

## ***CAMBODIA: FLOODS***

*14 December  
2000*

*appeal no. 22/2000  
situation report no. 5; Revised budget  
period covered: 28 October - 6 December 2000*

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*The level of flood waters of all major rivers has now receded, however, huge expanses of crops remain under water in two of the worst affected provinces: Prey Veng and Kompong Cham. The Cambodian Red Cross Society (CRC), supported by the Federation, has been carrying out distributions of relief items funded by the Federation and external partners since July. Distributions of household kits to assist families as they return to normal life will continue throughout December. A major concern as people return to their communities from the safe areas, is the need to rehabilitate contaminated water points to avoid the spread of water borne diseases. The appeal following floods in Cambodia has therefore been revised to include further emphasis on the water and sanitation component.*

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### ***The context***

Cambodia has been severely affected by the worst series of floods for more than 50 years. Heavy localised rains, flash floods from monsoon thunderstorms and massive river and tributary flooding devastated 22 of 24 provinces and municipalities over a four month period as of mid July. The Mekong River in Cambodia received the run off from 795,000 square kilometres of the Mekong watershed basin as it was subjected to wave upon wave of disastrous thunderstorms, given the early onset of the monsoon season.

As the watershed was overwhelmed by the enormous quantities of water, the swollen river systems backed up causing flooding far upstream in normally slow running creeks and streams. Communications were severed, roads and paths were impassible or washed away and populations of

whole villages, communes and districts were forced to flee to the safety of higher ground. At the peak of the flooding, more than 84,700 people were forced to seek sanctuary in safe areas.

The Royal Government of Cambodia estimates that the damage is in excess of USD 100 million, and includes destroyed or damaged rice and subsidiary crops covering 421,569 hectares, damage and destruction of 988 schools, 170 health centres and clinics, 4,121 kilometres of primary and secondary road systems and more than 115 major bridges and overpasses.

347 people have perished as a direct result of the flooding. More than 750,000 families have been affected, 3,448,000 individuals, making up some 25% of the country's population. Destruction or damage to 317,975 homes has been reported along with the loss of household possessions, tools and untold numbers of livestock and other means of livelihood.

## *Latest events*

For the first time since mid July, water levels of the major rivers have fallen below the flood line at all measuring locations. However, two aerial surveys conducted by the Federation disaster preparedness co-ordinator, information obtained during Cambodian Red Cross Society (CRC) distributions and a joint mission of the National Committee for Disaster Management (NCDM), CRC and the Federation to the most severely impacted provinces of Prey Veng and Kompong Cham, revealed that tens of thousands of hectares of prime agricultural land remain covered by flood waters. Numerous villages and communities remain cut off by water and many destroyed roads and bridges make access impossible. Many minor streams and creeks remain swollen and have not returned to normal flowage as downstream damage to irrigation systems has prevented normal drainage.

The Royal Government of Cambodia (RGC) is conducting a comprehensive detailed damage assessment. The NCDM will co-ordinate the national effort through the governors' office in each affected province. Ministerial departments at the provincial level will supply the necessary technical support for sector specific requirements.

To date, the RGC reports that governmental funding and donor contributions have resulted in assistance to 657,261 families which includes 15,594 metric tons of rice, 685 metric tons of rice seed and further rice seed distributions planned for December. The RGC has provided information that relief distributions will be concluded following the rice seed distributions.

The Asian Development Bank (ADB) completed a preliminary assessment on 5 November on the RGC's immediate needs. The tentative findings resulted in a proposal for sectoral loans and small grants totalling USD 60,000,000. The loans are aimed primarily at infrastructure repair to national roads, railway and bridges, flood control and irrigation, rural infrastructure within the areas of ADB financed projects and World Food Programme (WFP) projects, repairs to schools and health facilities. A special grant from the Japanese Fund for Poverty Reduction (JFPR) will assist the poor in regaining their economic livelihood and initiate activities in disaster preparedness and relief. The major funding for these initiatives, if approved, will be forthcoming in mid January 2001.

The World Bank (WB) completed a pre-appraisal mission on 5 December consulting with the Royal Government of Cambodia, UN agencies, other international organisations and NGOs to extend additional credits to the Social Fund of the Kingdom of Cambodia (SFKC). The WB is considering an extension of USD 10 million in credits for minor infrastructure rebuilding and repairs. Proposals that target the most severely affected provinces will be assessed according to priority. The funds are to be disbursed directly to communities through approval process at the provincial level and co-ordination at the national level. A model programme will be established in Prey Veng and Kandal provinces with rapid distribution of USD 1,500,000. The results will be reviewed and revised for application in the remaining targeted provinces. The programme will be concluded in May 2002.

The Food and Agricultural Organisation (FAO) will co-ordinate and work with the World Food Programme (WFP) to conduct a crop and food supply assessment from 6-19 December 2000. This assessment will cover 1,400 communes or 98% of the rice growing area in the country.

## ***Red Cross/Red Crescent action***

The Federation has continued to support the action undertaken by the Cambodian Red Cross Society, in close co-operation and co-ordination with the NCDM, UN agencies and international organisations. The following activities have been supported under each objective stated in the Federation emergency appeal launched on 13 September:

### ***1. Emergency Relief***

*Objective 1: Continue to provide immediate assistance to flood victims with further distributions of emergency food, clothing, soap, plastic sheets (shelter material), ORS and some 5,000 household kits*

The Cambodian Red Cross Society (CRC) continues its relief activities begun in July. 203,852 vulnerable families have received assistance from the CRC in 19 provinces or municipalities affected by flooding. This figure includes the emergency food aid distributions carried out by the CRC in co-operation with the WFP. The European Community Humanitarian Office (ECHO) confirmed its grant to the Federation during the reporting period and the procurement process for essential relief items included in the grant is ongoing. Further distributions, especially those of household kits, are planned through December as more communities become accessible and families are assisted in returning to more normal living conditions. The economic impact on those most in need due to such prolonged flooding has given rise to extraordinary assistance from the CRC. Please refer to annex 1 for the summary of the emergency relief assistance provided by the Red Cross with the support of its partners.

### ***2. Water and Sanitation***

*Objective 2: Minimise the risk of the wide-scale spread of infectious diseases, particularly diarrhoeal and vector borne disease, by giving health education, soap, ORS and improving hygiene and sanitation facilities in safe areas for both short and long term benefits.*

Following the development of the cooperative approach with the Ministry of Rural Development and other agencies, implementation plans for the rehabilitation of flood affected community wells in the provinces are now in place. Provincial departments of rural development and provincial Red Cross branches have now established mobile teams in the 8 key target provinces to implement the plans (Svay Rieng, Prey Veng, Kampong Cham, Kampong Thom, Takeo, Kandal, Kampong Chhnang, Pursat).

The level of flood waters has begun to recede, but access to the water points is still limited in many areas. The distribution of alum and chloramine will provide interim access to safer drinking water to these communities whilst rehabilitation of the water points is undertaken.

Information continues to be received on other agency operations. An information matrix updates on a continual basis the water sanitation activities of all organisations involved.

The cooperative approach will enable CRC to rehabilitate a greater number of water points than first anticipated, however the matrix indicates that this will only cover an approximate 10% of the overall affected water points as a result of the flood. Combining the figures for rehabilitation of water points

from all agencies, the planned rehabilitation will only cover 25% of the estimated number of affected wells (a total of 21,000 wells affected).

*Specific objective 2.1: To assist the Provincial Health Department (PHD) maximise access to safe drinking water through a co-ordinated approach with other agencies.*

Distribution of drinking water is continuing in safe areas and roadside communities in provincial areas around Phnom Penh. 15 x 3,000 litre static water tanks remain placed in strategic positions along national roads to assist approximately 20,000 displaced people. While some have begun to move back to their villages, the water tanks are still being accessed for drinking water safer water in the villages is available.

The packing of 135 MT of aluminium sulphate and 15 million chloramine tablets for family use is continuing at the Cambodian Red Cross warehouse. The distribution of the aluminium sulphate, chloramine, hygiene education posters and leaflets to the Provinces continues and distributions to the beneficiaries in 15 worst hit provinces have commenced, following the training of provincial education teams by the national mobile health training teams.

*Specific objective 2.2: To support the Provincial Department of Rural Development (PDRD) to improve sanitation in temporary safe areas.*

The issue of access to improved sanitation will be concentrated at the community level as more families are moving out of the safe areas and back into their villages. PDRD and CRC volunteers have been conducting hygiene awareness on sanitation in the safe areas.

*Specific objective 2.3: To assist the PDRD undertake rehabilitation and repair of affected water points in a co-ordinated approach with other agencies.*

An assessment format has been developed in conjunction with Ministry of Rural Development to assess the affected water points and sanitation conditions as the flood waters recede in the 8 key target provinces. The assessment information has been passed onto the Provincial levels to begin the assessment process.

Provincial Red Cross and the Department of Rural Development (PDRD) have established teams of Red Cross volunteers and PDRD technicians to implement the rehabilitation programme. 5 of the 8 provinces have reported activities which are being carried out in their provinces. This ranges from assessments to repair and also hygiene education.

Co-operation with PDRD and other agencies has resulted in the development of guidelines for disinfection of affected water points available to all agencies involved in the rehabilitation of damaged water points.

*Specific objective 2.4: To assist the PDRD develop permanent water and sanitation facilities in key safe areas.*

Discussions are underway to install some of the static water tanks currently used in the safe areas in schools and health centres that served as safe areas during the floods. PDRC has began discussions with relevant authorities to identify designated safe areas in some Provinces.

### **3. Health**

*Objective 3: Provide assistance with the provision of clean water, and in co-operation with the Ministry of health, through the Red Cross volunteers and Red Cross youth network, provide mosquito nets and insecticide, Vitamin A, ORS, de-worming tablets and health education.*

The close consultation between the Ministry of Health, the Cambodian Red Cross, the Federation and relevant UN agencies continues in order to monitor the health situation in the post-flood rehabilitation phase. While there have been concerns that increases in water-borne diseases, acute respiratory disease and vector-borne diseases would escalate, there have been no reported epidemics to date. However, there are projections for an increase in malaria and warnings of a major epidemic of dengue fever in early 2001.

The Federation is supporting the Cambodian Red Cross Society's health sub-department to strengthen its capacity to manage related emergency health issues, with a particular focus on monitoring health project data, developing closer co-operation with external partners and planning ahead for future emergencies.

#### ***ORS/Vitamin A Distribution***

The ongoing health projects are focused on those most vulnerable communities affected by the floods in 11 provinces. Following the training of trainers (ToT) project for the national mobile teams in October, 275 people have been trained and have carried out further training at district level. In addition, health education materials providing simple hygiene messages such as how to treat diarrhoea have been produced. Local distribution teams composed of CRC volunteers and local Ministry of Health staff have been trained and are now implementing the distribution of ORS to families and Vitamin A supplements to children under five years of age. It is anticipated that this project will be completed by the end of December as families move from the safe areas back to their villages.

#### ***Malaria Prevention and Treatment***

The national malaria centre (NMC), in conjunction with WHO, has issued an alert for an expected high rate of malaria amongst rural populations in the flood affected regions. This is likely to be exacerbated as people who have lost their rice crops to the floods move to heavily forested mosquito-infested areas in the search for food. The initial response has been to provide an additional stock of impregnated mosquito nets to the NCM to distribute to families seeking refuge from the floods.

The Federation and CRC have responded to requests from the NMC for additional supplies of anti-malarial drug treatments to supplement the national stocks in the worst affected areas. An initial 250,000 units of artesunate are expected to arrive this month, with an additional 750,000 units currently being procured, which will then be handed over to the NMC for distribution to health clinics.

#### ***Intestinal Parasite treatment (deworming) Campaign***

Chronic infestation with hookworm and ascaris is a wide-spread problem throughout Cambodia, and the poor hygiene associated with the floods has exacerbated the spread of parasites amongst affected populations. In children, the parasitic worm load contributes to increased anaemia and malnutrition, and affects normal growth and development. In collaboration with the NCM and WHO, the Federation and CRC will support a deworming campaign directed at children from age 2 to 13 years, through the supply of 1 million units of mebendazole.

#### ***Dengue Campaign 2001***

The NMC and WHO have advised that 2001 is anticipated as an epidemic year for the mosquito-borne virus, dengue fever (DF) and dengue haemorrhagic fever (DHF). With significantly more surface areas covered by water as a result of the floods, there is likely to be an increased mosquito breeding season, and consequently higher incidence of both dengue and the more serious form, dengue haemorrhagic fever. Planning is underway with key agencies, including both Federation and CRC, to implement measures designed to prevent and mitigate the effects of this potentially life-threatening disease.

Such measures will include the distribution of larvacide to targeted high-risk areas, specifically to reduce the breeding sites of mosquitos in household water storage jars. An estimated 3.5 million people

will be included in this campaign, which will include health education measures designed to inform of the risks of DF and DHF. Additional to vector control measures will be the development and trial of jar lids, which provide a physical barrier to mosquito breeding sites. This is currently in the development and planning phase.

#### **4. Capacity building efforts through an emergency**

##### **4.1 Water Sanitation and Emergency Health Delegates and other staff**

*Objective 4: Improve the CRC's implementation and monitoring capacity through the recruitment of a water and sanitation delegate, a health-in-emergency monitoring officer (HEMO) and other essential staff.*

In November, the Federation recruited a water and sanitation delegate for 6 months, as well as an emergency health delegate for 3 months to assist the CRC in monitoring and co-ordination efforts. CRC has not yet been successful in recruitment of a HEMO, however the position is being re-advertised with the expectation that a qualified person will soon be identified. Other essential staff, for the logistics service in particular, have been recruited during the reporting period in order to strengthen the CRC capacity for emergency response, recovery and rehabilitation.

##### **4.2 Red Cross Volunteers**

*Objective 5: Strengthen or establish networks of Red Cross volunteer leaders and Red Cross volunteers in the affected areas by training a total of 200 new volunteers in four provinces (Koh Kong, Preah Vihear, Stung Treng and Svay Rieng), and by giving refresher training to 2,000 existing volunteers and Ministry of health field workers in hygiene and use of ORS and to disseminate health, hygiene and preparedness information.*

The Red Cross Volunteers (RCVs) have been on the "front line" since the onset of the floods in mid July. Trained volunteers have tirelessly devoted long hours to evacuate the sick and infirm, aided those most in need and assisted their communities and others to combat the ravages of the worst flooding in recent history with emergency first aid, communications and relief distributions.

As the transition from relief to recovery and rehabilitation is underway, volunteers are taking on another role. They are engaged in 14 provinces assisting with water and sanitation and health care initiatives in co-operation with local NGOs, the Ministry of Rural Development and other agencies. They are also assisting the provincial Department of Rural Development, the provincial Red Cross and WFP to implement the food for activity programme in 5 provinces. Volunteers assist families and communities to develop and put into action cleanup and minor rehabilitation activities in exchange for supplementary food rations.

Training for new Red Cross volunteers in the provinces mentioned above will commence in 2001 as funds become available for this activity and waters have receded.

##### **4.3 Red Cross Youth**

*Objective 6: Strengthen or establish a network of Red Cross youth in four affected provinces by training 52 new Red Cross youth advisors and 1'200 Red Cross youth members in 24 schools in four provinces (Odtar Mean Chey, Stung Treng, Svay Rieng, Koh Kong).*

Red Cross youth will continue to play an important role in emergency response, recovery and rehabilitation activities along with the Red Cross volunteers. Ongoing health campaigns involve them increasingly preventative activities and school children are a target group for the de-worming

campaign. Some 988 schools have been affected or damaged according to the Ministry of Education, Youth and Sports, many of them being the RC youth program target schools. The four provinces mentioned above do not have a RC youth network yet established. In order to prepare for the next rainy season and possible future disasters, it is planned that RC youth network will be established in the worst hit schools in the mentioned provinces during the post-flood rehabilitation phase. The RC youth can then immediately put their new skills in practice after the training, since the post-flood rehabilitation phase is expected to continue for some time.

## ***Outstanding needs***

The dengue haemorrhagic fever (DHF) programme will be a health priority for the coming year and will require full support for successful implementation. Cooperation and coordination between CRC and relevant Ministries, NMC and WHO is excellent and provides a positive framework for action. The dengue campaign will build on the existing capacity of the CRC which has previously implemented successful prevention projects during the 1998 DHF epidemic.

It is currently estimated that there are over 21,000 water points and wells which are contaminated as a result of the floods and, as mentioned above, the rehabilitation efforts will cover only some 25% of total affected water points.

The budget for the appeal has therefore been revised to meet the additional needs for Federation support, especially in the health and water and sanitation sectors.

## ***External relations - Government/UN/NGOs/Media***

The Flood Core Group Meeting between the National Committee for Disaster Management, the Cambodian Red Cross, the United Nations Disaster Management Team and the Federation was held on 8 December, to be followed by an Emergency Response Group (ERG) meeting on 14 December involving all partners participating in the post-flood rehabilitation phase. In the last ERG meeting on 16 November it was decided that the ERG will meet on monthly basis now that the emergency phase is over. During the reporting period, chairpersons were appointed by the Council of Ministers for all for sector sub-groups.

The Federation hopes that the appointed sub-groups take a stronger co-ordination role in each sector so that consolidated information is gathered and all concerned may be informed of ongoing assessments, plans and action taken at the national and provincial level through the established co-ordination mechanism (Flood Core Group and ERG meetings).

Discussions on the establishment and the role of the data management team have continued. However, there has not yet been a clear proposal as to how this team may assist in providing consolidated information for the post-flood rehabilitation phase.

Good coverage of Red Cross work continues through the mass media. Informal meetings and extensive consultations with partners in the health and water and sanitation sectors continue to take place both at the national and provincial level. The Federation advocates for continued co-ordination and information sharing during the post-flood phase.

## ***Contributions***

See Annex 2 for details.

## ***Conclusion***

The relief phase of this major operation is now scaling down, however at the same time, the recovery and rehabilitation efforts are fully under implementation. The full scope and magnitude of the destruction has not been assessed in detail and the socio-economic impact of such a disastrous flood will not be fully revealed for some time. The overwhelming impact has been major disruption in the lives of millions of people who have suffered loss of possessions, income and livelihoods. The devastating effects of these floods will be felt for many years to come.

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**This and other reports on Federation operations are available on the Federation's website: <http://www.ifrc.org>**



<b><u>BUDGET SUMMARY (REVISED)</u></b>			
	APPEAL No. 22/2000		
<b>Cambodia floods</b>			
TYPE	ORIGINAL BUDGET	REVISED BUDGET	
<b>RELIEF NEEDS</b>		IN CHF	
Shelter & constructions	219,400	829,600	1,331,450
Clothing & textiles	373,550	522,450	643,280
Food & seeds			
Water		86,700	
Medical & first aid		10,540	278,040
Teaching materials			
Utensils & tools	192,250	405,100	635,020
Other relief supplies	445,750	637,950	869,495
<b>TOTAL RELIEF NEEDS</b>	<b>1,230,950</b>	<b>2,492,340</b>	<b>3,757,285</b>
<b><u>CAPITAL EQUIPMENT</u></b>			
Vehicles	10,625	291,125	306,425
Computers	7,650	7,650	17,850
Telecom. equipment	10,200	10,200	
<b><u>PROGRAMME SUPPORT</u></b>			
Programme management (automatic calculation)	109,720	273,080	401,362
Technical support (automatic calculation)	32,844	81,746	120,147
Professional services (automatic calculation)	36,424	90,655	133,242
<b><u>TRANSPORT STORAGE &amp; VEHICLE COSTS</u></b>	<b>44,540</b>	<b>226,950</b>	<b>254,150</b>
<b><u>PERSONNEL</u></b>			
Expatriate staff	70,880	113,990	164,860
National staff	19,448	38,488	40,324
Personnel (support costs)			
<b><u>ADMINISTRATIVE &amp; GENERAL SERVICES</u></b>			
Travel & related expenses	2,550	5,100	5,100
Information expenses	10,880	47,668	380,188
Administrative & general expenses	11,560	47,770	31,280
External workshops & seminars / Expert fees	28,900	323,068	340,068
<b>TOTAL OPERATIONAL NEEDS</b>	<b>396,222</b>	<b>1,557,490</b>	<b>2,194,996</b>
<b>TOTAL APPEAL CASH, KIND, SERVICE</b>	<b>1,627,172</b>	<b>4,049,830</b>	<b>5,952,281</b>
<b>LESS AVAILABLE RESOURCES (-)</b>			<b>4,912,082</b>
<b>NET REQUEST</b>			<b>1,040,199</b>

Cambodia floods						ANNEX 1
APPEAL No. 22/2000						PLEDGES RECEIVED
						12/14/00
DONOR	CATEGORY	QUANTITY	UNIT	VALUE CHF	DATE	COMMENT
<b>CASH</b>						
REQUESTED IN APPEAL CHF ----->				<b>5,952,281</b>		<b>TOTAL COVERAGE 82.5%</b>
AMERICAN - GOVT		290,350	USD	497,224	22.09.00	5'000 HOUSEHOLD KITS, 5'000 PLASTIC SHEETS, 5'000 BUCKETS, PACKING & TRANSPORTATION,
AMERICAN - PRIVATE		66	USD	118	21.11.00	
AUSTRALIAN - GOVT		250,000	AUD	249,600	16.09.00	
AUSTRIAN - RC		25,000	EUR	38,933	20.09.00	
BRITISH GOVT/RC DFID		245,098	GBP	634,803	15.09.00	RELIEF ITEMS, OPERATIONAL NEEDS
BRITISH GOVT/RC DFID		294,118	GBP	735,295	17.10.00	RELIEF ITEMS
CAMBODIA - DAILY NEWSPAPER		833	USD	1,427	26.09.00	
CANADIAN - RC		5,000	CAD	5,767	14.09.00	SUPPORT RELIEF OPERATION
CANADIAN - GOVT		49,000	CAD	58,368	22.09.00	
DANISH - GOVT		2,850,000	DKK	595,080	28.09.00	
DANISH - GOVT		250,000	DKK	52,200	27.09.00	4'400 PLASTIC SHEETS
ECHO		400,000	EUR	611,120	15.11.00	TPS/210/2000/18005
FINNISH - RC		33,637	EUR	51,391	28.09.00	
GERMAN - GOVT/RC		282,556	DEM	220,704	29.09.00	18'500 PLASTIC SHEETS
JAPANESE - RC				82,000	20.09.00	
ICELANDIC - RC		200,000	ISK	4,295	22.09.00	
KOREA, REP. - RC				50,000	25.09.00	MEDICAL SERVICES
NETHERLANDS - GOVT		495,049	NLG	343,164	27.09.00	
NETHERLANDS - RC				25,000	27.09.00	
NEW ZEALAND - GOVT		50,000	NZD	37,345	04.10.00	
NORWEGIAN - GOVT/RC		1,000,000	NOK	192,647	27.09.00	
SINGAPORE - PRIVATE		16	USD	29	21.11.00	
SWEDISH - GOVT/RC		1,500,000	SEK	280,650	26.09.00	RELIEF & OPERATIONAL NEEDS
SWISS - RC				80,000	26.09.00	
SWISS - GOVT		30,000	USD	53,205	07.11.00	MEDICAL ACTIVITIES
<b>SUB/TOTAL RECEIVED IN CASH</b>				<b>4,900,365</b>	<b>CHF</b>	<b>82.3%</b>
<b>KIND AND SERVICES (INCLUDING PERSONNEL)</b>						
DONOR	CATEGORY	QUANTITY	UNIT	VALUE CHF	DATE	COMMENT
GERMAN - GOVT		15,000	DEM	11,717	29.09.00	3'300 FOLDABLE PLASTIC WATER TANKS (10L.)
<b>SUB/TOTAL RECEIVED IN KIND/SERVICES</b>				<b>11,717</b>	<b>CHF</b>	<b>0.2%</b>
<b>ADDITIONAL TO APPEAL BUDGET</b>						
DONOR	CATEGORY	QUANTITY	UNIT	VALUE CHF	DATE	COMMENT
<b>SUB/TOTAL RECEIVED</b>				<b>0</b>	<b>CHF</b>	
<b>THE FOLLOWING PROJECTS ARE LINKED TO THIS APPEAL:</b>						
PKH517,						