



**EMERGENCY SUPPORT TO
FLOOD AFFECTED FAMILIES
IN CAMBODIA**

OCTOBER 2000 - FEBRUARY 2001

**PURSAT, SIEM REAP AND KOMPONG CHHNANG
PROVINCES**

CAMBODIA

**COMPLETION REPORT
TO USAID**

Award No. 442-G-000-01-003-00

Abbreviations and Acronyms

ANS	Action Nord Sud
CWS	Church World Service
CNGO	Cambodian Non-governmental Organization
CRC	Cambodian Red Cross
FFA	Food For Activity
IFRC	International Federation of the Red Cross
LWS	Lutheran World Service
NCDM	National Committee for Disaster Management
PFD	Partners for Development
PRASAC	Programme de Réhabilitation du Secteur Agricole et d'Appui en Cambodge
WFP	World Food Programme
WVI	World Vision International

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1 INTRODUCTION

The present report is the completion report to USAID in respect of Award No. 442-G-000-01-0003-00. The report covers the period October 13, 2000 - February 9, 2001, i.e. it includes the agreed extension period of 9 January - 9 February 2001. The report was produced by Concern's Program Manager in Pursat Province, who headed the emergency relief team.

1.1 Background to the operation

Beginning early July 2000, Cambodia, one of the poorest countries in the world, was hit by torrential downpours and localized monsoon thunderstorms covering the 795,000 km² of the Mekong River watershed, which includes Thailand, Vietnam, Laos and Cambodia. Rainfall in the watershed area during July was twice the average and arrived more than 45 days earlier than usual seasonal flooding. The IFRC described the flooding as the most devastating natural disaster to hit the country in over 30 years. The Provinces initially affected were in the eastern part of the country, bordering Vietnam. From the end of August and the beginning of September the situation worsened and spread to the region bordering the Tonle Sap, the second great water system dominating the Cambodian plain.

By the end of September, an estimated 2,233,959 people out of a total population of approximately 11.3 million people had been affected by the floods. In nearly all affected areas communications systems were marginal at best and the only safe means of transportation was by boat. Over 46,550 families had already been evacuated from their homes in the worst affected provinces in the southeastern part of the country. The National Committee for Disaster Management (NCDM) estimated that at least 335,000 hectares of crops (mainly rice) had been totally destroyed.

1.2 The problem

Although the worst flood-affected provinces of Cambodia were in the east of the country, Provinces bordering the Tonle Sap on the north and west were also seriously affected. National relief efforts were launched and international organizations generally assisted the government and CRC in the Provinces in which they were already located. For this reason, Concern targeted its efforts in the districts where it has an intimate knowledge of the surroundings to ensure that its response was rapid, effective, and appropriate. Concern's intervention in response to the impact of flooding on people's immediate food security and their livelihood strategies concentrated on the Provinces where Concern is presently conducting development programs, Siem Reap, Pursat, and Kompong Chhnang.

Floodwaters were high in the areas targeted by Concern. This forced people to leave their homes and seek out higher land. Many people in Kompong Chhnang Province moved up to the national highway leading south to Phnom Penh. In Pursat and Siem Reap Provinces it was estimated that at least 90% of people had their rice crop totally destroyed in the communes targeted by Concern for assistance. In these areas the majority of the houses were standing in water and it was expected that some houses would be badly damaged when the floods receded. Furthermore, it was recognized wells would require repair and purification of the water.

A key concern was the long-term impact of the problem on the livelihood strategies of the local populace:

People in Kompong Chhnang depend to a large extent on commercial fishing to support their livelihoods. They plant short-term rice at the end of the normal monsoon season (late November). Commercial fishing was disrupted by the depth of the water. However it was assumed that the waters would have largely receded by the middle of October, so that people would be able to return to commercial fishing. Their normal farming practice is that they sow seedling in beds in mid November and transplant the rice in late November/early December, harvesting in March of the following year. The majority of people had kept their seeds from 1999 and because the flooding was slow-onset in nature, the movement from their homes was a strategic one whereby people were able to bring valuable belongings, including seeds, with them; some vulnerable families, however, were believed to have lost their rice seed.

The problem in Pursat and Siem Reap is particularly complex, as in these areas people are dependent on long-term rice varieties. They had already planted the crop in May and were due to harvest it in December. The flooding almost entirely destroyed this crop. Even if the waters receded within a similar time period to Kompong Chhnang, people would not be able to resume normal livelihood strategies. Villagers might be able to engage in subsistence fishing but did not have the equipment or the experience to engage in commercial fishing. Although some people may have been able to engage in selling manual labor, the market would not be able to

accommodate all of those who may consider this option. The problem was compounded in Pursat and Siem Reap by a poor harvest in 1999, resulting in low food stocks.

1.3 Project approach

Objectives

To enable 4,800 families in Pursat, Kompong Chhnang and Siem Reap Provinces to re-establish their own food security within six months, through agricultural support for short-term rice cultivation.

Target Group

In order to identify the target group, Concern carried out a number of rapid assessments in the three Provinces. During these assessments, staff were conscious of the need to prioritize widows, female headed households, physically disabled, landless people who were now left unemployed by the floods as well as people who had lost their crop, houses, and food stocks.

The affected villagers are generally poor farmers who struggle to meet their daily subsistence needs. Low rice production levels (even in a normal year) and a lack of diversification of farming products and related income sources combine to keep them in a vulnerable position. Apart from growing rice on small plots (average plot size is usually less than one hectare per family), families' livelihoods are dependent on fishing and the collection of non-timber products (selling fuel wood, vines, root crops, mushrooms etc.), both of which were severely affected by the floods. Indeed, at this time of the year, many villagers (particularly in Kompong Chhnang and Siem Reap) have usually already exhausted their rice food stocks and are dependent on selling fish on a daily basis in order to purchase foodstuffs; with the abnormally high water levels, fishing on this scale was not possible.

Assessments were carried out in:

- five communes (34 villages) in Bakan district in Pursat Province; the target population initially expected to receive agricultural support was 3,600 families out of a total of 5,100 families;
- eight communes (30 villages) in Rolear Phier and Kompong Tralach districts in Kompong Chhnang Province; the affected target population was 240 families; and
- two communes (eight villages) in Pourk and Sranal districts in Siem Reap Province; the affected target population was 1200 families.

On completion of the first round of emergency relief distribution, a more complete and detailed survey (as opposed to a rapid assessment) was carried out to ensure that the most vulnerable are identified within the target group initially identified and to add to the list people who may have been ignored in the initial assessment.

1.4 Implementation

Emergency response interventions in Pursat, Kompong Chhnang, and Siem Reap Provinces were initiated in early October. An initial two-week ration of rice, salt and oil was distributed to all target families and the distribution of plastic sheeting, mosquito nets and blankets to the vulnerable commenced.

The processes and systems followed during the implementation of the whole emergency project included:

a) Rapid assessment and survey procedures

Initial rapid assessments were carried out by staff making field visits to flooded villages, travelling by small boats. Discussions were held with village and commune leaders and staff of other agencies such as the Cambodian Red Cross where applicable. Discussions were also held with a number of affected villagers.

A more detailed survey began after the 1st distribution of food. Staff received training from the emergency coordinator. Individual families who were identified by village leaders during the rapid assessment were visited and the following information recorded on the form:

- number of family members,
- house fully damaged/partially damaged,
- crops fully damaged/partially damaged,
- amount of land owned,

- displaced/still living in the house
- drinking water source.

b) Agricultural assessment

An assessment of the existing options open to farmers in the target areas was required in order to plan for appropriate interventions in future. These assessments were conducted by interviews with a number of farmers who are representative of the communes being targeted.

The assessment had to establish the responses open to subsistence farmers in a situation where there has been a substantial or total loss of the rice crop that would have been his/her major food source in the following year. The responses sought were to fall into two categories:

- a) Responses in which the farmer is totally self-sufficient;
- b) Responses which require an external input of cash or resources.

SELF-SUFFICIENT OPTIONS:

The self-sufficient options were prioritized and the favored options assessed for practicability under the prevailing circumstances. A realistic assessment of the assumptions and risks was made. The inputs and costs, if any, were listed, as were the expected outputs. An estimate was made of how many weeks this would sustain the family.

EXTERNAL ASSISTANCE OPTIONS:

The options for larger external assistance were prioritized and the favored options assessed for practicability under the prevailing circumstances and to ensure that assumptions and risks were realistic. The inputs and their costs were listed and their source, whether internal or external, identified. An estimate of the economic viability of the option was made together with an estimate of how many weeks this would sustain the family.

A comparison of the options was then made and interventions were planned and costed.

Prior to the assessment it appeared that if the floodwaters receded quickly:

- i) Villagers would be able to plant their rice crops in the receding flood banks of the Tonle Sap in Kompong Chhnang Province as planned. Further external support for agricultural purposes in this Province could then be limited to particularly vulnerable families. As a result, support to Kompong Chhnang agriculture production in this proposal was estimated at 20% of the targeted families.
- ii) The farming systems in Pursat and Siem Reap areas had been more adversely affected as villagers had already planted their rice crop. The extent of the flooding meant that these seedlings had already died and replanting would be necessary. If the rainy season ended as normal, a shorter-term rice variety (such as IR66) would need to be used (approximately 30 kg per interested family). Should this be the case, the agricultural assessment would need to identify how much support was needed in terms of the use of small water pumps to irrigate the crops during the dry months of December and early January. Estimates of this level of support were included in the budget.
- iii) It was likely that some villagers would also be able to supplement their livelihood coping strategies by sowing small amounts of vegetable seeds. A small contingency was added to the rice seed budget line to cover this possibility.

c) Procurement process and stock control

A purchasing committee was formed in each Province to purchase the necessary materials. A purchasing committee also existed in Phnom Penh for this purpose. Purchasing committees were required to obtain three quotes on each item before purchasing, after considering criteria such as cost but also quality, packaging, and commitment and capacity of the seller provide the goods on time.

The Concern Country Accountant provided further training to provincial administrators and other support staff on stock control and correct recording of all financial details relating to the emergency response.

d) Distribution process

After the initial surveys had been completed and vulnerable families selected, families were issued with a distribution card. The distribution card contained a serial number, and the names of the family, village and commune. When the card was distributed, a serial number was marked on the card and the same number was written beside the family's name in the survey form. People were informed where and when they should go to collect aid when receiving the card.

Concern staff then prepared a master roll. The master roll basically transferred the information from the survey sheet (serial number, village name, name, quantity of each item received, date, and space for thumb print) and this was then used in the actual distribution. Staff ensured that the serial number on the distribution card, survey sheet, and master roll was the same.

A time for distribution was set between Concern staff and villagers. Where possible, Concern staff and items for distribution were planned to arrive before the villagers, who then received food on a first-come, first-served basis. Generally, there was one distribution site per commune although, depending on the size of the population and the access of all villages to a distribution point, some communes had two distribution points. Some distribution points were set up in adjacent villages rather than targeted villages as there was no suitable dry land available.

2 ACTIVITIES AND ACHIEVEMENTS/OUTPUTS

Carry out an agricultural assessment.

2.1 Agricultural assessment

A simple agricultural assessment questionnaire was devised by the Program Advisor and Community Support Project Manager in Pursat (see Appendix A). The assessment was carried out by Concern field staff after one day's training in how to use the questionnaires. Details of the participating families are summarized in Table 1 below.

Table 1: Agricultural Assessment Questionnaire, Summary of Interviewees

	Pursat	Kompong Chhnang	Siem Reap
# of families selected for interview	131 of 3,061 (4%)	66 of 1,347 (5%)	65 of 1,314 (5%)
Occupation of family	(by %)	(by %)	(by %)
Growing short-term dry season rice	64	91	20
Fishing	21	3	49
Vegetable growing	5	0	3
Selling labor	5	5	8
Others	5	1	20

2.2 Farmer selection

A group discussion was conducted in each village with farmers listed in the food relief master roll and local authorities in order to identify those farmers who were interested in growing short-term dry-season rice and had the resources such as land (owned or shared), water source etc. The interested farmers formed into groups based on the location of their land. The maximum support to each family was for inputs for 0.5 ha of rice fields. Another master roll was developed which included number of family members, land size, seed requirement, water resource availability, date of distribution and column for thumbprint. The amount of seed provided was allotted according to the area of land to be sown, thus the families received differing amounts of seed. To avoid the jealousy this might create, Concern negotiated with the farmers that seed-equivalent repayment should be made to village-owned rice banks.

Provide dry-season rice seeds to 60% of affected families in Pursat, Siem Reap and Kompong Chhnang Provinces; and provide fertilizer and water pumps as necessary.

2.3 Purchase of rice seed

Interviewing began in October and was completed by 23 November in the three provinces. In anticipation of this, Concern immediately decided to purchase 60MT of rice seed (IR 66), and this was bought in Phnom Penh on 16th October. The seed was purchased from a government-run research station and had apparently already been tested. Due to pressure to purchase seed quickly, it was not possible for Concern to carry out its own germination tests at this stage.

Due to flood damage to Highway 5 between Kompong Chhnang and Pursat, Concern decided to store seed for 10 days in a store belonging to the Department of Agriculture, Kompong Chhnang. The rice seed arrived in Pursat on 26th October, where it was stored in a private rented store.

In order to verify test germination, Concern contracted the Agronomy Office to carry out three types of germination test. The results showed a low average of 52% germination after three days. There were three reasons for this:

- i) IR66 is a slow germinator. Percentages usually rise after the usual 3-day test period;
- ii) As the seed had been freshly harvested, the normal dormancy period was being disrupted, resulting in initial lower than usual germination rates.

Therefore, after discussion within Concern head office in Phnom Penh, it was decided to give 100 kg of seed per ha instead of the originally planned 60 kg/ha in order to reduce any risk of disappointment. This meant that additional rice seed would be needed. At the national level, Concern contacted the international NGO, Partners for Development (PFD), and PFD agreed to provide 40MT of the same variety of seed at no cost. This seed was certified as having >89% germination, but the laboratory warned farmers that this variety was a slow germinator. In the later stages of the intervention it was confirmed that the seed originally bought in Phnom Penh was not bad but simply needed a longer germination period. This first batch of seed eventually germinated so well that the seedlings in the nursery beds were very crowded, however this enabled many farmers to increase the area into which they were able to transplant.

2.4 Seed delivery to the field

Seed was carried to the communes daily by rented truck. People in all the villages were called to receive seed in one location at the center of the commune.

2.5 Distribution of water pumps

Initially 35 water pumps were purchased in Phnom Penh; 30 were delivered to Pursat and five to Siem Reap. It was found, after distribution, that 30 pumps were not enough for the needs of villagers in Pursat so Concern decided to purchase additional 20 pumps. These pumps were allocated to pump-user groups (one per village) and the remainder were allocated to pump user groups (one per village) in villages with larger areas of dry season rice (see Appendix B). Fuel and engine oil for water pumps were provided to pump-user groups on three occasions. The maintenance committees were trained in engine maintenance and also in recording of individual farmer's use of the water pump. Farmers agreed to pay 2000 Riel per pumping hour to the Village Development Fund (or village-owned rice banks).

2.6 Water control

Short-term dry season rice growing was not a common practice for farmers in Pursat. Water conservation potential was therefore discussed in each village in November (early in the process). In co-operation with WFP, which provided support through Food For Activity (FFA), and the Water Resources and Meteorology Department, which provided sacks and support for the water conservation schemes, Concern provided an additional 15,000 plastic sacks to farmers to build temporary dams. This plan was successful and implemented in a timely way so that water resources were controlled and canals dug for water distribution to rice fields.

2.7 Pest infestation

A heavy pest infestation in early December 2000 threatened the growth of rice seedlings and transplants in all 35 villages in Bakan district. Concern responded promptly by providing 34 chemical sprayers and 143 bottles (0.5 litre/bottle) of insecticide to 1,512 farmers whose rice seedlings were threatened by pests. Farmers were

trained in safe application of pesticide before receiving inputs for treatment of their crops and the crops were treated successfully.

Prior to the third food relief distribution supported by WFP, Concern Pursat initiated a village campaign to catch rats in order to minimize loss of rice to rodents. Each family was asked to bring at least 10 rat tails to the food distribution session. This scheme proved to be enormously successful, with families bringing around 20,000 rat tails.

2.8 Cultivation system

Pursat: Concern advised farmers to use the transplanting system because it would bring a higher yield and they would be able to expand their rice field according to the amount of seedlings produced.

Kompong Chhnang: In Kompong Chhnang (Rolear Phear), where farmers are accustomed to growing dry season rice, the transplanting system was used. The flood delayed the start of the rice-growing season and farmers did not start to prepare seedlings until January 2001.

Siem Reap: As the floodwater receded very slowly, farmers did not begin direct sowing of rice until late January 2001. As the farmers always use herbicide to kill grass in the rice fields, Concern decided to provide herbicides as requested; 10 chemical sprayers were also given.

2.9 Fertilizer

Based on discussion with agriculturists, Concern decided to agree to the farmers' request to provide fertilizer in order to increase the yield. Training in how to use fertilizer correctly and effectively was conducted. Two types of fertilizers were recommended, NPK and Urea. NPK was used before transplanting and Urea was used three weeks after transplanting. See Table 2 for details.

Table 2: Provision of Short-term Rice Seed, Fertilizer and Pesticide

Date	Location	No. fam's	Item	Notes
23/11/00 -/12/00	Pursat	1,474	Seeds = 65,739 kg Fertilizer = 113,400 kg	c. 100kg/ha, total 614ha 200 kg/ha, to cover 678 ha
30/1/01	Pursat	224	Seeds = 14,704 kg Fertilizer = 1,100 kg	60 kg/fam. for next cycle season
-/12/00	Pursat	1,512	Total water pumps = 50 Pesticide = 143 bottles & 34 sprayers	Fuel & engine oil also provided To treat 678 ha
29/11/00	Kompong Chhnang	127	Rice seed = 6,230 kg Water pump & fertilizer not required	60 kg/family
-/01/ 01	Siem Reap	310	Seeds = 12,000 kg Fertilizer = 8,700kg Water pumps = 5 Herbicide = 3x 5 kg bags Sprayers = 10	60 kg/ha, total 222 ha

Note: The farmers in all three provinces, and in particular in Siem Reap, had received some additional rice seed from the government.

2.10 Other agricultural activities

Once the rice seed etc. had been distributed, other livelihood needs were addressed. The beneficiaries were selected from the master roll of beneficiaries for food relief. After Concern staff met with village leaders to explain the process of selection, the village leader invited farmers who were not involved in short-term rice growing to attend a meeting facilitated by Concern (or partner CNGO) staff to discover what alternative coping strategies might be supported. This resulted in identifying two main strategies: fishing and vegetable growing. The interested farmers were asked to form small groups around a specific activity such as group fishing or individual fishing, etc. The estimate of input needs was discussed and a compromise was made (each family needed c. \$10). In order to avoid jealousy, repayment of 50% to the Village Development Fund was agreed by the farmers.

Fishing nets were provided to a total of 630 families, and vegetable seeds of 16 varieties were distributed to 234 families, as detailed in Table 3 below. Due to the different farming systems in operation in the three provinces, this type of support was required only in Pursat and Siem Reap.

Table 3: Other Agricultural Activities

Date	Location	No. families	Activity	Items Provided
25/1/01	Pursat			
	28 villages	234	Vegetable growing	Seeds, watering cans, tools, pesticide, etc
	28 villages	498	Fishing	Fishing equipment (around \$10/fam)
9/2/01	Siem Reap			
	7 villages	132	Fishing	Fishing equipment

2.11 Coordination

Concern participated in meetings of the NCDM and the Cambodian Red Cross (CRC) at national level from early September 2000 as the flooding situation began to reach crisis point. The NCDM's initial concern was for the Provinces in the east of Cambodia which bore the initial brunt of the waters. Concern monitored the situation to check that NCDM, IFRC and other agencies were responding appropriately. Concern then became operational on 24th September as floods affected its own target provinces.

At the national level, Concern participated in further emergency response meetings between WFP and other relevant organizations such as LWS, CWS, ANS, WVI, and PRASAC. This involvement continued to ensure that information was shared quickly, that needs were being met and that available resources were shared appropriately.

At provincial level, Concern took the lead in facilitating and supporting local government in the co-ordination of the flood response. Concern was largely responsible for monitoring the situation in Bakan District in Pursat Province and for coordinating efforts with other agencies and government bodies in this area. The situation in Pursat Province was discussed with WFP and an understanding was reached as to the areas of initial intervention by each agency. Concern also took responsibility for intervening in Kompong Tralach and Rolear Phier districts in Kompong Chhnang and in Pourk and Kralanh districts in Siem Reap. Key non-governmental organizations with which Concern maintained regular contact at both national and provincial levels included WFP, CARE, and CRC.

The distribution mechanism in the areas targeted by Concern for intervention was largely dependent on Concern's own efforts, with some help from the Provincial Department of Rural Development. Information was shared and updated regularly with CRC provincial teams.

2.12 Project staffing

Concern staffed and managed the project by seconding staff members from the existing staff team for different periods of time.

For the first two weeks of the operation, a highly experienced Bangladeshi national was seconded from Concern's Micro-finance Program in Banteay Meanchey Province as Emergency Coordinator to conduct initial assessments, provide appropriate training to staff and oversee the operation. Subsequently, a highly experienced national staff member was seconded from his position as Pursat Program Manager to become Emergency Coordinator.

The Country Accountant set up systems to monitor stock control and record financial transactions and continued to monitor these systems. A third expatriate was seconded from general program support to support the flow of information between appropriate people and to aid co-ordination with other agencies at national level. The Country Director, and in his absence the Assistant Country Director, provided overall support and direction to the program.

One national staff member and one expatriate agricultural advisor worked together to conduct agricultural assessments.

Other field staff needed for distributions, technical support and follow-up were seconded from their normal work as needed.

3 PROBLEMS ENCOUNTERED

- a) Concern recognizes that the provision of vegetable seeds could have happened sooner. The delay was caused by the necessity of conducting the needs assessment. It took a considerable length of time to assess the other agricultural activities.
- b) The rice seed germination was slower than expected, however germination improved after about a week for seed sown directly into the ground. Please see Section 2.3.
- c) There were problems with the purchasing system, e.g. water pumps were not all of the same model (the frames purchased did not suit all models). The effect of this was to slow the process of putting the pumps in place.
- d) The need for staff to be seconded to work on the emergency relief program negatively affected the progress of the current development programs.

4 LESSONS LEARNED

- a) The campaign to minimize loss of rice seed to rodents was an effective and successful initiative. The lesson learned (for both Concern and the beneficiaries) was that prevention is better than cure: Farming of short-term rice should have a clear plan to eliminate rodents in advance, and farmers saw this campaign as a very good way to prevent rodent infestation. In catching the rats, families felt that they were contributing towards the food rations they were receiving through FFA. (Catching rats in this way can only be done when water levels are high). Even in times of emergency, people can participate or contribute in some way.
- b) The same 'lesson learned' applies to the plan to organize the water control system: Concern's provision of plastic sacks to build dams to conserve water, etc. was timely and highly effective. An estimate of water needed to irrigate rice fields should be made properly so that a control system can be set up to ensure that water use is efficient and effective. The success of the short-term rice crop relies on the water supply: the provision of rice seed alone would not have been so successful.
- c) There was a good co-operation with other organizations and government departments. This meant that problems could be solved immediately they arose and duplication of work was avoided. The good co-operation was due partly to the long-standing relationships between agencies in their development work in the provinces.
- d) Development of a repayment system to the village-owned rice bank encouraged farmers to be committed to their farms and has shown to be a sustainable strategy.
- e) The involvement of CNGOs has improved their knowledge, skills and abilities, and they have learned how to respond to an emergency. In addition, it helped to extend the rehabilitation phase to a larger target group and permitted some Concern staff to return to their normal duties sooner than would have been possible without the CNGOs' involvement.

The involvement of CNGOs, however, also required the constant commitment of some of Concern's other staff members to instruct and guide them. It is important to consider the impact on program staff when deciding whether or not to work with CNGOs. If a third party is involved in implementing project work, it is essential to be sure that they have the capacity to carry out the work, or that Concern is able to provide appropriate training and support as required.

- f) External factors permitting, it was recognized that it was not good practice to rush into purchasing rice seed without a germination test.
- g) Local sourcing of materials should be the first option in the purchasing process:
 - Local purchasing is faster; the program can negotiate directly with the seller; any problems can be solved easily;
 - Local suppliers can deliver direct to the project area and this saves time and costs;

- The purchasing committee in Phnom Penh may not fully understand the requirements thus it takes longer to complete the process as they need refer back to the province.

However, the cost and quality of the items also needs to be compared (items could generally be purchased more cheaply in Phnom Penh).

- h) Supporting farmers' coping strategies has encouraged the idea of introducing new alternative livelihood systems. Many of these farmers had never grown dry-season rice before and now they are considering this as an alternative livelihood strategy. This shows that it is possible to introduce new ideas even into areas where traditional practices seem to be firmly entrenched.
- i) It is important to understand the livelihood coping strategies of the target group. This not only helps in refining needs and targeting but also clarifies the differences between poverty relief and emergency relief. Concern's intimate knowledge of the target group helped in this area.

5 CONCLUSION

The emergency support project in Pursat, Kompong Chhnang and Siem Reap Provinces was highly effective in bringing flood relief to those poor families most in need of assistance. Through this intervention, 2,135 families were provided with short-term rice seed and appropriate amounts of fertilizer, and groups were provided with water pumps to irrigate their fields. In addition, pesticides and sprayers were provided to combat pest infestation. Subsequently, vegetable seeds and gardening equipment were provided to 234 families; 630 families received fishing equipment.

A significant outcome of this intervention is that many families discovered alternative livelihood coping strategies:

- a) growing short-term rice;
- b) adoption of growing a wide variety of vegetable crops to supplement nutritional and dietary needs;
- c) greater involvement of families in fishing—particularly important to those families who are especially vulnerable and were not able to grow rice or vegetables.

The families are very likely to employ these strategies in the future, thus reducing the traditional 'food-shortage' period. Additionally, several techniques to improve crop yields—eliminating rodents before sowing seed, planning for irrigation needs by building small dams—were new to the target group and these techniques are also likely to be used again.

Thus the project not only fulfilled its aim of providing support to the neediest flood victims but also contributed to enhancing the capacity of the target farmers to improve their livelihood situation in a more sustainable manner.

Concern Cambodia - Emergency Disaster Relief Assistance

USAID Award No. 442-G-00-01-00003-00

Summary Statement of Expenditure from 13th October 2000 to 9th February 2001

	Total Budget USD	Total Actual USD
Materials		
Water Pumps	30,500	24,893
Rice/Vegetable Seeds & Fishing Nets	28,800	22,910
	<hr/>	<hr/>
	59,300	47,803
Personnel		
Expat	7,864	5,162
Local Staff	10,712	21,178
Perdiem	1,320	2,739
	<hr/>	<hr/>
	19,896	29,079
Transport	8,616	5,469
Administration	7,030	6,862
Total	<hr/> <hr/>	<hr/> <hr/>
	94,842	89,213

Concern Cambodia - Emergency Disaster Relief Assistance

USAID Award No. 442-G-00-01-00003-00

Statement of Expenditure by Location from 13th October 2000 to 9th February 2001

	Pursat Budget <u>USD</u>	Pursat Actual <u>USD</u>	Chhnang Budget <u>USD</u>	Chhnang Actual <u>USD</u>	Siem Reap Budget <u>USD</u>	Siem Reap Actual <u>USD</u>	Total Budget <u>USD</u>	Total Actual <u>USD</u>
Materials								
Water Pumps	19,000	23,036	3,500	-	8,000	1,857	30,500	24,893
Rice/Vegetable Seeds & Fishing Nets	21,600	16,748	1,440	1,221	5,760	4,941	28,800	22,910
	<u>40,600</u>	<u>39,784</u>	<u>4,940</u>	<u>1,221</u>	<u>13,760</u>	<u>6,798</u>	<u>59,300</u>	<u>47,803</u>
Personnel								
Expat	3,923	2,745	688	680	3,253	1,737	7,864	5,162
Local Staff	7,142	12,245	750	1,601	2,820	7,332	10,712	21,178
Perdiem	960	1,721	-	549	360	469	1,320	2,739
	<u>12,025</u>	<u>16,711</u>	<u>1,438</u>	<u>2,830</u>	<u>6,433</u>	<u>9,538</u>	<u>19,896</u>	<u>29,079</u>
Transport	4,606	2,701	913	858	3,097	1,910	8,616	5,469
Administration	3,676	3,861	753	290	2,601	2,711	7,030	6,862
Total	<u><u>60,907</u></u>	<u><u>63,057</u></u>	<u><u>8,044</u></u>	<u><u>5,199</u></u>	<u><u>25,891</u></u>	<u><u>20,957</u></u>	<u><u>94,842</u></u>	<u><u>89,213</u></u>

Financial Commentary

Overall, the project has remained on budget with a slight underspend (6%) at the end of the funding period.

Most of the underspend occurred in the rice/vegetable seed & fishing net budget line. This is due to a lower than expected number of farmers wishing to re-plant their rice crop (particularly in Pursat Province). Also, water pumps were not required as originally planned in Kompong Chhnang, as villagers were able to grow the rice in the receding waters of the Tonle Sap river. Fortunately, the agreed inclusion of fishing nets in this budget line, allowed the project to better respond to the livelihood coping strategies of flood affected families.

The only area of significant overspend was in local staff costs. This is explained due to (i) the extra month no-cost extension that was granted by USAID for continuation of the flood relief work, and (ii) the increased need for staff follow-up resulting from greater technical support with rice growing (due to pest infestation and then initial problems setting up the water pumps) and then the assessment and distribution of fishing nets and vegetable seeds.

Expenditure on transport and administration is below budget due to lower than originally budgeted on-site running expenses and centrally allocated costs. This is due to Concern Cambodia's policy of stringent planning and good stewardship of these costs in order to minimize expenditure while maintaining a professional service.

List of water pumps and fuel provided for short-term dry season rice production

Commune	Village	# Families	Land size (ha)	Water pumps	Diesel (Litre)	Engine oil (gallon)
BoeungBotkandol	BoeungChhouk	24	5.65	1	148	2
BoeungBotkandol	Bot Trach	42	11.5	1	296	3
BoeungBotkandol	DongCh-rum	18	6.9	1	206	2
BoeungBotkandol	PhumO	14	4.1	1	118	2
BoeungBotkandol	RobangRomeah	61	17.55	1	268	4
BoeungBotkandol	Tamann	81	22.4	1	506	5
BoeungBotkandol	ToulTh-mear	15	5.5	1	148	2
					0	0
Meteuk	AngKanh	110	42.78	3	1001	9
Meteuk	Chintay	58	25	2	446	6
Meteuk	KohKh-sach	22	10	1	256	3
Meteuk	Mar	18	9	1	208	3
Meteuk	Meteuk	41	16.3	1	348	4
Meteuk	O'Preal	20	7	1	277	2
Meteuk	PorLor	45	20	1	428	4
Meteuk	Samrong	24	10	1	268	3
Meteuk	TaMum	64	32	2	782	8
Meteuk	Trang	59	28	2	360	5
					0	0
O'Tapong	BotKokiTh-mei	112	49	3	744	11
O'Tapong	O'Bott	62	36.28	2	516	7
O'Tapong	OkNhamon	108	48	3	952	10
O'Tapong	PreiKrabao	25	12.16	1	270	4
O'Tapong	SamrongPok	49	20.9	2	465	6
O'Tapong	Sdoklok	112	70.85	3	924	10
O'Tapong	SrahM-kak	42	24	2	296	4
O'Tapong	SrahRun	79	37	2	707	8
O'Tapong	Tanai	28	14	2	356	4
O'Tapong	TuolRokeang	12	8.5	1	248	3
					0	0
SnamPreah	TramPeh	39	19.5	1	324	4
SnamPreah	ChamBakmeah	37	18.25	1	384	4
SnamPreah	TuolKhmer	11	5.5	1	234	2
					0	0
Svaydonkev	Ch-Rop	14	7	1	206	3
Svaydonkev	Kampang	29	14.5	1	238	4
Svaydonkev	KampotAng	20	10	1	296	4
Svaydonkev	NiKum	17	8.5	1	296	5
Total	35 villages	1,512	678	50	13,520	160

Remark: 1 gallon = 5 litres



Villagers waiting for distribution



**Food For Activity
Rat-tail collection**