

TAR: CAM 37290

Technical Assistance to the
Kingdom of Cambodia for
Community Self-Reliance and
Flood Risk Reduction
(Financed by the Poverty
Reduction Cooperation Fund)

April 2005

CURRENCY EQUIVALENTS

(as of 3 March 2005)

Currency Unit	–	riel (KR)
KR1.00	=	\$0.00026
\$1.00	=	KR3,845

ABBREVIATIONS

AusAID	–	Australian Agency for International Development
CARE	–	CARE Cambodia
CSP	–	country strategy and program
DCDM	–	District Committee for Disaster Management
DPM–LAF	–	Disaster Preparedness and Mitigation—Living Above the Floods
GIS	–	geographic information system
MOWRAM	–	Ministry of Water Resources and Meteorology
MRC	–	Mekong River Commission
NCDM	–	National Committee for Disaster Management
NGO	–	nongovernment organization
NPRS	–	National Poverty Reduction Strategy
PCDM	–	Provincial Committee for Disaster Management
PDC	–	Provincial Development Council
PDWRAM	–	Provincial Departments of Water Resources and Meteorology
PPA	–	Poverty Partnership Agreement
PRF	–	Poverty Reduction Cooperation Fund
SEDP-II	–	Second Five Year Socioeconomic Development Plan

WEIGHTS AND MEASURES

km (kilometer)	–	1,000 meters
km ²	–	square kilometer
pm	–	person-month

TECHNICAL ASSISTANCE CLASSIFICATION

Targeting Classification	–	Targeted intervention
Sector	–	Agriculture and natural resources
Subsector	–	Water resource management
Themes	–	Inclusive social development, Governance, Gender and development
Subthemes	–	Human development, Civil society participation, Gender equity in empowerment and rights

NOTE

In this report, "\$" refers to US dollars.

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I. INTRODUCTION

1. The Asian Development Bank's (ADB) 2003 country strategy and program update for Cambodia¹ includes the provision of advisory technical assistance (TA) for Community Self-Reliance and Flood Risk Reduction, proposed for financing under the Poverty Reduction Cooperation Fund (PRF) in 2004.² The Government's National Poverty Reduction Strategy 2003–2005 (NPRS) and Second Five Year Socioeconomic Development Plan 2001–2005 (SEDP-II) define development strategies and set targets for rural poverty alleviation, including the reduction of risks posed by natural disasters. Assisting rural poor affected by natural disasters meets the priorities of the Government and ADB. The ADB Fact-Finding Mission visited Cambodia from 28 September to 5 October 2004, corresponding to the general inundation of the floodplains in the lower Mekong River. The Mission reached an understanding with the Government on the goal, purpose, scope, cost, implementation and financing arrangements, and terms of reference for the TA. The project framework is in Appendix 1.

II. ISSUES

2. **Floods as a Way of Life.** Rural life in the lowland areas of Cambodia is linked inseparably with the annual cycle of flooding. While rainfall is partly responsible for this cycle, floods in the Mekong River are the primary cause. About 3 million people earn subsistence-level incomes from fishing in the Tonle Sap Lake and other seasonally flooded areas of Cambodia, and fish account for 60% of the protein intake of the population. Up to 65% of cultivated land is covered each year by floodwaters. Rather than viewing normal floods as disasters, persons living in these areas consider them a source of livelihood and sustenance. Floods directly affect up to 3.4 million of Cambodia's 13.1 million people. Communities have developed ways of coping with floods that last up to 6 months a year. Hence, annual floods become disasters only when they are deeper than average, unexpectedly fast in onset, or unusually prolonged.

3. Disastrous floods do occur in Cambodia, and with increasing frequency in recent years. The International Center for Urban Safety Engineering at the University of Tokyo reported that the frequency of floods in Asia doubled during 1978–1999, and that the rate of increase has been more pronounced in the past 10 years.³ The floods of 2000, 2001, and 2002 in Cambodia were more severe than the average of recorded floods, and their sequential occurrence meant that much of the damage had not been fully repaired before the next flood arrived. The 2000 flood, which affected 19 of Cambodia's 24 provinces and municipalities, left 347 people dead—80% of whom were children.⁴ In addition to causing loss of life due to drowning and illness, these floods destroyed crops, houses, and other possessions; killed livestock; and worsened poverty in rural areas. Their recurrence at short intervals was particularly devastating for poor farmers and fisherfolk, who often must borrow to recover from the floods (replanting of crops, purchase of inputs and livestock, and repair of houses and fishing gear). The burden is much more onerous when the areas that suffer from flooding during the wet season also experience droughts, a frequently occurring phenomenon in Cambodia.⁵ Within Cambodia, the provinces of

¹ ADB. 2003 *Country Strategy and Program Update (2004-2006): Cambodia*. Manila.

² The TA first appeared in the *ADB Business Opportunities* (Internet edition) on 14 July 2004. Financing from the PRF was approved at the peer review meeting on 24 June 2004.

³ Dutta, D. 2003. *Flood Disaster Trends in Asia in the Last 30 Years*. Tokyo: The University of Tokyo.

⁴ Chan, S. 2001. The Impact of Cambodia's Recent Floods. *Cambodia Development Review*, Vol. 5, Issue 1. January–March 2001, pp. 1–4; and CDRI. 2002. The Impact of Flooding and Drought in Cambodia. *Cambodia Development Review*, Vol. 6, Issue 4, October–December 2002. Quoted in Mekong River Commission. 2003. *State of the Basin Report*. Phnom Penh: Mekong River Commission.

⁵ A severe drought followed the 2001 flood and preceded the 2002 flood. The ability of flood-affected communities to withstand droughts is increased if their vulnerability to floods (and hence their loss of livelihood assets) is lessened.

Kampong Cham, Kandal, Prey Veng, Svay Rieng, and Takeo in the lower Mekong River basin are among the most seriously affected areas. These provinces are among the poorest (25–75% poor), and are priority areas for assistance to reduce vulnerability to flooding, droughts, or both.⁶ An initial poverty and social analysis is provided in Appendix 2.

4. **Flood and Drought Management.** The Ministry of Water Resources and Meteorology (MOWRAM) has primary responsibility for managing floods and droughts, as well as for developing and managing large-, medium-, and small-scale irrigation and drainage projects. Government-funded flood management projects tend to concentrate on structural measures whose scale is beyond the capacity of individual communities to design and implement. They include the embankments surrounding Phnom Penh, Prey Veng, Svay Rieng, and Kampong Cham; and several schemes designed to eliminate floods from agricultural land on the fringes of the Mekong River floodplain.⁷ Given the absence of major storage reservoirs and the difficulty of diverting Mekong River water to remote areas, Cambodia has little capacity for drought relief.

5. The Mekong River Commission (MRC) assisted MOWRAM in expanding and improving its hydrological network in 1996. Water level data from major catchments within Cambodia and at key points along the Mekong River now are recorded and analyzed systematically. During the flood season (June–November), MRC broadcasts daily flood heights and corresponding risks at key points in Cambodia, Lao PDR, Thailand, and Viet Nam. MOWRAM's Department of Hydrology and River Works also broadcasts flood levels to affected districts within Cambodia.

6. Recognizing the actual and potentially severe impact of recurrent disasters⁸ on the achievement of Cambodia's development and poverty reduction goals, the Government established the National Committee for Disaster Management (NCDM) in 1995. NCDM is charged with leading pre-disaster risk-reduction measures (prevention, preparedness, and mitigation), as well as coordinating emergency response during and after disasters. However, NCDM is underfunded and lacks full authority to undertake its coordinating role.⁹ Its provincial- and district-level agencies—Provincial Committee for Disaster Management (PCDM) and District Committee for Disaster Management (DCDM), respectively—are constrained similarly.

7. **Disaster Risk Reduction at the Community Level.** Several nongovernment organizations (NGOs) have programs in Cambodia to mitigate flood damage and improve community disaster preparedness.¹⁰ Those of CARE Cambodia (CARE) in Prey Veng Province provide good examples of the potential benefits, and inherent difficulties, of such work.

8. CARE's Disaster Preparedness Action Planning Project (DPAP), which the Australian Agency for International Development (AusAID) funded, was implemented during 2001–2003 in

⁶ World Food Program. 2003. *Poverty and Vulnerability Analysis Mapping in Cambodia*. Phnom Penh.

⁷ The relatively minor flood control embankments constructed so far do not impinge significantly on the floodplain. As such, they do not hinder Mekong River flood flows. However, road embankments and other structures that interfere with the normal passage of floods are increasing, diminishing the beneficial impacts of flooding and sometimes worsening depth and duration locally.

⁸ Disasters include floods and droughts, as well as storms, landslides, forest fires, environmental degradation, spills of toxic materials, industrial accidents, and epidemics.

⁹ The Council of Ministers has not approved a national policy for disaster management, which was drafted in 1997.

¹⁰ The NGOs active in the provinces of Kandal, Prey Veng, Svay Rieng, and Takeo in the lower Mekong River basin are (i) Kandal: Action Against Hunger; Community Economic Development Assistance Corporation (CEDAC); Concern; Save the Children Australia; (ii) Prey Veng: Cambodian Red Cross; CARE Cambodia; Fisheries Action Coalition Team; Organization to Develop Our Villages; Oxfam GB; Vétérinaires Sans Frontières (VSF); Women Organization of Modern Economy and Nursing; (iii) Svay Rieng: CARE Cambodia; Church World Services; CEDAC; Oxfam GB; and (iv) Takeo Province: CEDAC; Oxfam GB; and VSF.

response to the 2000 floods.¹¹ DPAP focused on (i) mitigation action planning (MAP), which involved local communities developing and implementing their own mitigation plans using small grants; (ii) disaster preparedness action planning (PAP), based on a participatory analysis of vulnerability and capability, also implemented using small grants;¹² and (iii) disaster management through savings (based on an earlier CARE pilot for mobilizing savings to help minimize the worst effects of disasters).

9. An evaluation of DPAP compared pre-implementation conditions in 2001 with conditions after the 2002 flood. It showed that DPAP significantly decreased the impact of flooding in the target areas, saved lives and livestock, increased rice yields, improved access to services and goods, and built affordable credit and savings to cushion future shocks.¹³ The major lessons were

- (i) rural communities have the capacity to work together to reduce their vulnerability to disasters, and their traditional coping mechanisms are highly appropriate (although inadequate in the face of increasingly severe disasters);
- (ii) immediately after disasters, villagers initiate rescue and relief activities long before officials and other sources of aid arrive on site;
- (iii) DPAP suffered from delays, overly ambitious targeting, spreading available funds too thin, insufficient staff, staff recruitment problems, and short project life;
- (iv) although all components were planned and implemented in close partnership with commune and village officials, the allocation of work among villagers was unequal, an effective mechanism to selectively target the most vulnerable households was missing, and the setting of wage rates lacked transparency;
- (v) women are affected more directly and in more ways than men by disasters, due largely to the need for women to continue to meet all of their work obligations—and often additional responsibilities—under extremely difficult circumstances, while men leave disaster areas in search of employment; and
- (vi) insufficient funds were provided to ensure adequate construction quality.

10. Based on lessons learned under DPAP, CARE is implementing the Disaster Preparedness and Mitigation—Living Above the Floods (DPM—LAF) Project in Prey Veng. Funded by AusAID and Norway for implementation in 2004–2006, DPM-LAF shifts the focus to household-level interventions. It also incorporates the humanitarian accountability principles being introduced by prominent NGOs, including Cambodian Red Cross, CARE, Concern, Lutheran World Federation, Oxfam GB, and World Vision.¹⁴

11. NGO interventions tend to be disparate, weakly coordinated with other similar initiatives, poorly funded, and without guarantee of long-term support. They do not reach a majority of the affected community in flood-affected areas. In addition, although CARE and other NGOs are aware of the disproportionate impact of disasters on women, their capacity to develop and implement gender-sensitive approaches needs to be strengthened. Agencies active in this field urgently need to adopt common standards and approaches, including a gender strategy. A

¹¹ DPAP covered 115 villages in four districts (Baphom, Kampong Trabek, Peam Chore, and Preah Sdach).

¹² MAP and PAP grant funds provided 71 boats, 123 radios, improvements to 12 irrigation schemes, 12 community and 350 family safety hills, rehabilitation of roads in 8 communes, and rehabilitation of 8 schools.

¹³ Eng, S., Pann, S., Ramage, I. 2003. *Final Evaluation Report—Disaster Preparedness Action Planning in Prey Veng*. Phnom Penh.

¹⁴ The humanitarian accountability principles are (i) commitment to humanitarian standards and rights; (ii) informing right-bearers about the program, standards, principles, and mechanisms to be used; (iii) right-bearers' full participation in the program; (iv) providing mechanisms for addressing complaints; and (v) partners' commitment to implementing these principles.

programmatic approach—coordinating current and future interventions—would increase the efficiency of externally funded projects, and distribute aid assistance more equitably. Under such circumstances, MOWRAM and its development partners could incorporate community-based interventions into disaster risk-reduction projects more readily to magnify the impacts of NGO efforts and spread the benefits over a larger target area.

12. Community resilience to external shocks also could be increased greatly by improving networks and organizational capacity, disseminating site-specific flood forecasts to isolated communities, and raising communities' awareness of available emergency assistance.

III. THE TECHNICAL ASSISTANCE

A. Impact and Outcome

13. The impact of the TA is expected to be reduced vulnerability of rural communities to floods and droughts. Its output will be improved participatory flood risk management for targeted vulnerable communities in the lower Mekong River basin provinces of Cambodia.

B. Methodology and Key Activities

14. The TA will be implemented in two phases: (i) strategy development (6 months) to formulate a methodology for mobilizing communities to plan, design, and implement preparedness, prevention, and mitigation measures; and (ii) capacity development (8 months) to train government staff, NGOs, and leaders to implement the strategy. The strategy and improved capacity would be directly applicable to flood management initiatives in Cambodia, including ADB's 2007 flood management project to be identified under the ongoing TA in support of MRC's flood management and mitigation program.¹⁶

15. The TA will (i) assess the effectiveness of ongoing and previous NGO interventions; (ii) select target areas based on vulnerability to floods and droughts, incidence of poverty, and locations of previous and ongoing interventions; (iii) design a community participation model based on a strategy of proactive disaster risk reduction; (iv) undertake a baseline survey in the target area; (v) formulate the risk-reduction strategy, including a gender strategy to make disaster efforts more responsive to women's and children's needs; (vi) select NGOs to implement the strategy through local communities; (v) train government, NGO staff, and community leaders in strategy implementation; and (vii) supervise priority works¹⁷ as practical training in strategy implementation. Priority works will be selected based on need, community capacity, efficacy, and replicability over a broad area. ADB's Operations Manual¹⁸ justifies such works as "pilot testing of projects with innovative approaches." The PRF Board paper¹⁹ also supports "innovative activities such as micro and pilot projects, with clear demonstration effects." The TA will respond to the need for greater accountability in the provision of assistance

¹⁶ ADB. 2003. *Technical Assistance for the Support for the Mekong River Commission Flood Management and Mitigation Program*. Manila (REG-6149 in an amount of \$3.7 million, approved on 16 December 2003).

¹⁷ Such works could include family and community safety hills; raising of essential structures; provision of flood refuges for families; emergency equipment (e.g., boats, radios, and communication facilities); rehabilitation and flood-proofing of schools, clinics, and temples; provision of flood-proof storage for food and other essential goods; and direct drought recovery assistance (seeds, fishing nets, boats, house repairs).

¹⁸ ADB. 2003–2004. *Operations Manual—Bank Policies*. Section D12/BP: Technical Assistance. Manila.

¹⁹ ADB. 2002. *Cooperation with the Government of the United Kingdom and Northern Ireland: Poverty Reduction Cooperation Fund*. Manila.

to individuals and communities, and will adhere to the humanitarian accountability principles being introduced in Cambodia (footnote 14).

C. Cost and Financing

16. The cost of the TA is estimated at \$590,000, comprising foreign exchange cost of \$194,400 and local currency cost of \$395,600 equivalent. The Government has requested ADB to finance \$500,000, including the entire foreign exchange cost and \$305,600 equivalent of local currency cost. The Poverty Reduction Cooperation Fund will finance the TA through a grant, which ADB will administer. The Government will finance the balance of the local currency cost, equivalent to \$90,000, by providing office accommodation, transport, remuneration and per diem of counterparts, administrative support, performance monitoring surveys, and data and maps. The cost estimate and financing plans are in Appendix 3.

D. Implementation Arrangements

17. MOWRAM will be the Executing Agency for the TA, and will coordinate the implementation of activities with the Provincial Departments of Water Resources and Meteorology (PDWRAM) and the PCDMs. A steering committee, chaired by the Ministry of Economy and Finance, will be established. It will include members from MOWRAM, Ministry of Rural Development, Ministry of Women's Affairs, Cambodian Red Cross, NCDM, and others. The tasks of the steering committee would include (i) review and commenting on TA outputs, specifically the assessment of ongoing or previous programs for disaster management implemented by NGOs; (ii) prioritization of target areas; and (iii) detailed implementation arrangements, including selection of NGOs to be contracted. The steering committee is expected to meet three times during the TA.

18. The TA will be implemented over 14 months. It is expected to commence in July 2005 and end in August 2006, allowing physical works to be completed within the 2006 dry season. A firm of international consultants associated with domestic consultants will be selected to implement the TA. Implementation will require an estimated 83 person-months of international and domestic consulting services, with core expertise in (i) flood management (team leader), (ii) social development, (iii) community development and participation, (iv) training, and (v) others, as necessary. Selected NGOs will be contracted to carry out a baseline survey, conduct training, and implement priority works. The consultants and NGOs will be recruited in accordance with ADB's *Guidelines on the Use of Consultants* and other arrangements satisfactory to ADB for the engagement of domestic consultants. The quality and cost-based selection method and simplified technical proposals will be used. Outline terms of reference for the consultants are shown in Appendix 4. Procurement of equipment will be carried out in accordance with ADB's *Guidelines for Procurement*. Reports will be prepared on the effectiveness of specific NGO interventions, the findings of the study phase, and the results of the implementation phase. Progress reports will be submitted quarterly.

IV. THE PRESIDENT'S DECISION

19. The President, acting under the authority delegated by the Board, has approved ADB administering technical assistance not exceeding the equivalent of \$500,000 to the Government of Cambodia, to be financed on a grant basis by the Poverty Reduction Cooperation Fund for Community Self-Reliance and Flood Risk Reduction, and hereby reports this action to the Board.

DESIGN AND MONITORING FRAMEWORK

Design Summary	Performance Indicators and Targets	Monitoring Mechanisms	Assumptions and Risks
<p>Impact</p> <p>Reduced vulnerability of rural communities to floods and droughts.</p>	<p>Reduced loss of life, property, and livelihood assets from the baselines surveyed under this technical assistance (TA).</p>	<p>Annual monitoring and damage assessment reports of the Ministry of Water Resources and Meteorology (MOWRAM).</p>	
<p>Outcome</p> <p>Improved participatory flood risk management for targeted vulnerable communities in the lower Mekong River basin.</p>	<p>MOWRAM and its Provincial Departments of Water Resources and Meteorology (PDWRAMs) adopt participatory risk-reduction strategy as standard operating procedure.</p> <p>The strategy implemented in conformity with agreed principles in at least 80% of targeted communities.</p>	<p>Monitoring and evaluation reports of MOWRAM and PDWRAMs (undertaken as part of the strategy).</p> <p>Final report of TA consultants.</p>	
<p>Outputs</p> <p>1. Strategy Development</p> <p>Participatory flood risk-reduction strategy developed.</p>	<p>Stakeholders adopt common (i) goal and purpose (with performance indicators), (ii) targeting procedures, (iii) menu of activities, (iv) community participation approach, (v) gender strategy, (vi) monitoring and reporting framework, and (vii) arrangements to ensure long-term support by the middle of month 7 of TA.</p> <p>MOWRAM, the Asian Development Bank (ADB), and other key stakeholders at national, provincial, and district levels judge final report to be adequate by the end of month 14 of TA.</p>	<p>TA progress reports.</p> <p>TA administration back-to-office reports (BTORs).</p> <p>Tripartite meeting notes by MOWRAM.</p>	<p>Assumption</p> <ul style="list-style-type: none"> • Community leaders and government agencies at all levels adopt community-based approach. <p>Risks</p> <ul style="list-style-type: none"> • Lack of transparency in targeting assistance. • Inequitable distribution of aid.

Design Summary	Performance Indicators and Targets	Monitoring Mechanisms	Assumptions and Risks										
<p>2. Capacity Development</p> <p>2.1 Improved ability and willingness of government, nongovernment organizations (NGOs), and targeted communities to implement the strategy.</p> <p>2.2 Improved physical prevention and mitigation works</p>	<p>All stakeholders evaluate training outcomes as successful.</p> <p>All priority works completed by end of month 12 of TA.</p>	<p>Training evaluation report at the end of month 8 of TA.</p> <p>Final report of TA consultants and workshop report.</p>	<p>Assumptions</p> <ul style="list-style-type: none"> • Willingness of stakeholders and NGOs to have their programs governed by an overall strategy and program. • Targeted communities maintain project-financed works. 										
<p>Activities with Milestones</p> <p>1. Strategy Development</p> <p>1.1 Assess effectiveness of NGO interventions. Report on lessons learned from NGO interventions to be prepared by the end of month 2 of TA.</p> <p>1.2 Select target areas. Steering committee delineates and agrees upon suitable target areas by the middle of month 3 of TA.</p> <p>1.3 Design community participation model. Tools for community participation developed, and steering committee fully prepares and approves training program by the end of month 5 of TA.</p> <p>1.4 Undertake baseline survey within the target area. Baseline survey conducted by the end of month 7, and MOWRAM and ADB accept results by the end of month 8 of TA.</p> <p>1.5 Formulate the flood risk-reduction strategy. First draft prepared by the end of month 5 of TA. MOWRAM and ADB review final draft by the end of month 6.</p> <p>1.6. Select NGOs to implement strategy in target areas, including physical prevention and mitigation works. NGO partners for implementation of priority works selected, and NGO engaged for baseline survey by the end of month 6 of TA.</p> <p>2. Capacity Development</p> <p>2.1 Conduct training of government, NGOs, and community leaders in participatory strategy implementation by the middle of month 8 of TA.</p> <p>2.2 Apply the strategy and implement physical prevention and mitigation works in target areas by the end of month 12 of TA. Results disseminated and posted on ADB's Web site by the end of month 14.</p>			<p>Inputs</p> <table border="0"> <tr> <td>ADB Financing</td> <td>210,000</td> </tr> <tr> <td>Government</td> <td>38,000</td> </tr> <tr> <td colspan="2"> </td> </tr> <tr> <td>ADB Financing</td> <td>290,000</td> </tr> <tr> <td>Government</td> <td>52,000</td> </tr> </table>	ADB Financing	210,000	Government	38,000			ADB Financing	290,000	Government	52,000
ADB Financing	210,000												
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ADB Financing	290,000												
Government	52,000												

INITIAL POVERTY AND SOCIAL ANALYSIS

A. Links to the Country Poverty Analysis

Is the sector identified as a national priority in country poverty analysis?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is the sector identified as a national priority in country poverty partnership agreement?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<p>Contribution of the sector or subsector to poverty reduction in Cambodia: Cambodia ranks 121st out of 162 countries in the 2001 Human Development Report. An estimated 36% of Cambodians live in poverty. The population density is 69 persons per square kilometer (km²). Annual population growth is estimated at 2.3%. Due to the post-1979 baby boom, at least half of the population is under 18 years old. The proportion of women in the adult population is high (56% of those 18 years or above). Infant mortality is also high.</p> <p>The vast majority of the poor (85–90%) live in rural areas, where shortage of productive land and recurrent natural disasters are compounding constraints. Natural disasters, such as floods and drought, destabilize people's lives and undermine food and financial security, health, and education. The main problems affected families face tend to occur after natural disasters, particularly food shortages (specifically rice) and lack of inputs to restore livelihoods. This reflects the precarious dependence of many rural poor on a single crop as staple food and source of income.¹ For the most vulnerable among Cambodia's poor, escaping indebtedness is a major preoccupation. Reducing the risk of disaster through improved community organization and enhancement of simple coping strategies has been effective in improving resilience to natural disasters.</p> <p>Link with the Asian Development Bank's country strategy and program for Cambodia: The overall strategic objective of the Asian Development Bank (ADB) in Cambodia is poverty reduction. ADB's country strategy and program (CSP) defines three priority areas in support of Cambodia's Second Five Year Socioeconomic Development Plan 2001–2005 (SEDP-II): (i) rural economic development, (ii) human resources development, and (iii) private sector development. The technical assistance (TA) will reduce people's vulnerability to floods and droughts, reducing poverty directly in poor rural communities. It also will assist human resources development through improvement of community self-reliance. The TA is in line with ADB's Tonle Sap Initiative, and its support for the Mekong River Commission's flood management and mitigation program.</p> <p>Achieving the medium-term goals of the Poverty Partnership Agreement (PPA) between Cambodia and ADB requires concerted action to overcome key problems affecting sustainable management of natural resources. The PPA promotes public-private partnerships and community participation in environmental management. The TA will help meet this strategic objective by working with rural communities to identify and implement appropriate risk-reduction strategies.</p> <p>Link with National Poverty Reduction Strategy: The Government's National Poverty Reduction Strategy 2003–2005 (NPRS) and SEDP-II define development strategies and set targets for reducing rural poverty. Relevant priority poverty reduction actions defined in the NPRS are (i) improving rural livelihoods, (ii) improving capabilities, (iii) reducing vulnerability, (iv) strengthening social inclusion, and (v) promoting gender equity. To assist poor rural communities, NPRS aims to lower the risks posed by natural disasters as part of a broad program of improved natural resources management. The national water resources strategy identifies flood mitigation and disaster prevention as priority initiatives. In support of these national agendas, the TA will enhance the effectiveness of rural communities' traditional coping mechanisms; implement simple and replicable flood-proofing measures; and strengthen community capacity through participatory planning, implementation, and monitoring and evaluation. The TA will incorporate strategies for making disaster prevention and mitigation efforts more responsive to the needs of women and children (for whom the negative impacts of floods are particularly severe).</p>			

¹ Families with several sources of income are less vulnerable in this situation, and less likely to exploit available natural resources in an unsustainable way.

B. Poverty Analysis**Targeting Classification: Targeted intervention**

What type of poverty analysis is needed? The TA will focus on a maximum of two provinces, chosen from among Kandal, Prey Veng, Svay Rieng, and Takeo—provinces where flood and drought impacts are particularly severe. During the first phase of the TA, a poverty analysis will be conducted to help determine the most appropriate target areas for TA activities. The poverty analysis will identify constraints and barriers faced by the poor, and will guide the formulation of practicable eligibility criteria and means of targeting beneficiaries. To help maximize the poverty reduction and social development outcomes of the TA, an assessment of strengths, weaknesses, opportunities, and risks will be conducted.

C. Participation Process

Is there a stakeholder analysis? Yes No

A participatory approach was adopted during TA fact-finding. An initial workshop was held with government officials, NGOs, and village representatives to establish the objectives, scope, and implementing arrangements of the TA. In the field, focus group discussions were held separately with women, men, and youth to assess needs, priorities, and capacities to contribute and benefit from the project.

Is there a participation strategy? Yes No

In the past, disaster mitigation projects have been most successful when the communities are involved in planning and implementation of risk-reduction measures. Through community participation, vulnerable groups can be transformed into disaster-resilient communities, capable of withstanding and recovering from shocks to their physical and socioeconomic environments. The TA will develop a community participation model to strengthen community involvement in the planning and implementation of project activities. The aim of this model is to (i) reduce vulnerabilities and increase the capacity of vulnerable groups and communities to cope with, prevent, or minimize loss of, or damage to, life, property, and the environment; (ii) minimize human suffering; and (iii) hasten recovery. Specific interventions that can reduce vulnerabilities and strengthen capacity to cope with hazards will be based on a thorough assessment of the communities' exposure to hazards, and an analysis of their specific vulnerabilities and capacities. The model also will incorporate measures to strengthen social support structures, establish a community spirit of cooperation, institutionalize disaster planning and preparedness, form voluntary response committees, and provide leadership training to enhance decision-making at the community level.

D. Gender Development

Strategy to maximize impacts on women: Women in Cambodia do not enjoy equal access to education, paid employment, land ownership, and other property rights. In family and society, they are generally in a disadvantaged position. Women also suffer from poor reproductive health services.

The increasing occurrence of severe flooding in the lower Mekong River basin is causing extensive damage to property and the environment with an inordinate impact on women. Poor living conditions increase threats to women's health and economic insecurity, and limit their empowerment in the community. Crop destruction and debts incurred as a result of flooding compel families to seek money from whatever sources are available. As most families have no or limited stocks of rice to sell, the strategy most commonly adopted to repay debts is for men to seek employment elsewhere. This strategy increases the workload of women, creating severe hardships for women and girls.

The TA will reflect the urgent needs of women for whom floods and droughts have specific gender-differentiated impacts. These include (i) added burden of providing care (for children and sick, disabled, or old family members) as a single parent during the absence of husbands; (ii) added stress caused by worries about drowning of children and other family members; (iii) dependence on their husband's timely return to assure payment of incurred debts (in those cases where men have left the village to seek employment elsewhere); and (iv) increased risk of sexually transmitted infections when husbands return from work outside the village. Assistance channeled through local authorities does not always reach the neediest. Instead, assistance tends to reflect the local authorities' lack of special provisions for vulnerable

groups, such as female-headed households. Another reason for women's limited access to benefits is the relative inaccessibility of distribution centers. The cost of transportation alone prevents many women from reaching distribution centers. In some cases, women cannot leave their homes because they have no one to take care of children or sick family members. Recognizing this situation in the project area, the TA will develop a gender action plan to promote reduction of vulnerability of women to future risks, and promote gender equity more broadly.

The gender action plan will include (i) strategy to ensure gender equity in access to project benefits; (ii) collection of gender-disaggregated data through social analysis; (iii) systemic effort to address gender inequalities in project service delivery; (iv) participation of women in project planning, design, implementation, and monitoring and evaluation of their specific needs; (v) representation of female staff at all levels of project management, and equal opportunities for training; and (vi) equal wage labor opportunities for women, if relevant. Components of the gender action plan, which will be elaborated during the TA, include:

- **Decision-making structures:** to increase women's involvement in disaster management committees at provincial, district, and village levels;
- **Participation:** to ensure the equitable participation of women in disaster management, and post-disaster reconstruction and rehabilitation;
- **Access to information:** to ensure women's equitable involvement in preparedness, prevention, and mitigation planning; and their access to information on land rights, land ownership, and legal services;
- **Reconstruction:** to ensure women's participation in the selection of TA-financed priority works, and equitable involvement in rehabilitation of infrastructure and basic services; and
- **Sexual and gender-based violence:** to develop specific measures to enable women to protect themselves from domestic violence (by seeking redress and protection), and from sexually transmitted diseases.

Has an output been prepared? Yes No

E. Social Safeguards and other Social Risks

Item	Significant/ Not Significant/ None	Strategy to Address Issues	Plan Required
Resettlement	<input type="checkbox"/> Significant <input checked="" type="checkbox"/> Not significant <input type="checkbox"/> None	No resettlement is anticipated. If it does occur, it will be minor and voluntary. A short resettlement plan will be prepared in case resettlement cannot be avoided.	<input type="checkbox"/> Full <input type="checkbox"/> Short <input type="checkbox"/> None
Affordability	<input type="checkbox"/> Significant <input checked="" type="checkbox"/> Not significant <input type="checkbox"/> None	All labor and material contributed by local residents in the affected communities will be compensated fully in cash.	<input type="checkbox"/> Yes <input type="checkbox"/> No
Labor	<input type="checkbox"/> Significant <input checked="" type="checkbox"/> Not significant <input type="checkbox"/> None	The project will ensure fair and standard wages for laborers in construction works. The allocation of work among affected persons will be transparent. High vulnerability persons will be given priority in the workforce.	<input type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> Significant	The population in the target provinces is thought to	<input type="checkbox"/> Yes

Indigenous Peoples	<input checked="" type="checkbox"/> Not significant <input type="checkbox"/> None	be entirely Khmer. The baseline and other surveys will help determine whether ethnic minorities live in the target areas, and hence the preparation of an ethnic minority development plan is needed.	<input type="checkbox"/> No
Other Risks and/or Vulnerabilities	<input type="checkbox"/> Significant <input type="checkbox"/> Not significant <input checked="" type="checkbox"/> None		<input type="checkbox"/> Yes <input type="checkbox"/> No

COST ESTIMATES AND FINANCING PLAN
(\$ '000)

Item	Foreign Exchange	Local Currency	Total Cost
A. Poverty Reduction Cooperation Fund Financing^a			
1. Consultants			
a. Remuneration and Per Diem			
i. International Consultants	154.7	0.0	154.7
ii. Domestic Consultants	0.0	94.5	94.5
b. International and Local Travel ^b	15.0	27.0	42.0
c. Reports and Communications	2.0	1.4	3.4
2. Equipment ^c	5.0	0.0	5.0
3. Stakeholder Workshops and Training	0.0	10.0	10.0
4. Surveys and Works Implementation			
a. NGO Contract for Baseline Survey	0.0	20.0	20.0
b. NGO Contracts for Implementation	0.0	120.0	120.0
5. Miscellaneous Administration and Support Costs	0.0	5.0	5.0
6. Contingencies	17.7	27.7	45.4
Subtotal (A)	194.4	305.6	500.0
B. Government Financing			
1. Office Accommodation and Transport	0.0	14.0	14.0
2. Remuneration and Per Diem of Counterpart Staff	0.0	14.0	14.0
3. Surveys and Investigations	0.0	25.0	25.0
4. Administrative Support	0.0	14.0	14.0
5. Supply of Data, Maps, Reports	0.0	10.0	10.0
6. Others	0.0	13.0	13.0
Subtotal (B)	0.0	90.0	90.0
Total	194.4	395.6	590.0

NGO = nongovernment organization.

^a Administered by the Asian Development Bank.

^b Includes vehicle rental and domestic airfares.

^c Includes desktop computers, printer, scanner, facsimile, and office software.

Source: Asian Development Bank estimates.

OUTLINE TERMS OF REFERENCE FOR CONSULTANTS

A. Introduction

1. The Ministry of Water Resources and Meteorology (MOWRAM) will be the Executing Agency for the technical assistance (TA). MOWRAM will appoint a senior staff member from its Department of Hydrology and River Works to head the Project Management Office, which will administer the TA and provide day-to-day guidance to the consultants. The project manager will delegate representatives of the Provincial Department of Water Resources and Meteorology, Provincial Committee for Disaster Management (PCDM), and Provincial Development Council to oversee the consultants' operations on site. The TA consultants also will liaise closely with the Cambodia National Mekong Committee to obtain relevant data from the Mekong River Commission (MRC), and to ensure that relevant findings of the TA are shared with MRC. In particular, the TA consultants will exchange information with consultants engaged by MRC to implement its flood management and mitigation program.

2. The TA will be implemented over 14 months. The project area will comprise the flood- and drought-affected districts of Kandal, Prey Veng, Svay Rieng, and Takeo provinces. During the strategy development phase (initial 6 months), the TA consultants will operate from an office in Phnom Penh, with temporary offices in the project area when needed. The target area for the TA will be selected based on the findings of the strategy development phase, as described in the consultants' phase 1 report. The target area will comprise a number of districts within one or two provinces. During the capacity development phase (remaining 8 months), the TA consultants will operate from a suitably located field office in the target area.

B. Overall Outcome

3. The main outcome of the TA will be the adoption by key stakeholders¹ of improved participatory flood risk management for targeted vulnerable communities in the lower Mekong River basin provinces of Cambodia. To achieve this, the TA consultants will (i) help formulate a community-based risk-reduction (CBRR) strategy comprising common standards and approaches (including a comprehensive gender strategy) for planning, designing, and implementing preparedness, prevention, and mitigation measures; and (ii) develop skills of key agents at provincial, district, village, and community levels, including staff of selected nongovernment organizations (NGOs), by training in and applying the strategy in the target area. The CBRR strategy will reflect best practices, as well as lessons learned from ongoing and previous NGO interventions aimed at improving community disaster preparedness. As part of the training and demonstration processes, specific physical works, identified and designed by the communities themselves under guidance of the TA consultants and contracted NGOs, will be implemented by the communities.

C. Strategy for Community-Based Risk Reduction

4. In many parts of Cambodia, natural disasters occur frequently, and cannot be dealt with as isolated events requiring ad hoc emergency responses. Therefore, the ability of local persons to prepare for natural disasters, prevent the most frequent events from causing serious harm, and mitigate extreme impacts to within acceptable limits are the most effective means of

¹ Including (i) MOWRAM, PCDM, Provincial Department of Water Resources and Meteorology, and Provincial Development Councils; (ii) District Committees for Disaster Management and commune councils; (iii) nongovernment organizations; (iv) village development committees; and (v) vulnerable communities in the target areas.

managing risks and reducing people's vulnerability. CBRR measures can transform disaster-affected persons from "victims" or "beneficiaries of outside aid" into agents for building community self-reliance and resilience.² In this way, the reduction of vulnerability becomes part of the development process.

5. The purposes of the CBRR strategy are to reduce vulnerability to disasters, minimize human suffering, hasten recovery, and introduce a new form of cooperation between support agencies and communities. The basic principles of the strategy are:

- (i) **Responsiveness.** Interventions are to be based on the community's felt and urgent needs;
- (ii) **Participation.** Community members, particularly the most vulnerable groups, are to be involved in the whole process;
- (iii) **Integration.** Links are to be strengthened between the community, NGOs, and government agencies at various levels;
- (iv) **Comprehensiveness.** Interventions are to include structural (physical) and nonstructural measures (e.g., activities to improve public awareness, community cohesiveness, environmental protection, health, literacy, and livelihood opportunities);
- (v) **Versatility.** Interventions are to integrate local indigenous knowledge and resources into technological solutions and other support from outside the community;
- (vi) **Empowerment.** Interventions should address the concerns of stakeholders, while upholding the interests of the most vulnerable groups, with the ultimate aim of giving communities more control over the natural and physical environments affecting their lives; and
- (vii) **Development.** Interventions are to be conceived as part of a long-term development process that seeks to reduce poverty, social inequity, exploitative gender relations, and environmental degradation.

6. Putting the strategy into action requires (i) capacity building and development of skills within relevant government agencies and NGOs to equip them with theoretical and practical tools to apply in community work; and (ii) engaging communities in CBRR through a step-by-step process of team building, prioritization of needs, action planning, and implementation. Team building depends on identifying natural leaders (progressive members), and using their influence to form village teams to serve as catalysts or prime movers in community mobilization. Important adjuncts to this process are skills development and capacity building, situational analysis (recording physical characteristics, demographic features, and economic and sociopolitical aspects of the community), identification of groups most at risk, community analysis of its priority needs and aspirations, community-generated solutions to problems, and agreement on roles and responsibilities of each member of the community for putting the solution into place. Village teams also will provide the necessary interface between the community and the outside agencies—particularly the PCDM and District Committees for Disaster Management, other government officials, and NGOs. The teams also will be essential to sustaining the risk-reduction process.

² CBRR can also complement government-implemented structural measures, which tend to pay little attention to the needs of isolated communities; and, in some cases, might increase risk by altering the natural (or more predictable) way a disaster unfolds.

7. Under the TA, the level of participation and the quality of involvement in the CBRR process will be monitored and evaluated. This will be an essential means of measuring success, and adapting targets and plans if necessary. The TA consultants will propose quantitative and qualitative indicators for monitoring and evaluating participatory impact, with active involvement of one or more of the stakeholder groups.

D. Gender Strategy

8. The TA consultants will design a framework for conducting gender analyses of communities in the target area, with the aim of determining (i) gender-based patterns of work allocation in productive and reproductive activities, including workload changes due to floods; (ii) access to, and control over, productive resources; (iii) patterns of access to benefits from their labor (wages, income and profits, savings), and control over the use of such benefits; (iv) access to extension and training for improved productivity and incomes; (v) gender-based opportunities in decision-making, and representation at the household and community level; (vi) traditional coping and self-reliance mechanisms of women and men during disasters; and (vii) needs and priorities for women regarding access to emergency aid. The TA consultants will incorporate the gender strategy into the design of project activities, thereby improving the responsiveness to the practical needs of women and men. Based on the gender analysis, specific activities will be included to improve women's (i) access to productive resources made available under the project, (ii) participation in decision-making, (iii) access to information, and (iv) participation in monitoring and evaluation. Indicators for monitoring and evaluating achievement of the gender strategy will be developed.

E. Reporting

9. The report on the effectiveness of NGO interventions will be submitted within 2 months of TA commencement. It will be based on an analysis of reports and other data from relevant projects, as well as rapid appraisals of project sites in Kandal, Prey Veng, Svay Rieng, and Takeo provinces. The phase 1 (strategy) report will be submitted within 6 months of commencement. It will present a summary of studies, surveys, and investigations carried out during the strategy development phase; simple geographic information system (GIS) showing important physical features; and relevant vulnerability characteristics of the communities (demographic and socioeconomic data, flood and drought impacts, poverty, etc.). The phase 1 report will describe (i) the goal and purpose of the strategy, with performance indicators; (ii) targeting procedures; (iii) menu of activities; (iv) community participation approach, and proposed tools; (v) gender strategy; (vi) training curriculum; (vii) monitoring and reporting framework; and (viii) proposed arrangements to ensure long-term support for disaster risk-reduction interventions for vulnerable communities in the project area. The report also will include recommended target areas, criteria for selecting NGO partners, proposed packaging of NGO contracts, draft invitation documents for selecting NGOs to implement activities during the capacity development phase, draft contract for the baseline survey, and detailed implementation arrangements for the NGO contracts. Two workshops will be conducted—one during the study phase to develop a consensus for selecting target areas; and a second upon conclusion of the TA to confirm completion of activities, and to elicit stakeholder evaluation of their success.

F. Consulting Services Requirements

10. The TA will require four international consultants for 20.5 person-months, and five domestic consultants for 62.5 person-months. All must have substantial relevant experience in rural development, social and poverty analysis, community mobilization and participation,

gender dimensions of development, disaster risk reduction, and training. The team leader will have qualifications in flood management, as well as experience in risk analysis and disaster preparedness.

1. Team Leader–Flood Management and Disaster Preparedness Specialist (international, 11.5 person-months)

11. The team leader–flood management and disaster preparedness specialist will liaise directly with the project manager and ADB, manage the team to ensure timely completion of assigned tasks, and assure that TA products are prepared to a professional standard and quality. The team leader will ensure consistent application of the humanitarian accountability principles³ being introduced in Cambodia by prominent NGOs, including Cambodian Red Cross, CARE, Concern, Lutheran World Federation, Oxfam GB, and World Vision.

12. Specific technical responsibilities of the team leader are to (i) prepare profiles of flood and drought impacts in the four provinces (including vulnerability to other hazards) based on secondary data; (ii) prepare a simple paper- or computer-based GIS as a tool for selecting target areas; (iii) incorporate the findings of the review of NGO effectiveness into the GIS, and select target areas; (iv) prepare invitation documents for selection of NGO partners, including detailed terms of reference; (v) invite proposals, evaluate and rank proposals, and make recommendations for selection of NGOs; (vi) supervise implementation of NGO contracts; and (vii) prepare quarterly progress reports, phase 1 (strategy) report,⁴ and TA consultants' final report (including consolidated findings of the NGO reports on individual contract implementation). The team leader will assist with and guide implementation of all other tasks.

2. Senior Social Development Specialist (international, 3 person-months)

13. The senior social development specialist will have primary responsibility for (i) compiling and reviewing reports of relevant NGO projects in the four provinces; (ii) assessing the effectiveness of NGO interventions (covering at least policy, country presence and knowledge, capacity and skills of staff, methods and tools for community participation, scope and nature of previous and ongoing projects, partnerships, long-term financing arrangements, etc.); (iii) identifying NGO strengths and weaknesses; (iv) preparing a menu of suitable interventions; (v) preparing criteria for selection of NGO partners; and (vi) dividing envisaged implementation activities into discrete contract packages based on area.

3. Senior Community Development and Gender Specialist (international, 4 person-months)

14. The senior community development and gender specialist will have primary responsibility for conducting participatory workshops in the target areas; disseminating study findings; developing a consensus on risk assessment⁵ and selection of target areas; developing the CBRR strategy and tools for community participation; and formulating the gender strategy.

³ The humanitarian accountability principles, and recommended approaches for their implementation, are described in publications available at: www.hapgeneva.org and www.hapinternational.org/en/.

⁴ All consultants will contribute to the phase 1 (strategy) report for their assigned tasks.

⁵ This will include an all hazards assessment derived from secondary data, covering not only floods and droughts, but also landslides, storms, waves, environmental degradation, etc.

4. Senior Disaster Preparedness Training Specialist (international, 2 person-months)

15. The senior disaster preparedness training specialist will be responsible for (i) designing the training curriculum for community participation (one module for external agencies, another for members of the targeted communities); (ii) preparing course materials, posters, and field guides; and (iii) formulating criteria and guidelines for selecting trainees from (a) government staff at the provincial, district, and village levels; (b) NGO staff who will be applying the community participation model; and (c) community leaders from the villages in target areas. The senior training specialist will lead the training of government and NGO staff.

5. Social Sector Specialists (two domestic, 13.5 person-months each)

16. The two social sector specialists will be involved in all TA activities. They will focus on (i) compiling and reviewing reports of relevant projects in Kandal, Prey Veng, Svay Rieng, and Takeo provinces; (ii) preparing profiles of affected communities with respect to poverty and vulnerability to a range of hazards; (iii) identifying NGO strengths and weaknesses; (iv) developing the CBRR strategy; (v) preparing a menu of appropriate interventions; (vi) conducting participatory workshops and focus group discussions; and (vii) training NGO staff and community leaders.

6. Community Development Specialists (two domestic, 13.5 person-months each)

17. The two community development specialists will spearhead interaction with the targeted communities, and will be involved in all TA activities. They will focus on (i) establishing contact with potential NGO partners; (ii) preparing and conducting stakeholder meetings; (iii) assessing the effectiveness of NGO interventions; (iv) determining the social and institutional issues affecting cooperation among different line agencies, NGOs, and the communities; (v) identifying appropriate mechanisms for implementing TA works; (vi) conducting stakeholder consultations at the district, commune, and village levels; (vii) developing a schedule for activities that selected NGOs are to implement in the targeted villages; (viii) assisting with training of NGO staff and community representatives; (ix) supervising NGO staff in applying the CBRR strategy; (x) supervising the participatory monitoring and evaluation of project results; (xi) conducting workshops; and (xii) developing and maintaining a Web site for dissemination of project outcomes.

7. Training Specialist (domestic, 8.5 pm)

18. The training specialist will assist with the design of training curricula for community participation, and the preparation of course materials. The training specialist will prepare Khmer language versions of all training materials, and take the lead in training community representatives and reporting on training activities.