introduction to the different types of water-borne diseases and other health threats during floods and prescribes the preventive measures that should be undertaken by a household.

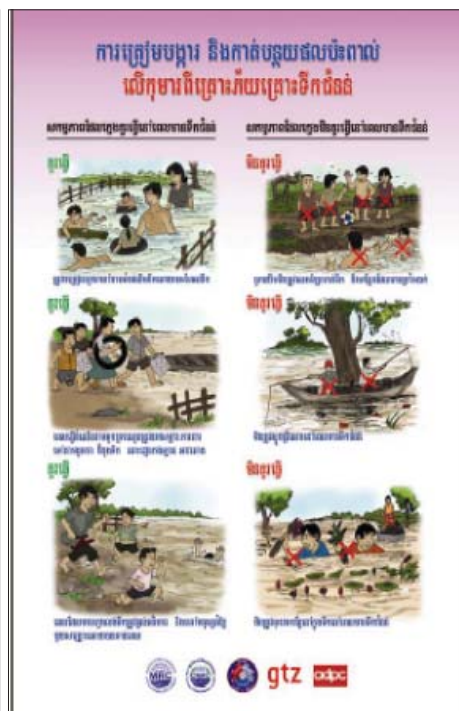
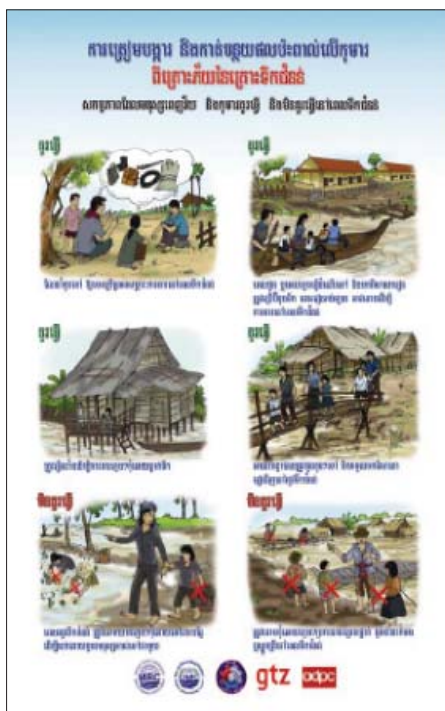
■ Child Safety Posters

Two sets of posters were used by the flood risk awareness campaign of the FEMS project: the first set consisting of three posters depicts household flood safety measures that should be undertaken before, during and after floods. Another set of two highly illustrative posters was designed and produced specifically for children and promotes taking appropriate precautionary measures to prevent the incidence of child drowning during floods.

One poster directs its messages to

the parents while the other is directly addressed to children. A total of 800 copies of these posters were distributed to the pilot schools and com-

munes. The posters were likewise adapted from those used by the Save the Children Alliance in Vietnam.



Teacher Orientation Workshops

Orientation workshops for school teachers and educators were conducted for provincial and district education officials, school principals and technical officers (i.e., school official responsible for curriculum development).

A total of four training courses were conducted that was attended by some 76 participants coming from the four districts of Peam Chor and Sithor Kandal in Prey Veng province and Lovea Em and Leuk Dek in Kandal province. In these orientations the flood information kit was introduced and its use as a tool for educating children on flood risk reduction was extensively discussed.

Emphasis of the training was on enabling the participants to undertake a similar orientation and training to school teachers in the primary grade levels. The objective is to produce a “multiplier effect” once the selected trainers provide similar teachers training to other schools in the two provinces.

A key part of the training is the facilitation of a planning process whereby provincial and districts school officials are assisted in devel-



Schoolteachers undergo orientation on flood preparedness as part of the School Flood Safety Program.

oping a plan to disseminate and train other teachers in schools not covered by the pilot initiative.

A separate orientation training was conducted for teachers in two pilot schools by the provincial and district officials of the Department of Education, Youth and Sports, PCDM and DCDMs with assistance and support of a local NGO, the Srer Khmer (SK). The partnership established with Srer Khmer is part of the overall effort of ensuring that knowledge and skills are purposely transferred to national and local organizations and

thereby increase the probability of sustained interventions and initiatives in this area.

Classroom Dissemination

School session plans were developed by the school’s technical officer and teachers to form the basis of the actual classroom teaching. Flood risk awareness and child safety sessions are now being conducted regularly in Koh Ras and Veal Robang Leu primary schools, the two pilot schools selected in the districts of Lovea Em and Peam Chor in the provinces of Kandal and Prey Veng respectively.

The sessions have been incorporated into social and “life skills” (e.g., health-care, cooking, sewing, care for the sick, et) subjects which is taught once a week for half an hour in primary grade school levels one to six. Teachers were exposed to various teaching methodologies and were free to adapt teaching methods that they decide are most appropriate. Primary schoolchildren from the two pilot schools are directly benefiting from this project.

Teachers have already reported some behavioral changes in their students observing that “an increasing number of students can now be ob-

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Logos for UNICEF, GTZ, and ADPC are visible at the bottom of each column.

served to be bringing simple flotation devices during the flood season”. The old practice of students racing their boats to school has also reportedly diminished considerably and more and more parents are bringing their school to children.

Additional school-based activities are introduced before the annual flood season begins. During the last flood season, for example, reminders and announcements were regularly broadcasted during the morning assembly of students and teachers have also started planning for the commemoration of an annual “flood risk safety day” with corresponding awareness activities.

Integration into School Curriculum

Efforts to integrate flood risk awareness into the school's curriculum were made through the involvement and participation of the school technical officers in all the activities and processes initiated.

The school technical officers are responsible for ensuring that the content and manner of teaching used proceeds according to the standards set by the Department of Education, Youth and Sports (DEYS). The technical officers also provided guidance and support to



Schoolteachers are a highly respected source of reliable information. Above photo shows a Prey Veng schoolteacher explaining flood safety measures to her pupils.

teachers in the formulation of specific session plans for the teaching and dissemination of flood risk awareness and child safety classes and in the use of information, education and communication materials and tools developed.

The project also complemented a larger, although separate, initiative by the ADPC at the national level to formally integrate disaster risk re-

duction into the official school curriculum under the “Mainstreaming DRR into Education” Program. Under this program the two schools under the FEMS project were identified and selected as pilot schools for testing of the disaster risk reduction modules developed by the Department of Pedagogy of the Ministry of Education, Youth and Sports.



An officer of MOEYS briefs schoolteachers in Prey Veng on integration of flood risk reduction as a subject in the school curriculum.

LESSONS LEARNED

- The use of schools and school teachers for knowledge and information dissemination of flood risk reduction, if sustained, establishes a solid foundation for long-term flood vulnerability reduction in the communities.
- Dissemination of flood risk awareness through schools was effective because the teachers and school officials (i.e., communication messengers or senders) are perceived as trustworthy and reliable by schoolchildren and the community at large (i.e., receiver or targeted audience).
- Messages communicated must be based on existing local knowledge and grounded on local social customs and traditions if these are to be understood and effectively absorbed.
- Given the opportunity and support, children and the youth can play a role as informal communicators of messages to their own households and communities. More so that children can more readily accept and absorb new knowledge and skills.
- The investment, in terms of time and resources, required for designing school-based flood risk information and safety campaigns is initially high but can be easily “recovered” and become cost-effective particularly when replication is done in more schools.
- The design phase of a school-based flood risk awareness campaign can be shortened by adapting existing information, education and communication materials and methodologies to local conditions.
- Presence of national government policy on integration of disaster risk reduction into school curriculum together with appropriate capacity building of local disaster management and school officials creates the enabling environment from which disaster (including flood) risk awareness and education through schools can be sustained and replicated to other areas.

CONCLUSION AND THE WAY FORWARD

The school-based teaching of flood risk awareness and child safety during flood is good practice because it responds to a specific, but often neglected, need of highly vulnerable children. In addition to being practical, it is also cost-effective and replicable. Communication and dissemination, however, is a dynamic and multi-faceted process that requires periodic reviews if communication messages and media are to remain relevant to the needs of targeted audience.

Towards this end, a feedback mechanism should be designed and put into place so that effectiveness of information, education and communication method-

ologies and tools used can be more clearly determined and opportunities to introduce new dissemination methodologies and tools both internally generated or from adaptations of good practices from other local and international organizations, can be introduced. A simple feedback and monitoring system should be considered as an integral component of any similar initiative in the future.

Finally, the role of schools in terms of its value as a community resource in disaster risk communication and disaster response should be more purposefully integrated into local commune disaster preparedness capacity building and planning so that its use can be fully recognized, optimized and adequately maintained.

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Safer Communities is a series of case studies that illustrate good practices of 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.

The series aims to provide 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 risks and vulnerabilities and building more disaster-resilient and better prepared societies.

The first few case studies under the series have been developed under the Component 4 "Flood Emergency Strengthening" (FEMS) of the Flood Management and Mitigation Programme (FMMP) of the Mekong River Commission Secretariat (MRCS). Therefore, the focus of these studies will be 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 other countries and other natural disasters are to be added over the years.

The Mekong River Commission Secretariat implements a Flood Management and Mitigation Programme (FMMP) designed to prevent, minimize, or mitigate people's suffering and economic losses due to floods, while preserving environmental benefits. FMMP has five components:

1. Establishment of Regional Flood Management and Mitigation Centre
2. Structural Measures and Flood Proofing
3. Enhancing Cooperation in Trans-boundary Flood Issues
4. Flood Emergency Management Strengthening
5. Land Management

The Component 4 "Flood Emergency Management Strengthening (FEMS)," of the FMMP has been implemented by the MRCS with technical assistance from the Asian Disaster Preparedness Center (ADPC) and funding support from the Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ), started from September 2004 to April 2008. The project target areas are in Cambodia and Vietnam, namely two provinces and four districts each in Cambodia and Vietnam. The project partners are the National Mekong Committees, National Disaster Management Offices and their local authorities at provincial, district and commune levels, concerned line agencies, mass organisations, Red Cross Societies, international organisations, local and international NGOs, etc.

Since 2004, FEMS has achieved the following:

1. Flood Preparedness Programs (FPP) in the target districts and provinces developed and implemented.
2. Local and national capacity in support to the FPP development and implementation process built through training at local levels on community based flood management, damage and need assessment, search and rescue, emergency kindergarten management, swimming lessons for children, etc. and involving/participating in the project implementation.
3. Public awareness on household safety measures at local levels raised, including school teachers' orientation and School Flood Safety Program for schools, identification of special needs of women-headed households, cultural performances, folk songs, distribution of flood booklet, posters, etc.
4. Local and regional knowledge sharing conducted through national and regional workshops as well as distribution of good practice documents.

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