



**FOOD SECURITY AND LIVELIHOODS
RECOVERY NEEDS ASSESSMENT
KAMPONG THOM, CAMBODIA**



16th March 2012

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Table of abbreviations

ADB	Asian Development Bank
ADRA	Adventist Development and Relief Agency
APA	stands for Organization for Bright Development in Khmer
CCDM	Commune Committees for Disaster Management
CERF	Central Emergency Response Fund
CFW	Cash For Work
CRC	Cambodian Red Cross
CWS	Church World Service
DRC	Danish Red Cross
DRR	Disaster Risk Reduction
DRM	Disaster Risk Management
EMOP	Emergency Operation
ESSD	Environmental Support and Social Development
FAO	Food and Agriculture Organization
FFW	Food For Work
FGD	Focus Group Discussion
FinRC	Finish Red Cross
FRC	French red Cross
HH	Household
IFAD	International Fund for Agricultural development
JAG	Joint Action Group
Kpg	Kampong
MAFF	Ministry of Agriculture Forestry and Fisheries
NCDD	National Committee for Sub-national Democratic Development
NCDM	National Committee for Disaster Management
NFI	Non Food Item
NGO	Non-Governmental Organization
NTFP	Non Timber Forest Product
OCHA	Office for the Coordination of Humanitarian Affairs
PCDM	Provincial Committee for Disaster Management
PDA	Province Department of Agriculture
PDoWRaM	Provincial Department of Water Resource and Meteorology
PDRD	Provincial Department of Rural Development
PHD	Provincial Health Department
PNH	Phnom Penh
SRI	System of Rice Intensification
UNDP	United Nation Development Program
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
VAHW	Village Animal Health Worker
VHV	Village Health Volunteers
WFP	World Food Program
WHO	World Health Organization
WV	World Vision

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Villagers and village chiefs must also be thanked for the time they spent answering our questions and making us understand precisely the many different impacts the 2011 floods have had on their livelihoods.

NGO workers, UN and governmental stakeholders shared their data without restriction allowing us to have in hand the most recent information available.

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Executive summary

The floods that affected Cambodia in 2011 were particularly violent, generating alarming threats to food security and highlighting the poor resilience of rural households to such climatic disasters. This “Food security and livelihood recovery needs assessment” implemented in 2 of the most affected Districts of Kampong Thom (Stoung and Kampong Svay) evaluates the impact of these floods on different sectors. It then proposes ways to address short and longer term challenges in order to answer the vital needs of the population, rebuild their capacity to access their livelihoods and improve their resilience towards such disaster in the future.

The area surveyed was one of the most at threat in terms of agricultural loss and number of people affected by the floods. The major damage to livelihoods along with limited coordination during the catastrophe suggests that serious improvements need to be made in terms of Disaster Risk Reduction and Management at institutional and community levels. 27% of Families in the area left their houses during the floods but all had returned home at the time of the assessment and all areas were accessible by car, motorbike or boat. At the end of February 2012, the situation for many communities was still very unstable especially in the most remote areas. Rice shortage is the main concern for these people and has led to changes in their seasonal habits and traditional activities which are normally more dedicated to fishing, livestock farming, vegetable gardening and other kinds of income generating activities. Actually, 30% of households on average have no rice in stock and expect no support of any kind (corresponding to an average of 90 households per village). Active people are mainly looking for local jobs allowing them to buy rice for their families on a daily basis. For the same reason, migration, inside/outside the Province and to Thailand, increased by 134% this year and concerns 57% of households.

The lean period will start particularly early in 2012, in May/June for most of the villagers in this area. The dry season rice mainly cultivated by the healthiest families will help to repay debts that are unusually high in terms of amount per household and number of households concerned. Traditional coping mechanisms are scarce and many strategies adopted in order to access food in the short term are risky and may affect people’s livelihood in the long term. They include migrations, selling of house assets and animals (concerns 20% of households but this percentage is most probably higher in the middle class), getting into debt (76% of Households in the area, ¾ got into debts as a direct result of floods), reducing children’s education costs and use of child labour for income generation. Reducing food intake was also reported but not quantified during this survey. Relying on alternative environmental resources is also hard as gardens and forests were badly affected resulting in lower availability of Non Timber Forest Products. Many fruit trees also died during the floods. The recent restrictions on fishing make this activity less attractive.

Agricultural sectors particularly suffered during the floods as a consequence of various related factors. In the area surveyed, 54% of the households who planted rice last season didn’t harvest anything; those who did, estimated their harvest to 360Kg / households on average, while the average size of the land they cropped was slightly less than 0.5 Ha. That means that they harvested half of their average normal yield, which is 1.5T/Ha in Kampong Thom for wetland rice. Rice seeds are traditionally saved from the previous harvest and now 96% of interviewees declared not having enough rice seeds to plant next season.

Rice seed shortage is the second most important point of concern stated by villagers. This is a problem of accessibility since locally produced rice seeds are still available in the province through the traditional market.

37% of surveyed households traditionally practise home gardening in very small areas around their houses (less than 100 m²). However there are fewer crops being produced this year because of the damage to their gardens combined with the lack of input and manpower (most of the manpower are busy looking for jobs to buy rice). Access to agricultural water concerns a minority and is a recurrent problem in Cambodia but did not specifically suffer from the 2011 floods in the zone surveyed.

Livestock was heavily affected during the floods, especially the smaller livestock which is an important source of saving for the poorer households. Pig stocks decreased by 34% (1/3rd died of drowning or disease and 2/3rds were sold in order to buy rice). The situation is similar for poultry with a higher proportion of animals killed during the floods compared to those sold. During the floods, the lack of animal food was the first source of death and expenses. It is still a problem because there is little stock of straw, less rice residues and more land is occupied by the dry season rice.

Access to clean water and sanitation facilities is an issue, but did not specifically emerge from the 2011 floods. However, numerous wells were flooded and still damaged, we estimate that more than 35% need to be restored or disinfected. The floods also highlighted problems related to bad hygiene habits and low access to safe water and sanitation at household level and in safe areas.

Women were not specifically affected by the 2011 but their vulnerability increases in time of crisis. They traditionally rely more on local coping mechanisms that are less this year, thus they are now relying more on external support. The youngest are more prone to leave school to work in commercial plantations or to migrate outside their province to work in garment factories. Women request in priority better hygiene, sanitation facilities, better means and knowledge to crop their home garden and breed small livestock.

The Relief actions recommended aim to answer the most urgent needs of the population and to aid in building their resilience to climatic hazard. Linking relief to development is imperative and will be reached through capacity building of villagers and local stakeholders on all aspects of this report.

⇒ ***In the short term (weeks/months)***

Food availability and relatively stable prices suggest considering unconditional cash transfer for the neediest (or alternatively food transfer depending on agencies capacity and experience) and cash for work schemes for other active people seeking jobs. Activities should include building and rehabilitation of village infrastructures (communication and access to water).

Rice seed distribution is also an important priority to consider for those who cannot access them in sufficient quantities. In fact, rice farmers cannot afford a second consecutive bad/no harvest and those facing seed shortage will eventually borrow more money to buy sufficient seed.

The local availability of rice seeds suggests local purchase as being the best option in order to promote local varieties and producers. The involvement of the Provincial Department of Agriculture (PDA) is recommended for this aspect.

⇒ ***In the longer term (months/years)***

Agricultural inputs should be delivered with technical training and not be limited to rice cultivation alone (SRI, Multipurpose farming, crop rotations, diversification, integrated pest management, dry season land valorisation, seeds production and saving). Access to markets can also help to sustain technical achievements and improve income.

Fruit tree planting should be considered, in safe areas first. It is also necessary to improve access to water during the dry season through building or rehabilitation of ponds and efficient agricultural water management practice at household and village levels.

Livestock restocking and technical capacity building (animal health, breeding, feeding, and housing) with a focus on animal management and feeding during floods is necessary to build farmers resilience.

Concerning the many Watsan issues, it would be relevant in the short/midterm to focus on wells rehabilitation, cleaning and disinfection. The involvement of the Commune Committees for Disaster Management (CCDM), the village volunteers and the villagers themselves in these activities would make results more sustainable and replicable.

Hygiene promotion and improved access to sanitation in safe areas should also be a priority.

⇒ ***Disaster Risk Reduction and Management***

It is necessary to improve information, communication and coordination schemes especially in times of crisis; risk mapping should be considered.

Building the technical and operational capacity of volunteers (VHV, VAHW, and CRC) is also recommended. Finally, working with all stakeholders for better DRR and DRM will make the achievements sustainable and reproducible.

In the longer term, there is interest in developing safety nets such as rice banks, community saving groups and equal access to health care.

Improved quality and quantity of agricultural and drinkable water infrastructures and management organizations would also make a big difference.

Introduction

Cambodia is a developing country ranked 139 out of 187 (UNDP 2011). One third of the population is living below the poverty line and depends exclusively on agriculture for livelihood; at least 12 per cent of poor people are landless (IFAD 2010). Small-scale farmers practice agriculture at the subsistence level, using traditional methods. Productivity is low and access to markets limited. Two thirds of rural poor households (households) face seasonal food shortages each year and rice alone accounts for as much as 30 per cent of their expenditures. Rural people are constantly looking for work or other income-generating activities, which are mainly temporary and poorly paid.

The country's poor and most vulnerable people include subsistence farmers, members of poor fishing communities, landless people and rural youth. Women are generally more disadvantaged, do not have equal access to education, paid employment and land ownership; many also have to assume the responsibility of heading their households. Rural poverty and lack of livelihood opportunities in rural areas result in high migration rates that can be seasonal or following crisis and disasters.

Cambodia is also one of the most hazard-prone countries in Southeast Asia and is particularly vulnerable to climate shocks (including drought and floods). Floods frequently occur during the monsoon season from July to November. In late 2011, severe flooding of the Mekong and Tonle Sap river basins combined with flash floods affected 18 out of 24 provinces in Cambodia . This was the worst flooding Cambodia had experienced since 2000.

The French Red Cross (FRC) has operated in Cambodia in partnership with the Cambodian Red Cross (CRC) since the early 80's in the fields of health, water and sanitation, food security and more recently Disaster Risk Reduction (DRR). In February 2012, the FRC hired a consultant to conduct a Food Security and Livelihoods recovery needs assessment in the province of Kampong Thom where it provided an emergency distribution of food and Non Food Items in November 2011. FRC started its operations in this Province in 2011 with the objective to answer the vital needs of the most affected communities, especially those not benefiting from little or no emergency aid.

This report aims to give an overview of the situation at the end of the rainy season, when the level of water in the Tonle Sap had finally receded significantly enough to get a clear idea of the actual losses in terms of crops and livelihoods. All the affected areas were accessible at the time of the assessment. Food Security is considered first, concentrating on food availability, accessibility and all activities related to agriculture and livestock. Secondly, the numerous coping mechanisms and livelihoods are reported and discussed. Thirdly, Water, Sanitation and Hygiene (watsan) issues are also considered. Lastly, the external support received and various stakeholders involved in emergency, relief and DRR are presented.

All issues are reported and analysed with the objectives to understand the specific impact of the 2011 floods, thus importance is given to differentiate seasonal typical challenges and those directly resulting from the 2011 floods.

Eventually this document aims to produce practical and timely recommendations for relief actions.

1. Context

1.1. 2011 Floods in Cambodia

Most of the data available has been centralized and published by the National Committee for Disaster Management (NCDM) which relies on various sources such as its own Provincial branches (PCDM), Districts and Communes administration. UN agencies and NGOs are also major sources of information and figures.

The 2011 floods directly caused the deaths of 250 people and affected 354.217 HHs, equivalent to 1.771.085 people, among them 51.950 HHs were evacuated to safety areas (NCDM Jan-2012). These extraordinary circumstances resulted in extensive damages to infrastructures, agricultural and social sectors thus causing huge problems for people with regard to food security, health, watsan and migrations.

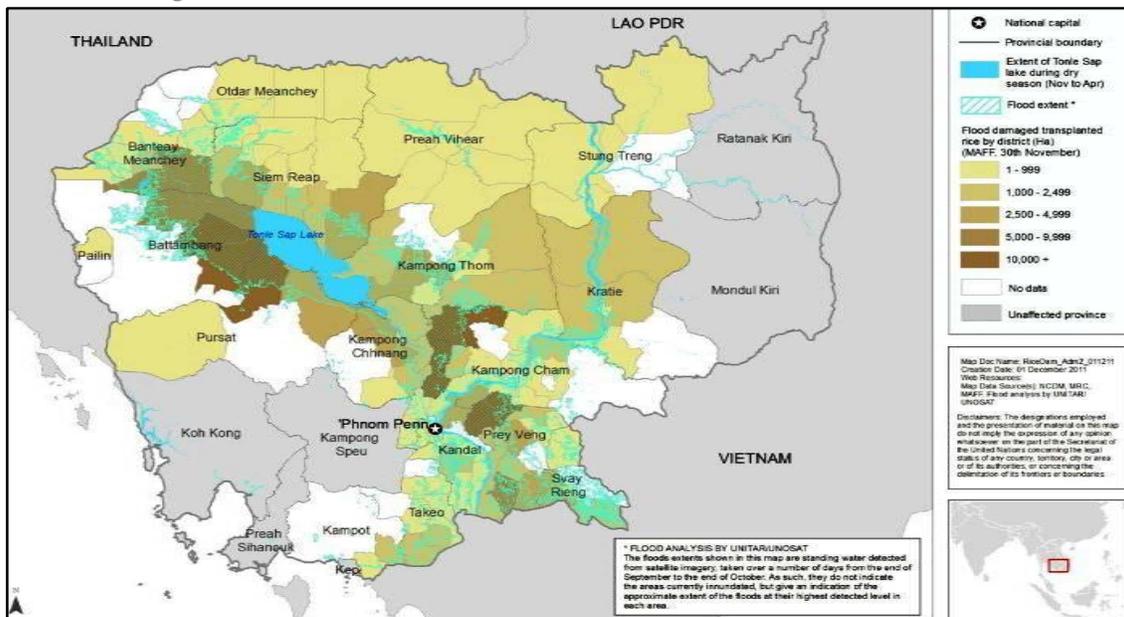
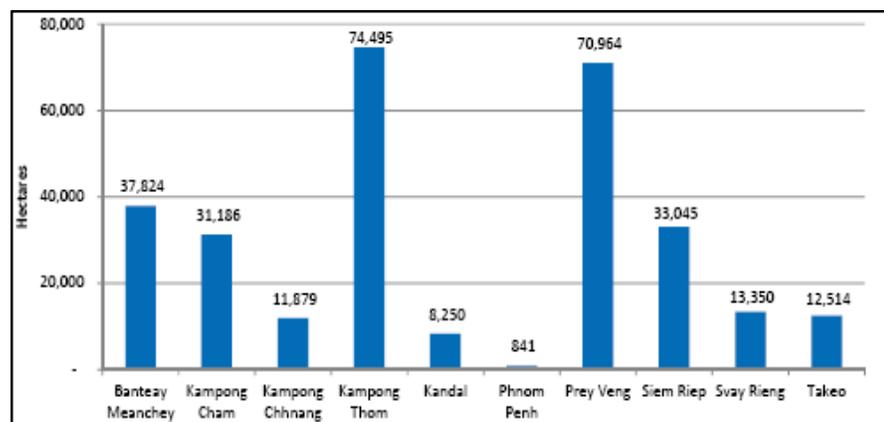


Figure 1: Transplanted rice damaged by floods (OCHA, 30 Nov 2011)

At National level, 431.476 Hectares (Ha) were affected and 267.184 Ha damaged. It is estimated that 10% of the 2011 rainy season rice harvest was lost as a direct result of floods.



Graph1: Damaged transplanted rice by Provinces (MAFF, 30 Nov 2011)

Many crops (cash crops, vegetable gardens), 21.929 Ha were also affected and among them, 17.264 Ha were damaged. The observations and data collected through this assessment also suggest significant loss of fruit trees (especially mango, papaya and coconut) and Non Timber Forest Products (NTFP) that are usually an important, free and locally available alternative source of food. However these are not reported or quantified in any official report or communication.

Livestock was also hugely affected, during and after the floods (drowning, diseases, lack of food) but reliable figures are scarce since livestock farming is practised in an extensive way with very little report and data. A document produced by NCDM in January 2012 mentions a loss of 1.675 Cattle in Cambodia, however observations and data collected suggests much higher figures especially for small livestock (including pigs and poultry) that are the one mostly own by smallholders.

The NCDM document produced on January 2012 also mentions the following figures concerning damages and impact at national level on the social sector and infrastructures:

Impact of social sector	Impact and damage
⇒ Houses	268.631 Houses submerged, 1.297 Houses damaged
⇒ Schools	1.360 schools
⇒ Health Centres	115 health centres
⇒ Pagodas	491 pagodas
Impact on infrastructures	Impact and damage
⇒ Primary roads	925 km affected
⇒ Rural roads	4.469 km damaged
⇒ Bridges	117 bridges submerged (<i>no details</i>)
⇒ Irrigations schemes	53.9 km (<i>no details</i>)
⇒ Wells	77.544 wells (<i>no details</i>)

Table 1: Impact and damage on social sector and infrastructures (NCDM, Jan 2012)

1.2. Stakeholders' analysis

This section designates and describes the formal structures and network of partnerships for community-based disaster risk management in Cambodia (CBDRM) and the actors involved in the response to the 2011 floods. It is noticeable that there was little information available during the floods and each organization willing to help had to conduct their own rapid assessment. The NCDM relies on its provincial and communal branches which were not able to produce on-time warnings and mapping. In fact the information quality flow should be improved before and during the disaster. However the very large scale of the floods made it “easy” to find and help affected communities. Coordination networks were set up during the floods (NGOs, UN) and are still efficient enough during the recovery phase to avoid overlaps.

1.2.1. National Committee for Disaster Management

The National Committee for Disaster Management (NCDM) was established in 1995 and is recognized as the primary governmental agency for managing emergencies. As a coordinating and policy recommending body, NDCM's goal is to build an effective system for disaster prevention, effective disaster response and rapid disaster recovery.

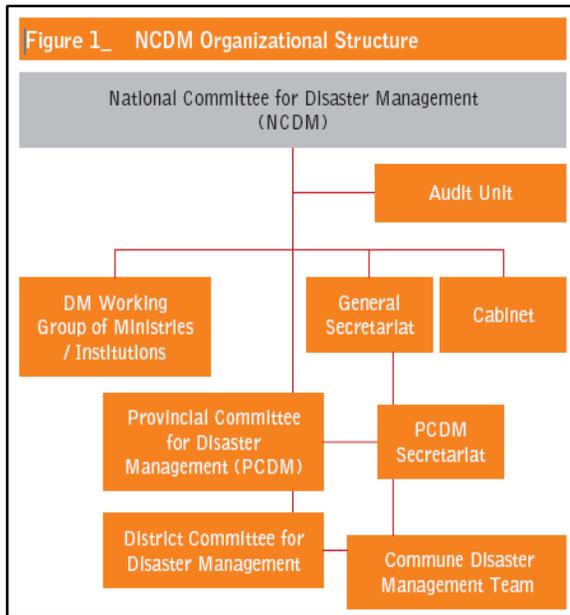


Figure 2: NCDM organizational structure (source NCDM)

The Ministry of Water Resources and Meteorology (MOWRAM) leads the observation, collection and dissemination of hydro-meteorological information to all government ministries, stakeholders and communities. The Ministry of Environment Youth and Sports (MOEYS) has included disaster preparedness in the curriculum by including discussions of flood, drought and health hazards (avian flu, dengue and malaria) in the classrooms. The Ministry of Women’s Affairs (MOWA) is also raising awareness in schools. The Ministry of Agriculture, Forestry and Fisheries (MAFF), together with other agencies, has invested in irrigation and water catchment plans in some parts of the country

1.2.2. Cambodian Red Cross

CRC has among the widest coverage in the country and acts as an auxiliary to the government; it is also the only non-government organization with formal membership in NCDM. The organization’s strength lies in its extensive field presence, with field based staff and local volunteers in all its branches in the 24 provinces.

During the 2011 Floods, CRC received funds from the Cambodian Government, ICRC, and other agencies and NGOs in order to implement emergency operations in all area affected.

1.2.3. The United Nations Disaster Management Team (UNDMT)

The UNDMT, is the collective and coordinated UN disaster management structure reporting to the UN Country team, is composed of country representatives from the UN Food and Agriculture Organization (FAO), United Nations Development program (UNDP), United Nations Children’s Fund (UNICEF), UNFPA, World Food Program (WFP) and World Health Organization (WHO). The World Food Programme is the present coordinator of the team.

In September 2011, 4 UN agencies received funds through the UN Central Emergency Response Fund (CERF).

- ⇒ FAO: Emergency agricultural assistance to returning flood-affected farmers (in Kpg Thom).
- ⇒ UNICEF: Emergency education flood response and emergency Watsan support to communes, schools and health facilities.
- ⇒ IOM: Humanitarian assistance to flood displaced households.
- ⇒ WFP: Emergency food assistance to flood-affected households.

In addition, WFP launched mid November 2012 a 1 year / 11 M Dollars emergency operation (EMOP) called: "Relief & Recovery Food Assistance to Flood-affected Households in Cambodia" targeting 150.000 beneficiaries.

Activities include:

- 1/ Food distribution: implemented through Caritas in Kpg Thom, 3.077 HHs.
- 2/ Food for assets (FFA equivalent FFW) for community assets rehabilitation: implemented through Caritas and PDRD in Kpg Thom, 2.800 HHs.
- 3/ Vulnerable Group feeding will start in March/April 2012, activities are still being designed.

1.2.4. The NGOs Joined Action Group (JAG)

The network serves as a forum to share information about activities, coverage, strategy and updated information. It is composed of international and local NGOs.

Numerous international NGOs are involved in the fields of DRR, emergency and relief, they often work with/through local partners and are also contracted by UN agencies (WFP, FAO, UNICEF) to conduct emergency/relief activities and surveys. These NGOs includes (*non exhaustive list*): Action Aid, Oxfam, Caritas, CARE, CONCERN, Save the Children, PLAN, FRC, World Vision, CWS, ZOA, Danish Red Cross (DRC), DanChurchAid.

1.3. Focus on Kampong Thom

1.3.1. General characteristics

Kampong Thom is Cambodia's second largest Province by area; it borders the provinces of Siem Reap to the northwest, Preah Vihear to the north, Stung Treng to the north east, Kratie to the east, Kampong Cham and Kampong Chhnang to the south and the Tonle Sap to the west. Much of Kampong Thom is located on the floodplain of the Tonle Sap Lake. Kampong Thom is mainly composed of villages traditionally relying on rice cultivation and various other seasonal activities: Fishing remains an significant source of income and is an important coping mechanism in all seasons despite recent limitations imposed. The majority of vegetable cultivated are consumed by HHs and livestock is primarily considered as a saving. Wetland rice cultivation calendar regulates labours picks & income of the majority of farmers, whereas less practices dry season rice cultivation and other cash crops. In this sense the floods are considered by all villagers as a major disaster. However they traditionally rely more or less on different livelihoods and coping mechanisms, depending mostly on their physical accessibility to social services and markets (roads, remoteness), their accessibility to land for farming, their accessibility to water for irrigation, and their proximity to the Tonle Sap Lake and affluent rivers for fishing.

1.3.2. Focus on Stoung and Kampong Svay

The 2 Districts have comparable patterns in terms of socio-agro-economic trends; they also present the same diversity of agro ecological zones. According to OCHA 30 Nov 2011, both Districts were among the 3 most affected of the Province in term of damage to rice crops, Stoung was slightly less affected, but was also less targeted by external help and has a higher number of inaccessible villages. In both Districts rice cropping is the main activity for more than 90% of HHs, fishing is the main activity for 5%, other HHs rely on services or undetermined jobs (NCDD Oct 2009).

The series of indicators below are sourced from the 2009 NCDD census; figures of both districts are in line with the average of Kpg Thom Province. In fact it is the combination of high number of remote villages and very area with the potential to flood that makes them more vulnerable.

Description		Stoung	Kpg Svay
Total population	Families	22.991	18.647
	People	117.112	96.451
Total dry rice land cultivated (Ha)		10.985	3.296
Average yield (T/Ha)		3.0	2.9
Total wet rice land cultivated (Ha)		26.389	24.485
Average yield (T/Ha)		1.4	1.8
Total intensive rice land cultivated (Ha)		877	165
Average yield (T/Ha)		2.5	1.9
Total upland rice land cultivated (Ha)		666	43
Average yield (T/Ha)		1.4	1.5
Wet season rice land irrigated (% and Ha)		12% - 3.147	0% - 113
Families with access to irrigation water (% and number)		3% - 690	10% - 1.705
Families owning less than 1Ha of rice land		37% - 7.298	33% - 5465
Families who do not have any rice land		6% - 1.249	7% - 1.118
Families raising cattle/buffalo		69% - 15.968	77% - 14.296
Number of cattle/ buffaloes heads (tot - average/family)		52.767 - 3/fam	43.867 - 3/fam
Families raising pigs / families raising more than 3 pigs		8.304 / 1.068	8.448 / 1.911
Families raising chicken / families raising more than 3 chicken		18.804 / 14.435	15.564 / 12.301
Families raising ducks / families raising more than 3 ducks		1.614 / 1.231	1.471 / 1.041

Table 2: Stoung and Kampong Svay agricultural figures (NCDD 2009)

Additional reliable data is available in the NCDD 2009 census, for Kampong Thom and per Districts concerning: Education, Health, Water and Sanitation, Vulnerable groups, Migration, Natural resources and environment, Gender, Administration and Security.

1.3.3. Impact of floods in Kampong Thom (snapshot)

Kampong Thom was one of the most affected Provinces during the 2011 Floods with 361 villages of 71 communes in 8 Districts concerned (NCDDM Jan 2012).

- ⇒ People affected: 54.414 HHs.
- ⇒ People evacuated: 2.448 HHs.
- ⇒ Death Tool: 41 people (17 children).
- ⇒ Rice paddy submerged / damaged: 88.665 Ha / 69.396 Ha.
- ⇒ Houses submerged / Collapsed: 7629 / 23
- ⇒ School submerged: 189
- ⇒ Rural road damaged: 460 km

There was no comprehensive survey conducted concerning the impact of the 2011 floods on wells, however the information collected through this assessment suggests that 20% of ring wells got flooded, that means 876 ring wells in the 2 Districts of Stoung and Kampong Svay. Needs for repair maintenance before the floods were estimated between 20% and 30% by NCDD for pump and ring wells in the entire province while this assessment estimated this needs to be 35% and 38% respectively for pump and ring well in the 2 Districts surveyed.

⇒ *Access to income, migrations.*

Most village chiefs mentioned a higher rate of migration compared to a “normal” year. Migrants left in order to find cash for themselves and for their families. Destination and purpose are various and children are not systematically part of the trip, many stay under the responsibility of relatives (uncles and grandparents). Men migrate more than women.

Income sources are undoubtedly scarcer this year and getting into debts (money or rice) is the usual coping strategy. Accessing rice is the most important motive. All debts are granted only with guarantees on assets and/or lands and all villagers are aware of the risk involved.

⇒ *Access to Water (drinking & domestic purposes), Sanitation, hygiene (Watsan)*

Watsan issues are not the focus of this assessment but are considered because they are part of livelihood and linked to food security. Two aspects are considered both for water and sanitation: 1/Access to Watsan during the floods and 2/How the situation was before the floods and the impact on the current situation. The structural situation is rather precarious in all areas visited.

⇒ *Coping strategies*

Coping strategies are many and common to all villages, their relative importance vary from one group of villagers to another and from one village to another. These strategies will be discussed more in depth later in this study.

1.3.4. Emergency responses and early recovery

So far, a mix of emergency and recovery needs were answered, geographical gaps are still many especially in the most remote zones. The information below was collected from various sources: NCDM, NGO forums (JAG & dropbox “floods 2011”), local stakeholders and partners meetings. The deficiency of information reported in the document compiled and shared by the NCDM on Jan 2012 is noticeable and reflects its limited capacity for data collection, compilation and diffusion.

- ⇒ FAO is implementing an emergency agricultural assistance to returning flood-affected farmers funded by the CERF. It targets 10,000 families (100 villages in 21 communes of 5 Districts in Kpg Thom) through the provision of vegetable seeds and basic tools to 1.000 of them (watering can and hoes), training are also delivered, the support aims at providing livelihoods opportunities during the dry season only.
- ⇒ WFP 1 year EMOP project (above described) also targets Kpg Thom. It is implemented through PDRD in 15 Communes of 5 Districts. WFP is also implementing a large scale post flood survey in partnership with UNICEF and various NGOs, 18 villages in Kpg Thom are surveyed. The first results will be shared mid March 2012.
- ⇒ UNICEF also received funds from the CERF and targets 14 communes of 5 Districts in Kpg Thom through CRC and PDRD. It first responded to the immediate needs of families in the safe areas, ensuring water treatment chemicals, basic sanitation facilities and hand washing with soap. The second phase is based on extensive facility and water quality assessments, chlorination and rehabilitation of water sources, coupled with hygiene and sanitation. Public facilities such as schools, health facilities and pagodas, should also benefit from rehabilitation and construction of water and sanitation facilities.

- ⇒ PDoWRaM and PDRD received ADB funds that aim to rehabilitate rural roads and primary irrigation channels, the project is implemented through contracts, and possibly CFW and FFW (not yet clear).
- ⇒ PCDM and PHD mentioned working on a contingency plan, but no clear information is available so far. PHD suggested more focus on hygiene promotion.
- ⇒ The government joined forces and CRC managed to provide emergency assistance to all HHs affected according to the report produced by the NCDM on January 2012.
- ⇒ As the 2012 commune council and 2013 National Assembly elections approach, it is worth mentioning here the emergency support provided by the Cambodian People's Party (CPP) and other related charity organizations/people/foundations to 4.681 HHs of the Province.

Numerous NGOs provided emergency and early recovery support, but very few arrived in Kpg Thom during or following the 2011 floods, in fact the majority were already present through various development actions and provided emergency support in their previous intervention zones and surroundings only. ECHO released an emergency response to the floods, projects were implemented by a Consortium (DCA/ActionAid/Concern/PIN/CESVI), the DRC, Save the children and Oxfam. Below are more details about the NGOs that implemented emergency and early recovery actions. Most actions are already completed or will be soon, and nothing is planned yet in terms of relief after March 2012. Further details are available (attached to this report or easily accessible in the dropbox Cambodia floods 2011).

- ⇒ ACT, through the local NGO CWS, provided food in 28 communes of 6 Districts of Kampong Thom. ACT came in Kpg Thom on the occasion of the 2011 floods and focused on addressing vital emergency food needs only.
- ⇒ Oxfam, targets 128 villages, from Oct 2011 to March 2012: Food Security (seeds and tools, food and NFI distributions), Watsan (cleaning and disinfection of wells, Hygiene promotion) and cash distributions. Oxfam works with 6 local NGO partners whose technical capacity is limited especially for Watsan issues.



Picture 1: ceramic filter

- ⇒ DRC, according to the assessment conducted and document shared, is implementing rice distribution in 18 villages, 6 communes, 2 Districts of Kpg Thom targeting a total of 2.666 Families. The rice distributed is supposed to cover needs until June 2012. After this period nothing is planned in Kpg Thom.
- ⇒ Caritas is the implementing partner of the ongoing WFP EMOP project in Kpg Thom; in addition, it covered food and Watsan in 3 communes of 2 Districts.
- ⇒ WV, FRC, CRC, ADRA, Muslim aid, ActionAid and CWS provided emergency assistance (Food and NFI) to numerous communities according to their previous target areas, mandate, or needs assessments for those who were new in the Province (details easily accessible).
- ⇒ Various local NGOs were contracted by international NGOs and UN agencies in the fields of agriculture, Watsan and Hygiene promotion: ESSD, AFD, APA, COW, HOM, MOD were those contracted by Oxfam.

In 2011, preceding the floods a total of 48 local and international NGOs were officially operating in Kampong Thom (source: Cambodia NGO database of the Council for the Development of Cambodia - 2011) without any coordination schemes at Province level. In fact coordination initiatives aiming to improve efficiency and avoid overlaps result of bilateral initiatives only.

It is worth noting that the ID poor criteria has been the main selection tool used so far at village level for projects beneficiaries, however it is controversial and not systematically up to date, thus the current assessment is not limit to ID poor and considers and proposes activities benefiting to people not registered as ID poor, either previous middle class badly affected or other villagers through rehabilitation of communal infrastructures.

2. Assessment objectives

The terms of reference for this assignment are based on the following objectives:

- ⇒ *Assess and describe precisely the damages caused by floods, especially in term of agricultural losses.*
- ⇒ *Understand what the situation was before this disaster, in terms of agricultural productions, livelihood, food security, and income generating activities, and how the disaster impacted it;*
- ⇒ *Propose short term and middle term actions that are based on communities' practices and habits, to restore people's livelihood and to improve their food security.*
- ⇒ *Community participation and local capacity for response, as well as the FRC/CRC partnership, must be taken into account in the development of the logic of intervention.*
- ⇒ *Identify potential gaps in the response launched by Government, Red Cross movement UN and NGOs communities.*

The historical links between FRC and Cambodian Red Cross (CRC) made it relevant and easy to conduct this assessment in partnership, thus one CRC Kampong Thom staff was present during all meetings and field visits (Mr. Keo Sambo – Deputy Director, CRC Kpg Thom). Ten CRC volunteers were mobilized for 3 days during the primary data collection phase (interviews of villagers, village chiefs and village committees). At the same time the consultant and CRC counterpart conducted additional field visits, Focus Group Discussions (FGD) and meetings with government and NGOs partners present in the area. The third phase of the assessment was dedicated to data analysis, report writing and formulation of one recovery / rehabilitation project; discussion with and restitution to partners and FRC also took place at this time.

The technical areas considered in the frame of this assessment focused on FRC experience and expertise in Cambodia:

- Food Security and Livelihood (focus on agriculture and livestock).
- Watsan (focus on flood related challenges).
- Social issues (including migrations, safety nets and coping mechanism).
- DRR.

3. Methodology and assessment tools

3.1. Site selection

This needs assessment follows an emergency distribution of Food and NFI implemented by FRC during the floods so focuses on the 2 Districts concerned: Stoung, Kampong Svay.

- ⇒ They are 2 of the 3 most affected District of Kpg Thom in terms of harvest loss (estimated 8% and 10% by OCHA, respectively for Stoung and Kpg Svay).
- ⇒ They have a higher number of remote villages (inaccessible by road during the wet and dry season); they are relatively far from the Province capital town and have the highest number of inaccessible villages and communities.
- ⇒ They have less communication infrastructures and basic social services.
- ⇒ Communes and villages considered are frequently affected by floods.
- ⇒ They received less external support in terms of early recovery and longer term projects.

The choice in terms of village selection (the one receiving the least support) aims to assess specifically the needs resulting directly from the floods and not to interfere with other humanitarian actors' activities and impacts. However, this assessment does not only focus on the most affected people registered as ID Poor, in fact the ID poor database may not be up to date and the middle class (non ID poor) were also severely affected by floods thus cannot be excluded especially considering their longer term recovery needs.

3.2. Information to be collected

The table below synthesizes the information to be collected, the tools used to do so are a mix of semi-structured interviews, FGD, field observations and secondary data review.

Information need	Questions / Details
General situation of villages and villagers	Impact of floods on infrastructures, rehabilitation needs and requests.
	Availability of and accessibility to safe area during floods.
	Situation of villagers in safe area and elsewhere during floods.
	Impact on migrations at village and HH levels.
	Main threat to livelihoods expressed by villagers and village heads.
Availability and accessibility to food	Services and info available at village level (VAHW, CRC, VHV...).
	Availability of rice at HH level.
	Availability of vegetable, fruits and proteins at HH level.
Agriculture and livestock	Access to income and markets.
	Losses due to floods (crops and animals).
	Main agricultural activities now compared to the same period last year.
	Livestock ownership at the time of the interview.
Access to water and sanitation (before, during and after the floods)	Livestock practices now, during, before floods (housing, feeding, health).
	Availability of and accessibility to quality seeds (rice and vegetable).
	Access to water for drinking (location, availability, quality).
	Practices for drinkable water (filtration, treatment, boiling...).
	Access to latrines.
	Access to information on hygiene.

Information need	Questions / Details
Sources of income expenses, and safety nets	Main sources of income and expenses at HH level. Existing safety nets and social networks in the villages (marketing groups, saving groups, rice banks, various committees for water management...).
	Main villages' livelihoods before, after the floods and last year.
Coping mechanism	Coping mechanism at village level.
	Coping mechanism at HH level.
	Traditional and "NGOs led" coping mechanism.
Access to external aid and requirements	External support received so far at village and HH levels.
	Ongoing and planned external support in the next 12 months.
	Needs expressed by village heads and villagers.
	Needs expressed by local authorities.
Other	DRR capacity at HHs and village levels.
	Gender issues during crisis and recovery times.

Table 3: Information to be collected, details

3.3. Data collection

3.3.1. Villages

30 villages were surveyed over 94 villages affected in the 2 Districts receiving no or very little recovery support. That represents 6.290 families over a total of 18.632 families. The following demographic data was updated during this survey (Feb 2012) concerning:

- Total population.
- Number of ID poor 1 & 2.
- Number of affected families.
- Support received by NGOs in time of recovery (for those concerns, rice is the only support provided).
- Surveyed villages accessibility:
 - o 10 of the Villages surveyed are accessible by car all year long.
 - o 10 of the Villages surveyed are accessible by car only during the dry season.
 - o 10 of the Villages surveyed are not accessible by car (only by motorbike or boat) both during the dry and rainy seasons.

3.3.2. Villagers

A total of 120 HH heads were interviewed following the frame of a HH questionnaire, equally spread among each village and randomly selected. It was requested to the surveyor to mix ID poor and non ID poor. However more ID poor people were interviewed, most probably due to a combination of the following 2 factors:

- 1/ The poorest people are more likely to stay in the village waiting for support from their relatives or relying on very local and very limited coping mechanisms.
- 2/ ID poor are usually the first targeted by NGOs and the 10 CRC volunteers mobilized for this survey therefore interviewed them more than others.

In addition to the HHs semi structured interviews, 30 village chiefs were interviewed in the presence of Village committee members and CRC volunteers in order to make the information reliable, verifiable and comprehensive.

FGDs took place in the most affected areas, in villages not having benefited from any recovery support. The numbers of participants were limited in order to discuss qualitative statements and dynamics. The focuses were on existing social networks, safety nets and coping mechanism, other aspects were considered such as: environment, efficiency of aid received, and villagers' integration into local economy. FGDs took place in 3 different villages:



Picture 2: Focus Group Discussion

- ⇒ FGD: ID poor 1.
- ⇒ 1 FGD: Women only.
- ⇒ 1 FGD: not ID poor registered group of villagers but heavily affected by floods.

In addition, during the first phase of the assessment, numerous contacts with governmental and NGO partners took place as well as 8 village visits in 4 communes of the 2 Districts, aiming to:

- ⇒ Get an updated snapshot of the situation of various communities affected by the floods.
- ⇒ Update data about ongoing, planned actions in terms of early and longer term recovery.
- ⇒ Finalize the methodology for this assessment in terms of:
 - Site selection,
 - Information to be collected,
 - Human Resources necessary,
 - Milestones and detailed planning.

Details of the meetings and contacts conducted by the consultant are available in annex 3.

3.4. Human resources

Below is all the human resource mobilized for this assessment (not including FRC advising):

- ⇒ 1 Consultant for the overall supervision (ref to ToRs): 15 working days.
- ⇒ 1 CRC counterpart for support and supervision of CRC volunteers: 6 working days.
- ⇒ 10 CRC volunteers: 10x4= 40 working days.
- ⇒ 1 FRC support staff: 7 working days (1 in PNH).
- ⇒ 3 support staff: translation English-Khmer and data entry: 10 working days.

3.5. Timeframe

The planning of activities is in annex 2; it can be summarized in 3 phases of 1 week each:

Phase 1: Documents review, rapid field assessment and meetings, finalization of methodology.

Phase 2: Primary data collection (semi structured interview of villagers and key informants, FGD), field observations, secondary data analysis, primary data entry.

Phase 3: Data analysis, additional meetings and contacts, report writing, presentation of preliminary results to local partners, formulation of a project (proposal writing).

3.6. Limit of the methodology

Nutrition issues and food intake trends are not considered, thus the impact of the floods on nutritional status of the most affected people is not assessed. However, nutrition problems in Cambodia are structural and well documented; in addition the study currently being implemented by WFP, UNICEF and NGOs considers this aspect on a large and scale.

That will complement this survey because numerous villagers stated eating less as a direct result of floods.

In Cambodia, 39.5% of children below the age of five years are chronically malnourished (stunted), 28.8% are underweight and 8.9 per cent are acutely malnourished (wasted). The main causes of food insecurity are insufficient access to sufficient and diverse types of food (through either a household's own food production or through markets), infectious disease and/or inappropriate feeding practices. During the lean season (July-November) food insecurity is subject to considerable increase.

UNICEF 2011

Health issues could also not be considered; data was collected from health centres about admission during and following floods, but were scarce, not verified or cross checked with other sources, so could not be reported. The contact established with the Provincial Health Department and the number of recommendations shared suggest considering further collaboration especially in terms of safe water consumption and Hygiene Promotion (HP).

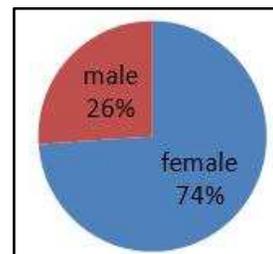
The relatively low number of questionnaires (120 HH questionnaires + 30 Village heads questionnaires) only allows for tendencies to be displayed (not proper statistics), but they are completed with reliable and updated secondary data and qualitative analysis.

4. Findings

4.1. General

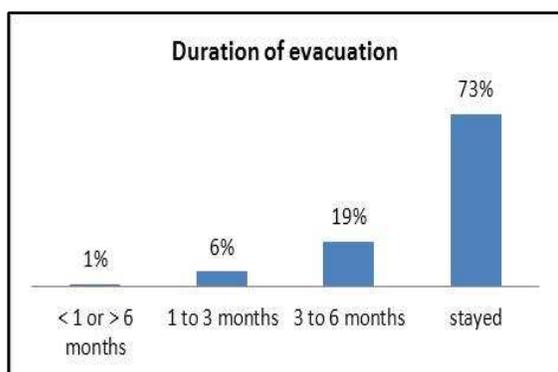
Surveyed villages had on average of 75% families affected by the floods. At the time of the survey, the count on average was 42% of people ID poor registered, respectively 22% of poor 1 and 20% of ID poor 2 (last ID poor census 2008).

It is apparent that there was a larger proportion of women compared to men in the villages at the time of the survey, thus more women were the direct respondent to the HHs questionnaires. This is due to the fact that seasonal migration and labour outside villages primarily concerns men.



Graph 2: Interviewees gender

25% of HHs surveyed were composed of members aged either more than 65 years old or less than 5. The average HHs size was 5.4 people.



All villages surveyed have been heavily affected, however only a minority of villagers had the opportunity or willingness to move. Among villagers who moved, 75% went to safe area because their own houses were totally flooded. 6 villages over 32 surveyed (19%) had more than 5% of their HHs evacuated. In these villages 54% of villagers on average had to move, for a period of 3 to 6 weeks for the majority of them.

Graph 3: Duration of evacuation.

At the time of the survey, all families had come back and the demographic data were “back to normal”; more migrations are reported and discussed below in this report but none are planned to be definitive, they answer the urgent and temporary need of cash for food.

4.2. Availability and accessibility to food

4.2.1. Food availability at household level

February is the month when rural HHs usually rely on their rice stock from the previous harvest for staple food consumption, then they can practise various side activities such as fishing, livestock farming, vegetable gardening and other kind of income generating activities. But in 2012 rice shortage is the main concern and changes this usual trend. Among villages surveyed village chiefs and their committee report that 30% of HHs on average have no rice in stock and expect no support of this kind (corresponding to an average of 90 HHs per village). Among interviewees more than 90% mentioned having no rice in stock but 47% are still expecting to receive rice donations from various sources; however the expected quantities is 57kg per HH on average. As consequence, the lean period will start particularly early in 2012, early May for most of villagers.

Numerous villagers also reported eating less and having health problems but it was too early to assess the impact of these floods on malnutrition rate, so specific surveillance especially concerning food consumption (quantity and quality) could be considered during the lean period.

Other sources of food have been reduced by the floods. Vegetable gardens are fewer, first because the manpower usually dedicated to crop them are currently busy working to earn money to buy rice. In addition, some multiannual home garden crops (requiring less care) died during the floods. Fruit trees such as papaya, mango or coconut usually represent an important source of alternative and complementary food, but many of these trees died and only palm trees were not affected.

Palm sugar preparation is not the speciality of the Province; in addition, sap harvest requires climbing high up on trees, is dangerous, time consuming and generates little income, thus was not considered by villagers as a timely alternative either for food intake or income generation. In addition the season has not yet started. Nevertheless, this activity is traditionally practised by the poorest. Some support in terms of provision of tools for harvest could thus be considered as a relevant support from March to June (harvest season).



Picture 3: Palm sap harvest

Forest areas are scarce in Kampong Thom, especially in the 2 Districts surveyed (closer to the Tonle Sap Lake) but some Non Timber Forest Products (NTFP) can still be a free source of complementary nutrients in some area, especially for the most vulnerable people. A type of porridge (Bobor Phèk) can be produced by using a small amount of rice mixed with a variety of NTFP (mainly roots, leaves, mushrooms and nuts). This recipe is traditionally prepared by the elderly who report that forests too had been heavily affected by floods and thus the variety of NTFP usually available (even sometimes for income generation) no longer exist.

4.2.2. Access to food and markets

Local markets are accessible and functioning as usual. No HHs discussion, observation or meeting mentioned any shortage at market level or significant price variation. The WFP publishes the “Cambodian Food Price and Wage bulletin” monthly, based on sentinel market sites surveillance that confirms the voice of locals on this matter. Below is an extract of the Dec 2011 issue.

HIGHLIGHTS

- **Food purchasing power of households** saw little change in rural areas but increased significantly in urban areas as the decrease in unskilled wage rates was outweighed by the sharp decrease in rice prices.
- **Retail price of lowest quality rice** dropped significantly due to increased supply from the main wet season harvest. Prices in rural and urban areas decreased by 5.9% and 12.6% on a month-on-month basis, respectively.
- **Wholesale price of mixed rice** decreased sharply by 18.2% month-on-month but increased by 9.3% year-on-year.
- **Export price of Thai and Vietnamese rice**, benchmarks for Asia, moved in different directions. Thai prices increased by 1.3% month-on-month, while Vietnamese prices decreased by 6.8% on a month-on-month basis.
- International rice prices (**FAO (global) All Rice Price Index**), decreased by 3.9% month-on-month.
- The **FAO Food Price Index** slightly decreased by 2.4% month-on-month, and was 11.2% below its annual peak in February.

The problem of availability of food for HHs would not be an issue if their income or saving were sufficient to access food through markets. This it is not the case however, and despite normal seasonal availability at a stable price, food remains inaccessible because of the lack of cash available.

4.3. Agriculture and Livestock

The impact on agriculture should be considered at different levels, most of them being inter dependant. Integration of the various components of the farming systems are not systematically observed but the floods highlighted some interesting relationships, for example the indirect consequence of the loss of one harvest on animal food availability:

No rice harvest=>	=> Direct consequence	=> No staple food available at HH level.
	=> Indirect consequence 1	=> No rice seeds for planting next season.
	=> Indirect consequence 2	=> No straw to feed cattle, no rice residues to feed poultries and pigs (=>less food for animals, more expenses).

4.3.1. Rice cultivation

Rice cultivation depends on land, input and manpower availability. Yields are traditionally low because cropping techniques practised by the majority of small holders are pretty archaic and inefficient (broadcasting, little pest control and soil fertility management) in the majority of cases. Average wet season rice yields in Kampong Thom are 1.5T/Ha (NCDD 2009), which is very low compared to the country and to any potential yield that smallholders could reach through simple and costless techniques (Transplanting, SRI, better soil fertility management). Harvest almost totally depends on external factors thus climatic hazards such as floods and drought are a serious threat.

54% of the interviewees who planted rice last harvest didn't harvest anything; those who harvested estimated their harvest at 360Kg / HH on average, while the average size of their land was slightly less than 0.5 Ha. That makes an average yield estimated at 720 Kg/Ha which is half of the province average.

Only 23% on average of the rice field is used for dry season rice cultivation in the 2 Districts considered, there is almost no upland rice (Chamka). Dry season rice cultivation requires more investment and access to land, thus is practised by healthier HHs, but is not systematically practised by land owners; however this year the number of HHs planting dry season rice increased by 41% on average in the villages surveyed. More HHs were involved in dry season rice cultivation this year because they had lost the last harvest. They are now in debt due to the purchasing of seeds, fuel for water pumping and chemical pesticides, so the final benefit may not be as significant as expected. Risk of water shortage was also mentioned, in fact Stoung River is pumped all along its course and the water level has become extremely low.



Picture 4: pumping river to dry season rice field

Irrigation infrastructures are almost inexistent in the area surveyed, many farmers and village chief mentioned the benefit that primary and secondary canals could bring to their communities but they are costly infrastructures and the remoteness of these villages does help put them on

top of the list of ADB or PDoWRaM. In fact irrigation currently concerns dry season rice only and is exclusively done through pumping.

The survey didn't identify any opportunity to rehabilitate tertiary irrigation canals because 1/ there are very few in the zone, and 2/ the 2011 floods did not damaged those already existing. An in-depth survey on this matter should be considered. Furthermore, irrigation and access to agricultural water is a serious concern all over Cambodia, challenges result from both technical & institutional problems such as:

- 1/ Weaknesses of infrastructures and needs for rehabilitation (dams, catchment, water gate, canals).
- 2/ Lack of water management model: the system of Farmer Water Groups (FWUG) is officially promoted by the PDoWRaM but very little has so far been applied.

Inside villages, agricultural water is at an accessible level thanks to individual or community ponds which are used for (in order of importance): 1/ Drinking water, 2/ Home garden, 3/ Fish farming.

4.3.2. Other crops

Vegetable gardening and other cash crops are insignificant compared to rice, in the eyes of farmers and in terms of surface and labour mobilization.

- ⇒ 37% of surveyed HHs practise home gardening in very small area around their houses (less than 100 m²).
- ⇒ Home gardening is exclusively dedicated to HH consumption.
- ⇒ All HHs members are equally involved in the activity; the elderly mentioned the activity as convenient for them, except watering.
- ⇒ The usual sources of water are river, ponds or wells, transport and storage is required. 12% have access to community ponds and use its water for the purposes mentioned above.
- ⇒ Gardening tools ownership is limited to hoes and buckets and concerns only 20% of HHs.
- ⇒ Only 2% mentioned cultivating vegetables as cash crops in other places (rice land, river banks), in fact the proportion of HHs using rice fields in the dry season for crops other than rice (legumes, vegetable) equal zero this year because of the dry season rice cropping.



≤ The community pond of Kaoh Krob Bay Village in Kpg Kou Commune – Kpg Svay District was built in 2011 thanks to a remaining fund from FinRC DRR project. Initially planned for 27 HHs it is currently used by 50 who regularly share the running costs of 1 water pump and use its water for drinking, domestic and gardening purposes. They believe its water is less polluted than the river one; it is also more easily accessible.

⇒ ***Seeds***

96% of interviewees declared not having enough rice seeds to plant next season. This problem was also mentioned during group discussions and often raised by local stakeholders. All farmers mentioned that they will eventually get seeds locally either through gift, borrowing or buying at a price varying from 1.500 to 2.000 riel/kg (0.38 to 0.5 US Dollars).

In fact the 2011 floods have not significantly disrupted the local / traditional seed market and all villagers know someone or some village in the vicinity where rice seeds are available for selling. The current concern for farmers facing rice seeds shortage is the lack of cash to buy them.

It is interesting to mention here that the planting technique of broadcasting (the most commonly used) is as inefficient as costly in terms of seeds consumption: 120 to 200 Kg of seeds per Ha ⇔ 50 to 100 US dollars / Ha depending on price and quantity, while transplanting provides better yields and consumes only 40kg/Ha. Lastly, the System of Rice Intensification (SRI) officially promoted by MAFF for smallholders requires only 12kg of rice seeds per Ha and results in a yield increase up to 50% from the first year. But the more efficient techniques the more labour and knowledge they are required.

Seeds saving techniques are basic in the area; they are saved randomly among the harvest and replanted the next season. Some communities are specialized in rice seeds multiplication and sell them either locally or to CARDI. Imported rice seeds (from Vietnam) are also available in surrounding markets. Actually, all sources of seeds were reported being normal in terms of availability and price by the farmers and stakeholders.

The situation of vegetable seeds is pretty similar despite the fact that seed saving concerns a minority. Vegetable seeds are now available in all markets as usual and at stable price.

⇒ ***Tools***

Agriculture is not mechanised in the area being assessed by the assessment and basic tool ownership is also very limited. They are not produced at village level but available in all surrounding markets places. The tools mentioned and observed are exclusively used for gardening: hoes, buckets, watering cans, shovels. Sprayers are also used in rice fields for pest and disease control but owned by commercial farmers only.

⇒ ***Information and capacity:***

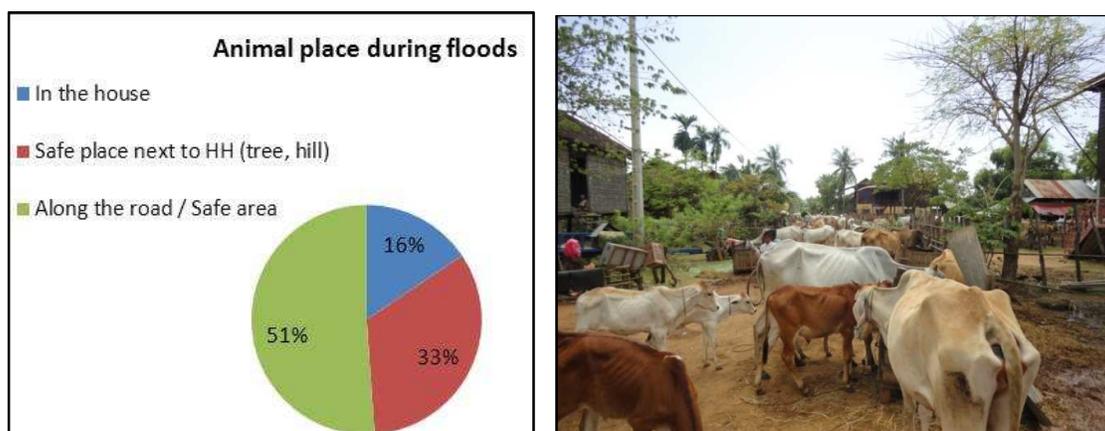
The low productivity of Cambodian agriculture reflects smallholders' lack of technical capacity, which is particularly obvious in the area concerned. Emergency seeds distributions were not accompanied by any technical training. The main challenges and observations are:

- ⇒ The lack of capacity in terms of rice farming techniques.
- ⇒ Little diversification.
- ⇒ Lack of integration of different farming activities (livestock, gardening, rice, cash crops).
- ⇒ Limited capacity to control pest and disease (risk involved in misusing chemicals).
- ⇒ Limited capacity to access and manage water resource.
- ⇒ Limited access to markets (few and unorganized market linkages).

4.3.4. Livestock

The national statistics on livestock loss due to the 2011 floods is less than the data reported here. In fact animal ownership decreased in all villages as a direct result from floods. Some animals died of drowning or disease, others were sold in an emergency during or following the floods in

order to buy rice or medicines. Two thirds of villages lost cattle and a total of 12% for their entire herd. This concerns 20% of interviewed beneficiaries. Cattle were generally less affected by the floods than smaller livestock because they are a precious saving and were protected in advance, transported along the roads. However feeding cattle during the floods remains a major challenge and villagers' expenses on this matter were high during the floods. Some cattle owners groups rented carts and went to neighbouring province to buy straw, the others sold animals to buy food for the others.



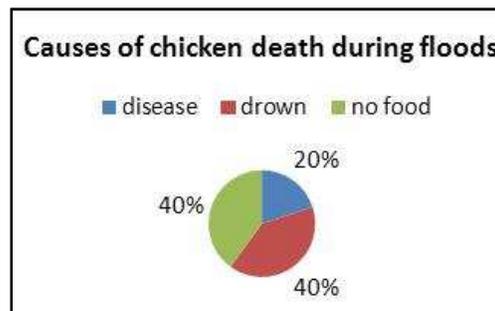
Graph 3 & Picture 6: Animal refuge areas & cattle along a secondary road during floods

Pigs stocks were particularly affected and their number dropped in 66% of the villages surveyed, the decrease was on average 34% per village.

- ⇒ 1/3 died from drowning and disease.
- ⇒ 2/3 were sold to buy rice.

Trends are similar at village level concerning poulties except that a higher proportion died (drowning, disease) compared to the number of sold animals. Duck were less affected; figures are similar but concern less villages (40% only), duck ownership is not as important as chicken or pig).

Chickens which are traditionally owned by the poorer households were the most affected livestock. 54% owned chicken before the floods (5.6 per HH on average). All lost some during the floods, 30% died and 10% were sold. After the floods, 30% of HHs had lost 100% of their chicken. The lack of food (like for cattle) is as a major threat.



Graph 4: Causes of chicken death during the floods

Remark: Vaccination concerns cattle only and about 50% of them. Village Animal Health Workers (VAHW) are present in 90% of all villages surveyed and received training from PDA. They can vaccinate animals but don't do it for free.

4.4. Water Sanitation and Hygiene

In Cambodia, there are still significant gaps in the provision of water supply and sanitation. The situation in February 2012 was precarious in all areas visited, access and practice related to hygiene and drinkable water are still poor, but it is hard to assess the specific impact of the 2012 floods on these aspects. However data was collected from various sources and presented below.

4.4.1. Access to water

An in-depth survey concerning infrastructures should be carried out in order to compare the current state with the information provided in the census that took place in 2008. The table below gives an idea of the various sources of water used for drinking and their relative importance.

Water sources in 2008	Stoung	Kpg Svay
Families using water from purification system	8%	11%
Families using water from pump, mixed wells	12%	28%
Families using water from ring wells and open dug wells	48%	40%
Families using water from pond	8%	1%
Families using water from rain water storage	1%	1%
Families using water from rivers, lakes, natural ponds and reservoirs	24%	19%

Table 4: Source of drinking water for HH (NCDD 2009)

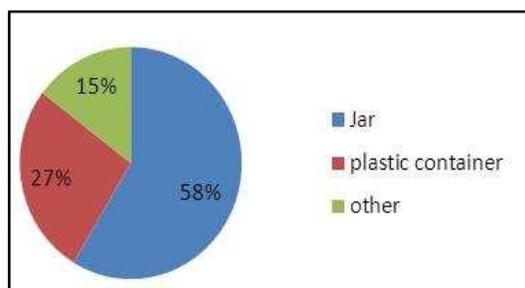
During the floods,

- ⇒ 20% of ring wells were flooded and now 38% need maintenance (source: village's chief).
- ⇒ 47% of pump wells were flooded and 35% need maintenance (source: village's chief).
- ⇒ 33% villages did not receive any emergency support in terms of clean water access, they were all inaccessible during the floods.
- ⇒ For those villages which received support it was composed of: ceramic filter 53%, chloramine tablets 26%, sand filters 21%.

The long term damages of wells and the impact of the 2011 floods suggest supporting their cleaning and treatment. The recurrence of this situation also suggests building local capacities on this matter, thus involving and supporting villagers, communes and village volunteers in doing such activities.

The varieties of sources of drinkable water suggest improving treatment technics at HH level.

4.4.2. Water storage and treatment



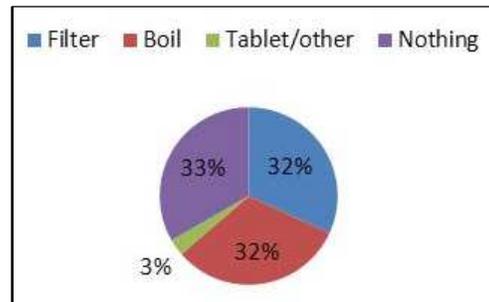
Graph 5: current 1st water storage system



Picture 7: water storage systems at HH level (left to right): sand filter, concrete tanks, jar

In addition to the graph below, in terms of water treatment equipment available at HH level:

- 18% of HHs own a sand filter.
- 20% own a ceramic filter.
- * 6% own both a ceramic and a sand filter.
- => 38 - 6 = **32% filter their water.**
- 34% own a 20l container but only **3% use it for water treatment.** In fact, each tablet available and distributed during the floods (chloramine) was to be diluted in 20l.



Graph 6: Current water treatment habit

It was observed and reported that sand filters are often abandoned around the houses and flooded. People interviewed stated that they prefer ceramic filters which are also easier to move. It is also to be mentioned that despite its apparent easy impact, the benefit of distribution of treatment tablets during the 2011 floods was limited by the little availability of proper 20l can at HH level.



The ongoing DRR Project of FinRC aims to test 3 different systems of catchment, storage and treatment of water.

Here, the water is pumped from a pond to the blue elevated tanks, then treated and used for human consumption. The other systems are: 2/ catchment from river and filtration in an elevated sand filter and 3/ catchment from a well and storage in an elevated tank. Results & recommendations should be available by mid 2012.

4.4.3. Access to Sanitation

Key facts on sanitation and hygiene in Cambodia

- Cambodian population having access to improved sanitation in 2008 rose to 33.7% from 14.4% in 1998.
- Lack of access to safe water, combined with poor sanitation and hygiene conditions increases the risk of illnesses causing diarrhea, one of the leading causes of child deaths in Cambodia.
- The disparities of access to improved sanitation are clearly evident between urban and rural areas and different socio-economic groups: Only 23.2% of the population has access to improved sanitation in rural areas compared to 81.5% in urban areas.
- Among the poorest 20 percent of the population, only 3.1% has access to improved sanitation facilities compared to 35.3% of the richest 20 %.
- School Health Policy is being disseminated to the Provincial Offices of Education nationwide in order to improve water and sanitation in schools. However, about one in five to six primary and secondary schools are not equipped with latrines.
- The lack of water and sanitation facilities in schools is a contributing factor in the high dropout rate of students, especially for girls.

Access to latrines is very scarce, on average 36.6 and 28.9 people per latrine respectively in Stoung and Kampong Svay Districts. During the floods 19% of HHs only had access to latrines, thus safe areas should have more latrines or benefit from rehabilitations.

Latrines are generally own and used by HH members only and are more frequently requested by village head, women.

In term of Watsan and DRR actions, this assessment shows that particular attention during the recovery period should be given to schools because they are often located in protected areas and welcome children during the year.

- ⇒ Support in term of access to sanitation (latrines) and water treatment (ceramic filters in classroom) would have a quick impact.

4.4.4. Access to information

All villages have Village Health Volunteers (1.7 per village on average) who all recently received training by health centres and/or CRC on health care and first aid.

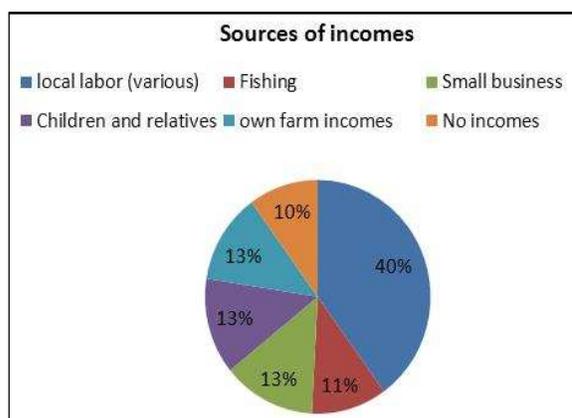
All villagers interviewed had also attended at least one village hygiene promotion awareness session in the past 6 months. However, the lack of hygiene practised suggests more in-depth surveys and better adapted training tools and strategies.

4.5. Income, Expenses and coping mechanism

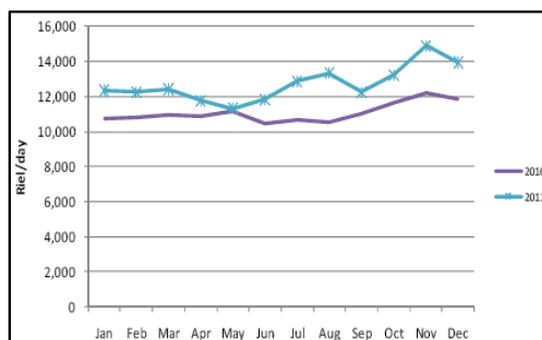
4.5.1. Income

90 % of Households stated having less income this year compared to last year. A survey produced and shared by CARE on February 2012 stated that “the 2011 Cambodian flood event resulted in reduced income by an average of 60% for 84% of surveyed HHs” (CARE, drowning in Debt, Feb. 2012).

In the zone surveyed, the source of income is currently limited to daily work in commercial farms, commercial fishing or other daily employments. In a normal year, the proportion of income from farm products would be much higher, but the loss of the previous harvest and the damages on productive assets (tools, gardens, infrastructures) combined with the urgent need for cash for food reverses this trend making most of HHs dependent on daily and poorly paid jobs.



Graph 7: Sources of income

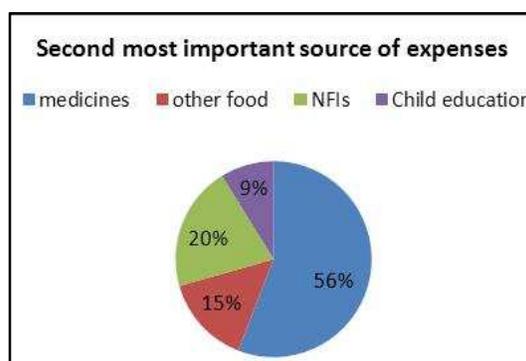


Graph 8: Daily wage of unskilled labor in rural areas (WFP 2012)

Local job opportunities remain scarce and are not great enough for the present demand. In fact half of the HHs surveyed stated having at least 1 member currently looking for a job (2.5 people / HH on average). Those reporting “no source of income” were all registered ID poor 1. Fishing is mentioned as an important but declining source of income because of the reduction of fish stocks and the recent restrictions on fishing; in fact traditional areas abundant in fish are now reserved to commercial business thus no longer accessible to individuals.

4.5.2. Expenses

The most important source of expense mentioned by all interviewees is rice despite the fact that 80% of them had previously benefited from food and NFIs from various charity organizations. The second most important source of expense mentioned is medicines, as shown in the graph.



Graph 9: Second most important source of expenses

Transportation costs were also mentioned as a major source of expense for daily workers reducing their net income from between 10% to 30 % depending on the duration and location of the assignment. The cost of transportation to health facilities is also a concern thus reduces access to health care. Expenses associated with dry season rice cultivation (seeds, lands, fuel, chemical) have already been mentioned and discussed.

4.5.3. Coping mechanism

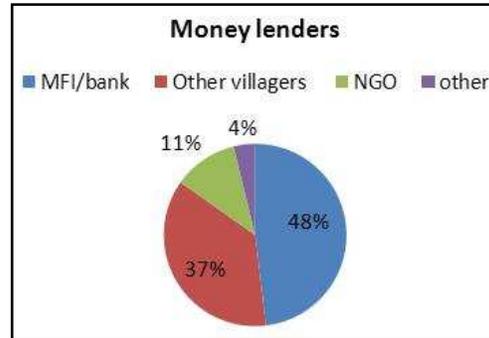
Villages rely on many different coping strategies. These strategies depend on and vary according to each HHs status and village’s location; they are generally negative and can cause a decrease in HHs food security and resilience in the mid/long term.

⇒ ***Debts***

Borrowing money is a commonly used tradition in Cambodia and the use of multi loans is normal. Interest rates are high (from 2 to 3 % par month on average) and the problems that emerge from failure to repay the debts are frequently mentioned and even reported in the media. Getting into debt is reported as the main solution to the current lack of cash. “Nearly half of all households had to take out a loan as a direct result of the floods” (CARE, drowning in Debt, February 2012). In the zone surveyed the trend is even higher, where 76% of HHs reported being in debt and among them 72% as a direct result of floods.

The average amount of debt per HH is 713.000 riels (~ 178 US dollars) over 1 year. The leading motive for this is to buy rice and other food. Next comes health issues and lastly to buy assets for income generation (such as fishing equipment). All households stated that they are ready to borrow more in order to buy rice seeds for the next season. It is important to note that on average each HH earns approximately 500 USD (maximum) per year.

Guarantees are always required for a loan and land is used as the main insurance. Borrowers provide land certificates at the same time as they receive the loan. They also use their houses and HHs assets as insurance. Village chiefs are often required to act as guarantors to the lenders.

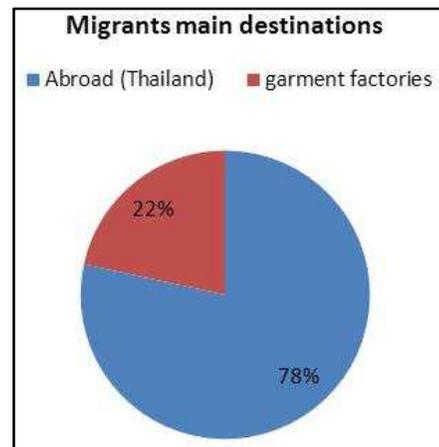


Graph 10: Money lenders

⇒ ***Migration***

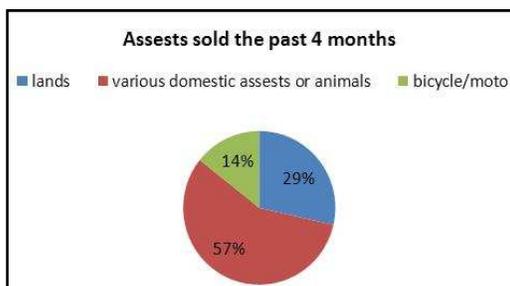
It would be interesting to conduct a specific survey on the topic of migration. IOM conducted one such study during the floods but did not consider longer term impacts. In fact seasonal migrations are pretty usual in Cambodia. They answer cash and employment needs. All discussions and interviews illustrate that the migration rate this year is higher than usual. Figures collected from village authorities suggest that the number of migrants increased by 134% this year compared to last year, during the same season. 57% of HHs interviewed has at least 1 member who left in the last 4 months.

The main destination mentioned for long term migration is Thailand where workers are offered better wages (250 to 300 Bath / working day ⇔ ~ 8 to 10 US dollars / day). Migrants to Thailand are usually men but when women are also part of the trip, children are often left in local relatives care. Many girls migrate to Phnom Penh to work in garment factories where they earn on average 60 US dollars / month). Shorter term migrations (from 2 weeks to 3 months) are often reported in commercial fishing businesses around the Tonle Sap or in surrounding commercial farms (rice, rubber and other cash crops). The rate is higher this year but they are not reported as “migration” because it is considered as usual seasonal events.



Graph 11: Long term migrants’ destinations

⇒ ***Selling of assets and animals***



Graph 12: Assets sold in the past 4 months

⇒ 20% of HHs reported selling their assets as the main way of getting fast cash in order to buy rice and medicine during and immediately after the floods. This is seen more predominantly in the middle class HHs and illustrates the deterioration of both their livelihoods and resilience as a consequence of the 2011 floods.

⇒ ***Negative impact on child circumstances***

Children are also suffering from 2011 floods, this was not quantified but observations and focus group discussions highlighted worrying tendencies:

- Many were unable to attend school during the period of the floods and were not able to recover 2011.
- There was some damage to infrastructure for example the loss of bridges in remote villages made access to school hard and costly (paying boat fees to cross rivers).
- The lack of HHs income resulted in less school equipment and clothes for children.
- Some poor families reported having removed their children from school to send them to commercial farms where they can work and get paid on a daily basis to bring cash home.

Children's health and nutrition status should be monitored especially during the lean period.

The voice of women

Two focus group discussions involved only women: 1 composed of middle class women and the other composed of ID poor registered women.

Women are less prone to migrate than men. They traditionally rely more on local coping mechanisms but many are now only relying on their husband to earn money to buy rice.

They are traditionally more involved in home gardening and small livestock farming but the damages caused by the floods on these 2 resources affected this trend and they were quoted saying: "*Now we are ready to do whatever will make us able to buy rice... Even fishing!*".

However in practice they don't and remain dependant on very local resource and opportunities. Poor women insist on the importance of NTFPs as a traditional alternative source of food. Actually, this resource is scarce and time consuming, but free.

The lack of local opportunities results in an increase of young women migrating to PNH to work in garment factories. The number of children leaving school to work locally in commercial plantations has increased and was mentioned for girls only.

Women didn't mention any specific group of interest or gender oriented safety nets.

Women are more vulnerable than men in general and their vulnerability increases in time of crisis, however they did not receive any specific help during or following the 2011 floods.

⇒ They request in priority better hygiene and sanitation facilities, as well as better means and knowledge to crop their home garden and breed small livestock.

More support to these activities will benefit women without creating additional workload.

4.5.4. Safety nets

It is important to differentiate here traditional safety nets and “NGO driven” ones. Both exist and have their limitations.

⇒ ***Rice banks***

They exist in 3 villages surveyed and are usually greatly appreciated by villagers, however stocks were absolutely empty at the time of the survey. In fact rice banks require management, organizational skills and time to be established. Crisis and climatic disaster cause serious threats to rice banks especially during the first years. In the area, AVSF (Agronomes et Vétérinaires sans Frontières) helped establish numerous during development projects that lasted several years. Side activities such as marketing groups are developed from the initial rice bank. Success depends on the duration and quality of the support: 2 to 3 years minimum.

⇒ ***Community based saving groups***

They are an interesting alternative to MFIs and banks. They are recommended as a helpful strategy to access finance locally but such groups do not exist in the area. Their introduction is hard and there has been a poor success rate in Cambodia. In addition, their impact on the most vulnerable groups is not ensured as they are often excluded. Nevertheless, CEDAC is the leading Cambodian NGO in terms of promoting saving groups promotion and revealed good results in reaching the poorest, but it is not present in any of the 2 Districts surveyed.

⇒ ***Other traditional schemes and joint initiatives***

- Villagers usually organized money collection for funerals.
- Some youth groups exist, that involve however none were observed during the survey.
- “Generosity” is often mentioned and relies on rich individuals or businesses supporting communities. This is usually for personal, political or investment reasons. Such generosity can come with ulterior motives however and the following year this Kindness may turn into demand for Labour or access to land.
- Religious help is also important; pagodas are often safe areas during floods and welcome people in need at any time of the year. In fact it has been observed that many elderly (often women) without resource or income often spend time as monks.

5. Conclusion and recommendations

All categories of population living in the affected zones were badly affected by the floods, including the middle class who are now at a serious risk of declining into poverty. Therefore it is important to support all categories of the population during relief and recovery phases in order to prevent pauperisation which may in turn also result in social tensions.

Actions that need to be taken to alleviate the direct damage caused by the 2011 floods are mentioned below. However, various other initiatives must also be considered in order to link recovery to development and thus improve rural Cambodia's resilience to climatic disasters in the long term. This assessment shows that the more remote villages are the more vulnerable and the less targeted by external support. Thus it is important to particularly focus on the remote communities.

⇒ ***Short term actions***

- The neediest HHs will require external support to access food during the lean season because their traditional resources and coping mechanisms have been heavily affected. Cash transfers and food distribution should be considered for them.
- "Access cash in order to access food" is urgent for the majority of people; therefore, it is important to create income generation opportunities quickly, as food remains available in abundance and at a stable price locally.
- Rehabilitation of rural communication infrastructures (roads, bridges, culverts, drainage systems) is a priority and aims to improve the capacity of villagers to access/re-access markets and services in the short term.
- Rice farmers must be able to sow in May/June the latest in order to have the opportunity to make the first harvest in October. Rice seed distribution is an immediate priority to consider for those who do not have access to enough quantity of seeds. Quality rice seeds are produced and available locally through the traditional market chains and at national level.

⇒ ***Mid to long term actions (the longer the better)***

- Rice seeds should come with basic training on seed sowing (transplanting instead of broadcasting) and seed saving. In fact villagers expressed their willingness to improve their cropping techniques for rice farming.
- Agricultural recovery in the short term is not limited to rice cultivation alone. Vegetable cultivation is an important method of farming to balance possible bad rice harvests and diversify income opportunities. Better and inexpensive vegetable farming innovations include compost production and integrated pest and soil fertility management.
- It is relevant to consider fruit tree planting in communal and safe areas.
- Promote climate change resilience techniques such as System of Rice Intensification (SRI), rice-vegetable-livestock integrated systems, multipurpose farming, crop rotation and diversification, dry season land valorisation.

- Livestock should also be considered; small livestock is most important since it concerns more people. Animal health is a priority that can be obtained through better housing (bio fences), and prevention (vaccination, deworming, better feeding practises).
- Livestock restocking should be considered for those people who have lost 100% of their stock, and should be monitored carefully and come with capacity building and training.
- Improve access to agricultural water for home garden during the dry season through building or rehabilitation of ponds with efficient water management practise.
- Disinfection, restoration and protection of wells must be considered and involved communities. Another issue is sanitation.
- Safe areas and shared infrastructures should be provided in order to improve the sanitation situation during floods.
- Hygiene promotion and monitoring is also important throughout the year.
- Both for sanitation and hygiene promotion, schools should be considered in priority.
- Survey / monitor the nutritional status of the population most affected by the floods.

⇒ ***Disaster Risk Reduction and Management actions***

- Promote efficient communication and coordination schemes in time of crisis. Improve the flow of information regarding water levels, access to safe areas, hygiene and livestock awareness and safety during floods.
- Promote, implement risk/vulnerability mapping.
- Build the technical and operational capacity of volunteers (VHV, CBAHW, CRC).
- Build, or improve safe areas with proper access to potable water and sanitation facilities. Consider safe areas for animals.

⇒ ***Longer term actions***

- Develop safety nets such as rice banks, community saving groups, equal access to health care (i.e. Health Equity Fund).
- Improve the quality of agricultural water infrastructures and develop relevant water management schemes (FWUG).
- Promote seed saving techniques to improve self-sufficiency.
- Promote and diversify income generating activities in order to diversify revenues.
- Advocate for better DRR and DRM at all levels.
- Expand on existing successful projects.



6. Annexes

6.1. Annex 1: Assessment full planning

7. Planning of activities February 2012 / update 14 February 2012																								
Activities	Location	Person Involved	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
Briefing FRC	PNH	Sol, Jos																						
Doc review, mission planning, plan meetings	PNH	Sol																						
Visit Kg Thom various villages and meetings, completion of methodology & data collection tools.	Kg Thom	Sol, Ratana, Sambo + meetings																						
Meetings in PNH, prepa logistic, finalize methodology	PNH	Sol + meetings																						
briefing / training CRC Volunteers on data collection	Kg Thom	Sol, Sambo, CRC Vol																						
Data collection	Kg Thom	CRC Vol																						
Field visit, meetings and FGD Data entry, Data analysis, Meetings in PNH	Kg Thom PNH	Sol + Sambo Sol + support																						
Data analysis, assessment report and concept note writing, additional meetings	PNH, Kg Thom (if needed)	Sol + meetings																						
Feedback meeting in Kpg Thom – discussion of preliminary findings	Kpg Thom	Sol + Ratana + Meetings																						
Submission, restitution, discussion. writing a proposal	PNH	Sol																						

6.2. Annex 2: List of meetings, contacts and visits

Name/position	Organisation	Date/venue	Comment
Josselin Léon, HoD	FRC	6 Feb - PNH	Briefing, contract, logistic
Local partners representatives in Kpg Thom (Government & ONGs)	CRC, PDA, PDRD, PDoWRaM, PHD, WV, Oxfam, CWS	8 Feb – Kpg Thom	Assessment presentation, objectives, coverage, planning, method. info sharing about ongoing plans and projects.
Ms. Valérie Do, PM Watsan-HP	Oxfam	8 Feb – Kpg Thom	Presentation of Oxfam relief activities in Kpg Thom, discussion and recommendations, focus on Watsan.
Mr. Cheat Syvutha, Director	PDoWRaM	10 Feb – Kpg Thom	Exchange data in meteo, irrigation infrastructures and ADB rehabilitations plans.
Mr. Srey Sin, Director	PHD	10 Feb – Kpg Thom	Presentation, discussion, recommendations on HP, DRR exchange data on health.
Mr. Sophea PM	FAO	13 Feb – Tel/mails	Presentation of FAO recovery project (activities and coverage)
Mr. Kurt Burja Program Officer	WFP	13 Feb – Tel/mails	Discussion, details about WFP ongoing recovery needs assessment
Director of department	PDA	15 Feb – Kpg Thom	Presentation survey and PDA strategy discuss projects and rice seeds availability.
DRR project managers (Mr. Tchan & Mr Vireak)	Fin Red Cross	15 Feb – Kpg Thom	Presentation ongoing project, different water catchment and storage design tested. Technical and financial data on ponds building
René Jinon, Operation manager	DRC	15 Feb – Kpg Thom	Presentation of DRC relief activities in Kpg Thom, plan and coverage for future action
Sacha Bouter, Program Officer	WFP	20 Feb – Tel/mails	Details target and activities of ongoing WFP EMOP project.
H.E. Chea Cheat, President CRC committee Kpg Thom, + Director of Prov Social services	CRC / Prov Social Services	23 Feb – Kpg Thom	Presentation of preliminary results / discussion / recommendation for actions.
Duch Sam Ang, Disaster Management prog coordinator	CRC		
Villages chiefs and commune council representatives	Local authorities	villages, communes, 2 Districts	In-depth discussion and qualitative analysis of challenges resulting from the 2012 floods.

6.3. Annex 3: Report and Literature reviewed

Kampong Thom Data book, *NCDD, 2009*

Stoung Data Book, *NCDD, 2009*

Kampong Svay, *NCDD, 2009*

Drowning in debt, The Impact of the 2011 Cambodia Floods on Household Debt, *CARE, Feb 2012*

Post floods need assessment data, *OCHA, Jan 2012*

Cambodia Survey of Flood Affected Households, *IOM, Dec 2012*

Cambodia food security and nutrition quarterly bulletin #4, *WFP, Nov 2011 WFP*

Food price and wage bulletins, *WFP, Nov 2011, Dec 2011*

Markets monitor, *WFP, Jan 2012*

All documents posted on dropbox Cambodia 2011 flood

6.4. Annex 4: Household questionnaire (English version)

Food Security and Livelihood needs assessment – Kampong Thom – February 2012

Date: _____

Household questionnaires

Interviewer: _____	District: _____	Commune: _____	Village: _____
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- 1/ HH information** ID poor 1 ID poor 2 Not ID poor registered
- 2/ Situation of the HH Head: man woman widow/er age: _____
- 3/ Total HH members: _____ above 65: _____ under 5: _____ sick for more than 2 weeks: _____
- 4/ Duration of evacuation during floods (in weeks): N/A <1 1 to 3 3 to 6 >6
- 5/ If yes what was the main reason? House Flooded access to incomes other: _____
- 6/ If yes, where did you go? Pagoda safe area school other: _____
- 7/ Was the safety area inside your village? Yes No
- 8/ Estimated distance from your house: _____ km/min/liters
- 9/ During floods did you have access to latrines in the safety area? Yes No
- 10/ Now, do you have access to latrine? Yes No
- ⇒ If yes, is it shared? Yes No
- If yes, how many families? _____
- 11/ Access to water during the floods (Rank) (pump well, ring well, dug well, river, distribution, other - specify)
- 1/ _____ How far? _____ Min/ meters
- 2/ _____
- 3/ _____
- ⇒ During the floods did you use filter? Yes No
- If yes which kind? _____
- ⇒ During the floods did you use tablet? Yes No
- If yes, did you receive enough? Yes No Comment: _____
- 12/ Access to water now (Rank)
- 1/ _____ How far? _____ Min/ meters
- 2/ _____
- 3/ _____
- 13/ Is it the normal sources in this season? Yes No Comment: _____
- 14/ How do you store water for drinking? Jar Plastic container ceramic filter bio sand filter other: _____
- 15/ How do you make water drinkable? Filter boiled tablets nothing other: _____
- 16/ Do you own a 20 liters container? Yes No
- 17/ Do you own a ceramic filter? Yes No
- 18.5/ Do you own a bio sand filter? Yes No
- ⇒ If yes, was it flooded? Yes No
- 18/ Total rice field area you can cultivate: _____ Ha acre
- 19/ Total dry season rice land you can cultivate: _____ Ha acre
- 20/ Total upland (for rice - Chamka) you can cultivate: _____ Ha acre
- 21/ Access to irrigation before the floods? canals private ponds community ponds other _____
- ⇒ Have these facilities been damaged by the floods? Yes No
- ⇒ Access to irrigation now? Yes No

- 23/ How much did you plant last season (wet season rice) _____ Ha acre
 ⇒ How much did you harvest? _____ kg/ 50kg bags / other _____
- 24/ How much did you plant this season (dry season rice) _____ Ha acre Tick here if rented land
 ⇒ How much do you plan to harvest? _____ kg/ 50kg bags / other _____
- 25/ How much rice do you have in stock now? _____ kg/ 50kg bags / other _____
- 26/ How much are you still expecting to receive from charity organization? _____ kg/ 50kg bags / other _____
- 27/ How much rice do you plan to plant next season? _____ Ha acre
- 28/ Do you have enough rice seeds for next season now? Yes No
 ⇒ Source of rice seeds? _____ => if no, plan? _____

- 29/ Home garden Yes No If yes, estimated surface: _____ m2 If yes, who is working in 1/ _____ 2/ _____
- 30/ Access to water for home gardening: Yes No
 ⇒ If yes specify River Pond Other: _____
- 31/ Other place for vegetable cultivation? Yes No If yes where? Rice field riverbank other: _____
- 32/ Do you have access to a community pond or community water source? Yes No
 ⇒ If yes, comment on the rules for using it: _____
 ⇒ If yes, main purpose/use: 1st: _____ 2nd: _____ 3rd: _____
- 35/ Sources of vegetable seeds: _____

- 36/ Agricultural tools available now (make a list): 1/ _____ 2/ _____ 3/ _____
 3/ _____ 4/ _____ 5/ _____ 6/ _____ 7/ _____
 8/ _____ 9/ _____ 10/ _____

38/ Livestock:

Animals	number now	number before floods	# died during the last 4 months	# Sold during the last 4 months
Cow	_____	_____	# _____ reason: _____	# _____ reason: _____
Buffaloes	_____	_____	# _____ reason: _____	# _____ reason: _____
Pigs	_____	_____	# _____ reason: _____	# _____ reason: _____
Chicken	_____	_____	# _____ reason: _____	# _____ reason: _____
Duck	_____	_____	# _____ reason: _____	# _____ reason: _____
Other:	_____	_____	# _____ reason: _____	# _____ reason: _____

- 39/ Are your animals vaccinated? Yes No If yes, which one? _____
- 40/ Are your animals treated against worms? Yes No If yes, which one? _____
- 41/ Source of animal food now (Rank)? 1/ _____ 2/ _____ 3/ _____
- 42/ Sources of animal food last year same period? 1/ _____ 2/ _____ 3/ _____
- 43/ During the floods how did you manage your animals? Place of staying: _____ Source of food: _____
 => Comment: _____

44/ What are you main sources of incomes (rank)?

- 1now/ _____ Comment compared to last year? more less
- 2now/ _____ Comment compared to last year? more less
- 3now/ _____ Comment compared to last year? more less

- 45/ In term of incomes what is different compared to last year same season? _____

46/ Have some HH members left the last 4 months? Yes No If Yes, is it like last year same season? more less

Main destination 1: _____ => month of leaving: _____ expected month of return: _____

Main destination 2: _____ => month of leaving: _____ expected month of return: _____

Main destination 3: _____ => month of leaving: _____ expected month of return: _____

47/ Are some of your HH members not currently working but looking for a job? Yes No

⇒ If yes, how many? _____

48/ Assets sold or lost the past 4 months? Moto TV Telephone bicycle clothes kitchen tools Lands _____

Other: List _____

Agricultural tools List _____

49/ Have you received support the past 4 months? Yes No

⇒ If Yes, List (rank): 1/ _____ 2/ _____ 3/ _____ 4/ _____

50/ What are your main sources of expenditures (rank)?

1now/ _____ Comment compared to last year? more less

2now/ _____ Comment compared to last year? more less

3now/ _____ Comment compared to last year? more less

51/ Are you in debt? Yes No

52/ If yes, have you contracted them as a direct result of the floods? Yes No

53/ If yes, what/how much money: _____ Dollars riels rice: _____ kg Other: _____

54/ if yes, what was the main reasons for these debts? 1/ _____ 2/ _____ 3/ _____

55/ If yes, who did you borrow to? _____ What is the guaranty (if any)? _____

56/ Are you part of any group in the village? Yes No if yes, what? _____

57/ Did you have any access to information or training during the floods? Yes No

58/ If yes about what? _____

59/ If yes through which channel? radio volunteers gov. relatives friends NGO staff other

54/ Early recovery support up to the end of February (received or planned):

Name1: _____	What: _____	status: <input type="checkbox"/> Finish <input type="checkbox"/> on-going <input type="checkbox"/> planned
Name2: _____	What: _____	status: <input type="checkbox"/> Finish <input type="checkbox"/> on-going <input type="checkbox"/> planned
Name3: _____	What: _____	status: <input type="checkbox"/> Finish <input type="checkbox"/> on-going <input type="checkbox"/> planned
Name4: _____	What: _____	status: <input type="checkbox"/> Finish <input type="checkbox"/> on-going <input type="checkbox"/> planned
Name5: _____	What: _____	status: <input type="checkbox"/> Finish <input type="checkbox"/> on-going <input type="checkbox"/> planned

55/ What do you consider as the most relevant support your HH could receive in the next 12 months? (Rank)

1/ _____ Comment: _____

2/ _____ Comment: _____

3/ _____ Comment: _____

56/ General comment from the HH or any person present during the interview:

57/ General comment and observation of the interviewer:

6.5. Annex 5: Village chief questionnaire

Food Security and Livelihood recovery needs assessment – Kampong Thom – February 2012

Date: _____

Village Head questionnaires (+ CRC volunteers + any other relevant village key informant)

Interviewer: _____	District: _____	Commune: _____	Village: _____
--------------------	-----------------	----------------	----------------

- 1/ Village accessibility by car during dry season: Yes No
- 2/ if no, how long by moto: ____ km/min/liters, or by boats: ____ km/min/liter, or other(____): ____ km/min/liter
- 3/ Village accessibility by car during floods: Yes No
- 4/ if no, how long by boat from the first road: # ____ km/min/liters
- 5/ # of families in the village: _____ # ID poor 1: _____ #ID poor 2: _____
- 6/ # of Families evacuated their home during the floods:# families: _____
- 7/ Estimated average duration of evacuation during floods (in weeks): <1 1 to 3 3 to 6 >6
- 8/ Where did people go? Pagoda Safe area school other: _____
- 9/ Estimated distance to the safe area _____ km/min/liters
- 10/ Is the place still in the village? Yes No
- 11/ In the safe area: # pump well: _____ # ring well: _____ # latrine: _____
- 12/ How many pump wells in the village? _____
- 13/ # year round usable pump well? _____
- 14/ # dry season usable pump well? _____
- 15/ # need repair / rehab? _____ comment: _____
- 16/ # damaged by flood? _____ Flooded during the floods? Yes No comment: _____
- 17/ How many ring wells in the village? _____
- 18/ # year round usable ring well ? _____
- 19/ # dry season usable ring well _____
- 20/ # need repair / rehab _____ comment: _____
- 21/ # damaged by flood _____ kind of damages _____ comment: _____
- 22/ # year round usable unprotected dug wells in the village _____
- 23/ # dry season usable unprotected dug wells in the village _____
- 23.5/ Did any emergency action took place in your village in term of access to clean water: Yes No
- 23.6/ If yes, distribution of tablet plastic containers ceramic filters sand filter other: _____
- 24/ How many latrines in the village: total _____ individual _____ collective _____
- 25/ Total rice field area: _____ Ha
- 26/ Total dry season rice land: _____ Ha
- 27/ Total upland (for rice - Chamka): _____ Ha
- 28/ Total irrigated land (Ha): _____ from canal / dam: _____ from river / pond: _____ from pump: _____
- 29/ Estimated number of villagers own rice field: # HH have _____ # HH don't have: _____
- 30/ Estimated number of villagers plant dry season rice this year: _____ last year: _____
- 31/ Estimated average size of land: # Ha/family: _____
- 32/ # HH with access to irrigation water: from canal / dam: _____ from river / pond: _____ from pump: _____
- 33/ Damages of irrigation facilities: # km of canal _____ # of km of dykes _____ # water gates _____ dams _____
- Comments (kind of damages, needs and plans for repair): _____

34/ Number of ponds in the village: #total: _____ #individual: _____ #communal: _____
 35/ Main purpose: 1st: _____ 2nd: _____ 3rd: _____
 36/ Estimated # HH having home gardens (Next to HH) _____ access to water: _____
 37/ Estimated #HH cropping vegetable in other field (as cash crop, for selling) _____ access to water: _____
 Where?: rice field river bank other: _____

38/ Livestock:

Animals	number now	number before floods	# died during or after floods	Sold during the last 4 months
Cow	_____	_____	# _____ reason: _____	# _____ reason: _____
Buffaloes	_____	_____	# _____ reason: _____	# _____ reason: _____
Pigs	_____	_____	# _____ reason: _____	# _____ reason: _____
Chicken	_____	_____	# _____ reason: _____	# _____ reason: _____
Duck	_____	_____	# _____ reason: _____	# _____ reason: _____
Other: _____	_____	_____	# _____ reason: _____	# _____ reason: _____

39/ # Village Animal Health Worker: # _____ Last training received: _____ by who? _____
 Comment on his/her/their capacity and activities: _____

Observed diseases and health problems in the village compared to last season:

40/ Fever (dengue, malaria): same more less any figure? _____ any comment: _____

41/ Diarrhea: same more less any figure? _____ any comment: _____

42/ Skin disease: same more less any figure? _____ any comment: _____

43/ Other: _____ same more less any figure? _____ any comment: _____

44/ # Village Health volunteers: # _____ Last training received: _____ Topic: _____ by who? _____

Comment on his/her/their capacity and activity: _____

45/ Did the villagers receive HP session in the last 6 months? Yes No if yes, by who? _____

46/ Number of families migrant: last year at the same season _____ now: _____

Main destination 1: => month of leaving: _____ expected month of return: _____

Main destination 2: => month of leaving: _____ expected month of return: _____

Main destination 3: => month of leaving: _____ expected month of return: _____

Existing groups in the village:

47/: FWUG (for irrigation or community ponds): # of groups _____ # members: _____ Comments _____

48/ Water committee (related to wells management): # groups _____ if yes, #savings _____ riels comment _____

49/ Rice bank: # groups _____ # members _____ rice available now _____ kg

50/ Saving group: # groups _____ # members _____ savings available now _____ riels

51/ Fishing group # groups _____ # members _____ purpose and comment _____

52/ other _____ # groups _____ # members _____ purpose and comment _____

54/Early recovery support up to the end of February:

Name1:	Field:	# of HH:	status:	Finish	on-going	planned
Name2:	Field:	# of HH:	status:	Finish	on-going	planned
Name3:	Field:	# of HH:	status:	Finish	on-going	planned
Name4:	Field:	# of HH:	status:	Finish	on-going	planned
Name5:	Field:	# of HH:	status:	Finish	on-going	planned

55/ Main livelihood in the village now:

1now/	Comment compared to last year?	<input type="checkbox"/> more	<input type="checkbox"/> less
2now/	Comment compared to last year?	<input type="checkbox"/> more	<input type="checkbox"/> less
3now/	Comment compared to last year?	<input type="checkbox"/> more	<input type="checkbox"/> less

56/ Main change of livelihood compared to last year same period: _____

57/ Hunger gap comments:

Families with no rice now and without any support planned to be delivered? _____

Which month the rice provided by relief agencies will be finished? this year _____ In normal year: _____

58/ Debt: # families in debt last year same period _____ Now _____

Main reason 1: _____

Main reason 2: _____

Main reason 3: _____

Comments on debts: _____

59/ Any other infrastructure damages by the floods ? (give details) _____

60/ Any plan for rehabilitation? yes no

If yes, by who _____ How? villagers CFW FFW Contractors other: _____

61/ In the village, is there any information system about floods No board volunteer other: _____

62/ Comments, recommendation, expressed needs:

For the village:

For the poorest:

For Food Security:

Other:

63/ Interviewer observation:

6.6. Annex 6: Focus Group Discussion frame

Guidelines for Focus Group Discussion.

- For each group a max of 6 people (1/ Women, 2/ ID poor 1, 3/ not ID poor affected HH).
- Presentation of animator & purpose of the study – inform about FGD duration (1.30 to 2 hours)
- Make each participant speak about his view asking open questions and drive the discussion keeping in mind the background and objective to understand mechanism in a qualitative way.
- Both facilitators and support take notes.
- Take 10 minutes at the end of the discussion in order to make sure all points were discussed and understood.
- Debriefing after the FGD in order to make sure nothing is missed.
- Note: For each topic we try to understand the specificities of the group considered

1. Social & economic networks / safety nets and solidarity

Village groups (age, sex, activity, business, and religion, other...), consider NGOs driven networks and traditional network (or initiatives...).

Have social and economic networks been affected by the floods? Have some appeared or disappeared?

Have this group specific network? If yes discuss them; if no, would there be some relevant to be developed?

Ways to access markets, which markets? Which products?

Is this group specialized in anything compared to other villagers?

Discuss social safety nets that are internal to the village: Saving groups, rice banks, and support to elders and orphans, support to people affected by disaster (health, agriculture, accident etc etc...).

Then on a second step discuss external safety net such as free services, free health care, external aid etc etc...

Have safety nets been affected by the floods?

Is this group specifically benefiting from any safety nets? If yes discuss them, if no, would there be some relevant to be developed?

2. Coping mechanism and External aid

Discuss coping mechanisms.

⇒ Seasonal one versus in time of crisis.

What are those of the village?

What are the trends for this specific group?

What changes because of the floods?

⇒ External aid:

From NGOs, but can also be considered from Government, from private sector, politics, foundations etc etc...

Discuss how did it answer the needs? or not?

What are the remaining needs? Access to food, agriculture, water, health, other...

Discuss CFW (price per day, conditions, labor availability, calendar etc etc...)

3. Access to information about floods, WASH and DRR

Access to info during floods: floods situation, access to water, hygiene, health care, access to food.

Who were the main sources of info: village chief, commune council, NGO, authorities, media.

How are you prepared now in case of floods? What would be different compared to last year?

What are the main risks for you (specificity of this group) during floods, in the short, mid, long term?

What are the needs in term of DRR? How can these risks be reduced?

4. AOB/Dismissal

Any other business, recommendation, any question from the group, dismissal.