

**INSTITUTIONAL ANALYSIS
FOR
KANDAL PROVINCIAL COMMITTEE FOR DISASTER
MANAGEMENT**

REPORT

GTZ – MRC – ADPC PROJECT
ON
FLOOD EMERGENCY MANAGEMENT STRENGTHENING

APRIL 2005



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KANDAL OVERVIEW

Geography

Kandal province is a south-eastern province that is bordered by the Mekong river and Prey Veng province to the east, Kampong Cham to the north, and to the west, Kampong Speu (northwest) and Takeo (southwest). 11 districts make up the province. In Kandal, there are 4 rivers: Tonle Sap, Tonle Basat, Mekong Kraum, Mekong Leu.

Kandal province is in the low area, vulnerable to floods. Floods can be very useful for because they bring fish, help grow agriculture. However, floods also can cause a lot of damage and destruction. Floods affect 7 districts. Sang district has serious floods. The next serious are Lovea Em (Preah Komen, Preah Desay communes), Leuk Daek (Kartom commune) and Sa Kandal.

Safe Areas

- ◆ Have more than 300 safe areas in Kandal (including schools and pagodas)
- ◆ Choose highest level in district (DCDM is responsible for these).
- ◆ 11 safe areas made by provincial Red Cross.
- ◆ CRC has 11 safe areas in Kandal (however, not one per district. depends on the vulnerability of each district)
- ◆ Each CRC safe area has
 - a building with a toilet
 - a building with 4 rooms for shelter
 - one pump well

Medical Facilities

- ◆ 5 hospitals
- ◆ 89 health centre (in the communes)
- ◆ 50-100 beds in the hospitals
- ◆ 2-3 beds in health centres
- ◆ 4-8 staff in health centre (no doctors, just nurses)
- ◆ 11 districts in Kandal, but MOH decided to only set up 5 hospitals

OVERVIEW OF LOVEA EM AND LEUK DAEK DISTRICTS

Lovea Em District Information

- ◆ District is in the low area, flood prone
- ◆ 15 communes
- ◆ 43 villages
- ◆ 10 communes along the Mekong river
- ◆ 3 communes along a small river along the Prey Veng border
- ◆ 2 villages on Veal Somnap lake
- ◆ 14,302 families in LE district
- ◆ 72,093 population
- ◆ 38,498 women
- ◆ 40,210 over 18 (22,197 women)
- ◆ Flood season 15/7-11/10
- ◆ Drought season end of December to March

Flood situation/severity depends on the level of flood

- ◆ 8-9 metres still normal situation (district is quite high from the Mekong river, see photos)
- ◆ >9.5 metres know there will be a flood, majority of roads along the Mekong will be flooded
- ◆ >10 metres 35 villages will be flooded
- ◆ >10.5 metres all villages, entire district will be flooded

In Lovea Em, the flood waters come from Sa Kandal district to flood the Mekong river. Both Lovea Em and Sa Kandal have rivers around them.

Floods affect not only lives, but houses as well. In 2004, 30 families had to move permanently due to flood damage. The river eroded the bank, their land was lost.

Safe Areas

- ◆ 33 safe areas
- ◆ Locations are chosen from past experience
- ◆ Poom Preak Kamen village, Preah Kamen commune has a stand out school as a safe area. school is raised, and separate toilet building is also raised
- ◆ Another 32 safe areas (pagodas, schools), but they are not stand out safe areas
- ◆ Request PCDM to build more clean toilets and provide clean water for the safe areas
- ◆ Specific safe areas for animals (roads and bridges)

Leuk Daek District Information

- ◆ 11,039 families
- ◆ 56,266 population
- ◆ 29,345 women
- ◆ 7 communes
- ◆ 24 villages
- ◆ 37,436 hectares
- ◆ 49km along the Mekong

The situation in Leuk Daek is not all that different from other areas. Since the districts is along the Mekong river, floods easily. The district faces floods every year because it is in the low area

- ◆ In 2000
 - 95% of the district was flooded
 - 7,879 families affected
 - 4,959 families seriously affected

Flood Knowledge & Information

- ◆ Know from experience which areas will be flooded
- ◆ Leuk Daek is always flooded
- ◆ Flood maps would be useful to identify which areas will get flooded first
- ◆ During floods, all information comes from the commune chiefs
- ◆ Each commune has safety areas (pagodas, schools, temporary areas made by the community (no water and toilets))
- ◆ Commune chief is responsible for the maintenance of the safe areas
- ◆ Red Cross has flood markers (23) and flood boards (6) in 6 villages (2 communes)
- ◆ RCV check the level of flood
- ◆ Report daily by radio (iCom) direct to the district to report flood levels
- ◆ Each village has 1 iCom
- ◆ 3-5 RCV's in each village

KEY ISSUES & RECOMMENDATIONS

Identification of roles and responsibilities of all members of PCDM

- ◆ Few departments create their own emergency preparedness plan b/c think this is the PCDM's responsibility/mandate
- ◆ PCDM hands out a document with department responsibilities listed, but it is not detailed, so many departments have no idea what their role actually is in preparing for and responding to floods.
- ◆ Departments do not have clear ideas of what their role as a member of PCDM is
- ◆ All departments given general activities for preparedness and response with only the departments deemed relevant given specific tasks (ie rural development, agriculture, water resources, etc).

All departments have a specialty which should be utilized to it fullest in disaster preparedness and response (ie Dept of Women's Affairs can look specifically at the needs of women in preparing for a responding to disasters, Depts of Culture and Religion can do public awareness raising about disaster preparedness, etc).

Need to clearly identify each department's abilities and potential roles in disaster preparedness. Assign responsibilities accordingly to each PCDM member department.

Encourage each department to create their own disaster preparedness plan, according to the department's specialization.

PCDM

- ◆ Meetings
 - Pre-flood planning meeting to discuss preparedness (June)
 - Irregular meetings during the floods
 - Post-flood meeting to consolidate data, discuss problems that arose during the floods and their solutions, and lessons learned for next time
- ◆ Some department are left out of some meetings. Deemed un-relevant
- ◆ Some departments claim the PCDM focuses too much on response and short-term preparedness instead of long-term preparedness

Need to standardize meetings. Invite all members to all of the flood meetings. Have regular meetings during the floods. Take meeting minutes, prepare written documents from meetings detailing discussions. Pre-flood planning meetings should be held in April/May to allow for greater preparedness and in the event the floods come early.

Post-flood meeting should occur as soon as there is no longer an emergency/disaster. Should discuss problems that arose, what was done to fix them, lessons learned. Ensure the lessons learned from the previous year are incorporated into the preparedness plan.

Lack of written documents

Rely mostly on past experience and memory. Need to document plans and lessons learned to be able to improve on the plans for the next season.

Budget

- ♦ Few departments have a budget for emergencies (preparedness or response)
- ♦ PCDM has an emergency budget, but is small and can only be used for small disasters

Floods and other disasters occur every year. This should be incorporated into the budget of all departments as an expected event, not to be treated as unanticipated. This budget does not need to account for the worst-case scenario but should be realistic according to past events and the needs. Should also include budget for preparedness, not just response.

Lack of consistency in flood warnings

- ♦ Some departments are not even warned.
- ♦ Some people are warned from secondary or tertiary sources, while others are warned from numerous sources.

Need to streamline communication so information is received from knowledgeable sources in a timely manner.

Flood Maps

Few departments have flood maps (in particular, land management and urban planning), and those that do, the maps are made from past experience instead of hard data. Must understand the value of past experience, but also must understand its limitations. Could use maps created by combining flood data and experience. Make sure that the information gained from the flood maps is incorporated into planning for preparedness and general planning as well

Training

Need to provide training in disaster preparedness, first aid, search and rescue for the PCDM members to strengthen their roles in flood preparedness and response. Provide training for trainers so that they will be able to train the others in the departments and also civilians in disaster preparedness.

Safe area management

Need to provide training on safe area management to the departments responsible for safe areas. Need to make sure before floods come that the safe areas are suitable and ready to be used as temporary homes for the displaced people. Should also provide training to train the people living in the safe areas how to use the toilets, clean water, hygiene, health, etc.

Transportation

There is a major lack of transportation equipment in the province. Most departments have no equipment, so must rent/borrow if they are to participate during the floods.

Communications

Communications is a problem with most departments (barring the military and police) due to lack of or damaged/broken equipment.

Public awareness

There are few public awareness campaigns regarding disaster preparedness. The department of culture had a disaster preparedness show in 2004 (sponsored by SEILA), but had to close because the budget was cut. Need wide-reaching, cost-effective campaigns to raise people awareness of floods and what to do to prepare for them. Such campaigns could include stage performances and posters. Could use the SEILA/dept of culture show as a basis and expand to other areas.

Data Collection

There seems to be overlap in the data that is collected. ie. most departments collect general data such as # affected, dead. Often they get different numbers. But few departments collect specialized data. Women's Affairs does not collect any data specific to women (women-headed households, domestic violence, etc). Need to streamline the data collection process to avoid overlap and also to expand the amount/types of data collected to cover the cross-cutting issues of disasters. Individual departments should collect specialized data appropriate to their skills/knowledge.

Response

Need to clarify arrangements for response. Who is responsible? Stockpiles, distribution, relief supplies (food, water, tents, mosquito nets, etc).

Coordination

The departments cooperate when necessary, ie during the PCDM meetings, but do not coordinate their activities with each other to ensure synergy. Communications need to be improved. Also, need to make sure that each department understands the roles and responsibilities of all the other departments (in disasters and in general operations).

SUMMARY OF KEY ROLES AND RESPONSIBILITIES

| Provincial Service of Water Resources and Meteorology | | |
|---|--|--|
| <p>Key Responsibilities:</p> <ul style="list-style-type: none"> ◆ Main responsibilities are to look after infrastructure side (levees, dykes, etc...) ◆ Estimate flood levels ◆ Flood warnings | <p>Problems:</p> <ul style="list-style-type: none"> ◆ No training for the staff responsible for reading the water level | |
| <p>Before:</p> <ul style="list-style-type: none"> ◆ Estimate the level of the water, and ◆ Broadcast by radio and TV, issue warnings, disseminate info ◆ The MOWR informs every station to prepare for the flood ◆ Policy: dyke protection to protect against the floods ◆ MOWR is responsible to construct these dykes ◆ Policy: avoid the way of the flood ◆ Separate the water block of the road (MOWR responsibility) | <p>During:</p> <ul style="list-style-type: none"> ◆ DoWR has one office responsible for buildings (irrigation office). ◆ MWR controls the big projects, provincial level for smaller projects. ◆ Ministry of transportation is responsible of the roads. ◆ Invite people from outside to participate with authority and provide equipment (boat or ship). ◆ send data to the district level, ◆ report to province (PCDM), PCDM reports to DCDM, DCDM tells the people | <p>After:</p> <ul style="list-style-type: none"> ◆ |
| Department of Agriculture | | |
| <p>Key Responsibilities:</p> <ul style="list-style-type: none"> ◆ Fisheries and agriculture ◆ Prepares the seeds for the rice ◆ Deliver seeds to the people. ◆ Prepare the staff to involve with the PCDM or another department when there is a flood | <p>Problems:</p> <ul style="list-style-type: none"> ◆ Which budget to use for floods. ◆ Identifying who is affected by the flood. ◆ Before we had the committee of the canal in each district, but now they have no activities, b/c have no money to pay for these activities | |

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| <p>Before:</p> <ul style="list-style-type: none"> ◆ Make a plan of how to provide the seeds ◆ Have one rice bank in 42 communes that are always flood prone ◆ Guidelines from the agri dept, inform of planting times ◆ Animal injections ◆ Policy of MoA to change from rainy season to dry season planting to protect from flood damage. ◆ Use the seeds that grow faster in the rainy season to avoid the floods and drought. | <p>During:</p> <ul style="list-style-type: none"> ◆ Send staff to get data from each district ◆ Prepare during the flood the plan of what needs to be rebuilt after the flood. ◆ Have a plan to provide boat to help bring people out of the affected areas with cooperation with PCDM. ◆ Rice banks | <p>After:</p> <ul style="list-style-type: none"> ◆ Prepare the plan to request help form the ministry of agri. ◆ The prov agri has plan to distribute to people affected by the flood ◆ Help only those most severely affected with a field to plant the rice. ◆ Staff members working in the DCDM works with the commune authority to assess needs. |
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| Health Department | | |
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| <p>Key Responsibilities:</p> <ul style="list-style-type: none"> ◆ Health of people ◆ Medicines ◆ Medical interventions | <p>Problems:</p> <ul style="list-style-type: none"> ◆ Accessing the affected areas ◆ Staff also affected by floods, difficult to help others while dealing with the floods personally ◆ No shelter in the safe areas for people ◆ Health locations in the safe areas are ad hoc, not specific location | |
| <p>Before:</p> <ul style="list-style-type: none"> ◆ Prepare for flood ◆ Flood committee: ◆ Identify areas vulnerable to floods ◆ Locate areas to set up offices for the floods ◆ Awareness campaigns, materials ◆ Deliver medicines to the health departments in the vulnerable areas ◆ Attend PCDM pre-flood meeting | <p>During:</p> <ul style="list-style-type: none"> ◆ Relief work ◆ Emergency group: ◆ Identify the safe areas ◆ Made up of doctors and nurses ◆ Assess living areas, sanitation ◆ Assess peoples health ◆ Receive report from the medical centres in the affected areas | <p>After:</p> <ul style="list-style-type: none"> ◆ Repair damage ◆ Follow up on medical situations of people in the affected area ◆ Interventions where necessary ◆ Collect data ◆ Make a report ◆ Attend PCDM post-flood meeting |

| Department of Social Welfare | | |
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| Key Responsibilities: | | Problems: |
| <ul style="list-style-type: none"> ◆ Community groups ◆ Help vulnerable people | | <ul style="list-style-type: none"> ◆ Can only identify the problems, not fix them because no budget |
| Before: | During: | After: |
| <ul style="list-style-type: none"> ◆ Gather info about who can help themselves, and who can't ◆ Receive information about which areas are vulnerable from the social welfare offices in the districts. | <ul style="list-style-type: none"> ◆ Request food from the government, money for the seeds. ◆ Collect data of which areas are first affected by floods. ◆ Find out how many old people, adults, children in the poor families ◆ Do the evaluation of people who are hungry and have no food | <ul style="list-style-type: none"> ◆ Used to have a special program for affected people after the floods, but since 2004/5, we no longer have a budget for this. ◆ This program: Provide food and equipment (clothes, tanks, mats, blanket, mos. net, pot). ◆ Submit an evaluation to PCDM ◆ Only help for the most affected. |

| Planning Department | | |
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| Key Responsibilities: | | Problems: |
| <ul style="list-style-type: none"> ◆ Create general plan every year (more for development than disasters) Includes village data | | <ul style="list-style-type: none"> ◆ |
| Before: | During: | After: |
| <ul style="list-style-type: none"> ◆ Create general plan ◆ Plan for the entire province ◆ 1-year, 3-year and 5-year plan ◆ Train 13 staff ◆ Organize transportation | <ul style="list-style-type: none"> ◆ Go to the affected areas ◆ Identify number of families affected ◆ Collect data about flood damage ◆ Each staff gets damage data from the local authorities in the affected area | <ul style="list-style-type: none"> ◆ Meeting with the PCDM ◆ Consolidation of data ◆ Planning dept has all the data after the meeting ◆ The PCDM sends the depts. back to the villages to work on their skills |

| Department of Education, Youth and Sport | |
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| Key Responsibilities: | Problems: |
| <ul style="list-style-type: none"> ◆ Schools ◆ Educational materials | <ul style="list-style-type: none"> ◆ |

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| <p>Before:</p> <ul style="list-style-type: none"> ◆ Inform or remind of the upcoming flood season to the school – through meetings ◆ To register all students before closing the schools (record the number of students) | <p>During:</p> <ul style="list-style-type: none"> ◆ Schools on high ground used as the safe area ◆ Students to help the victims through donations, etc... ◆ the school protects the school structure, books and the equipment within the school, move to higher ground | <p>After:</p> <ul style="list-style-type: none"> ◆ Principles of school report to Director of Provincial Education Dept on damaged equipment. ◆ Repair to damaged structures – MoE hires private construction companies ◆ Government regulations require that school be built higher than flood level so that they can also be used as temporary shelter. |
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| <p>Department of Public Works and Transportation</p> | | |
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| <p>Key Responsibilities:</p> <ul style="list-style-type: none"> ◆ Regular inspection, repair and maintenance of national roads, provincial roads, roads in districts and communes ◆ 5 provincial roads (412 km). Inspection of provincial roads carried out by officers from district PW office. ◆ | <p>Problems:</p> <ul style="list-style-type: none"> ◆ | |
| <p>Before:</p> <ul style="list-style-type: none"> ◆ Preparation: sand bags, not allow big trucks on some bridge beforehand (meeting with district police to enforce that). ◆ Raise the road beds (all the roads that are connected to the provincial town based on the flood level of 2000) | <p>During:</p> <ul style="list-style-type: none"> ◆ During a flood, 2 staff assigned to work with the PCDM and other department ◆ A separate group/ team for inspection of roads during floods ◆ Provincial and district officers work together. ◆ Equipment available for fighting floods ◆ Damaged data collected by district offices and sent to provincial dept. ◆ Raised roads are also considered a safe area. | <p>After:</p> <ul style="list-style-type: none"> ◆ Assess the level of damaged roads and bridges. ◆ Repair damage |

| <p>Land Management, Urban Planning, Construction and Cadastral Department</p> | |
|---|--|
| <p>Key Responsibilities:</p> <ul style="list-style-type: none"> ◆ | <p>Problems:</p> <ul style="list-style-type: none"> ◆ Have no idea who is doing what ◆ No flood maps or data, but would be useful if they had ◆ No regulations on the settlement of people in any area |

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| Before: ♦ | During: ♦ Assist when PCDM requests | After: ♦ |
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| Department of Culture and Fine Arts | | |
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| Key Responsibilities: ♦ Protection of the temples, old bridges, historical sites, buildings (105 houses) | Problems: ♦ Funding for disaster public awareness shows ceased | |
| Before: ♦ Has done public awareness shows for floods in the past (sponsored by SEILA) but now no more funding | During: ♦ Usually have around 6-8 meetings with PCDM if there is a serious flood ♦ Then each personnel sent to each district to help out the community ♦ Assess the flood damage ♦ Inform people and lead them to safe area | After: ♦ Assess the damage and report back to the Ministry and do the restoration |

| Department of Religion | | |
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| Key Responsibilities: ♦ Pagodas | Problems: ♦ | |
| Before: ♦ 1-2 days before move the small artefacts to a safe area ♦ 1 st check that the pagodas are not flood prone, and can be used as safe areas ♦ District governors are invited to the PCDM flood meeting ♦ District governor informs PCDM how many pagodas are in the district, and which ones can be used as safe areas ♦ Monks provide some sandbags to people to slow the floods to buy time to move livestock and essential things out of the way of the flood | During: ♦ Monks are responsible for the maintenance of safe areas ♦ Head monk, monks work closely with the people of the affected area to provide food and drink ♦ Encourage people to help/contribute/donate ♦ Set up small house or tent on pagoda grounds ♦ Travel to Phnom Penh to buy tents ♦ Involved in the PCDM teams that are sent to the affected areas ♦ Provide rice, food, mosquito nets, clothes, 12 million riel in assistance ♦ The monks will give an additional 5000 to make up the gap | After: ♦ Monks provide money to families to rebuild houses ♦ Houses are built in the same site because other areas already belong to other people ♦ Sometimes the monks provide money to help rebuild the damaged small roads ♦ Works closely with the district of public works to do this |

| Department of Economics and Finance | | |
|---|---|---|
| Key Responsibilities: <ul style="list-style-type: none"> Budget/Finance plan for the year | | Problems: <ul style="list-style-type: none"> Must request extra funds in case of large disasters Do not have information on donations for disasters, only what is budgeted |
| Before: <ul style="list-style-type: none"> Have an emergency budget item in the overall budget Included in the Development budget 2005: emergency budget is 203 million riel (4% annual budget) 2005: development budget 2950 million riel 2005: total budget is 4860 million riel 2004: emergency budget was 229 million riel (4.64% annual budget) emergency budget=PCDM budget | During: <ul style="list-style-type: none"> | After: <ul style="list-style-type: none"> |

| Provincial Red Cross | | |
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| Key Responsibilities: <ul style="list-style-type: none"> Safe areas (CRC has 11 in Kandal) Health public awareness | | Problems: <ul style="list-style-type: none"> Funding Communications (radios are broken) Need more staff during disasters |
| Before: <ul style="list-style-type: none"> RCV selection Training- first aid, disaster preparedness Health public awareness campaigns Follow CRC policy which is divided into preparedness, mitigation and response activities. <i>(have a copy of this policy)</i> Set up safety areas Create micro projects to prevent loss from flood Train RCV in flood area to inform locals when a flood is coming Make canals to reduce water level | During: <ul style="list-style-type: none"> Goes to the affected areas to collect data Make lists of people/families damaged by floods Provide food, clean water Transport to safe areas Health activities Toilet sanitation in safe areas Give health advice (ie go to medical centre), inform the health centre | After: <ul style="list-style-type: none"> RCV and district RC make a proposal to PRC to reduce the flood Loss data (livelihoods) PRC reports to PCDM and CRC CRC reports to NCDM |

| Provincial Military Police | | |
|--|---|--|
| Key Responsibilities: <ul style="list-style-type: none"> ◆ Evacuation ◆ Search & rescue ◆ Distribution of relief goods | Problems: <ul style="list-style-type: none"> ◆ | |
| Before: <ul style="list-style-type: none"> ◆ Training ◆ Attend PCDM pre-flood meeting ◆ Help people sandbag, sandbag roads, villages, depends on the situation ◆ Help people dig canals to divert/hold of the flood ◆ Prepare human resources to mobilize ◆ Organize flood teams ◆ Rice store ◆ To prepare for (flash) floods form the mountains, must have human resources and vehicles to move the people ◆ Must place human resources and vehicles in the high areas ◆ Rescue people from trees with boats | During: <ul style="list-style-type: none"> ◆ Send MP group to the flood area ◆ Evacuation ◆ Search & rescue ◆ Send vehicles and boats to transfer people to the safe areas ◆ Another group helps the elderly and children while families remove their valuables to the safe areas ◆ Distribute rice to affected people Provide clothes for the affected people ◆ Distribution depends on the situation ◆ Collect damage data ◆ District MPs are responsible for law enforcement in the affected areas during floods ◆ Attend PCDM flood meetings | After: <ul style="list-style-type: none"> ◆ PCDM reports to the MP, MP reports to headquarters ◆ Attend PCDM post-flood meeting |

| Lovea Em District Governor | |
|---|---|
| Key Responsibilities: <ul style="list-style-type: none"> ◆ To identify appropriate safe areas, and to report these to PCDM ◆ Liaises between PCDM and DCDM ◆ Report flood situation to the PCDM | Problems: <ul style="list-style-type: none"> ◆ No budget ◆ Even with human resources from police and MPs, there is not enough fro transport ◆ Lack budget, materials, transportation ◆ Can't get information to the villages in time due to lack of radios |

| | | |
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| <p>Before:</p> <ul style="list-style-type: none"> ◆ Act as head of DCDM ◆ Attend PCDM pre-flood meeting <p><i>DCDM responsibility before the flood:</i></p> <ul style="list-style-type: none"> ◆ In June, before the floods, DCDM holds a meeting with all the members to prepare for the flood season ◆ Each member has a specific responsibility (ie. Health prepares the medicines, Police prepare human resources) ◆ Prepare flood plan ◆ DCDM advise the commune heads who then report back to the DCDM regarding the situation in their commune, needs and requirements | <p>During:</p> <ul style="list-style-type: none"> ◆ Collect data | <p>After:</p> <ul style="list-style-type: none"> ◆ Rebuild/repair damage |
|--|--|--|

| Leuk Daek District Governor | | |
|--|---|---|
| <p>Key Responsibilities:</p> <ul style="list-style-type: none"> ◆ Safe areas ◆ Liaise between PCDM and DCDM | <p>Problems:</p> <ul style="list-style-type: none"> ◆ Safe areas don't have adequate number of toilets ◆ No budget | |
| <p>Before:</p> <ul style="list-style-type: none"> ◆ District governor attends PCDM pre-flood meeting ◆ Prepare boat, sandbags, safe areas ◆ District governor then invites DCDM members to a meeting to relay the flood preparation information ◆ Divide duties and responsibilities ◆ DCDM has written plan ◆ Also receive instructions for after flood ◆ How many safe areas ◆ Arrange/find transport ◆ Health centre has a campaign | <p>During:</p> <ul style="list-style-type: none"> ◆ Sandbagging ◆ Provide food for DCDM members working in the affected areas ◆ Patrol to survey damage, find flood victims, people ◆ Have an emergency/search and rescue team ◆ Collect data ◆ Also receive data from the commune chief ◆ Have list of names, number of persons/families affected, when they were affected, aid given by Red Cross | <p>After:</p> <ul style="list-style-type: none"> ◆ District governor invites DCDM members to a post-flood meeting ◆ Members report damage information/situation to the district governor ◆ Discuss improvements for future floods ◆ District governor then reports to the PCDM ◆ Collect all data and make one report to the PCDM, and also the Ministry of Agriculture |

| Department of Women's and Veteran's Affairs | | |
|--|---|---|
| Key Responsibilities: <ul style="list-style-type: none"> ◆ Women, children ◆ Domestic violence (but not during disasters) | | Problems: <ul style="list-style-type: none"> ◆ |
| Before: <ul style="list-style-type: none"> ◆ Attend PCDM pre-flood meeting ◆ Arranges a meeting with the WA officers in the district officers to relay flood preparations, district officers arrange meetings with commune officers, who then relay the information to the villagers/village women <ul style="list-style-type: none"> • Take care of children • Move property to safe areas • Move families to safe areas • Stop/close schools during floods • Pay attention to your families health • Sanitation • How to clean water (boil, chloramines) ◆ Each member department of PCDM is responsible for a district in Kandal province (first time I've heard this) ◆ This department is responsible for Leuk Daek district | During: <ul style="list-style-type: none"> ◆ If there is a flood, receive info every day village to commune to district to province (iComs, mobiles) ◆ Go in boats to persuade people to move to the safe area, look for people still in their homes ◆ Assess the needs of people in the safe areas ◆ Collect data (i.e. number displaced, needed medicines, etc) ◆ Do not collect any data specific to women | After: <ul style="list-style-type: none"> ◆ PCDM members create a plan to do follow up research on needs ◆ Attend PCDM post-flood meeting to report damage info, situations, what could be done better |

| Military Operation – Prey Veng | |
|--|--|
| Key Responsibilities: <ul style="list-style-type: none"> ◆ Human resources | Problems: <ul style="list-style-type: none"> ◆ |

| | | |
|---|--|--|
| <p>Before:</p> <ul style="list-style-type: none"> ◆ Attend PCDM pre-flood meeting, receive instructions for preparations ◆ Prepare human resources ◆ Sandbag, arrange boat rentals ◆ Rice store (see MP details) | <p>During:</p> <ul style="list-style-type: none"> ◆ Special teams are only sent to the flood area if PCDM requests it ◆ 150 people / team (?) ◆ Military unit reports data to the provincial department ◆ Search and Rescue (for all disasters) ◆ Good cooperation people in the affected area ◆ Provide fuel for the boats ◆ District military units help civilians. ◆ If extra help is needed, they make a request to the provincial department to send teams | <p>Before, During and After:</p> <ul style="list-style-type: none"> ◆ Send medical teams to the areas ◆ When they are sent depends on the information received from the district military units |
|---|--|--|

| Sang District, Prasaat Commune | |
|--|--|
| <p>District Info:</p> <ul style="list-style-type: none"> ◆ Commune is in a low location and is flooded all year round. ◆ Still have to use boats for transportation in dry season ◆ People own their own boats ◆ People who live here were born here and don't want to leave ◆ Houses were flooded by ½ metre in 2000 ◆ Some new houses are built above the 2000 flood level, but not all ◆ There are 2 safety areas (pagodas) for severe floods with 5 toilets (separate for monks, women, and men) | <p>Prasaat commune:</p> <ul style="list-style-type: none"> ◆ 8,720 hectares ◆ 5 villages ◆ 1, 099 families ◆ 5,924 population |
| <p><i>Went to visit this commune, despite Sang district not being one of the project districts because it was unique in that it was flooded all year round. However, arrived at commune to find out that it is not flooded all year round, but only for 7 months out of the year.</i></p> | |

| Commissariat General of National Police Kandal Province | |
|---|--|
| <p>Key Responsibilities:</p> <ul style="list-style-type: none"> ◆ Security ◆ Law enforcement | <p>Problems:</p> <ul style="list-style-type: none"> ◆ No training in search & rescue |

| | | |
|---|--|--|
| <p>Before:</p> <ul style="list-style-type: none"> ◆ Attend PCDM pre-flood meeting ◆ Prepare human resources, arrange to rent boats from people ◆ 100 police are ready to be mobilized (police form all units, stand by border police) ◆ Help out during the dry season <ul style="list-style-type: none"> · Provide fuel to people to run water pumps and generators · Sometimes help to dig the canal · For areas with water sources only | <p>During:</p> <ul style="list-style-type: none"> ◆ Wait for orders from headquarters before doing anything ◆ Move people and property to the safe areas ◆ Guard property ◆ Law enforcement ◆ Help PCDM distribute food to the affected people ◆ Collect data: affected, dead, missing ◆ Have rice store ◆ Distribute rice from the rice store to the affected people | <p>After:</p> <ul style="list-style-type: none"> ◆ Collect data: dead, damage, animals, people, houses, roads ◆ Help people dig canals ◆ Attend PCDM post-flood meeting (report damage, identify problems, discuss solution for problems and how to fix the damage) ◆ Help harvest the rice in the rainy season |
|---|--|--|

APPENDIX I: MEETING SCHEDULE

| NO. | DEPARTMENT | DATE OF THE MEETINGS |
|------------|---|-----------------------------|
| 1. | Water Resources and Meteorology Department | 8:30, 23 March |
| 2. | Agricultural and Rural Development Department | 14:30, 23 March |
| 3. | Health Department | 8:30-10:00, 24 March |
| 4. | Social Welfare Department | 10:30-12:00, 24 March |
| 5. | Planning Department | 14:30-15:35, 24 March |
| 6. | Education, Youth and Sports Department | 15:30-17:00, 24 March |
| 7. | Public Works and Transportation Department | 10:30-12:00, 25 March |
| 8. | Land Management, Urban Planning & Construction Department | 14:30-15:30, 25 March |
| 9. | Culture Department | 15:30-17:00, 25 March |
| 10. | Religion Department | 8:30-10:00, 28 March |
| 11. | Finance Department | 10:30-12:00, 28 March |
| 12. | Provincial Red Cross | 14:30-15:30, 28 March |
| 13. | Provincial Military Police | 10:30-12:00, 29 March |
| 14. | District Governor (Lovea Em) | 14:30-15:30, 29 March |
| 15. | District Governor (Leuk Daek) | 8:30, 30 March |
| 16. | Women Affairs & Veteran Department | 14:30, 30 March |
| 17. | Provincial Armed Forces | 8:30, March |
| 18. | Sang District, Prasat Commune | 11:00, 31 March |
| 19. | Provincial Police | 15:30, 31 March |

APPENDIX II: MEETING NOTES

The meetings with the PCDM member departments took place from 23-31 March 2005. This study is supported by and has the full cooperation of NCDM and the Kandal PCDM. A staff member from the PCDM headquarters, Mr. Khem Sopheap, accompanied ADPC staff to these meetings. These meetings were undertaken to identify the current roles and responsibilities of the PCDM members in preparing for, responding to and recovering from floods. Below are the notes from the meetings with the individual PCDM member departments.

Department of Water Resources

23 March 2005, 8:30

Participants

Chun Peng Long – Director

General

- ♦ Kandal province is in the low area, vulnerable to floods.
- ♦ Some floods are useful to people b/c floods bring fish, help grow agriculture.
- ♦ Though they are worried when the flood comes over and destroys.

Structure

- ♦ 5 offices – admin, irrigation, water & sanitation, conservation of water sources, meteorology (measure the level of rain)
- ♦ No department of WR at district level, but focal point
- ♦ Water resources management office in all districts, except pon neah leor which doesn't have enough human resources

Responsibilities

- ♦ Main responsibilities are to look after infrastructure side (levees, dykes, etc...)

Flood Warnings

- ♦ Estimate the flood level for this year and next year.
- ♦ If we know there is a flood in Lao, we can inform to the people about the flood.
- ♦ This office estimates the level of flood and if the level of water can destroy or flood in which areas.
- ♦ If you know the level of the flood, then we can know which areas are vulnerable. Last year, we estimated if the flood increases more than 10m.
- ♦ For estimate, get info from Chak Tumouk station (in the city) and Khos Khel station. Along the Mekong there is another station in Neak Leoung. Along Tonle Sap, Pret Trang
- ♦ In KK station, if the level is higher than 7m, then some areas are flooded.

Before Flood

- ♦ Estimate the level of the water, and
- ♦ Broadcast by radio and TV, issue warnings, disseminate info
- ♦ Have national radio, RC for announcement, NCDM
- ♦ The MOWR informs every station to prepare for the flood
- ♦ Policy: dyke protection to protect against the floods
- ♦ MOWR is responsible to construct these dykes
- ♦ Policy: avoid the way of the flood
- ♦ Separate the water block of the road (MOWR responsibility)

During Flood

- ♦ DoWR has one office responsible for buildings (irrigation office).
- ♦ MWR controls the big projects, provincial level for smaller projects.
- ♦ Ministry of transportation is responsible of the roads.
- ♦ Many departments responsible
- ♦ Invite people from outside to participate with authority and provide equipment (boat or ship).

- ♦ send data to the district level, inform
- ♦ report to province (PCDM), PCDM reports to DCDM, DCDM tells the people

After Flood

Capacity Building

- ♦ Have enough people
- ♦ No trainings, never had any, only at the national level, not provincial
- ♦ **What kind of capacity building needs are there here?** – need to build capacity at provincial level. Focus on skills and equipment for water level reading

Coordination

- ♦ Cooperate closely with the departments of agriculture, transportation, and local authorities in floods areas, district and commune in flood areas

Meetings

- ♦ Annual meetings – every June (beginning of flood season)
- ♦ Process – inform about water level, prepare some documents (water level info, send info to PCDM), meeting, make a plan for activities, rehabilitate irrigation projects.
- ♦ Discuss informally about measures and activities. No written instructions.
- ♦ **How often do you communicate with PCDM?** – every day. If there is a serious flood, one staff works full time with PCDM.
- ♦ **Is the planning enough?** – for the meeting not so important.

Any improvement that needs to be made to the entire process?

- ♦ Knowledge of how to stop flood
- ♦ Only have a plan to make safety hills, but no budget to make or maintain these.

Safe Areas

- ♦ Have more than 300 safe areas in Kandal
- ♦ Choose highest level in district (DCDM is responsible for these).
- ♦ 11 safe areas made by provincial red cross.

Accountability

- ♦ DWR must report to PCDM
- ♦ MR committee-NCDM-Cheng Nhan-MWR chief

Plans

- ♦ No written documents for plans.
- ♦ **Would it be helpful to have written documents?** – yes
- ♦ **What kind of plan would be good?** – instructions on estimating water level, and how to avoid flood (dig holes, dykes, levees). Economy of the project (budget), communications, which areas, what are the outputs

Department of Agriculture

23 March 2005, 14:30pm

Participants**Structure**

- ◆ 7 offices: Agronomy (research and provide techniques to the people, improved pest management ie production seed), fisheries, broadcasting (how to plant, how to feed the animals, how to fish, etc comes from research), animal health (injections, husbandry?) Planning, admin, financial
- ◆ 3 new offices: transportation/engineering/machinery/equipment, legal, agro-industry (change production processes)
- ◆ Provincial Rural development committee is under CDC (Cambodian development council). Not part of PCDM.

Responsibilities

- ◆ The mission of the ministry of agriculture has changed
- ◆ Before, the agriculture department included water resources, forestry department
- ◆ Now it is only the fisheries and agriculture
- ◆ In the dry season, it is the duty of the water resources department
- ◆ The agriculture department only prepares the seeds for the rice
- ◆ Deliver seeds to the people.
- ◆ Prepare the staff to involve with the PCDM or another department when there is a flood.

Before Flood

- ◆ Make a plan of how to provide the seeds
 - ◆ Department of agri (with agreement from MoA) decides to have one rice bank in 42 communes that are always flood prone
 - ◆ The agri department will provide the seeds to the commune, then after they get the results, they have to pay back, but not to provincial office, but to the commune level.
 - ◆ For the drought areas, they also have rice banks for each of the communes that are drought affected.
 - ◆ Damage is not as bad in the dry season as those affected by floods.
 - ◆ There is an agricultural calendar for each district (for cropping times), though some people do not follow this schedule.
 - ◆ For Kandal province, we plant the rice depending on the area.
 - ◆ For the corn, we have to start planting in June.
 - ◆ If we are late planting the corn, in august the waters will come inside the fields.
 - ◆ Guidelines from the agri dept, inform of planting times (but no written documents).
 - ◆ Ministry of agriculture only provides seed
 - ◆ Animal injections
-
- ◆ Policy of MoA to change from rainy season to dry season planting.
 - ◆ We still have rainy season rice but only in some districts. ie. 2000 hectares in the rainy season before, now in dry season (prek ambel commune, sang district).
 - ◆ Before 37000 hec plant in the dry season, 54000 in the rainy season (1980/1).
 - ◆ Now increase in dry season to replace for flood.

- ◆ Now 54000 in dry season, 47000 in rainy season (2001).
- ◆ Use the seeds that grow faster in the rainy season to avoid the floods and drought.

During Flood

- ◆ Send staff to get data from each commune or area (how much corn, rice is damaged, destroyed).
- ◆ Provincial sends only to district, but district sends a member to the commune.
- ◆ Prepare during the flood the plan of what needs to be rebuilt after the flood.
- ◆ Have a plan to provide boat to help bring people out of the affected areas with cooperation with PCDM.
- ◆ Instructions are only from province to district, the district has its own committee.
- ◆ **Rice banks** – in the commune, the member of the village committee is responsible for the rice bank. I.e. 5tonnes of seed in rice bank, people borrow 100kg, must pay back 110kg to the rice bank. Only operational during the planting seasons.

After Flood

- ◆ Prepare the plan to request help form the ministry of agri.
- ◆ The prov agri has plan to distribute to people affected by the flood
- ◆ Help only those most severely affected with a field to plant the rice.
- ◆ Staff members working in the DCDM works with the commune authority to assess needs.

Cooperation

- ◆ Work closely with the provincial red cross
- ◆ Work closely together with the irrigation department. Have to cooperate of how to use the water for the fields.

Public Awareness

- ◆ No posters for floods or disasters

How do you think you can improve the planning process within your department and also with other departments?

- ◆ Have policy for all the departments to work together.
- ◆ Have a rural development committee.
- ◆ When we have a meeting, have to prepare for priorities.

Problems

- ◆ Which budget to use for floods.
- ◆ I.e. We were flooded, not only rice was damaged, corn as well. But the proposal and government support is only provided for the rice, not for the other crops. Budget only for the rice seeds.
- ◆ Identifying who is affected by the flood.
- ◆ Before we had the committee of the canal in each district, but now they have no activities, b/c have no money to pay for these activities

Main impacts on agricultural products? Damages to rice fields, houses, animals

How can we reduce the damage? Change from wet season to dry season planning. Have programs for this (planting rice, trees, corn)

Have you provide any training for the community? Yes. Train them to know about how we can use the rice in the short term for, and the long term rice.

What do you think is needed at the community level? Provide larger rice banks. Vet or nurse for the health of the animals in the villages.

Department of Health

24 March 2005, 8:30am

Participants

Mr. Ou Pon - Deputy Director of Health Department

Before Flood**During Flood****After Flood**

What kind of role the health department plays before, during and after a flood. His department has one committee that helps when there is a flood. In those committees, the chief of this department is the chief of those committees. The admin dept is a member of the committee. All offices are member of the committee. This committee is responsible to prepare before the flood, do relief work during the flood, and repair after the flood. First thing... find out which locations are vulnerable to floods. Second... find out which areas to set up office when the floods come. One health office in each district, but didn't think about safe areas, so some may be flooded. Learn and move to safer area. Office is more like a clinic. So the old office will still be flooded. Use existing buildings in safe areas (pagoda, schools, etc). So the committees will follow all of the info received from the PCDM. Once we receive the info, we inform to all the districts about the floods. We prepare the awareness materials in (inform about clean water, be careful about diseases) – posters, public awareness materials, IEC. We also have the medicines. The first one we identify is the one that make water clean (chloramines 500mg). when we deliver this medicine we show how to use it. Deliver to the health department in the flood affected areas (issue just before the floods, once we know that a flood will happen). If we had a tank for clean water would be better, but since we don't have, must use the chloramine to clean the water. Snakes are common during floods. To counter a snake bite, have anti-venom IVs.

Main cause of death during floods: drowning, snake bites (not as serious),

In the PCDM, there is another group that will go to the area before the floods – the emergency group, to identify the safe areas. This group is under the health committee. Members are the technical office (doctors, nurses). PCDM informs about which locations are getting floods. Go to find out: First figure out living arrangements, is there sanitation? Then find out the peoples health. There is a provincial nurse and doctor, as well as the district nurse. But the medical facilities in those areas will be affected by floods too. Will have trouble getting there during the floods. It is very important for the government to think more about these people when the flood comes out. This group is formed when we receive information about the floods from PCDM. Once we receive the info from PCDM, can get report from the medical centres in the areas. This group is formed because of the situation, not from PCDM policy.

After the flood is finished, then people will have a lot of diarrhoea. When the flood is finished, people come back to their homes, which are still dirty from the floods. It is very important for us to follow up with these people to find out what has happened to them once they've gone back to their village. If situation is serious, chief of district medical

centre will report back to the provincial department every day, if not so serious, every week.

After the flood, follow up with the

Make report, collect data, how many people died, how many ill, ... to send to the MOH

For the last flood, we had a lot of problems. 1. staff who worked in the medical centre got stuck from the flood, had to deal with flood himself, as well as help others. 2. in the safety areas, don't have shelter for people to stay. 3. don't have an exact location for health in the safe areas. Ad hoc.

5 Hospitals in Kandal province, 89 health centres (in the communes). (doesn't include hosp in PP)

50->100 beds in hospitals, 2-3 beds in health centres. 4-8 staff in the health centre (no doctor, only nurses)

11 districts in Kandal province. But MOH decide to only set up only 5 hospitals.

Structure

- ♦ Admin, financial, medicine store office (management of the medicine, logistics, private clinic), technical office (doctors, communicable disease control, mother health, child health)
- ♦ Should do research on vaccines, but have no funds to do this. MOH does this kind of research.

Medicine is issued direct from MOH to the districts.

How do you think you can improve your service to the community?

1 - improve transportation for the staff to access to food areas and safety areas.

2 - have staff not affected, live in the safe areas

3 - motivation for the district staff so they don't have to worry about their own family

4 - before the floods, we provide enough service to the people, but during the flood, we can't provide enough service (ie for HIV, pregnant women)

5 - important thing to do during the flood depends on the situation at the time, especially for the diarrhoeal disease, and human communicable diseases.

6 - some areas can do more, depends on the floods
(improve transport? access?)

Do you have some kind of resource inventory for before the flood?

Yes. Updated yearly. So that in the store office they record every month, every 3 months, and yearly.

Get a report every 3 months from the private hospitals about what kind of illnesses go there.

Work closely with other departments in PCDM during floods. Transportation, provincial red cross.

Red cross provides food for the affected people in the flood areas. And is responsible for the safety areas.

Search & rescue?

Health department only takes care of people's health. For S&R, must work closely with other departments (ie MP).

Water & sanitation?

Coordination?

Organized by PCDM, though sometimes only within departments. Sometimes report to the PCDM. Not through PCDM.

No written documents outlining responsibilities.

Issue instructions to the districts on what to do? Yes, but only have letter inform them to make their own plan with a little instructions. (see sample document)

Write a letter every year, adjusted according to current situation and lessons learned/experience from the previous year

In the district level, have almost the same structure as the provincial level.

After the flood, do you meet with PCDM to discuss what needs to be improved?

Very year after the flood, the PCDM invites them to go a meeting to brief on the report. In the meeting, each department must inform what the problems were, what they had to do. After the meeting, each department makes another report to send to the ministry (health situation, plan to do next, what we had to do after the flood is finished.

Report:

- 1- tell what we have to do better for the next time
- 2- make requests for things needed to improve

MOH tells the staff of each department on how to save the people from drowning, snake bites.

2 meetings with the PCDM. One before the flood, one after the flood. Not during the flood as every department is busy in the field.

Department of Social Welfare

24 March 2005, 10:30

Participants**Structure**

- ♦ (79 people total, 29 women)
- ♦ Provincial – 5 offices (health social (social work, people who cannot work - retired people, children, etc), health social children, farmer, admin, financial and planning) , 3 centres (orphans – French hungry centre (174 children), HIV consultation (& children), handicapped people)
- ♦ District – centre for farmers,
- ♦ Training from UNICEF (everybody)

Policy

- ♦ It is the social welfare policy to help people in the province. Every year in Kandal province, there is a disaster, flood. If we do not set up community groups, identify which group is poor, which affected, etc, do not get help from the government.

Programs

- ♦ Stop child beggars from coming from the province to the city (have good cooperation with the community for this project)
- ♦ Help homeless people in the city. Have training to acquire skills, so they can go home to their commune and make a living/money in a business.
- ♦ Worried about the movement of people from the province to the city.
- ♦ Stop the trafficking of children to another country
- ♦ During the dry season, no water to plant rice. For this program, the social department informs to all the districts to find out which communes do not have any water to grow rice and which areas are first to be flooded.
- ♦ Make up committee to do research in the communes, and makes report to the district governor. Then select which commune in the district to set up the community groups. Wants to get support from NCDM for this program to avoid migration to the cities from the districts.
- ♦ New program, find out what are the problems for the old people, the migratory people.

- ♦ This department works closely with 2 districts (Takhmao district, Prey Desay commune) make one community group each for rich and poor families to help family when someone dies for funeral arrangements. 2nd district (sang district, krandleal? commune) make a community group to help the poor families.
- ♦ Find out from the community groups what they should do for them during the dry season and also during the floods.
- ♦ Want to set up a 3rd community group for disasters.

Before Flood

- ♦ Once receive the flood warning, gather info about who can help themselves, and who can't
- ♦ The minister of the social affairs gets warnings before other departments because they are members of the red cross.

- ◆ Receive information about which areas are vulnerable from the social welfare offices in the districts. This is the first department to find out about the floods
unlikely

During Flood

- ◆ Request food from the government, money for the seeds.
- ◆ Collect data of which areas are first affected by floods.
- ◆ Find out how many old people, adults, children in the poor families
- ◆ Do the evaluation of people who are hungry and have no food

After Flood

- ◆ Used to have a special program for affected people after the floods, but since 2004/5, we no longer have a budget for this.
- ◆ This program: Provide food and equipment (clothes, tanks, mats, blanket, mos. net, pot).
- ◆ Do not provide shelter.

- ◆ Submit an evaluation to PCDM, which areas are most vulnerable to floods. What are their problems. Identify who is vulnerable. Inform what they have done during the flood. Bring up what things need to be improved. Report directly to the meeting, no written report.
- ◆ Only help for the most affected.

Problems

- ◆ The department has no resources to help people, but only to identify problems, not fix them.

Requests for ADPC

- ◆ work together with those 2 communes
- ◆ help them to train the homeless people in this province
- ◆ to do an evaluation of commune (which is the poor people, orphans, old people)

Department of Planning

24 March 2005, 14:30

Participants**- Director****2004 General Plan**

- ♦ Village data (population, #women, #men, #children, #rice fields, # animals, etc, everything) for all of Kandal province.
- ♦ No specific damage data for floods.
- ♦ More of the development, than disasters.
- ♦ Funded by UNFPA.
- ♦ Not sure when 2004 book will be finished.
- ♦ Can get copy of 2003 book.

Before flood

- ♦ Create general plan
- ♦ To make a plan for the entire province. 1-year plan, 3-year plan and 5-year plan.
- ♦ Train 13 staff, organize transportation

During Flood

- ♦ Go to the affected areas (b/c member of PCDM).
- ♦ Must know about how many families were flooded.
- ♦ Collect data about flood damage.
- ♦ Each department records all the data.
- ♦ Each staff gets damage data from the local authorities in the affected area.

After Flood

- ♦ Meeting with the PCDM. Report back about damage.
- ♦ Different depts. have different data, so at meeting arrive at correct data figures.
- ♦ Planning dept has all the data after the meeting.
- ♦ The PCDM sends the depts. back to the villages to work on their skills

Meetings

- ♦ Used to have monthly meetings with the planning dept and SEILA experts. But not for this year, only when this book is finished.

Education Department

24 March, 16:00 pm

Participants

Ms. Konkyan Bosabai, Deputy Director of Education Dept
 Mr. Petchum, Chief of Admin office
 Mr. Oum Thokla, Chief of Planning Office
 Mr. Chun Vunthum, Officer of Non-formal/ Non-official Education Office

Non-Formal/ Non-official Education – Vocational training, English school, etc..

School Curriculum

- ◆ Nothing on disaster or floods

Public Awareness

- ◆ 8 out of 11 districts face the floods, 252 schools in 8 districts vulnerable.
(kindergarten – 16, primary - 219, secondary- 17)
- ◆ 2 districts face flash floods from the mountain.
- ◆ information send to the school principle - to teachers – to students – to parents – to community (general information – just general warning announcing the beginning of flood season)
- ◆ the school protects the school structure, books and the equipment within the school (to keep the equipment and documents on higher ground) (when do they start doing that? Who ask them to do that? As a there is a flood or as the community receives the warning.)
- ◆ only health related public awareness activities – but health dept sends the materials directly to the schools in the communes

Before flood

- ◆ Inform or remind of the upcoming flood season to the school – through meetings
- ◆ Participants: Provincial Dept, all the principles, Chief of DOE (District Education Office)
- ◆ Topics of discussion:
 - Flood (July – September) – to register all students before closing the schools (record the number of students)

During flood

- ◆ Schools on high ground used as the safe area
- ◆ Students to help the victims through donations, etc..

After flood

- ◆ Principles of school report to Director of Provincial Education Dept on damaged equipment.
- ◆ Repair to damaged structures – MoE hires private construction companies
- ◆ Government regulations require that school be built higher than flood level so that they can also be used as temporary shelter.

Returning to school

- ◆ Normally the school opens again in 1st October (but depending on the situation it might change)

Project related

- ◆ Requests from the Dept:
 - Public awareness raising
 - Watsan in the school
- ◆ Lovea Em district – Prak Khmer primary school (there is a good example of Watsan at school)
- ◆ Sa Ung district, Prasak commune (flooded most of the year) – pay a visit

Department of Public Works and Transportation

25 March 2005, 10:30

Participants

Mr. Tek Nara, Chief of Admin
Mr. Bun Darak, Chief of Public works
Mr. Sum Rong, Civil Servant of the public works
Mr. Chun Darek, Technical Officer of PW
Mr. Oum Rasmey,

Responsibility

- ♦ Repair and maintenance of national roads, provincial roads, roads in districts and communes
- ♦ During a flood, 2 staff assigned to work with the PCDM and other department
- ♦ A separate group/ team for inspection of roads during floods
- ♦ Each group for National Rd.1, 2 (12 altogether for 335 km). No of people in each group depends on how serious the situation is (2-5 usually). Every week, **during flood**, the inspection will take place. The group will consist of reps from all five units under the dept + officers from district office, especially the emergency cases.
- ♦ Inspection takes place before, during and after as well.
- ♦ Regular inspection: 4 times a year. A specific team will do that.
- ♦ 5 provincial roads (412 km). Inspection of provincial roads carried out by officers from district PW office.

Structure

- ♦ 4 offices under provincial dept (Admin, Public Works, Finance, transportation) + road and bridge unit
- ♦ 11 district offices

Before floods

- ♦ Information receive priority to floods from MOWRAM that is broadcasted through public media
- ♦ Mainly the Basac info is used.
- ♦ Preparation: sand bags, not allow big trucks on some bridge beforehand (meeting with district police to enforce that).
- ♦ Raise the road beds (all the roads that are connected to the provincial town based on the flood level of 2000)

During floods

- ♦ Provincial and district officers work together.
- ♦ Based on the experiences, source of flood and vulnerable areas are known
- ♦ Nat'l Rd. 1, 8 – flood from Mekong, Rd. 2, 3 and 21 flood from the mountain, No. 5 from Tonle Sap river.
- ♦ Equipment available for fighting floods (e.g, trucks which can carry earth for the sand bags ... transportation, excavator, etc.. + the human resources) – road and bridge unit is the one that has all these equipment.
- ♦ Damaged data collected by district offices and sent to provincial dept.
- ♦ Raised roads are also considered a safe area.

After floods

- ♦ Assess the level of damaged roads and bridges.
- ♦ Then repair works began.

Coordination

- ♦ Under the advice of Provincial Governor, coordination occurs
- ♦ E.g, provide transportation of people who get ill to the hospitals, or medical team to the affected areas.

Building of safe areas

- ♦ No involvement in building safe areas.
- ♦ NCDM is responsible for building the safe areas, through private companies.

Building of new roads

- ♦ Features put into planning for flood preparedness.
- ♦ The main thing is the ht of the road.
- ♦ **Any information on flood? Any source?** (yes, they use but based on historical data rather than on maps, etc ... but they would be very useful if they are available.)

Cap Building of officers

- ♦ No training for the district officers and except for minor repairs and maintenance, everything else done by provincial technical team.
- ♦ No regular training but engineers/ technical staff carry out the works.

Land Management, Urban Planning & Construction Department

25 March 2005, 14:30

Participants

- ◆ Safe area – responsibility of WRM dept???? not NCDM (he has no idea)
- ◆ It seems they don't know who is doing what
- ◆ Only provide human resources in flood response to help PCDM and the affected community

Flood Information

- ◆ This is the job of PCDM
- ◆ No warning receive
- ◆ But information on flood level receive (from radio, TV as well as from PCDM by written documents and sometimes on phone)
- ◆ Data will help them a lot

Urban and land planning

- ◆ Existing map do not contain any flood data only the administrative boundaries
- ◆ No regulations on the settlement of people any area
- ◆ The flood maps would help (Provincial maps)
- ◆ Land in Kandal – farm land and residential land

Structure

- ◆ A copy will be provided

Culture Department

25 March 2005, 16:00pm

Participants

Mr. Sok Eoum, Director of Culture and Art Department

Structure of the department

- ♦ 101 members ???
- ♦ 6 offices (HR, conservation of historical sites, historical art, theatre, movie, cultural development)
- ♦ district cultural offices

Public awareness

- ♦ Has staged shows on floods/disaster/ domestic violence (what to do, where to go)
- ♦ Already staged in 25 communes (Pagoda, schools, markets, factory, etc.) in districts?? (4 districts Sa Ang, Pon Thong, Takemao, Steng Trung). The communes only located along the national roads get to see the show. Some of them get flooded some do not.
- ♦ Participants are employees from the art office
- ♦ Last year financed by SIELA program
- ♦ March/ April/ May 2004 (only last year)
- ♦ Over 23,000 people came to watched the show and liked it
- ♦ One show in 1 commune between 100 and 300 USD (total budget 2,275 USD for 25 shows)

Historical conservation

- ♦ Protection of the temples, old bridges, historical sites, buildings (105 houses)
- ♦ People are not allowed to go into the compounds and stay there
- ♦ After floods, assess the damage and report back to the Ministry and do the restoration
- ♦ No damage has been done so far by floods
- ♦ But how about fire? So far small accidents so no need to involve the ministry and the provincial dept can handle that

Planning meetings with PCDM

- ♦ Usually have around 6-8 meetings if there is a serious flood
- ♦ Then each personnel sent to each district to help out the community
- ♦ Instructions give by PCDM to assess the flood damaged and to inform people and lead them to safe area
- ♦ Seems like everyone help out when there is serious flood as part of PCDM

Religion Department

28 March 2005, 8:30

Participants

Mrs. Jim Sun Haeng – director

Mr. Rum Pirun – deputy director

In Kandal Province: 387 pagodas

In Lovea Em district: 37 pagodas

In Leuk Daek district: 12 pagodas

Structure:

- ♦ 4 offices: administration, religious culture, Buddhist office, library
- ♦ 11 district offices: only religious culture office

Safe Areas:

- ♦ Pagodas
- ♦ Monks are responsible for the maintenance of safe areas
- ♦ Head monk, monks work closely with the people of the affected area to provide food and drink
- ♦ Monks have greater opportunity to interact with people, can persuade them to help
- ♦ Red Cross sometimes provides food and water, but sometimes the monks provide to the RC for other affected areas
- ♦ Monks don't keep track of donations/distributions/costs

Shelter:

- ♦ Set up small house or tent on pagoda grounds
- ♦ Some tents provided by people, some by monks
- ♦ During flood, monks travel to Phnom Penh to buy tents

Religious Artefacts:

- ♦ Monks prepare 1-2 days before to move the small artefacts to a safe area

Before Floods:

- ♦ 1st check that the pagodas are not flood prone, and can be used as safe areas
- ♦ District governors are invited to the PCDM flood meeting
- ♦ District governor informs PCDM how many pagodas are in the district, and which ones can be used as safe areas
- ♦ Monks provide some sandbags to people to slow the floods to buy time to move livestock and essential things out of the way of the flood

During Floods:

- ♦ Involved in the PCDM teams that are sent to the affected areas
- ♦ During the 2001 floods, the monks provided 110 tonnes of rice to the district
- ♦ Also food, mosquito nets, clothes, 12 million riel in assistance
- ♦ Get donations, especially from rich or high people
- ♦ In Kandal, always get lots of assistance from the monks/pagodas

- ◆ Sometimes the PCDM only gives 5000 sandbags, due to budget constraints (not sure where the PCDM budget comes from)
- ◆ The monks will give an additional 5000 to make up the gap
- ◆ rice and food comes from the monks, PCDM, Chinese association, Christian association, Red Cross

After Floods:

- ◆ Monks provide money to families to rebuild houses
- ◆ Houses are built in the same site because other areas already belong to other people
- ◆ Sometimes the monks provide money to help rebuild the damaged small roads
- ◆ Works closely with the district of public works to do this

Coordination:

- ◆ This department works closely with Land Management department to chose pagoda sites (not just for floods, but all the time)
- ◆ Monks works with Department of Public Works to rebuild small roads
- ◆ **How closely does this department work with the monks?**
- ◆ Work very closely
- ◆ The religious department in the district is a member of the provincial department, though the monks are NOT members of the religious office
- ◆ Lovea Em has 37 pagodas, all fall under the religious office

Finance Department

28 March 2005, 10:30

Participants

Ros Lun – director

In Kandal, there are 4 rivers: Tonle Sap, Tonle Basat, Mekong Kraum, Mekong Leu. Floods affect 7 districts. Sang district has serious floods. The next serious are Lovea Em (Preah Komen, Preah Desay communes), Leuk Daek (Kartom commune) and Sa Kandal.

Structure*Provincial:*

- ♦ 4 offices: administration, accounts, property, purchasing unit
- ♦ One office in each district (11)

District:

- ♦ One office in each district
- ♦ Do not have a separate budget from the provincial department
- ♦ Have no authority to have an income or to spend money
- ♦ Must come to provincial department if they need anything
- ♦ **What do they do with no budget?** Responsible for the economy

Commune:

- ♦ Has a budget to develop commune, though it is limited
- ♦ Budget comes from the national budget
- ♦ No specific allocation for emergencies

Finance department always has a finance plan for the year (budget)

Budget allocation

2005 emergency budget 203 million riel [4% annual budget] (for all emergencies)

Development planning 2950 million riel [includes emergency budget]
total annual budget 4860 million riel

- ♦ For a big disaster, must request for extra funds from NCDM
- ♦ No specific allocation for preparedness, mitigation and relief activities
- ♦ Finance department does not know when or how this money is to be used
- ♦ Can only give to PCDM
- ♦ PCDM budget = emergency budget = 203 million riel

2004 229 million emergency budget (4.64% total budget)

227 million spent on disasters
4935 million total 2004 budget

- ♦ The budget was reduced this year. **Why?**
- ♦ The annual budget depends on the income. This year the income is lower.
- ♦ Will give 2000-2003 numbers (Sopheap)

Donors provide extra money in times of emergencies, though it is given direct to the people, so the provincial finance department has no idea how much the total amount of money spent for emergencies is.

Floods

- ◆ PCDM always estimates the floods for the coming rainy season.
- ◆ This is done by acquiring information from China, Lao PDR and Tibet
- ◆ i.e. amount of meltage from the Tibetan mountains, water flows, floods in China and Lao
- ◆ If serious floods are forecast, the budget can be increased by finding money from other programmes

Request from Finance Department

- ◆ There are not many safe areas in Lovea Em
- ◆ Sang district only has one pagoda.
- ◆ Please help make safe areas.
- ◆ Also help arrange transport to the safe areas in times of floods.

Provincial Cambodian Red Cross

28 March 2005, 14:00

Participants

Mr. Out Jun – director 012 823 780

Mr. Hot Jun – development officer 012 958 233

Tieng Sok Un – admin & finance officer

Toen Saroeun – field officer

Safe Areas

- ◆ CRC has 11 safe areas in Kandal (however, not one per district. depends on the vulnerability of each district)
- ◆ Each safe area has
 - a building with a toilet
 - a building with 4 rooms for shelter
 - one pump well

Red Cross Volunteers*Selection*

1. Provincial red cross inform the district red cross to tell people of recruitment. Have people come to a certain place for selection
2. Meeting with Red Cross Committee (PRC, CRC, IFRC members) in the communes to select RCVs

Training

- ◆ First Aid
- ◆ Disaster preparedness
- ◆ Depends on funds. These courses only run when there are funds
- ◆ To get funds for these training courses, must submit proposal to NCDM
- ◆ Training courses started in 1998
- ◆ Have had only 4 courses since 1998
- ◆ select candidates
- ◆ Create training plans
- ◆ have lessons (first aid)
- ◆ 15 days of disaster preparedness exercises

Responsibilities

- ◆ After training, RCV goes back to villages/communes to teach about floods
- ◆ meets with village chief and locals
- ◆ create a proposal to protect against floods, which is sent to the development officer in the PRC, then submitted to the National CRC
- ◆ National CRC checks the location, then searches for donors/funding for the project
- ◆ Once the funds are found, they are given directly to the village to start the project

Public Awareness

- ◆ No public awareness for disaster preparedness (no posters, booklets, etc...)
- ◆ Have a meeting in July to tell people what to do in the event of floods

- ♦ Health public awareness raising
 - clean water
 - sanitation
 - malaria
 - how to fix a pump
- ♦ posters, booklets

Flood Warnings

- ♦ Have a meeting in July to tell people what to do in the event of floods
- ♦ Get warnings from CRC (CRC gets warning from MOWRAM)
- ♦ Then use radio to pass info onto the districts
- ♦ Districts call RCVs to meetings to inform about floods
- ♦ RCVs pass on the info to villagers
- ♦ One problem: the radio is now broken, so the chain does not work
- ♦ Now, PCDM invites the district governors to a meeting to inform them about the flood warning
- ♦ RCVs have EWS program to find out about floods, as well as info from radio and TV
- ♦ Most people know when the floods are coming because they live along the river

Before the Flood

- ♦ Follow CRC policy which is divided into preparedness, mitigation and response activities. (have a copy of this policy)
- ♦ Set up safety areas
- ♦ create micro projects to prevent the flood
- ♦ train RCV in flood area to inform locals when a flood is coming
- ♦ Make canals to reduce water level (to prepare for flood)

During the Flood

- ♦ Goes to the affected areas to collect data
- ♦ Make lists of people/families damaged by floods
- ♦ Provide food, clean water
- ♦ transport to safe areas
- ♦ health activities
- ♦ toilet sanitation in safe areas
- ♦ Do not provide medicine for treatment, only give advice (ie go to medical centre), inform the health centre

After the Flood

- ♦ RCV and district RC make a proposal to PRC to reduce the flood ? – couldn't clarify

Meetings with PCDM

- ♦ Monthly meetings covering numerous topics
- ♦ During floods, many meetings regarding the current situations

Coordination

- ♦ Works closely with PCDM and DCDM, but not with any other departments

Data

- ♦ Loss data (livelihoods)

- ◆ PRC reports to PCDM and CRC
- ◆ CRC reports to NCDM

Capacity Building

- ◆ Staff receive ToT training from CRC
- ◆ Only have 4 permanent staff (all present at the meeting)
- ◆ 7 including driver, admin and guard
- ◆ Staff levels are OK during a normal situation, but during floods, need 5 more staff

Military Police

29 March 2005, 9:00

Participants

Major Mea So Van – deputy director

Structure

- ♦ 5 offices: administration, human resources, criminal security, operations, supply, public relations (information management)
- ♦ All flood activities fall under the operations office.
- ♦ Public relations office take photos of flood activities

Flood Warnings

- ♦ Receive warnings from PCDM and fm radio, TV broadcasts
- ♦ Can be as early as 20 days before but do not know exactly when a flood will come. Only can prepare
- ♦ Not warned when a flood is definitely coming

Plans/Policy

- ♦ No written plans
- ♦ The first time, there was no plan, but now there is a plan from headquarters (Ministry of Military Police), but it is not written

Before Flood

- ♦ Training (see below)
- ♦ Attend PCDM pre-flood meeting
- ♦ Help people sandbag, sandbag roads, villages, depends on the situation, work closely with the AF and police
- ♦ Help people dig canals to divert/hold of the flood
- ♦ District MPs share advice to people when there is a flood warning
- ♦ After PCDM meeting, provincial MP relays information to the district MP (1-2 weeks before, no certainty if/when the flood will come)
- ♦ Prepare human resources to mobilize
- ♦ Organize teams:
- ♦ 40 people per team
- ♦ 3 boats and 3 vehicles per team
- ♦ 10 radios per team
- ♦ 1 team per district (11 teams total)
- ♦ Can add more people to the team if necessary
- ♦ Rice store:
- ♦ Every month, MPs are given 22kg of rice per person, but must put 1 kg in the rice store
- ♦ Rice store is in the provincial MP building
- ♦ Rotate rice every month to avoid spoilage. (new rice goes into the store, store rice is distributed for the monthly MP allowance)

During Flood

- ♦ Send MP group to the flood area
- ♦ Send vehicles and boats from headquarters (police inventory), borrowed from private owners, to transfer people to the safe areas

- ♦ Another group helps the elderly and children while families remove their valuables to the safe areas
- ♦ MPs bring food to the safe areas for the affected people (ie rice) (from military police rice store, or buy rice, sometimes the government provides money to buy the rice, sometimes the MPs provide the money)
- ♦ Distribute rice to people who suffer from disasters (floods, fire, when a MP loses a family member)
- ♦ Do not provide rice to drought victims, only provide oil and fuel to pump water
- ♦ Provide clothes for the affected people (but no tents, mosquito nets, etc) (clothes come from excess MP supply, t-shirts and shorts, NOT uniforms)
- ♦ Distribution depends on the situation (ie give directly to families, proportionate to # of family members)
- ♦ Collect damage data, loss of life, property (clothes, TVs), animals (chickens and pigs, not cattle b/c they can swim)
- ♦ District MPs are responsible for law enforcement in the affected areas during floods

After Flood

- ♦ PCDM reports to the MP, MP reports to headquarters

Mountain Floods

- ♦ To prepare for (flash) floods from the mountains, must have human resources and vehicles to move the people
- ♦ Must place human resources and vehicles in the high areas
- ♦ Floods do not come so quickly that there is no time to move people provided we are prepared
- ♦ Rescue people from trees with boats
- ♦ Human resources and vehicles just sit in the area until needed

Capacity Building & Training

- ♦ No training to civilians or RCV, only remind them that floods are coming and to take care of their property
- ♦ Training for MPs:
 - Rules
 - Responsibilities
 - Search & rescue, saving people
 - How to move people to the safe area

Coordination

- ♦ During floods, work closely with the other departments in the affected area
- ♦ Before the floods, only share with other departments in the PCDM meetings

Meetings

- ♦ During floods, meet often with the PCDM to give info by radio (?)
- ♦ Also get info from the flood area by radio
- ♦ Attend post-flood PCDM meeting
- ♦ discuss what went right/wrong
- ♦ What was the weak point in our preparedness/response this year?
- ♦ What can we do better next year?
- ♦ Mostly it is the children and elderly that suffer, so we need to take care of them first

Lovea Em District Governor

29 March 2004, 14:30

Participants

Mr Saren – district governor
 Mr Haen Team – deputy governor **SPEAKER**
 All commune heads
 4 deputy district governors
 Chief of police department
 All members of DCDM

The meeting is in district office, which is in Peam Ouk Nga Oung commune

Went to visit Preah Kamen village in Preak Kamen commune to see the stand out school and toilet that is used as a safe area. Toilets unsanitary. This was built with funding from ADB after the 2000 floods. It was built 5-8cm higher than the 2000 flood level. No bridge from school to toilet; you must go down the stairs from the school, then up the stairs to the toilet. In the flood season you must take a boat to the toilets. Why would it be designed this way? Lack of planning? Poor design? Specific reason? The village chief does not know. Preah Kamen is a fishing village.

Lovea Em District Information

- ◆ District is in the low area, flood prone
- ◆ 15 communes
- ◆ 43 villages
- ◆ 10 communes along the Mekong river
- ◆ 3 communes along a small river along the Prey Veng border
- ◆ 2 villages on Veal Somnap lake
- ◆ 14,302 families in LE district
- ◆ 72,093 population
- ◆ 38,498 women
- ◆ 40,210 over 18 (22,197 women)
- ◆ Flood season 15/7-11/10
- ◆ Drought season end of December to March

Flood situation/severity depends on the level of flood

- ◆ 8-9 metres still normal situation (district is quite high from the Mekong river, see photos)
- ◆ >9.5 metres know there will be a flood, majority of roads along the Mekong will be flooded
- ◆ >10 metres 35 villages will be flooded
- ◆ >10.5 metres all villages, entire district will be flooded

In Lovea Em, the flood waters come from Sa Kandal district to flood the Mekong river. Both Lovea Em and Sa Kandal have rivers around them.

Floods affect not only lives, but houses as well. In 2004, 30 families had to move permanently due to flood damage. The river eroded the bank, their land was lost.

Role as member of PCDM

- ◆ To identify appropriate safe areas, and to report these to PCDM

- ◆ Report flood situation to the PCDM

Responsibility of DCDM

- ◆ During a flood, the DCDM is the leader for all activities
- ◆ To provide temporary shelter, collect data, cooperation with NGOs
- ◆ DCDM is made up of the district governor, the deputy governor, the chiefs of all the offices and one assistant secretary)
- ◆ In each commune, there is a team that is responsible for informing the people of floods and finding the safe areas
- ◆ The governor decides on the teams
- ◆ Every year, the DCDM has a meeting with the CCDM to prepare for floods
- ◆ Informs the to prepare the boats and equipment (which are private property, none owned by the district)

Safe Areas

- ◆ 33 safe areas
- ◆ Locations are chosen from past experience
- ◆ Poom Preak Kamen village, Preah Kamen commune has a stand out school as a safe area. school is raised, and separate toilet building is also raised
- ◆ Another 32 safe areas (pagodas, schools), but they are not stand out safe areas
- ◆ Request PCDM to build more clean toilets and provide clean water for the safe areas
- ◆ Specific safe areas for animals (roads and bridges)

Flood Warnings

- ◆ Receive warnings 2-3 days before from the TV and radio broadcasts
- ◆ Written warnings from: NCDM to PCDM to DCDM to CCDM

Before Flood

- ◆ Red Cross has flood boards and markers in 8 villages (3 communes)
- ◆ RCV teach the villagers how to read the flood warning boards

DCDM responsibility before the flood:

- ◆ In June, before the floods, DCDM holds a meeting with all the members to prepare for the flood season
- ◆ Each member has a specific responsibility (ie. Health prepares the medicines, Police prepare human resources)
- ◆ Prepare flood plan (*have a copy of the 2004 flood plan*)
- ◆ Have plan, but no budget
- ◆ DCDM advise the commune heads who then report back to the DCDM regarding the situation in their commune, needs and requirements (ie. sandbags, clean toilets and water for safe areas, etc)
- ◆ Problem: DCDM can't fulfil commune requests because they have no budget
- ◆ Each commune is required (by DCDM) to have at least 2-3 motorboats (can borrow from private owners)

Problems

- ◆ DCDM can give the order to have 2-3 boats, but what actually happens depends on the situation (ie. sometimes they can find boats to borrow, but other times the owner is using it to transport their own belongings)

- ♦ Even with human resources from police and MPs, there is not enough for transport
- ♦ Lack budget, materials, transportation
- ♦ Can't get information to the villages in time due to lack of radios

During Flood

- ♦ Police, Military police and students help out during the floods
- ♦ Collect data (see photo: table of data collected)

After Flood

- ♦ Rebuilding

Flood Maps

- ♦ Have a map of flood direction (see photo)
- ♦ Made by DCDM from the 2000 flood
- ♦ Used past experience, not hard data
- ♦ Very useful for planning

Public Awareness

- ♦ No public awareness materials
- ♦ Only give advice to villagers on what to do
- ♦ Some departments have posters, information (ie health)

Requests

- ♦ Provide boats for DCDM and CCDM (at least 10 boats, including fuel)
- ♦ Communications/iCom radios for DCDM, CCDM and police
- ♦ Sanitation: clean water and toilets
- ♦ Camera to document flood activities (request from the governor)

Documentation

- ♦ List of participants
- ♦ Photos
 - Flood map
 - District map
 - Data collected in 2001
 - Aid received in 2000
 - Stand out school/safe area with stand out toilet in Preah Kamen village, Preah Kamen commune
 - Preah Kamen village
- ♦ Aid received in 2000

DCDM flood plan, member responsibilities 2004

Leuk Daek District Governor

30 March 2005, 10:00

Participants

District governor not present

4 deputy governors present

List of participants

Leuk Daek District Information

11,039 families

56,266 population

29,345 women

7 communes

24 villages

37,436 hectares

49km along the Mekong

- ♦ The situation in Leuk Daek is not all that different from other areas.
- ♦ Since the districts is along the Mekong river, floods easily
- ♦ Face floods every year because Leuk Daek is in the low area
- ♦ In 2000
 - 95% of the district was flooded
 - 7,879 families affected
 - 4,959 families seriously affected

DCDM

- ♦ Members include the chief of all the communes, office chiefs, police, military police
- ♦ CCDM in each commune
- ♦ DCDM and CCDM always have good cooperation before and during floods

Flood Knowledge& Information

- ♦ Know from experience which areas will be flooded
- ♦ Leuk Daek is always flooded
- ♦ Flood maps would be useful to identify which areas will get flooded first
- ♦ During floods, all information comes from the commune chiefs
- ♦ Each commune has safety areas (pagodas, schools, temporary areas made by the community (no water and toilets))
- ♦ Commune chief is responsible for the maintenance of the safe areas
- ♦ Red Cross has flood markers (23) and flood boards (6) in 6 villages (2 communes)
- ♦ RCV check the level of flood
- ♦ Report daily by radio (iCom) direct to the district to report flood levels
- ♦ Each village has 1 iCom
- ♦ 3-5 RCV's in each village
- ♦

Flood Warnings

- ♦ Get flood info/warnings from communes
- ♦ Also know that that when the high area has a high water level, it is not yet flooded here. but when the water level recedes in the high area, this area will get flooded

- ♦ Also receive flood warnings from fm radio and TV broadcasts
- ♦ NCDM informs PCDM, PCDM informs DCDM/district
- ♦ Receive flood info 2-3 days before the flood via iCom, and a follow-up letter
- ♦ PCDM gives flood info twice daily during serious floods (i.e. 2000 floods. no serious floods since 2000)

Before Floods

- ♦ District governor attends PCDM pre-flood meeting
- ♦ PCDM always gives the district instructions to prepare for the upcoming flood season
 - prepare boat, sandbags, safe areas
- ♦ PCDM provides written instructions (will receive later)
- ♦ District governor then invites DCDM members to a meeting to relay the flood preparation information
- ♦ Divide duties and responsibilities
- ♦ DCDM has written plan (will receive later)
- ♦ Also receive instructions for what to do after the flood

- ♦ Have to find out how many families are in the vulnerable areas
- ♦ How many safe areas
- ♦ Arrange/find transport (including boats, motorboats)
- ♦ Boats do not belong to the district or communes
- ♦ Can rent boats from private owners
- ♦ Health centre has a campaign (with support from World Vision)
 - How to use chloramines
 - Each village has 2 people from the health centre
 - Provide chloramine to the villages before the flood come
 - What to do for diarrhoea (especially in children)
 - No malaria in this district
 - Do nothing about proper waste disposal, put trash anywhere

During Floods

- ♦ Sandbagging
- ♦ Provide food for DCDM members working in the affected areas
- ♦ Patrol to survey damage, find flood victims, people
- ♦ Have an emergency/search and rescue team
- ♦ Collect data (loss of life (men, women, children, ages), property damage, amount of aid given, animals)
- ♦ Also receive data from the commune chief
- ♦ Have list of names, number of persons/families affected, when they were affected, aid given by Red Cross

After Floods

- ♦ District governor invites DCDM members to a post-flood meeting
- ♦ Members report damage information/situation to the district governor
- ♦ discuss improvements for future floods
- ♦ District governor then reports to the PCDM
- ♦ Have no budget to help people, can only make requests to the Red Cross and PCDM for help
- ♦ Make one record once the water has receded (ie, health status, road damage, etc)

- ♦ Want to know situation during the flood and after it recedes
- ♦ Collect all data and make one report to the PCDM, and also the Ministry of Agriculture
- ♦ Don't request anything from PCDM
- ♦ **How do the roads and houses get fixed if you make no requests to PCDM to have them fixed?**
- ♦ They don't get repaired
- ♦ People fix by themselves and pay for the repairs
- ♦ Rely on donations from people (especially the rich)
- ♦ Poor people sometimes get help/donations from the Red Cross, World Vision or other NGOs
- ♦ World Vision either fixes themselves, or hires contractors (for the roads)
- ♦ Government gives no money for rebuilding

Safe Areas

- ♦ Pagodas, schools
- ♦ Not enough toilets in safe areas (only 1-4 per safe area)
- ♦ Pagoda/school is responsible for cleaning toilets (cleaned every day)
- ♦ Problem:
 - Toilets in the pagodas belong to the monks.
 - Women are never allowed to use the same toilet as the monks
 - In floods, only monks can use the toilets because there are too many people staying the pagoda to all use the toilet
 - So, people have no access to toilets when staying in pagoda safe areas. Must go in the flood water
- ♦ One school has over 1000 students, but only 2-4 toilets
- ♦ Train students how to use toilets, tell them to teach their families so they will be able to use the toilets in the safe areas during the floods
- ♦ Most schools are not used as safe areas
- ♦ The new school buildings are raised, but the old ones are not
- ♦ We have a plan to make raised toilets for the safe areas, but there is no money to do this
- ♦ Families sometimes make safe areas themselves for their animals
- ♦ In serious floods everyone must go to the pagodas and school
- ♦ There are no stand out safe areas in Leuk Daek

Training

- ♦ Have no training (currently only one is trained, by NCDM)
- ♦ Red Cross has a seminar on disaster management
- ♦ Only one secretary of DCDM attends this seminar

Requests

- ♦ Make safety areas
- ♦ Provide transport (boats, motorboats)
- ♦ Tents for temporary shelter (during the floods)
- ♦ Need radios (DCDM has no iComs)
- ♦ Training in disaster preparedness
- ♦ Need to train all DCDM members
- ♦ Training needs:
 - Standards for making safety areas, clean water, toilets, sanitation

- Techniques
- Disaster management

Documentation

- ♦ List of participants
- ♦ To receive later: PCDM plan with detailed activities
DCDM plan with detailed activities

Department of Women's Affairs

30 March 2005, 15:00

Participants

Mrs. Leeng Rim – deputy director

Structure

- ♦ Have one women's affairs office in each district
- ♦ One women's affairs officer in each commune

1991 Flood

- ♦ 1991 was the first time the flood came from the mountain (flash flood?) in Kandal Stun district
- ♦ in 1991, we were unprepared because the flood came while we were in the flood preparation meeting (no time to do any preparations)
- ♦ Everyone was surprised
- ♦ Women were crying, but still worked hard to help people carry their stuff to safety.
- ♦ All the women that work for this department would travel to the district every day to help, returning home at night
- ♦ Easy to prevent floods from rivers, but not so easy to prevent floods caused by the mountains

Floods General

- ♦ In Leuk Daek, during all floods (serious or not), all animals are brought to safe areas
- ♦ ReKSak commune in the Lovea Em district has all the houses built on stilts, which prevents flooding during normal floods.
- ♦ If floods are serious though, people must move to the safe areas (pagodas, schools)
- ♦ Safe areas for animals

Before floods

- ♦ Attend PCDM pre-flood meeting
- ♦ After PCDM meeting, WA department arranges a meeting with the WA officers in the district officers to relay flood preparations, district officers arrange meetings with commune officers, who then relay the information to the villagers/village women
 - Take care of children (move out of the way of floods)
 - Move property to safe areas
 - Move families to safe areas
 - Stop/close schools during floods
 - Pay attention to your families health, seek medical attention at the health centre if needed
 - Sanitation
 - How to clean water (boil, chloramines)
 - Do not tell people where the safe areas are
- ♦ Each member department of PCDM is responsible for a district in Kandal province (first time I've heard this)
- ♦ This department is responsible for Leuk Daek district

During floods

- ♦ If there is a flood, receive info every day village to commune to district to province (iComs, mobiles)
- ♦ Go in boats to persuade people to move to the safe area, look for people still in their homes (didn't want to leave)
- ♦ Assess the needs of people in the safe areas
- ♦ Collect data (i.e. number displaced, needed medicines, etc)
- ♦ Do not collect any data specific to women

After floods

- ♦ PCDM members create a plan to do follow up research on needs
- ♦ Attend PCDM post-flood meeting to report damage info, situations, what could be done better

Flood warnings

- ♦ Receive information from the 2 communes with flood markers
- ♦ Districts officers receive flood information from the communes regarding billboards/flood markers, then report to the provincial department
- ♦ Receive flood warnings from PCDM 2-3 days before
- ♦ PCDM telephones members to invite to meeting, then informs of flood warning/situation

Domestic violence

- ♦ Do not monitor domestic violence levels during disasters
- ♦ In 2000, people did not understand that women had equal rights
- ♦ in 2003, people are beginning to understand women's rights
- ♦ Before 2003, constitutional law said that women have equal rights, but women had little/no education, there was a "culture" of domestic violence in Cambodia (appropriate for a man to hit his wife), women had a greater respect for their husband than they did for themselves.
- ♦ Now working to break this "culture" and realize women's rights/equality
- ♦ Have not noticed a trend of increased domestic violence in disasters due to no data
- ♦ In normal times, have a questionnaire (Kandal Stun district) asking about domestic violence. Also have questions for the abuser. Go to houses and ask questions (not written questionnaire)
- ♦ Next week, will go back to do an evaluation of the study (appropriateness of questions)
- ♦ Will also have a seminar with the Ministry of Women's Affairs to see if they will replicate the study in all the communes in Kandal province
- ♦ Suggested possibly adding 1-2 questions to existing questionnaire about domestic violence in disasters to obtain data to find if a correlation exists

Coordination

- ♦ Work closely with other departments
- ♦ Work in teams in affected areas during floods (teams comprised of people from different PCDM member departments)
- ♦ Though some departments/committees will not work with women affairs i.e. W.A. officers attend pagoda committee meetings, though not allowed to participate because they are women. Nuns are not even involved in the decision making most of the time

Staff capacity

- ◆ Not enough staff for emergency times.
- ◆ 11 staff presently
- ◆ Need 24 (2 for each district, 2 to stay in dept office)
- ◆ Staff are not trained in disaster preparedness
- ◆ no one here is trained

Documentation

- ◆ Domestic violence questionnaire (Khmer and English)

Military Operation – Kandal

31 March 2005, 8:30

Participants

Colonel Paen Pin – deputy commander

Structure

- ◆ Provincial – 8 offices (general, research, information (receives information from all districts about all disasters), supply, military intelligence, training, demographics, financial)
- ◆ District – one military unit in each district
- ◆ No units in communes
- ◆ Have only human power to donate in times of disasters (own no boats)

Flood Warning

- ◆ Receive flood information from PCDM and also from the districts units (when there are floods in the district, the district units report to HQ)
- ◆ Pay close attention to flood information to be able to prepare to mobilize human power for the vulnerable area

Before Flood

- ◆ Attend PCDM pre-flood meeting, receive instructions for preparations
- ◆ Prepare human resources
- ◆ Sandbag, arrange boat rentals
- ◆ Rice store (see MP details)

During Flood

- ◆ Special teams are only sent to the flood area if PCDM requests it
- ◆ 150 people / team (?)
- ◆ Military unit reports data to the provincial department (loss, death, affected)
- ◆ Search and Rescue (for all disasters)
- ◆ Good cooperation people in the affected area
- ◆ Provide fuel for the boats
- ◆ District military units help civilians.
- ◆ If extra help is needed, they make a request to the provincial department to send teams

Government policy: No one dies during floods

We must do our best to stick to this

- ◆ When a military family is in trouble, always provide some food and/or money
- ◆ It is habitual in Cambodia to help people
- ◆ When a military officer dies, 1,000 riel is given to the family (deducted from salary)
- ◆ Request PCDM to help military families
- ◆ PCDM always provides rice to military families
- ◆ Rice is distributed to military families when needed (loss, death)
- ◆ Rice is NOT distributed to civilians
- ◆ 1 million riel is given to Red Cross to help civilians
- ◆ In the past 4 years, 1.5 million to the Red Cross (deducted from the salary)

Before, During and After

- ◆ Send medical teams to the areas
- ◆ When they are sent depends on the information received from the district military units

- ◆ No relief supplies for civilians, only for the military and families (clothes, food, etc)
- ◆ No training for civilians

Visit to Prasaat commune in Sang district

31 March 2005, 10:00

Participants

Mr Khem Chankiry – district governor 012 95 96 80

Mr. Duch Kak – chief of Prasaat commune 016 72 49 45

District Info

- ♦ Commune is in a low location and is flooded all year round.
- ♦ Still have to use boats for transportation in dry season
- ♦ People own their own boats
- ♦ People who live here were born here and don't want to leave
- ♦ Houses were flooded by ½ metre in 2000
- ♦ Some new houses are built above the 2000 flood level, but not all
- ♦ There are 2 safety areas (pagodas) for severe floods with 5 toilets (separate for monks, women, and men)

Prasaat commune: 8,720 hectares
5 villages
1, 099 families
5,924 population

Went to visit this commune, despite Sang district not being one of the project district because it was unique in that it was flooded all year round. However, arrived at commune to find out that it is not flooded all year round, but only for 7 months out of the year.

Provincial Police

31 March 2005, 3:30

Participants

Tam Vay – deputy commander
012 97 55 47

Structure

- ♦ 2,233 police in Kandal province
- ♦ Provincial department, district police unit (one in each district – 11), commune administrative post (one in each commune – 147)
- ♦ Provincial level: 27 offices
- ♦ District level: 4 offices

Flood Warnings

- ♦ Receive information from PCDM by phone or from meetings
- ♦ 2-3 days in advance of flood
- ♦ Headquarters relays flood warnings 2 days before a flood
- ♦ Also receive information from TV and fm radio broadcasts
- ♦ Receive NO information from the Ministry of Water Resources

Before Flood

- ♦ Attend PCDM pre-flood meeting
- ♦ Prepare human resources, arrange to rent boats from people
- ♦ Only have human resources to use in times of disaster
- ♦ 100 police are ready to be mobilized (police form all units, stand by border police)
- ♦ Divided according to the affected areas (ie. 2 affected areas, 2 teams of 50)
- ♦ Police have no training in search & rescue
- ♦ Help out during the dry season
 - Provide fuel to people to run water pumps and generators
 - Sometimes help to dig the canal
 - For areas with water sources only
- ♦

During Flood

- ♦ Wait for orders from headquarters before doing anything
- ♦ Move people and property to the safe areas
- ♦ Guard property
- ♦ Law enforcement
- ♦ Help PCDM distribute food to the affected people
- ♦ Collect data: affected, dead, missing
- ♦ Have rice store (see MP notes for details)
- ♦ Give rice from the rice store to the affected people

After Flood

- ♦ Collect data: dead, damage, animals, people, houses, roads
- ♦ Help people dig canals
- ♦ Attend PCDM post-flood meeting (report damage, identify problems, discuss solution for problems and how to fix the damage)
- ♦ Help harvest the rice in the rainy season (before, during or after?)

Flood Maps

- ◆ Have a flood map already
- ◆ Very useful in decision making
- ◆ Made using past experience, not hard data

Training to become a policeman

- ◆ General skills
- ◆ Rules and regulations
- ◆ Fire skills
- ◆ Registration skills
- ◆ Task force for demonstrations/protests

Coordination

- ◆ Good coordination with PCDM
- ◆ Sharing of ideas with other PCDM member departments during the meetings
- ◆ No coordination with PCDM members outside of the PCDM meetings