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**LIVELIHOOD RECOVERY**  
NEEDS ASSESSMENT AND ACTION PLAN FOR  
SELECTED AREAS AFFECTED BY THE

2011

**CAMBODIA  
FLOODS**



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# **CAMBODIA FLOODS**

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ADB	Asian Development Bank
CEDAC	Cambodian Centre for Study and Development in Agriculture
CRDT	Cambodian Rural Development Team
CED	Community Economic Development
CTO	Community Translation Organization
DAHP	Department of Animal Health and Production
DCCDM	District Committee for Disaster Management
FAO	Food and Agriculture Organization
FGD	Focus Group Discussions
MAFF	Ministry of Agriculture, Forestry and Fisheries
MoC	Ministry of Commerce
MoEF	Ministry of Economy and Finance
MRD	Ministry of Rural Development
NCCDM	National Committee for Disaster Management
NGO	Non-government Organization
OCHA	Office for the Coordination of Humanitarian Affairs
PCDM	Provincial Committee for Disaster Management
PDRD	Provincial Department of Rural Development
PDA	Provincial Department of Agriculture
PDOLVT	Provincial Department of Labour and Vocational Training
PDOWA	Provincial Department of Women Affairs
SCI	Save the Children International
UN	United Nations
UNDP	United Nations Development Programme
WFP	World Food Programme

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# Executive Summary



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“Key findings and results of the assessment indicate that agriculture is the main source of income for 80 percent of the flood-affected population.”

In the last quarter of 2011, a combination of successive typhoons and heavier-than-average monsoon rains caused extensive flooding across Cambodia. The National Committee for Disaster Management (NCDM) reported that some 354,217 households, or 1.77 million people in 18 of the country's 24 provinces, were affected. To support the country's recovery efforts, UNDP Cambodia commissioned a livelihood recovery needs assessment in selected districts and communes in the provinces of Prey Veng, Kratie and Siem Reap. This report contains the findings and results of the assessment.

The purpose of the assessment was to conduct a review and analysis of the impact of the floods on the livelihoods of the affected population, identify opportunities and capacities for recovery, and provide a sound basis for UNDP to make informed decisions on appropriate livelihood recovery interventions. The methodology used was a secondary data review of existing assessments by other organizations, complimented by key informant interviews and qualitative focus group discussions (FGD) with local community leaders and affected residents.

Key findings and results of the assessment indicate that agriculture is the main source of income for 80 percent of the flood-affected population, with rice farming being the key economic activity. The assessment surveys of WFP and CARE indicate a 60 to 66 percent decrease in the incomes of affected households. The loss of the rice (and vegetable) harvest had a chain reaction that affected a range of other livelihood activities which depend on crop production, especially agricultural wage labour. With no harvest, agricultural wage labourers, who make up the poorest households, lost a major source of their seasonal employment and income.

In addition, the loss of the wet season harvest not only means the loss of income, but translates to certain food shortages for many households, for example, a lack of staple rice for household consumption until the next harvest. Other than significant losses reported for small livestock, predominantly poultry, no major losses were reported in terms of other livelihood/productive assets. Some damages reported for small community infrastructure supporting livelihood activities (roads, canals, etc.) were noted, but the World Food Programme (WFP) and other I/NGOs are undertaking, and have further plans for, rehabilitation using cash and/or food for work schemes.



To cope with the crises, 40 percent of the affected households said they took on new loans which were mainly spent on agricultural inputs for re-planting, although a portion of the loans were reported to have been spent on food consumption. Using loans for non-income generating purposes or to pay off existing debt will have negative consequences on the household's future ability to repay the debts. Many people, particularly in Prey Veng and Siem Reap, have resorted to labour migration. Other coping measures reported include the sale of livestock, and reduced food consumption.



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While the actual impact will vary in intensity according to the geographical location and on the nature of the affected population's main source of income, the overall impact of the floods is visible in terms of: a significant decrease in income from the partial/total loss of the wet season rice harvest; loss of seeds, financing and other agricultural inputs critical for re-planting; lack of staple rice to eat until the next harvest; loss of small livestock; and damage to some small livelihood-related community infrastructure.

Based on the review of secondary data, interviews with key informants and discussions with groups of local leaders and villagers, the general livelihood recovery needs of the flood-affected communities are identified as: short- or long-term income and employment opportunities to offset decrease/loss of income; support for resuming agriculture and crop production activities; replacement of lost small livestock; access to affordable credit sources for restarting/rehabilitation of small and micro businesses.



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Livelihood recovery opportunities and capacities identified in the selected provinces include the presence of local implementing partners with experience and expertise in rural livelihoods; existing vocational skills training facilities and programmes by local provincial departments in the provinces of Prey Veng and Siem Reap; a substantial unskilled migrant labour force; cancellation of commercial fish lots; opportune time for introducing livestock management skills; affected areas are receptive to learning about disaster risk reduction and climate change adaptation.

Given the needs, opportunities and capacities identified, the recommended livelihood recovery interventions include: the provision of capital (e.g. recovery fund) into existing savings and self-help groups; small livestock replacement including improved stock quality and skills in livestock management; enhancing the skills of the migrant labour force through vocational skills training on construction and other business demand driven skills; livelihood start-up packages/grants for small and micro businesses; disaster risk reduction and climate change adaptation awareness and advocacy campaign.

While the livelihood recovery project will likely be undertaken with a short- to medium-term perspective, it is important to consider the underlying vulnerabilities or root causes of the affected communities. Hence, UNDP should consider advocating for development issues and concerns related to agricultural diversification, improving peoples' access to natural resources, improved water management, creation and strengthening of livelihood groups (e.g. farmer associations, fisheries and forestry committees), and community-based disaster risk reduction and adaptation programmes.

# Introduction

**In the last quarter of 2011, a combination of successive typhoons and heavier-than-average monsoon rains caused extensive flooding across the Southeast Asian countries of the Philippines, Vietnam, Cambodia, Laos and Thailand affecting more than 6.5 million people. Cambodia experienced its worst flooding since the historic floods of 2000, with statistics from the National Committee for Disaster Management (NCDM) showing that the floods affected some 354,217 households, or 1.77 million people in 18 of the country's 24 provinces.**

## 1.1 BACKGROUND

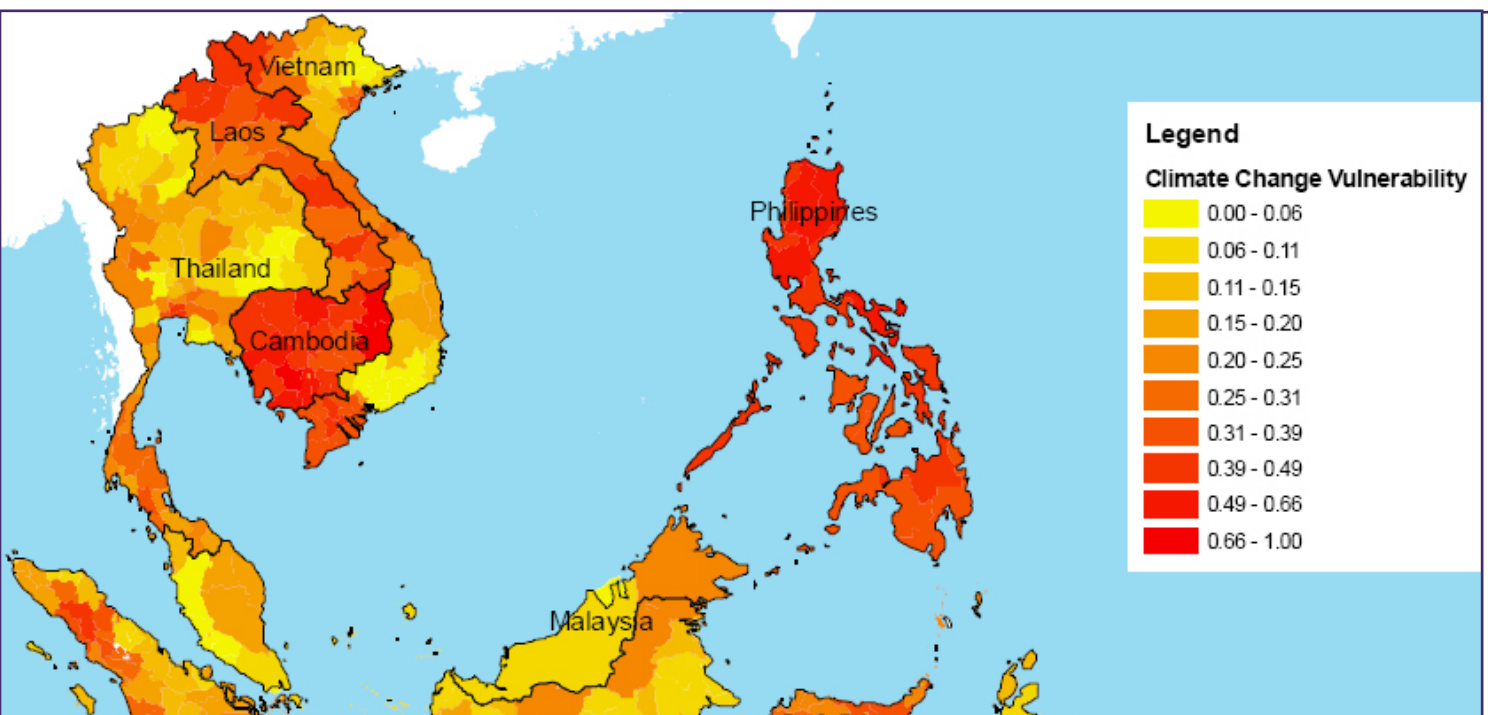


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The relief and response efforts that followed, despite some reported difficulties in coordination, were generally successful, with an estimated US\$24 million worth of international aid and local private sector support provided to affected households, including US\$4 million from the United Nations (UN). The Royal Cambodian Government (RGC) ordered the Ministry of Commerce (MoC) to distribute 1,700 tons of rice to flood affected people, and the Ministry of Economy and Finance (MoEF) was reported to have advanced the release of some KHR 2,800 million (approximately US\$700,000) from the budget allocation of 15 flood affected provinces.

As the response and early recovery phase comes to a close, attention is now focused on addressing the medium to longer term recovery needs of the affected communities. A number of area-specific assessments have already been conducted by various organizations including a multi-agency supported post-flood relief and recovery survey, led by the WFP, which represents the most comprehensive post-flood needs assessment to date. A number of organizations, including those involved in relief, response and early recovery efforts are currently in the process of finalizing recovery programmes.

In support of its intention to assist the country's recovery efforts, especially in the area of livelihoods recovery, UNDP Cambodia commissioned a two-person team to conduct a livelihood recovery needs assessment in the prioritized provinces of Prey Veng, Kratie, and Siem Reap. This report contains the findings and results of the assessment.



Economy and Environment Program for Southeast Asia (EEPSEA); International Development Research Center (IDRC)

## 1.2 PURPOSE & OBJECTIVES

The purpose of the needs assessment is two-fold: to provide a review and analysis of the impact of the 2011 floods on the livelihoods of affected populations, and in the process identify opportunities and capacities for recovery; to provide a sound basis for UNDP, in partnership with local implementing partners, to make informed decisions on appropriate livelihood recovery interventions that can be implemented, and what livelihood-related project proposals should be prepared.

The specific objectives of the assessment are:

1. To provide an assessment of the impact of disaster on livelihoods and identify opportunities and capacities for affected communities
2. To provide a sound basis for UNDP to make informed decisions on which livelihood recovery response plans should be pursued

The key questions the assessment attempts to answer are:

- How were people making a living before the floods?
- What effect has the floods had on their livelihoods?
- What coping mechanisms and livelihood strategies have affected households taken?
- What are the opportunities and capacities for livelihood and local economy recovery within the affected communities?

“The purpose of the needs assessment is two-fold.”

## 1.3 SCOPE OF ASSESSMENT

The assessment adopts a specific set of parameters intended to lead to the identification of specific livelihood recovery interventions that are suitable for UNDP Cambodia to undertake given its mandate, experience and competencies. The scope of the assessment is therefore limited to the following key areas of investigation:

1. To assess the impact of the floods on employment and livelihoods of the affected communities
2. To assess the extent and impact of productive assets damaged or lost
3. To identify the coping mechanisms affected households have adopted
4. To assess the post-flood financial constraints faced by affected communities
5. To identify existing livelihood knowledge and skills, and opportunities for alternative livelihoods
6. To assess the attitude and behaviour of affected households towards alternative livelihoods
7. To assess the adequacy and availability of flood information to affected communities

## 1.4 METHODOLOGY



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A two-person team consisting of one international and one local consultant undertook this livelihood recovery needs assessment in selected districts and communes in the provinces of Prey Veng, Kratie and Siem Reap. The main methodology used was review of secondary data complemented by key informant interviews and qualitative FGDs. A list of the sources of information including people interviewed in the course of the assessment is enclosed as Annex 1 of this report.

The start-up phase involved an intensive review of a wide range of reports and studies by donor organizations, official government reports, academic studies and research conducted by international and national NGOs to determine the pre-flood livelihood situation, followed by a thorough review of relevant early recovery assessments (e.g. OCHA drop box contributors), especially findings of the WFP-led post-flood relief and recovery survey.

The second stage of the assessment process involved field visits to the three prioritized provinces to get a first-hand understanding of the impact the floods had on rural livelihoods, and to identify and validate the recovery priorities of the affected population. Key informant interviews were conducted with provincial and district government authorities and existing UNDP implementing partners operating in the flood affected areas. Two separate series of FGDs were also conducted, the first with local government officials (commune chiefs, council members and village chiefs) and the second with a cross-section of affected villagers.

The third and final stage involved the collation and analysis of information, leading to the identification of livelihood recovery priorities of the areas visited. Interpretation of the results incorporates the knowledge and experience of the consultants from past flooding events and disasters. The assessment culminated in the presentation of the preliminary findings in a UNDP planning workshop for implementing partners.

## 1.5 AREA SELECTION

“The target provinces and districts for assessment: Kratie, Prey Veng, Siem Reap.”

The target provinces and districts for assessment were identified and selected after a series of discussions between UNDP project staff, local government officials and potential UNDP implementing partners. The selection process began with a desk review of data from official government reports (NCDM, October 2011 & January 2012) to identify provinces with the highest number of people affected, and provinces with the highest number of people displaced. Prioritization was then based on the poverty levels of each province.

Subsequent deliberations focused on assessing the organizational capacities of potential implementing partners, especially those involved in the implementation of UNDP's previous small grants programme. Selecting provinces with existing UNDP implementing partners was deemed necessary, as any recovery programme would have to make use of existing project delivery structures and mechanisms, due to the relatively short time frame for implementation.

Commune selection was determined in consultation with UNDP and implementing partners, and took into consideration implementing partners' knowledge of affected areas, coverage of areas by assessments of other organizations, time and accessibility constraints, and the availability of local government officials for the interviews and group discussions. As a result, the following areas were chosen for assessment.

### List of Areas covered by Assessment

Province	District	Commune/Sangkat
Kratie	Krong Kraches	Krakor & Roka Kandal
	Chhloung	Prek Samann & Kanhchor
Prey Veng	Preah Sdach	Angkor Reach & Boeung Daol
	Peam Chor	Kg. Prasat & Preaek Sambuor
Siem Reap	Puok	Keo Poar & Somrong Year
	Prasat Bakong	Rolous & Meanchey
<b>3 provinces</b>	<b>6 districts</b>	<b>12 Communes</b>

## 1.6 CONSTRAINTS & LIMITATIONS

The main constraints and limitations of this study:

- Time, logistics and resource constraints limited the extent of research and interviews. Time for field visits, for example, was limited to three days in each province including travelling time within and between provinces.
- This assessment is predominantly based on, and makes extensive use of and reference to, secondary data hence, all the limitations faced by the secondary data source are likewise applicable.
- The information gathered through FGDs cannot be used to generalize on the situation to the wider population and should only be used to gain insights and point out significant issues that need to be considered during the design and implementation of the recovery options.



# Pre-flood Livelihoods

**This section of the report attempts to provide an overview of the pre-flood livelihoods of the population residing in the selected flood affected areas. This is important to gain a better understanding of the impact of the floods on the affected communities. The purpose is to identify common broad livelihood activities and income sources, but in reality there will often be substantial differences in the livelihood profiles between communities, even if they are located within the same commune, district and more so, within a province. The information presented in this section comes from several pre-flood research studies and surveys. A list of these studies and research papers is enclosed as Annex 1 of this report.**

## 2.1 LIVELIHOOD PROFILES

Several research studies on livelihoods in rural Cambodia highlight similar findings: that incomes and livelihoods of families in rural areas of the country actually come from many sources, and change depending on the season and location. During the rainy season the majority of house holds are said to have four or more different livelihood sources, with the diversity slightly lower during the dry season. In rice farming villages, rice is planted during the rainy season and vegetables during the dry season. In combined rice farming and fishing villages, rice is the main livelihood during the wet season and fishing during the dry season. In predominantly fishing villages, fishing is the livelihood source during the rainy season and vegetable growing during the dry season. In addition, there are a number of other secondary and tertiary livelihood activities, depending on the resource base of the area.

### Prey Veng

With a population of more than 1.13 million, Prey Veng is the most populated of the three selected provinces, and has the largest percentage of households engaged in agriculture, consisting mainly of rice farming. There is some cash-crop production, including in Peam Chor district, but this tends to be limited as most households in the province do not have access to water resources for farming during the dry months. Some have access to water pumps which are commonly used to reach groundwater sources. With few water and forest resources, work after the peak agricultural season is difficult, but with its location near the urban centre of Phnom Penh and border areas with Vietnam, migrant labour has become very common among households. Raising livestock, especially small livestock like chickens, is common and an important source of food and income. Other minor livelihood activities include fishing in paddy fields and family ponds.





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## Kratie

“Kratie province is more diversified than Prey Veng in terms of its natural resource base.”

Kratie province is more diversified than Prey Veng in terms of its natural resource base. This is clearly reflected in the similarly diverse occupations and livelihoods of the population. Although the province has limited agricultural land, rice farming is still the key livelihood activity, complemented by fishing along the Mekong river and nearby lakes and streams. In the areas that have some access to water sources, a second cropping of rice is possible, including the production of cash crops such as cassava, soybean and corn. One of the districts visited is the semi-urban district of Kracheh Krong, hence the presence of a larger percentage of families with income sources and occupations related to crafts, trade and services. With a substantial part of its total land area covered by forest, there are a number of families that gather forest products to supplement their main income. Like Prey Veng, the majority of rural households raise livestock and some women do handicraft work to supplement household incomes.

Rice production is again the key economic activity in Siem Reap province, although the province also exhibits some of the income and livelihood diversity of Kratie province. Rice production is mainly rain-fed and hence limited to one major annual crop harvest. In a limited number of areas where there is access to groundwater or receding floodwaters, cash crops such as cassava, mung bean, maize and vegetables are planted. In areas outlining the Tonle Sap Lake, fishing is an important source of income and livelihood. Livestock is again common place but not as extensive as in the provinces of Prey Veng and Kratie. Like Prey Veng, migrant labour among men is a common source of household income, given the developing urban and busy tourist centre and the proximity of the province to Thailand. A number of craft-related activities like silk weaving and basket making are done, usually by women.

## Siem Reap

With a population of more than 1.13 million, Prey Veng is the most populated of the three selected provinces, and has the largest percentage of households engaged in agriculture, consisting mainly of rice farming. There is some cash-crop production, including in Peam Chor district, but this tends to be limited as most households in the province do not have access to water resources for farming during the dry months. Some have access to water

pumps which are commonly used to reach groundwater sources. With few water and forest resources, work after the peak agricultural season is difficult, but with its location near the urban centre of Phnom Penh and border areas with Vietnam, migrant labour has become very common among households. Raising livestock, especially small livestock like chickens, is common and an important source of food and income. Other minor livelihood activities include fishing in paddy fields and family ponds.

## 2.2 SOURCES OF INCOME AND LIVELIHOODS

An estimated 80 percent of the Cambodian population live in rural areas, and more than 60 percent of the population depend on agriculture for their livelihoods. In the three provinces and districts visited under this assessment, information on the main occupation and source of income is gathered from the Commune Database of 2009 and presented in Table 1. The data confirms the primacy of agriculture, and rice farming in particular, as the key economic activity in all areas. The data also indicates that, in Kratie and Siem Reap provinces, more families depend on providing services as their main source of income than in Prey Veng province. The diversity of income sources is more pronounced in Kratie province, where 10 percent of families appear to have multiple sources of income.

However, the information contained in the table is rather limited, as it only presents a family's main occupation or source of income and very little information is provided on families' secondary income sources and other livelihood activities. Given findings discussed in the previous section that a great majority of families in rural Cambodia actually engaged in multiple livelihood activities, it is important to identify the range of income sources of the families in the flood affected areas.

**Table 1: Main Occupation of Families (% of families)**

Family Primary Occupation	Prey Veng			Kratie			Siem Reap		
	Province	District		Province	District		Province	District	
		Preah Sdach	Peam Chor		Kracheh Krong	Chhloung		Puok	Prasat Bakong
<b>Total Agriculture</b>	<b>93</b>	<b>92</b>	<b>98</b>	<b>81</b>	<b>46</b>	<b>71</b>	<b>80</b>	<b>92</b>	<b>88</b>
Rice farming	92	92	95	62	34	55	75	87	73
Cultivating long-term crops				5		3			1
Cultivating short-term crops	1		3	10	3	8	1	1	4
Cultivating vegetables				1	4	1	1	1	3
Fisherman				2	4	2	3	3	6
Livestock				1	1	1			1
NTFP collection						1			
<b>Craft Work</b>	<b>1</b>			<b>1</b>	<b>3</b>	<b>1</b>			
Trade	2			5	14	7	6	4	3
Repair				1	2	3	1	1	1
Transport services				1	4	1	2		1



Providing other services	2	4		1	6	1	7	3	1
Total Services	4	4	0	8	26	12	16	8	6
Occupation not clear/multi	2	4	2	10	25	16	3	1	5
<b>TOTAL</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>99</b>	<b>101</b>	<b>99</b>
Total number of families	241,659	26,580	13,573	64,060	5,949	10,502	165,304	22,157	11,758
Total number of persons	1,123,259	125,166	65,345	318,813	29,139	53,401	891,466	118,848	60,571

Source: NCDD Data Book, 2009



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A better overview of the full range of livelihood activities of affected families in the selected areas is presented in Table 2 below. The table summarizes the results of 12 villager FGDs conducted in selected communes in the three provinces of Prey Veng, Kratie and Siem Reap. Using livelihood calendars, villagers were asked to identify and discuss all their livelihood sources and activities, regardless of the extent or level of income obtained. The results approximate the findings and conclusions made in the previous section (that was sourced from secondary data), that the overwhelming majority of families are engaged in several types of livelihood activities.

While the information obtained from the FGDs does not represent the overall livelihood situation of the targeted areas, communities in Kratie and Siem Reap nevertheless appear to be in a better position than those in Prey Veng, in terms of their ability to cope with the effects of flooding and other emergencies. This is because in general, families that have more diversified income and livelihood sources tend to be more resilient to economic shocks. Given the presence of significant forestry and fishery resources in the provinces of Kratie and Siem Reap it is not surprising that families in these two provinces derive part of their income and livelihoods from the exploitation of these resources.

**Table 2: Sources of incomes & livelihoods (number of respondents)**

Sources Of Income/ Livelihoods	Siem Reap (90)		Kratie (80)		Prey Veng (83)		Total (253)	
	No	%	No	%	No	%	No	%
Paddy rice (rain fed and dry rice)	72	80%	42	53%	78	94%	192	76%
Sale of animal products	16	18%	53	66%	51	61%	120	47%
Sale of other agricultural products	19	21%	45	56%	53	64%	117	46%
Agricultural wage/labourer	14	16%	42	53%	37	45%	93	37%
Income from fisheries	39	43%	20	25%	19	23%	78	31%
Migration (construction work)	30	33%	12	15%	12	14%	54	21%
Migration (others)	16	18%	15	19%	0	19%	31	12%
Small business (shops)	17	19%	6	8%	14	17%	37	15%
Migration (Garment factory)	0	0%	2	3%	32	39%	34	13%
Remittances	1	1%	5	6%	8	10%	14	6%
Beauty shop for men/women	14	10%	5	6%	0	0%	19	8%
Motor or machine repairing	0	0%	5	6%	0	0%	5	2%
Casual labour/work for others	0	0%	5	6%	0	0%	5	2%
Handicraft	1	1%	4	5%	0	0%	5	2%
Rice middlemen/trader	1	1%	0	0%	0	0%	1	0%

Beyond rice farming and crop production, the two other key livelihood activities that families in the selected areas engage in are wage labour and raising livestock. Information indicates that wage labour, primarily casual agricultural work on other people's land, is a key source of income, especially for the poorest people, who do not own land. Existing studies indicate that agricultural wage labour has consistently ranked in the top three income sources of rural households for the past several years. This form of internal labour migration is reported to be mostly seasonal, with migrants returning to their home villages during the peak agricultural season.

The proximity of Prey Veng and Siem Reap provinces to bustling urban centres has made wage labour from garment companies, construction and other micro-business (restaurants, repair shops, tourism facilities, vending and other personal services) increasingly popular, such that they are now considered an important source of household income. While there is a general lack of existing studies on the types and nature of internal labour migration, this phenomenon is consistent with, and is validated by, the FGDs conducted with villagers in the various communes visited.



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Livestock ownership is very common in rural Cambodia and represents an important source of both food and income. Table 3 shows that a significant number of families in the assessment areas own and raise livestock, primarily water buffaloes, cows and chickens. Water buffaloes and cows are raised as work animals particularly since farm equipment like tractors are too expensive for most rural households, but cattle and buffaloes are also raised as an investment buffer against economic shocks. Smaller livestock, mainly chickens, are often raised by women and are important sources of food and extra income. Households that raise pigs, on the other hand, are reported to do so primarily as a source of cash income.

Types of Livestock	Kratie		Prey Veng		Siem Reap		Total	
	%	No. of families	%	No. of families	%	No. of families	%	No. of families
Families raising cattle/buffalo	67.49%	9,372	69.56%	174,452	56.22%	100,509	64.12%	284,333
Families raising cattle/buffalo for labour	38.07%	5,287	52.86%	132,567	41.49%	74,185	47.81%	212,039
Families raising pigs	58.55%	8,131	55.17%	138,380	28.90%	51,676	44.69%	198,187
Families raising chickens	87.74%	12,185	88.97%	223,155	74.14%	132,550	82.96%	367,890
Families raising ducks	20.85%	2,896	19.55%	49,024	11.60%	20,740	16.38%	72,660
Families raising goats/sheep	0.10%	14	0.05%	118	0.02%	29	0.04%	161
Families raising horses	0.14%	19	0.46%	1,143	0.04%	70	0.28%	1,232

Source: 2010 NCDD On-line database









# Impacts of Floods

The results and findings of the assessment field visits, particularly of the FGDs with local officials and villagers, are presented in this section of the report starting with an overview of the overall impact of the floods in the country and continuing with findings on the main areas of investigation of the assessment.

## 3.1 OVERVIEW OF IMPACT

The series of floods that hit the country in 2011 is estimated to have resulted in losses and damages of \$624.5 million with the infrastructure (transport/road network) and productive (agriculture) sectors absorbing the greatest damage and impact<sup>1</sup>. The 2011 flood is considered one of the most severe of recent times and is estimated to have caused eight times more loss and damage than the floods that came after Typhoon Ketsana in 2009.

While transport infrastructure absorbed the greatest damage in monetary terms, the agricultural sector, on which more than 60 percent of the country's population depends for income, sustained the greatest impact, with damages amounting to an estimated \$179.6 million, consisting of \$40.8 million in damage to fields (seeds, fertilizers, inputs, credit, etc.) and \$138.8 million in lost revenue from destroyed harvests. Lost labour wages resulting from fewer working opportunities and displacement was estimated at \$7 million, while the opportunity loss from exportable milled rice was estimated at \$43.6 million.

For the three provinces prioritized by the assessment, Table 4 below summarizes the impact of the floods based on available data from the NCDM.

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<sup>1</sup> Flood Damage Emergency Reconstruction Project, Preliminary Damage and Loss Assessment, ADB, March 2012

Province	Districts	Affected Population		Affected Land	Livestock	Affected Infrastructure
		Affected	Displaced			
<b>Prey Veng</b>	10 districts (Ba Phnom, Por Rieng, Preah Sdach, Pea Raing, Krong Prey Veng, Peam Ro, Sithor Kandal, Kampong Trabek, Peam Chor, and Kamchay Mea)	40,615 families affected, 52 deaths, 5 injured	10,227 families evacuated	49,704 hectares of transplanted rice damaged by flood	53,092 livestock evacuated to safer places	692.13 km of rural road damaged, 70.76 km of national road affected, 248 schools submerged, 54,492 dams affected
<b>Kratie</b>	5 districts (Chhloung, Kracheh town, Preaek Prasab, Sambour and Chitborey)	15,601 families affected, 19 deaths, 5 injured	1,403 families evacuated	8,866 hectares of transplanted rice affected, 5,191 ha damaged, 615 hectares of subsidiary crop farms damaged by flood	12,062 livestock evacuated to safer places	29.50 km of national road affected, 275.60 km of rural road damaged, 102 schools submerged, 40 bridges affected, 14 dams affected, 2.06 km of river bank became slide
<b>Siem Reap</b>	12 districts (Siem Reap, Puok, Kralanh, Srey Snom, Varin, Angkor Chum, Angkor Thom, Banteay Srei, Prasat Bakong, Sotra Nikom, Chi Kreng, and Svay Leu)	26,782 families affected, 24 deaths, 1 injured	NA	22,413 ha of transplanted rice affected, 15,120 ha damaged, 1,222 ha of subsidiary crops damaged by flood	1,594 livestock killed	101.21 km of national road affected, 491.75 km of rural road damaged, 26 bridges and 9,264 dams affected

Source: Report on Flood Situation in 2011, NCDM

## 3.2 EFFECT ON INCOMES AND LIVELIHOODS

As pointed out in the previous section, agriculture is the main source of income and livelihood for 80 percent of the flood affected population, with rice farming being the key economic activity. The loss of the rice (and vegetable) harvest had a chain reaction that affected a wide range of other rice/vegetable production dependent livelihood activities. While the actual impact will vary in intensity according to the geographical location, and on the nature of the affected population's main source of income, the main impacts can be summarized as follows:

- Loss of income from partially or totally affected rice/crop harvest
- Loss of seeds and other agricultural inputs
- Lack of staple rice for consumption
- Loss of daily wage labour opportunities
- Loss of income from disruption of small and micro business
- Increase in price of rice
- Loss of livestock
- Damage to small livelihood-related community infrastructure



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The overall impact of the flood on incomes and livelihoods can be seen from results of several assessments which estimate flood-affected households experienced a reduction or decrease in their incomes ranging from 62-66 percent in one assessment (WFP, 2012) and by 60 percent in another (CARE, 2011). The loss of the rice harvest does not only mean loss of income for households who depend on the sale of produce, but also translates to a shortage of staple rice for household consumption that is supposed to last until the next harvest season, some four to six months away.

Loss of employment and incomes was most evident for the poorest households who do not own land and depend on casual agricultural labour as a major source of their seasonal income. Income loss would likely have come from a mix of informal employment activities such as off-farm transplanting, harvesting, weeding, planting, clearing bush or forest, and some disruption in employment from the services, trade and manufacturing sectors. The ADB estimated that some US\$7 million in labour wages were lost due to fewer working opportunities and displacement in agriculture.

Based on the on-line monthly monitor of commodity prices of MAFF and WFP, the retail price of rice increased by some 11 to 19 percent during the months immediately following the floods, due to: a negative wet season rice harvest outlook; increased demand from households relying more on market purchases; volatile regional prices; trader stockpiling in anticipation of higher prices and large purchases for humanitarian aid. Prices however

began to taper off and stabilize in December 2011. There was no reported increase in prices of commodities other than rice.

There is no specific data available on the impact and effect of the floods on various small and micro village-level businesses (home-made food products, selling ice, hairdressing and beauty salon services, tailoring, sewing clothes as subcontractor, repair shops, charging batteries, motor-taxi, etc.) but during FGDs villagers nevertheless reported income disruption from these sources, and that these are important sources of incomes.

Data from the government's Fisheries Administration on the impact of the floods on fisheries indicates losses of 291 tons of cultured fish from Prey Veng but only 77 tons in Siem Reap and 14 tons in Kratie. Information obtained from various FGDs indicates some damage to fishing gear, boats and fish cages, while loss of fish stocks and fingerlings arose mainly from overflow of family ponds.

### 3.3 PRODUCTIVE ASSETS



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The impact of the floods on productive or livelihood assets has been greatest on agricultural lands and livestock. There is little secondary data on the extent of loss or damage to other types of livelihood assets, with FGDs indicating only a small number of families reporting losses in terms of small agricultural tools and implements, fishing gear and damage to household ponds. The discussions also revealed that tangible livelihood assets, especially expensive farm equipment, are given priority for transport and evacuation to safer areas in the event of flooding. Based on WFP survey results, only 1.2 percent of their survey respondents reported experiencing difficulties as a result of lost productive equipment. Findings from the assessment conducted by CARE in three affected provinces, however, report some damage and loss to vehicles and motorbikes.

Despite attention given to livestock evacuation, substantial losses in small livestock (primarily poultry) were reported by communities in Prey Veng and to lesser extents in the provinces of Kratie and Siem Reap. The CARE assessment reports livestock ownership at a high 90 percent of the respondents, with households reporting some stock losses at 70 percent for poultry, 23 percent for pigs, 42 percent for fish stocks and 5 percent for cattle. The WFP survey likewise reports high livestock ownership, at 74.8 percent of survey respondents, with 67.6 percent of the households reporting some loss of livestock. In addition, the Department of Animal Health and Production (DAHP) issued warnings that the risk of mortality and morbidity of affected livestock will be high for the months immediately preceding the floods, and recommended the immediate de-worming and vaccination of affected animals.

### 3.4 COPING STRATEGIES

While the 2011 floods had significant adverse effects on rural incomes and livelihoods, several pre-flood research studies and surveys highlighted that rural livelihoods in the country are inherently highly vulnerability to a number of shocks, especially to health-related emergencies and crop failure from floods and droughts. Coping strategies identified by these studies do not significantly differ from those reported by other assessments, and by the participants to the various group discussions conducted under this assessment.

A rapid assessment survey conducted in Prey Veng and Kampong Cham (SCI, 2011) reports that the most common coping strategy was incurring additional debt (64 percent of households) followed by the reduction of food intake by adults (48 percent), including decreasing consumption of preferred types of food (31 percent). Other survival activities included less food consumption by children, sale of livestock, consumption of rice seeds intended for the next cropping period and the migration of men to other provinces in search of work, in the process leaving women to tend for the family.

The FGDs conducted with villagers as part of this assessment show results similar to those obtained by the assessments conducted by the other organizations, with most households identifying coping strategies related to borrowing, re-planting, labour migration, sale of livestock and reduced food consumption. These results are summarized in the table below. Some of the responses are interrelated, as proceeds from borrowing were predominantly used to purchase agricultural inputs that made replanting possible.

**Table 5: Coping measures reported during FGDs with villagers**

Coping Measure	Kratie		Siem Reap		Prey Veng		TOTAL	
	Yes	%	Yes	%	Yes	%	Yes	%
Borrowing money	51	64%	84	93%	13	16%	148	58%
Migration	22	26%	63	70%	60	72%	145	57%
Planting fast yield dry rice or receding rice	65	81%	55	61%	24	29%	144	57%
Planting cash crops (corn, green bean, peanuts)	63	79%	31	34%	17	20%	111	44%
Selling Livestock	35	44%	50	56%	11	13%	96	38%
Consuming crops ready for harvest or just harvested	28	35%	38	42%	18	22%	84	33%
Selling healthy animals at reduced value to buy food	5	6%	22	24%	12	14%	39	15%
Slaughtering livestock	11	14%	0	0%	19	23%	30	12%
Reducing the quantity & quality of food intake	14	18%	12	13%	2	2%	28	11%

**“Income earned by family members who migrate within and outside the country has increasingly been recognized.”**

The importance of income earned by family members who migrate within and outside the country has increasingly been recognized as a key coping measure for households experiencing financial difficulties. Hence, it was not possible to determine the extent to which the 2011 floods contributed to the existing level of labour migration, as it appears that income from family members that migrate for casual work already forms part of the normal or regular household income.

In the FGDs, more than half the villagers identified household members that were engaged in labour migration, with significant numbers reported in the provinces of Prey Veng and Siem Reap, presumably due to their proximity to urban centres with favourable economic conditions in the tourism, garment manufacture and construction sectors. The significant push factors identified are medical/health emergencies, insufficient household income from farming, lack of employment opportunities during the off-farm season, natural disasters such as the recent floods and the need to repay debts.



## 3.5 FINANCIAL CONSTRAINTS



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The financial and debt situation faced by flood-affected communities has been covered by at least three assessments/surveys, of which the CARE study is the most comprehensive. According to the assessment, borrowing to finance a cropping cycle is a common practice, with 63 percent of households having loans prior to the 2011 floods. A reported 48 percent of affected households took out new loans as a direct result of the floods and while the majority of these (44 percent) used the new loans for re-planting (i.e. agricultural inputs) a significant number (22 percent) used the loans for food consumption. Using loans for non-income generating purposes or to pay off existing debt will have negative consequences on the household's future ability to pay off debt.

As expected, the main sources of initial loans were microfinance institutions (MFIs) (combined individual and group loans) at 44 percent, and money lenders at 26 percent. However the survey indicates that 6.5 percent of respondents identified savings groups as the source of their initial loans, the same share as that of banks, indicating the increasing prevalence and importance that savings groups have. Interestingly, while purchase of agricultural inputs remained the primary purpose for taking out the first and second loans, a significant 10 percent increase of respondents indicated that the second loan was intended for business purposes. The study concludes by warning that a small but increasing number of flood-affected households are in danger of falling into a "cycle of debt", and highlights that a large section of the population does not have access to affordable credit.

Survey results from the WFP study show more-or-less similar findings on the number of households having existing loans prior to the floods, at 60 percent, and the number of households incurring debt post-flood at 40 percent. Results on the sources and uses of loans are not entirely comparable because the WFP survey only captured the source and purpose of a respondent's largest loan. Nonetheless, the main purpose of the respondent's largest loan was also similarly identified as purchase of agricultural inputs, food consumption and business development, although use of loan proceeds for food consumption was significantly higher than in the CARE study. The sources of a household's biggest loan were identified to be 30 percent from MFIs, 24 percent from private lenders and 19.7 percent from banks.

## 3.6 ALTERNATIVE LIVELIHOODS

The assessment attempted to identify potential areas for flood-affected households to engage in, or enhance, their current income and livelihood sources, by considering their existing livelihood knowledge and skills, inquiring on their preferred alternative livelihood activities, and identifying the perceived obstacles and constraints towards engaging in other forms of livelihoods.

### 3.6.1 Livelihood knowledge and skills

Table 6 below summarizes the livelihood skills villagers reported as having. Not surprisingly, most of these skills are based on, and directly related to, agriculture. Areas closer to urban and market centres identified additional livelihood skills related to the provision of services and management of micro businesses, while results from Siem Reap province indicate weaving skills, as a silk weaving enterprise was located in one of the communes visited, affecting the responses.

**Table 6: Existing livelihood knowledge and skills**

Livelihood Knowledge & Skills	Prey Veng (83)		Kratie (80)		Siem Reap (90)	
	M	F	M	F	M	F
Crop farming (e.g. vegetable growing)	45%	25%	0%	14%	30%	45%
Livestock raising	30%	45%	10%	22%	5%	25%
Small businesses	15%	25%	16%	22%	10%	30%
Fish raising	15%	25%	0%	0%	10%	15%
Motor repair/mechanic	4%	0%	7%	0%	5%	0%
Handicraft making/weaving	0%	0%	0%	0%	5%	35%
Carpentry	25%	0%	5%	0%	0%	0%

“New livelihood skills (sewing/garments, dress making, weaving, construction)”

The results summarized in Table 7 identify alternative potential sources of incomes and livelihoods. While most of the participants already engaged in agriculture-related livelihoods reiterated their preference to keep doing the same work, a majority expressed interest in learning new technologies (more modern ways of livestock management, new techniques for crop production). While the same group of participants expressed no intention to shift from agriculture-based livelihoods they did express the desire for their children to acquire new livelihood skills (sewing/garments, dress making, weaving, construction).

**Table 7: Desired livelihood knowledge & skills (no. of respondents)**

Livelihood Knowledge & Skills	Prey Veng (83)		Kratie (80)		Siem Reap (90)	
	M	F	M	F	M	F
Livestock raising	45%	65%	25%	30%	15%	65%
Handicraft making (rattan and bamboo)	5%	35%	0	0	0	65%
Growing new crops (mushroom, other vegetable)	30%	65%	0%	21%	25%	60%
Fish raising	25%	45%	30%	50%	35%	40%
Small business	20%	45%	10%	65%	15%	40%
Motor repair/mechanic	90%	0%	35%	0%	65%	0%
Carpentry	12%	0%	8%	0%	25%	0%
Cloth sewing	0%	0%	0%	4%	0%	20%
Weaving (textile)	0%	10%	0%	0%	0%	30%

In the areas closer to urban centres, consisting of a number of communes in Kratie and Siem Reap, people expressed a preference to stay in the service sector or small and micro businesses that they were already doing. It should be noted that in both cases, there was difficulty and hesitation for participants to identify alternative livelihood activities that they would consider, and women were generally more enthusiastic about the possibility of engaging in alternative or secondary livelihoods.

### 3.6.2 Attitudes towards alternative livelihoods

The key obstacles or constraints affecting people's willingness and ability to take on new or alternative livelihoods are similar throughout all the targeted areas. Table 8 below provides a list of the main reasons or motivations that people factor into their decision. Lack of sufficient capital for new or supporting livelihood activities were consistently cited in all three areas, suggesting that most households only have enough income to address current basic needs. While lack of capital was identified as the primary reason that most households do not engage in alternative livelihoods, another key factor identified was the uncertainty of the profitability of alternative livelihood/business endeavours.

**Table 8: Obstacles & constraints in pursuing alternative livelihoods (no. of respondents)**

Obstacles and Constraints	Prey Veng (83)		Kratie (80)		Siem Reap (90 )		Total (253)	
	No.	%	No.	%	No.	%	No.	%
Lack of capital	18	22%	10	13%	25	28%	53	21%
Uncertainty of income (including competition, insufficient demand, running small businesses)	28	34%	20	25%	19	21%	67	26%
Lack of time or too busy	12	14%	12	15%	13	14%	37	15%
Too old to learn new skills	10	12%	22	28%	16	18%	48	19%
Willing but must be related to current livelihoods	30	36%	16	20%	25	28%	71	28%
High inputs/investment	45	54%	40	50%	38	42%	123	49%
Do not have knowledge of new/modern technologies	35	42%	25	31%	28	31%	88	35%



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It was repeatedly pointed out, both in group discussions and key informant interviews, that the financial viability or profitability of various alternative livelihood options is the only motivating factor that matters in terms of widespread adoption. The example of vegetable growing was often cited, where farmers willingly diversified into vegetable production only to find out later that the buying price was barely sufficient for them to earn a profit, due to cheaper prices of similar vegetables from neighbouring countries.

While there was clear recognition of the validity of adopting a diversified livelihood strategy in the face of economic shocks like flooding, older people almost unanimously said they were too old to be acquiring new knowledge and learning new livelihood skills, and that these were better geared towards the younger population, such as their children. In addition, their current livelihood activities and family responsibilities already required all their time.

## 3.7 FLOOD INFORMATION

Television and radio broadcasts are the main source of flood information and warning for both local government officials and villagers. While television is the most common or accessible source, it only provides general or limited information, while flood information and warnings through radio are reported to be more detailed and are broadcast more often. District and commune officials consistently responded that official links between national and provincial disaster management authorities - the PCDM-DCDM-CCDM - exist and are functioning.



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Results from FGDs with local leaders and villagers indicate that there are two different flood situations. In areas that are affected by annual flooding, there is generally no need for extensive warnings as floods come relatively slowly and people take preparedness measures as a matter of course. It is only in cases of extreme events, as with the 2011 floods, that they need to be better informed. Most evacuations are spontaneous, with villagers able to decide for themselves the right time to evacuate, based on past experience.

Information and warnings in areas that are affected by flash floods (where flood waters come from upland areas) are currently non-existent, but are most needed. All communes report the existence of CCDMs but all report a lack of necessary equipment such as radios and boats to carry out the disaster management related tasks expected of them. None of the local government units or villagers had knowledge of, or access to, any medium- to long-term weather forecasts, although all of them acknowledge the importance and potential benefits such information could bring.





# Recovery Needs, Opportunities and Action Plan

## 4.1 LIVELIHOOD RECOVERY NEEDS

Based on the effects and impacts described in previous sections, interviews with key informants and discussions with groups of local leaders and villagers, the livelihood recovery needs of the affected communities visited can be summarized as follows:

1. Support for resuming agriculture and crop production activities
  - Quality seeds, farm implements and agricultural tools
  - Replacement of lost livestock including improved stock and management skills
2. Short- or long-term income and employment opportunities
  - Cash for work involving rehabilitation of small community livelihood infrastructure such as canals, dams, ponds, commune/village roads, etc.,
  - Cash transfers
  - Vocational skills training
3. Access to affordable credit sources for restarting/rehabilitation of small and micro businesses
  - Infusion of recovery funds into savings groups
  - Small and micro business rehabilitation and development

## 4.2 LIVELIHOOD RECOVERY OPPORTUNITIES

In this section of the report, the livelihood recovery needs of the previous section are matched with existing capacities and institutional support available in the areas visited. In addition, opportunities for “building back better” are identified, so that affected income sources and livelihoods are not only restored to pre-flood conditions but are enhanced so additional protection is provided from similar adverse economic shocks in future. More specifically, opportunities for expanding the resource base and income potential of the communities are identified and are an integral part of the options recommended.

### 4.2.1 Recovery Opportunities & Capacities

While a number of opportunities were identified during the field visits, the full range of opportunities and capacities could not be captured. This was due to limited time for visits, as well as visits coinciding with other development organizations doing, or having just done,

their own assessments. These organizations' assessments were for the similar purpose of designing and implementing recovery programmes. Hence, it should be noted that opportunities and available support for livelihood recovery in each of the areas visited are, at best, partial and will need to be updated and reviewed prior to programme implementation.

## Prey Veng



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- Implementing partner of UNDP (i.e. CHETTHOR) has extensive experience and expertise in implementation of rural livelihood projects including community fisheries, livestock (chicken) raising, rice banks and other agriculture-related projects
- Strong beneficiary support and desire for improving livestock management beyond backyard raising (better chicken and hog raising techniques, cattle vaccination, etc.)
- Existing vocational skills training centre and programmes by Provincial Department of Rural Development (PDRD) and Provincial Labour and Manpower Department
- Large migrant labour force in garments and construction
- Small livelihood training (life skills training) supported by the Department of Women's Affairs
- Significant number of self-help or savings groups in the areas targeted for assistance, including local implementing partner experience in supporting savings groups
- Production for market of agricultural crops with high demand in Phnom Penh
- The recent cancelation of commercial fish lots is likely to provide more opportunities to Communities Fisheries (CFi)
- Opportune time to raise awareness for livelihood diversification including crop diversification and the dissemination of government endorsed flood/climate resilient rice seed varieties
- People are more receptive to learning and practicing disaster risk reduction and climate change awareness

## Kratie

- Implementing partner (CRDT) with experience and expertise in rural livelihood projects (integrated community development, poultry, etc.)
- Intensification of diversified crops base (soybean, cassava, corn, legumes, etc.) that is currently small scale, and subsequent processing (as snacks in local markets, bean curd, soy sauce, etc.)
- Opportunities for introduction of better/newer aquaculture techniques (pond, cage, fingerling production, etc.)
- Increasing opportunities for tourism/ecotourism
- Small livelihood training, supported by the Department of Women's Affairs
- Presence of existing savings groups
- Cancelation of commercial fish lots provides community fisheries with potentially improved incomes
- Opportune time to raise awareness for livelihood diversification including crop diversification and the dissemination of government endorsed flood/climate resilient rice seed varieties
- People are more receptive to learning about disaster risk reduction and climate change awareness

## Siem Reap

- Implementing partner (CTO) with some experience in rural agriculture-related projects
- Large internal migrant construction labour force, although unskilled
- Existing technical vocational training centre and programmes by Provincial Labour and Manpower Department
- Small livelihood training, supported by the Department of Women's Affairs
- Presence of existing savings and self-help groups
- Cancelation of commercial fish lots provides community fisheries with potentially improved incomes

“Interventions will be undertaken within a short- to medium-term time frame.”



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## Long-term

- Opportune time to raise awareness for livelihood diversification including crop diversification and the dissemination of government endorsed flood/climate resilient rice seed varieties
- People are more receptive to learning about disaster risk reduction and climate change awareness

While the livelihood recovery project activities and interventions will be undertaken within a short- to medium-term time frame, it is important to consider the underlying or root causes of the vulnerability of rural livelihoods to the effects of disasters and climate change. UNDP should consider advocating and incorporating the following development issues and concerns into its long-term country programme:

- Promotion and application of agricultural diversification
- Land ownership issues
- Improving peoples' rights and access to natural resources
- Improved water management and irrigation
- Creation and strengthening of rural livelihood groups (farmer associations, fisheries and forestry committees)
- Implementation of community-based disaster risk reduction and adaptation programmes

### 4.2.2 Potential Recovery Interventions

Livelihood recovery interventions are recommended in this section but they are not definitive and should be seen as flexible. Although they are based on the findings and results of the assessment presented in the preceding sections, there will still be a need for UNDP to consider other implementation or operational factors and considerations, especially programme delivery structures and mechanisms, budget and fund management processes and procedures, and monitoring and evaluation measures. Annex 3 summarizes the recovery needs options and intervention options.

## Long-term

- Establishment of rice banks/seed banks
- Livelihood start-up packages
- Scholarships for vocational skills training to migrant labour force (construction and garment related)
- Technical vocational training combined with livelihood start-up packages
- Promote use of family or household aquaculture ponds
- Risk reduction and adaptation measures
- Replacement of small livestock (chicken and swine)
- Improve stock quality and livestock raising knowledge and skills (including AI awareness)

## Kratie

- Small livestock (chicken) replacement through improved stock quality and livestock raising knowledge and skills
- Micro business development combined with livelihood start-up packages that use local resources (food processing, handicrafts, NTFP) targeted for those with existing/previous experience
- Improve access to credit and savings - infusion of capital (recovery fund) into existing and new savings and self-help groups for use in existing livelihood activities (agricultural inputs, water pumps for group use, micro enterprise of members)

- Fish raising in household water ponds and/or fish cages (in specific areas)
- Fingerling production by fisheries community
- Small family boats with fishing gear (for those already experienced in fishing)

## Siem Reap

- Establishment and/or expansion of rice banks/seed banks
- Temporary employment in the repair of community infrastructure
- Improved skills of labour force/migrant labour through scholarships for technical vocational training on construction related skills (carpentry, masonry, welding)
- Micro enterprise development combined with livelihood start-up packages (sewing/weaving machines and initial supply of raw materials) for those with existing/previous experience
- Improve access to credit and savings - infusion of capital (recovery fund) into existing and new savings and self-help groups for use in existing livelihood activities (agricultural inputs, water pumps for group use, micro enterprise of members)
- Fish raising in household water ponds and/or fish cages (in specific appropriate areas)
- Fishing gear (only for those with experience in fishing)
- Livelihood-related risk reduction and adaptation measures
- Disaster risk reduction and climate change awareness

## 4.3 LIVELIHOOD RECOVERY ACTION PLAN



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This section of the report proposes the broad overall direction and framework for the restoration of income sources and livelihood activities of flood-affected populations. The proposed livelihood recovery action plan is specific for UNDP Cambodia, as it takes into consideration its mandate, distinctive areas of competence as evidenced by existing projects and programmes, current project delivery structures and mechanisms, and level of expected funding. In any case, further modification and adjustments to the initial plan outlined below should be made as new information is gathered and made available, and further consultations with local stakeholders are conducted.

### 4.3.1 Implementation Strategy

Implementation of a livelihood recovery programme should pursue a local area-based approach by facilitating the creation of strong coordination and partnerships between provincial and district level stakeholders, that is, affected communities, community-based organizations, NGOs and local commune and district authorities, in the overall flood recovery process and resilience building. Technical assistance and support should be provided in terms of strengthening local capacities for managing post-flood recovery and rehabilitation efforts, including capacities of local officials to plan and prepare for future flooding events.

Project activities can be implemented primarily through UNDP's existing network of local implementing partners, particularly those with good track records implementing previous programmes. Use of existing local partners is critical for ensuring quick and effective action. It also helps ensure that local perspectives and concerns are factored into the design and implementation of the project, while working to support local institutions, enhancing their capacities to support communities beyond the time frame of the recovery project. The potential implementing partners, identified in the course of the field visits, are shown in Table 9 below.



Location/Province	Organizations/Agencies	Name of contact	Position
Prey Veng	Chetthor	Mr. Yun Sarith	Executive Director
	CEDAC (needs to be assessed)	Dr. Yang Saing Koma	President
	PDRD	Mr. Touch Sitha	Director
	PDoLVT	Mr. Hem Hoeun	Director
Kratie	PCDM	Mr. Kham Chamnan	Director of Provincial Admin
	PDA	Mr. KuyHourt	Director
	CRDT	Mr. Hean Pheap	Operation Manager
	CED	Mr. Yos Pheary	Executive Director
	FLO (need to re-assess)	Mr. Ham Chandeth	Executive Director
Siem Reap	CTO	Mr. Kat Bun Heng	Executive Director
	FLD	Mr. Sok Somith	Executive Director
	PDoLVT (training centre)	Mr. Kang Saroeun	Director of training centre
	PDo Women Affairs	Mrs. La Aun	Director
	PCDM, Siem Reap	Mr. Chhun Sao	Member of PCDM



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The livelihood recovery programme should be implemented using a disaster risk reduction perspective and a “build back safer” approach by ensuring, to the extent possible, that resilience of household and community livelihoods to future shocks are addressed and mitigated. Examples of this include providing beneficiaries of any planned livestock replacement intervention with improved animal stock and skill training in livestock management, or ensuring any rehabilitated small livelihood-related community infrastructure (canal, community irrigation ponds) are resilient to future flooding.

Gender mainstreaming can be achieved by ensuring equal access to women in all planned interventions and/or having specific women-targeted projects. Gender sensitization workshops for implementing partners should be conducted and gender disaggregated data collection should be part of the monitoring and evaluation system.

### 4.3.2 Objectives, Outputs and Activities

The overall purpose of the livelihood recovery project is to reduce the impact of the 2011 floods on the lives of affected populations and enable them to resume their disrupted income and livelihood activities. This can be accomplished by providing technical and financial resources for the restoration and increased resilience of beneficiaries’ pre-flood income sources and livelihoods. Consistent with the needs identified, the proposed recovery strategy should focus on supporting beneficiaries’ capacity to revive or resume their main and secondary sources of incomes, provide temporary or permanent non-farm employment and livelihood opportunities, and ensure access to affordable credit for livelihood recovery and expansion. The proposed specific objectives, outcomes, indicators and activities are summarized and discussed below.

<b>Specific Objective:</b> Improved livelihood conditions of flood affected households with increased resilience to future shocks		
<b>Immediate Objectives</b>	<b>Indicators</b>	<b>Outputs</b>
Employment and livelihood opportunities of flood affected people are enhanced through market oriented skills development and support for small businesses	No. of livelihood infrastructure rehabilitated	Temporary employment opportunities provided through rehabilitation of small community livelihood infrastructure Technical and vocational skills training for migrant labour force in existing and high market demand occupations Livelihood start-up programme for flood affected people with existing experience and skills provided Small grants for restoring small and micro businesses provided
	No. of unskilled casual labourers received skills training	
	No. of households undertaking alternative livelihoods	
Community initiated and managed livelihood and economic recovery activities in targeted areas are supported	No. of households renewing pre-flood livelihoods	Infusion of livelihood recovery fund into existing self-help and savings groups for use in resuming and enhancing livelihood activities of members
	No. of households able to maintain livestock production	Replacement of small livestock and training for improved livestock management & production skills
Strengthened local government capacities to coordinate and plan for long-term recovery	Districts & communes with enhanced knowledge and awareness on disaster preparedness & responses	
	Support for district level recovery coordination and advocacy structure and mechanism provided	
		Integration of livelihood and local economy recovery interventions into local area development plans
	No. of district & commune development plans incorporate recovery projects	Strengthened local capacity to plan for and prepare for future flooding events

## Objective 1

### Employment and livelihood opportunities of flood affected people are enhanced through market oriented skills development and support for small businesses.

Affected households that have lost income or employment, especially wage labourers, will be provided with temporary employment opportunities through cash or food-for-work schemes that will restore community access to small infrastructure that supports livelihood recovery and development activities (irrigation and drainage canals, market roads). Opportunities to develop and enhance livelihood skills of migrant workers will be pursued based on actual demand in the labour market. Households with flood affected non-farm small and micro businesses will be assisted to recover through provision of livelihood packages that will include training and equipment for households with existing knowledge and skills in specific livelihood activities (crafts and services).



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“Support packages for households with existing small and micro-businesses.”

### Key Activities:

- Community consultations to agree on criteria for selection of direct beneficiaries, implementation strategy and procedures for each of the livelihood recovery interventions
- Identification of destroyed or damaged small infrastructure that support community livelihood activities, and provision of short-term employment opportunities for their repair and restoration
- Conduct value-chain-analysis and/or labour market assessment to determine short- and long-term employment opportunities based on market needs and opportunities
- Develop and conduct vocational training courses in partnership with local technical and vocational training institutions
- Livelihood support packages for households with existing small and micro-businesses

### Objective 2

#### Community initiated and managed livelihood and economic recovery activities in targeted areas are supported

Financial assistance will be provided for restoring affected livelihoods through cash grants and affordable credit/loans that will be coursed through existing organized self-help and/or savings groups. In this way, affected households and communities are able to undertake immediate and sustainable livelihood activities based on their own recovery priorities, regardless of whether they are agriculture on non-agriculture based livelihoods. Local implementing partners will oversee and monitor the funds that can be used, assuming they are managed properly, to finance livelihood projects of members beyond the programme time frame. Savings groups primarily consisting of women members can also be intentionally targeted for assistance.

## Key Activities:

- Identify existing self-help groups and determine systems and procedures for the provision and use of livelihood recovery fund
- Provide livelihood recovery fund to existing savings or self-help groups for restoring income generation activities of flood affected members
- Replacement of lost productive tools and assets especially replacement for lost small livestock, including training for enhancing current levels of knowledge and skills in livestock management

### Objective 3



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“Technical assistance from UNDP programme staff, will assume responsibility for coordinating support.”

### Strengthened local government capacities to coordinate and plan for long-term recovery

Local implementing partners, with technical assistance from UNDP programme staff, will assume responsibility for coordinating support from local governments and other stakeholders in each of the target areas. Coordination efforts will focus on facilitating partnerships in the planning and implementation of programme interventions, including strengthening the capacity of local government to manage and plan for future flooding, coordinating recovery efforts of all humanitarian and development organizations operating in the area, and mainstreaming recovery plans into long-term development plans.

## Key Activities:

- Provide support for district level recovery coordination structure, and a mechanism for organizational mapping, local stakeholder meetings and sharing of lessons learned
- Provide technical assistance and workshops for integration of livelihood and local economy recovery interventions into local area development plans
- Capacity building for planning and preparing for future flooding, including preparedness and contingency planning, and skills enhancement for assessing damage and need

### 4.3.3 Monitoring and Evaluation

The programme management team to be established will elaborate an integrated monitoring and evaluation mechanism. Quarterly monitoring field visits and regular narrative and financial reports will be conducted in accordance with standard UNDP Programme Operations Policies and Procedures (POPPs) including the following key activities:

- Key results will be reported through quarterly progress reports
- Quarterly financial reports will be submitted to the UNDP/GEF-SGP Office
- Regular field monitoring will be conducted to ensure project activities are implemented according to the project log frame and to ensure achievement of project objectives. A Monitoring Schedule Plan will be activated in Atlas and updated to track key management actions/events
- An Issue Log will be activated in Atlas and updated by the Project Manager to facilitate tracking. Based on the above information recorded in Atlas, a Project Progress Report will be submitted by the Project Manager to the Project Board.
- A project Lessons-Learned Log will be activated and regularly updated to ensure on-going learning and adaptation within the organization, and to facilitate the preparation of the lessons learned report at the end of the project
- An annual review report will be prepared by the project coordinator and shared with the project board. As minimum requirement, the Annual Review Report will consist of progress covering the whole year including a summary of results achieved against pre-defined annual targets at the output level.





# Annexes

## Annex 1

### LIST OF INTERVIEWEES

#### National

- |     |                    |   |
|-----|--------------------|---|
| 01. | Mr. Nouv Buntha    | • Technical staff, Fisheries Administration |
| 02. | Mr. Isidro Navarro | • Cash Transfer Consultant, WFP             |
| 03. | Mr. Nouv Buntha    | • Emergency Programme Officer, WFP          |
| 04. | Mr. Nouv Buntha    | • Consultant, CARE                          |
| 05. | Mr. Nouv Buntha    | • Regional Representative, CAFOD            |
| 06. | Mr. Nouv Buntha    | • Country Coordinator, DRC                  |
| 07. | Mr. Nouv Buntha    | • Director Disaster Management Dept, CRC    |
| 08. | Mr. Nouv Buntha    | • Deputy Secretary General, NCDM            |

#### Prey Veng

- |     |                  |   |
|-----|------------------|---|
| 09. | Mr. Oum Bun Leng | • Member, PCDM                                |
| 10. | Mr. Yos Mony     | • Director, PDA                               |
| 11. | Mr. Touch Sitha  | • Director, PDRD                              |
| 12. | Mr. Ung Ty       | • Deputy Director, PDRD                       |
| 13. | Mr. Hem Hoeun    | • Director, PDoLVT                            |
| 14. | Mr. You Vireak   | • Deputy Director, Vocational Training Centre |
| 15. | Mr. Yun Sarith   | • Director, Chetthor                          |
| 16. | Mr. E. Sam Ol    | • Peam Chor district (Deputy governor)        |
| 17. | Mr. Youk Dy      | • Preah Sdach district (Deputy governor)      |

#### Kratie

- |     |                   |                                     |
|-----|-------------------|-------------------------------------|
| 18. | Mr. Kuy Hourt     | • Director, PDA                     |
| 19. | Mr. Lim Cheav Hav | • Deputy, PDRD                      |
| 20. | Mr. Heam Pheap    | • Operation Manager, CRDT           |
| 21. | Mr. Yos Pheary    | • Executive Director, CED           |
| 22. | Mr. Long          | • Member of CRC                     |
| 23. | Mr. Ourn Seang    | • 1st Deputy of Sangkat Roka Kandal |
| 24. | Mr. Poav Sorn     | • 2nd Deputy of Sangkat Roka Kandal |
| 25. | Mr. Chan Mao      | • Councillor of Sangkat Roka Kandal |
| 26. | Mr. Ouk Sok       | • Councillor of Sangkat Roka Kandal |



- |     |                      |   |
|-----|----------------------|---|
| 27. | Mr. Srei Kosal       | • Governor of Sangkat Roka Kandal, member of DCDM |
| 28. | Mr. Yeop Kim Tong    | • Governor of Sangkat Krakor                      |
| 29. | Mr. Ben Van thorn    | • Deputy Governor of Sangkat Krakor               |
| 30. | Mr. Ouk Thy          | • Member of Sangkat Council, Sangkat Krakor       |
| 31. | Mr. Soeung Phin      | • Member of Sangkat Council, Sangkat Krakor       |
| 32. | Mr. Ok Cham          | • Village Chief of Monorom, Sangkat Krakor        |
| 33. | Mr. Bun Vuthy        | • Village Chief of Krakor, Sangkat Krakor         |
| 34. | Mr. Mom Chun         | • 1st Deputy of Commune, Kanhchor                 |
| 35. | Mr. Chom Sun         | • Village Chief, Kanhchor village                 |
| 36. | Mr. Chiv Sok Ngim    | • Councillor member of commune                    |
| 37. | Mr. Va Srieng        | • 2nd Deputy of Commune, Kanchor                  |
| 38. | Mr. Ngoun Seng       | • Commune Chief, Prek Samann                      |
| 39. | Mr. Thong Sarem      | • Council Member, Prek Samann                     |
| 40. | Mrs. El Rany         | • Health Centre, Prek Samann                      |
| 41. | Mr. Van Sophan       | • 2nd Deputy of Commune, Prek Samann              |
| 42. | Mr. Som Sarit        | • Governor district, Chhloung                     |
| 43. | Mr. Ngoun Kim Soeung | • Administrator, Chhloung district                |

## Siem Reap

- |     |                     |   |
|-----|---------------------|---|
| 44. | Mr. Kat Bun Heng    | • Executive Director, CTO                                 |
| 45. | Mrs. La Aun         | • Chair of Office for women's health and education, PDoWA |
| 46. | Mr. Chhun Sao       | • Member of PCDM  |
| 47. | Mr. Phoum Sam Ath   | • District Governor, Prasat Bakong                        |
| 48. | Mr. Teab Bun Chhuoy | • Deputy Governor, Prasat Bakong                          |
| 49. | Mr. Vann Cham Nan   | • Deputy Governor, Prasat Bakong                          |
| 50. | Mr. Eat Sarorn      | • Deputy Governor, Prasat Bakong                          |
| 51. | Mr. Bun Hok         | • Administrator Chief, Prasat Bakong                      |
| 52. | Mr. Din Roeung      | • Councillor of District, Prasat Bakong                   |
| 53. | Mr. Mean Saron      | • Councillor of District, Prasat Bakong                   |
| 54. | Mr. Chhay Chorn     | • Councillor of District, Prasat Bakong                   |
| 55. | Mr. Keo Chenda      | • Councillor of District, Prasat Bakong                   |
| 56. | Mr. Khin Khorn      | • Deputy Office, Prasat Bakong                            |
| 57. | Mr. Thean Vibol     | • Councillor of District, Prasat Bakong                   |
| 58. | Mr. Leam Leoun      | • Village Chief, East-Rolous village                      |
| 59. | Mr. Oum Bunthoun    | • Village Chief, West-Rolous village                      |
| 60. | Mrs. Sin Siv Kuy    | • Village Chief, Kok Srok village                         |
| 61. | Mr. Thon Bunthorng  | • Commune Chief, Meanchey commune                         |
| 62. | Mr. Chea Chi        | • Commune Councillor, Meanchey commune                    |
| 63. | Mrs. So Ry          | • 1st Deputy of Meanchey commune                          |
| 64. | Mr. Mai Kun         | • Village Chief of Prasat, Somrong Year commune           |

## Villagers (focus group discussion)

253 Villagers from 12 communes (3 provinces, 6 districts/sangkats)

1. An Analysis of Rural Sources of Income and Livelihood Strategies in Cambodia, K. Helmers, October 2003
2. Building Resilience: The Future for Rural Livelihoods in the Face of Climate Change, Cambodia Human Development Report 2011, MoE & UNDP, 2011
3. Cambodia Food Price & Wage Bulletin, MAFF & WFP, Feb 2012 Issue 36
4. Cambodia Post-flood Relief and Recovery Survey, WFP, May 2012
5. Disaster Resilient Livestock to support the poorest households, T. Weaver, December 2011
6. Dropbox Cambodia 2011 flood, OCHA
7. Drowning in Debt: The Impact of the 2011 Cambodia Floods on Household Debt, CARE, Feb 2012
8. Flood Damage Emergency Reconstruction Project, Preliminary Damage and Loss Assessment, ADB, March 2012
9. Food Security and Livelihoods Rapid Needs Assessment: Kampong Cham & Prey Veng Province, J. Serna, Save the Children, October 2011
10. Kingdom of Cambodia: Study for Poverty Profiles in the Asian Region, JICA, OPMAC Corp, 2010
11. Livelihood Resilience and Food security in Cambodia: Results from a Household Survey, J. Turunen, et. al., Finland Futures Research Centre, 2010
12. Linkages between Flood and Drought Disasters and Cambodian Rural Livelihoods and Food Security, K. Helmers and S. Jegillos, IFRC, 2004
13. NCDD, Kratie Data Book, 2009
14. NCDD Prey Veng Data Book, 2009
15. NCDD, Siem Reap Data Book, 2009
16. Post Floods Need Assessment Data, OCHA, Jan 2012
17. Rural Livelihood and Bio-security of smallholder poultry producers and poultry value chain, Suon Seng, et.al., FAO, June 2008
18. Rural Sources of Income and Livelihood Strategies Study, K. Helmers, J. Gibson, P. Wallgren, 2004
19. Secondary Data Review: Cambodia 2011 Floods, ACAPS, October 2011
20. Study on Livelihood Opportunities for Vulnerable Communities affected by frequent Disasters in the provinces of Kratie and Svay Rieng, Crossroads to Development, June 2008



	Sources of income	Livelihood recovery needs	Livelihood recovery opportunities	Potential livelihood interventions
Key findings from Prey Veng	<ul style="list-style-type: none"> <li>Rice farming</li> <li>Livestock</li> <li>Agricultural labour</li> <li>Migrant labour (primarily garments and construction)</li> <li>Fishing (paddy field and river)</li> </ul>	<ul style="list-style-type: none"> <li>Agricultural inputs (e.g. quality seeds)</li> <li>Rehabilitation of agricultural infrastructure</li> <li>Replacement of lost livestock</li> <li>Affordable credit and debt-refinancing</li> <li>Income and employment opportunities</li> </ul>	<ul style="list-style-type: none"> <li>Presence of experienced implementing partner</li> <li>Improving livestock management beyond backyard raising</li> <li>Large migrant labour force in garments and construction</li> <li>Existing vocational skills training centre/s</li> <li>Existing small livelihood skills training by the Dept of Women's Affairs</li> <li>Presence of large number of community savings groups</li> <li>Proximity to urban centres and markets</li> <li>Cancellation of commercial fish lots</li> <li>Opportune time for DRR, climate change and livelihood diversification awareness</li> </ul>	<ul style="list-style-type: none"> <li>Establishment of rice banks/seed banks</li> <li>Temporary employment in the repair of small community infrastructure</li> <li>Livestock replacement through improved stock quality and increased skills in livestock management</li> <li>Fish raising and/or vegetable garden packages for HH with water ponds</li> <li>Skills enhancement of labour force/migrant labour</li> <li>Small business development combined with livelihood start-up packages</li> <li>Improve access to credit</li> </ul>
Key findings from Kratie	<ul style="list-style-type: none"> <li>Rice farming</li> <li>Fishing (small scale along river and lake)</li> <li>Subsidiary crops (cassava, corn, soybean)</li> <li>Agricultural labour</li> <li>Small livestock</li> </ul>	<ul style="list-style-type: none"> <li>Agricultural inputs (e.g. seeds, etc)</li> <li>Rehabilitation of agricultural infrastructure</li> <li>Replacement of lost livestock</li> <li>Sources of affordable credit</li> <li>Income and employment opportunities</li> </ul>	<ul style="list-style-type: none"> <li>Implementing partner (CDRT) with experience in rural livelihoods</li> <li>Improving livestock management beyond backyard raising</li> <li>Increasing tourism/ecotourism opportunities</li> <li>Presence of large number of community savings groups</li> <li>Cancellation of commercial fish lots</li> <li>Opportune time for DRR, climate change and livelihood diversification awareness</li> </ul>	<ul style="list-style-type: none"> <li>Intensification of diversified crops base</li> <li>Introduction of better/newer aquaculture techniques related to pond, cage, fingerling production, etc.</li> <li>Temporary employment in the repair of small community infrastructure</li> <li>Livestock replacement through improved stock quality and increased skills in livestock management</li> <li>Small business development combined with livelihood start-up packages</li> <li>Improve access to savings and credit</li> </ul>

Key findings from Siem Reap	<ul style="list-style-type: none"> <li>• Rice farming</li> <li>• Cash crops &amp; vegetables</li> <li>• Fishing</li> <li>• Migrant labour</li> <li>• Agricultural labour</li> </ul>	<ul style="list-style-type: none"> <li>• Agricultural inputs (e.g. quality seeds)</li> <li>• Income and employment opportunities</li> <li>• Fishing</li> <li>• Replacement of lost livestock</li> <li>• Affordable credit and debt-refinancing</li> </ul>	<ul style="list-style-type: none"> <li>• Presence of experienced implementing partner</li> <li>• Large migrant labour force in construction</li> <li>• Existing vocational skills training centre/s</li> <li>• Small livelihood skills training by the Dept of Women's Affairs</li> <li>• Presence of large number of community savings groups</li> <li>• Proximity to urban city, markets</li> <li>• Cancellation of commercial fish lots</li> <li>• Opportune time for DRR, climate change and livelihood diversification awareness</li> </ul>	<ul style="list-style-type: none"> <li>• Establishment of seed banks</li> <li>• Fish raising and/or vegetable garden packages for HH with water ponds</li> <li>• Skills enhancement of labour force/migrant labour</li> <li>• Introduction of better/newer aquaculture techniques related to pond, cage, fingerling production, etc.</li> <li>• Small business development combined with livelihood start-up packages</li> <li>• Improve access to credit</li> </ul>
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