



REQUEST FOR CEO ENDORSEMENT/APPROVAL

PROJECT TYPE: MEDIUM-SIZE PROJECT

THE LEAST DEVELOPED COUNTRIES FUND FOR CLIMATE CHANGE (LDCF)¹

Submission Date: 01/28/2010

PART I: PROJECT INFORMATION

GEFSEC PROJECT ID: 3890

GEF AGENCY PROJECT ID:

COUNTRY(IES): Cambodia

PROJECT TITLE: Vulnerability Assessment and Adaptation Programme for Climate Change within the Coastal Zone of Cambodia Considering Livelihood Improvement and Ecosystems

GEF AGENCY(IES): UNEP

OTHER EXECUTING PARTNER(S): Ministry of Environment (MoE)

GEF FOCAL AREA: Climate Change Adaptation

Expected Calendar (mm/dd/yy)	
Milestones	Dates
Work Program (for FSP)	
Agency Approval Date	01/02/2011
Implementation Start	01/03/2011
Mid-term Review (if planned)	01/03/2013
Project Closing Date	12/31/2014

A. PROJECT FRAMEWORK

Project Objective: to reduce the vulnerability of coastal communities to the impacts of climate change by strengthening policy and science, and demonstrating targeted local interventions to increase ecosystem resilience.								
Project Components	Indicate whether Investment, TA, or STA ^b	Expected Outcomes	Expected Outputs	LDCF Financing ^a		Co-financing ^a		Total (\$) c = a+b
				(\$ a)	%	(\$ b)	%	
1. Policy and science: strengthening national policy, regulatory and institutional coordination for managing climate change adaptation programmes and strengthening climate change science at the national level.	TA	Institutional capacity to assess climate change risks and integrate them into national development policies strengthened.	Systems and processes for identification and implementation of adaptation measures. Climate change risks are incorporated into development plans and policy. Relevant government departments are trained on climate change risks and adaptation within the coastal zone. Indicators for monitoring climate change impacts and assessing risks in the coastal zone in place.	485,400	48.5	515,000	51.5	1,000,400
2. Policy and	STA, TA	Adaptation planning in the	Vulnerability	385,736	45.6	459,600	54.4	845,336

¹ This template is for the use of LDCF Adaptation projects only.

science: strengthening policy, regulatory and institutional coordination for managing climate change adaptation programmes at the provincial and local level and undertaking vulnerability assessment and adaptation planning.		coastal zone improved.	maps for sensitive ecosystems and infrastructure within the coastal zone. Relevant provincial- and district-level stakeholders are trained on climate-proofing development and adaptation planning within the coastal zone.					
3. Demonstrating coastal flood control measures in agricultural zones of livelihood significance	TA	Vulnerability of productive systems to increased floods reduced.	Coastal communities use agricultural practices protected from changing climatic conditions and livelihoods are improved.	336,104	15.2	1,879,700	84.8	2,215,804
4. Demonstrating coastal ecosystem-based resilience measures	TA	Resilience of coastal buffers to climate change increased and livelihoods improved.	Ecosystem-based coastal protection through mangrove system restoration. Increased awareness on the importance of mangrove system restoration.	198,880	19.1	840,700	80.9	1,039,580
5. Monitoring and Evaluation				111,440	78.8	30,000	21.2	141,440
6. Project management				117,440	20	470,000	80	587,440
Total Project Costs				1,635,000		4,195,000		5,830,000

^a List the \$ by project components. The percentage is the share of LDCF and co-financing respectively to the total amount for the component.

^b TA = Technical Assistance; STA = Scientific & Technical Analysis

B. SOURCES OF CONFIRMED CO-FINANCING FOR THE PROJECT

<i>Name of Co-financier (source)</i>	<i>Classification</i>	<i>Type</i>	<i>Project</i>	<i>%*</i>
Cambodia Climate Change Alliance (CCCA)	Bilateral	Parallel	2,200,000	52.4
Ministry of Environment (MoE)	National government	In-kind	195,000	9.5

Ministry of Agriculture, Forestry and Fisheries (MAFF)	National government	Parallel	400,000	4.6
Ministry of Water Resources, Agriculture and Meteorology (MoWRAM)	National government	Parallel	1,400,000	33.4
Total Co-financing			4,195,000	100%

* Percentage of each co-financier's contribution at CEO endorsement to total co-financing.

C. CONFIRMED FINANCING PLAN SUMMARY FOR THE PROJECT (\$)

	Project Preparation Amount (a)	Project (b)	Total c = a + b	Agency Fee	<i>For comparison: LDCF Grant and Co-financing at PIF</i>
LDCF financing	50,000	1,635,000	1,685,000	163,500	1,635,000
Co-financing	50,000	4,195,000	4,245,000		2,985,000
Total	100,000	5,830,000	5,930,000	163,500	4,620,000

D. FOR MULTI AGENCIES/COUNTRIES (IN \$)¹

GEF Agency	Country Name	(in \$)		
		Project (a)	Agency Fee (b)²	Total (c) c=a+b
(select)				
(select)				
(select)				
(select)				
(select)				
(select)				
Total LDCF Resources		0	0	0

1 No need to provide information for this table if it is a single country and/or single GEF Agency project.

2 Relates to the project and any previous project preparation funding that have been provided and for which no Agency fee has been requested from Trustee.

E. PROJECT MANAGEMENT BUDGET/COST

<i>Cost Items</i>	<i>Total Estimated person months/days</i>	<i>LDCF (\$)</i>	<i>Co-financing (\$)</i>	<i>Project total (\$)</i>
<i>International consultants* (days)</i>	136	75,000	110,000	185,000
<i>Project personnel</i>		22,000	45,000	67,000
<i>Office facilities, equipment, vehicles and communications</i>			285,000	285,000
<i>Travel</i>		20,440	30,000	50,440
Total		117,440	470,000	587,440

* Details to be provided in Annex C.

F. CONSULTANTS WORKING FOR TECHNICAL ASSISTANCE COMPONENTS:

<i>Component</i>	<i>Estimated person months/days</i>	<i>LDCF(\$)</i>	<i>Co-financing (\$)</i>	<i>Project total (\$)</i>
<i>Local consultants*(months)</i>	58	174,000	156,000	330,000
<i>International consultants*(days)</i>	990	544,580	248,800	793,380
Total		718,580	404,800	1,123,380

* Details to be provided in Annex C.

G. DESCRIBE THE BUDGETED M&E PLAN:

Project indicators have been selected for the project that measure both *performance* and *impact*, and which will form the basis of the project's Monitoring and Evaluation (M&E) plan. These indicators are detailed below.

At the level of objective, the indicator is as follows:

1. The percentage change in vulnerability of men and women living in the demonstration sites to climate change risks threatening the coastal zone.

At the level of the four outcomes, the indicators are as follows:

Outcome 1: Institutional capacity to assess climate change risks and integrate them into national development policies strengthened.

Indicators:

1. Number of government agencies participating in the data network (i.e. collecting and analysing climate-related data related to the coastal zone and disseminating results to the CCU).
2. Climate change risks determined for the coastal zone through modelling of climate change impacts (yes/no).
3. Number of relevant national development plans and policies which include climate change considerations.
4. Number of indicators for monitoring climate change impacts within the coastal zone developed.

Outcome 2: Adaptation planning in the coastal zone improved.

Indicators:

1. Number of detailed vulnerability maps produced.
2. A comprehensive adaptation plan, including guidance on zoning and land use planning in the context of climate change, is developed for the coastal zone (yes/no).

Outcome 3: Vulnerability of productive systems to increased floods reduced.

Indicators:

1. The percentage change in the income of men and women in the demonstration sites. This is a proxy for climate-resilient income production.
2. The percentage change in subsistence food production of male and female subsistence farmers in the demonstration sites. This is a proxy for climate-resilient food production.
3. Number of men and women from local communities aware of climate change vulnerability and adaptation responses.
4. Number of men and women in the demonstration sites whose perceived vulnerability to climate change has decreased.

Outcome 4: Resilience of coastal buffers to climate change increased and livelihoods improved.

Indicators:

1. Number of hectares of mangrove forests rehabilitated within the demonstrations sites.
2. Number of hectares of replanted mangroves that survive.
3. Report on mangrove restoration practices in response to climate change developed.

The Project Results Framework in Annex A includes these indicators as well as baseline information, mid-term and end-of-project targets, and means of verification. This information will be the main tool for assessing project implementation progress and whether results are being achieved.

A Project Inception Workshop will be held within the first two months of the project's start and will involve those represented in the project's management structure (see Part III of this CEO Endorsement), UNEP representatives and where appropriate/feasible regional technical policy and programme advisors as well as other stakeholders. Additionally, the project's Annual Work Plan (AWP) as well as a detailed M&E Strategy will be agreed upon during the Inception Workshop. The Inception Workshop Report should be prepared no more than one month after the Inception Workshop.

During implementation, project progress will be monitored as follows:

1. UNEP will develop a Supervision Plan during the project's inception phase, which will be distributed and presented to stakeholders during the Inception Workshop. This plan will include information regarding outcome monitoring, learning and sustainability, financial management and implementation monitoring.
2. An Annual Project Review/Project Implementation Review will be prepared to monitor progress made since the project's start as well as since the previous reporting period.
3. A Joint Programme Review will be undertaken at the end of each fiscal year at a mutually agreed upon time. This review will assess progress and ensure that the project remains in line with the overall Cambodia Climate Change Alliance (CCCA) programme agreement between the Royal Government of Cambodia (RGC) and the CCCA Development Partners (namely UNDP, SIDA, Danida and the EU).
4. The project will undergo an independent Mid-Term Evaluation mid-way through project implementation (likely early 2013), which will determine progress towards the achievement of outcomes and will identify course correction if necessary.
5. The project will also undergo an independent Final Evaluation three months prior to the project's end date. This evaluation will focus on the delivery of the project's results as initially planned (and as corrected during the Mid-Term Evaluation, if any such correction took place).
6. Period monitoring of the adaptation measures in the demonstrations sites will be conducted through visits to the sites undertaken by relevant staff from UNEP and the Project Steering Committee² (PSC) or the Programme Support Board (PSB) according to a mutually agreed upon schedule.

The M&E plan set out in the project document will be reviewed and revised where necessary during the project's inception phase to ensure that all stakeholders understand and are committed to their roles and responsibilities. The National Project Coordinator³ (NPC) will be responsible for: i) day to day monitoring of the project; ii) his/her implementation team; and iii) informing UNEP and the PSC of any delays or difficulties faced during project implementation in order to ensure that timely corrective measures are put into place.

A full draft M&E plan for the project is included in Section 6 of the project document and the M&E budget is included in Table 1 below.

Table 1. Indicative M&E work plan and corresponding budget.

Type of M&E activity	Responsible Parties	Budget US\$ Excluding project team staff time	Time frame
Inception workshop and report	<ul style="list-style-type: none"> ▪ NPC ▪ Assistant Coordinator ▪ UNEP Task Manager (TM) ▪ STA 	Indicative cost: 10,000	Within first two months of project start up
Measurement of means of verification of project results	<ul style="list-style-type: none"> ▪ UNEP TM, STA, Assistant Coordinator and NPC will oversee the hiring of specific studies and institutions, and delegate responsibilities to relevant team members. 	To be finalized in Inception Phase and Workshop.	Start, mid and end of project (during evaluation cycle) and annually when required.
Measurement of	<ul style="list-style-type: none"> ▪ Oversight by NPC, STA, 	To be determined as part of	Annually prior to

² Within the context of the CCCA, this committee will be referred to as the Component Steering Committee (CSC).

³ Within the context of the CCCA, this person will be referred to as the Coastal Component Coordinator (CCC).

means of verification for project progress on output and implementation	Assistant Coordinator and project team	the AWP's preparation.	PIR and to the definition of annual work plans
PIR	<ul style="list-style-type: none"> ▪ NPC ▪ Assistant Coordinator ▪ STA ▪ UNEP TM 	None	Annually
Periodic status/ progress reports	<ul style="list-style-type: none"> ▪ NPC ▪ STA ▪ Assistant Coordinator 	None	Quarterly
Mid-term evaluation	<ul style="list-style-type: none"> ▪ NPC ▪ STA ▪ UNEP TM ▪ External Consultant 	Indicative cost: 30,000	At the mid-point of project implementation.
Final evaluation	<ul style="list-style-type: none"> ▪ NPC ▪ Assistant Coordinator ▪ STA ▪ UNEP TM ▪ External Consultant 	Indicative cost: 35,000	At least three months before the end of project implementation
Project terminal report	<ul style="list-style-type: none"> ▪ NPC ▪ Assistant Coordinator ▪ STA ▪ UNEP TM 	None	At least three months before the end of the project
Audit	<ul style="list-style-type: none"> ▪ UNEP TM ▪ NPC 	Indicative cost per year: 2,500 (Total of 10,000)	Yearly
Visits to demonstration sites	<ul style="list-style-type: none"> ▪ UNEP ▪ NCCC representatives 	For GEF supported projects, paid from IA fees and operational budget	Yearly
Consultants	<ul style="list-style-type: none"> ▪ International M&E Expert ▪ National M&E Expert ▪ NPC ▪ STA 	International M&E Expert: 20,440 National M&E Expert: 6,000	At the mid-point of project implementation and at least three months before the end of project implementation
TOTAL indicative COST Excluding project team staff time and UNEP staff and travel expenses		Estimated to cost US\$ 111,440	

The project will undergo annual audits by an external auditor during the first quarter of each year. Responding to the queries raised by the auditors will be the responsibility of the CCC, which will also ensure that all relevant project-related reports are distributed to the auditors to aid the audit process.

PART II: PROJECT JUSTIFICATION

A. DESCRIBE THE PROJECT RATIONALE AND THE EXPECTED MEASURABLE ADAPTATION BENEFITS:

There are few long-term climate observations available for Cambodia, a deficit which is largely attributable to years of conflict within the country. As a result, it is difficult to determine significant and reliable trends in climate and thus make credible projections of climate change. Notwithstanding these problems, the following climate change projections have been made for Cambodia:

- an increase in mean annual rainfall across the country by 3 to 35% by 2100⁴ with the magnitude of change varying spatially and temporally (for example, lowland areas are likely to experience a greater increase in rainfall than in highlands);
- an increase in rainfall along the coast of 2 to 6% by 2050⁵;
- an increase in frequency and intensity of flooding events due to more frequent episodes of heavy rainfall⁶;
- an increase in mean annual temperatures of 0.3 to 0.6 °C by 2025⁷, of 0.7 to 2.7 °C by the 2060s and of 1.4 to 4.3 °C by the 2090s⁸;
- a substantial increase in the number of ‘hot’ days and nights⁹; and
- sea level rise (SLR) of 0.18 to 0.56 m¹⁰ by the 2090s.

Climate change will thus adversely impact communities, infrastructure and natural ecosystems within the Cambodian coastal zone by *inter alia*:

- increasing evapotranspiration rates and concomitantly reducing soil moisture levels (which will increase the severity of droughts when they occur);
- reducing agricultural production and thereby aggravating existing food security levels;
- reducing income streams;
- jeopardising community livelihoods;
- increasing the extent and incidence of saline intrusion, which will adversely impact agriculture in low-lying coastal areas as well as contaminate drinking water wells;
- increasing the distribution of vector-borne diseases (particularly malaria);
- resulting in the saltwater inundation of coastal infrastructure, agriculture, natural ecosystems and community areas following storms or during particularly high tidal activity, as a result of SLR in conjunction with the Bruun Rule¹¹ and
- altering the salinity of estuarine waters on which mangrove species depend, which may lead to the death of mangrove forests in certain areas.

These impacts will be compounded by baseline factors, such as the uncoordinated development that takes place within the coastal zone with little consideration of impacts on coastal ecosystems and the unsustainable harvesting of mangrove forests that occurs. Present coping strategies employed by community members to counter the effects of current climate variability are not necessarily suitable and are unlikely to allow communities to withstand future climate change impacts. Overall, climate change is likely to further reduce agricultural productivity, impact negatively on livelihoods and degrade productive and protective ecosystems; and coastal communities, district leaders, provincial leaders and national government presently lack the technical capacity, climate change knowledge, management capacity as well as the physical and financial resources to overcome and withstand the anticipated climate change impacts. This capacity deficit is attributable to: i) high poverty levels; ii) dependence on rain-fed agriculture; iii) weak

⁴ This prediction and that within the second bullet point is based on the global warming scenarios SRESA2 (reference) and SRESB1 (policy) and General Circulation Models (GCM) CCSR and CSIRO (INC, 2002).

⁵ INC, 2002.

⁶ INC, 2002 and the NAPA, 2006.

⁷ INC, 2002. Cambodia is presently preparing its Second National Communication to the UNFCCC but this has not yet been made available. The IPCC projects an increase in temperature of between 1.5 and 3.7 °C by 2100 for South-East Asia as a region.

⁸ UNDP Climate Change Country Profiles Cambodia C. McSweeney, M. New & G. Lizcanol. Available from: <http://country-profiles.geog.ox.ac.uk>.

⁹ UNDP Climate Change Country Profiles Cambodia C. McSweeney, M. New & G. Lizcanol. Available from: <http://country-profiles.geog.ox.ac.uk>.

¹⁰ UNDP Climate Change Country Profiles Cambodia McSweeney, M. New & G. Lizcanol. Available from: <http://country-profiles.geog.ox.ac.uk>. (Taken from the IPCC Working group I (*The Physical Science Basis*): Chapter 10 (Global Climate Projections) (Meehl *et al.*, 2007). Regional sea-level projections are estimated by applying regional adjustments (Fig 10.32, p813) to projected global mean sea-level rise from 14 AR4 models.) The range represents the results of three different models, namely the SRES B1 (0.18 to 0.43 m), SRES A1B (0.21 to 0.52 m) and SRES A2 (0.23 to 0.56 m).

¹¹ Brunn’s Rule describes the cross-shore response of a beach to sea level rise. According to this rule, one unit of SLR produces 50-100 units of water movement landwards thereby accelerating inundation and beach erosion. Available from: http://www.cmar.csiro.au/sealevel/sl_drives_short.html (accessed 25 June 2010).

enforcement of policies; iv) limited awareness regarding climate change impacts and adaptation; and v) limited capacity for integrated planning within the coastal zone.

The **objective** of the project is: “to reduce the vulnerability of coastal communities to the impacts of climate change by strengthening policy and science, and demonstrating targeted local interventions to increase ecosystem resilience”. The overall **goal** of the project is: “to reduce coastal vulnerability to climate change impacts on agricultural systems and natural ecosystems within the coastal zone.” This will be achieved through the realisation of the following outcomes:

1. Institutional capacity to assess climate change risks and integrate them into national development policies strengthened.
2. Adaptation planning in the coastal zone improved.
3. Vulnerability of productive systems to increased floods reduced.
4. Resilience of coastal buffers to climate change increased and livelihoods improved.

Following principles of Ecosystem-Based Adaptation (EBA), the project will work to increase the resilience of natural ecosystems, such as mangrove forests, along the coast (as well as their functioning as buffer systems) and reduce the vulnerability of coastal communities to climate change impacts and risks. To achieve this, the project will *inter alia* rehabilitate degraded mangrove forests, introduce alternative livelihoods, protect agricultural production systems and raise awareness regarding climate change, its impacts and appropriate adaptation mechanisms. As well as implementing on-the-ground investments in vulnerable areas, the project will create an enabling environment for effective adaptation in the coastal zone by providing policy advice and scientific tools for adaptation planning at the national and local levels. As such, the project will respond to the climate change impacts and climate variability adversely affecting the Cambodian coastal zone by following three mutually supportive components, namely: i) policy; ii) research (adaptation planning and risk assessments); and iii) demonstration of adaptation at the community level. Specific activities to be undertaken by the project within these components include: i) building adaptive capacity at the national, provincial and local levels to facilitate effective adaptation within the coastal zone; ii) integrating climate change considerations related to the coastal zone into national policy and plans; iii) strengthening climate change science related to the coastal zone; iv) improving local awareness related to climate change risks and adaptation within the coastal zone; v) developing a local-level participatory adaptation plan for the coastal zone through capacity building exercises involving all relevant national, provincial¹² and local stakeholders; vi) introducing adaptation measures to demonstrate successful adaptation at the local level; and vii) introducing alternative livelihoods to reduce the pressure placed on natural ecosystems and to improve income streams despite climate change conditions.

The project will be closely linked to and work in conjunction with the Cambodia Climate Change Alliance (CCCA) Coastal Component, which will serve as parallel co-financing for the project. The project and the CCCA Coastal Component will implement complementary activities within the coastal zone in order to improve adaptive capacity.

B. DESCRIBE THE CONSISTENCY OF THE PROJECT WITH NATIONAL/REGIONAL PRIORITIES/PLANS:

Cambodia ratified the United Nations Framework Convention on Climate Change (UNFCCC) on 18 December 1995 and accepted the Kyoto Protocol on 22 August 2002. Cambodia’s INC to the UNFCCC was submitted in October 2002 and the preparation of the Second National Communication (SNC) began in January 2007 and should be finalised by the end of 2010. The Royal Government of Cambodia (RGC) has taken a firm stance to support the Kyoto Protocol by indicating their commitment to addressing climate change risks.

The project’s design is centred around contributing to meeting three of the urgent and immediate needs as identified through the Cambodian National Adaptation Programme of Action (NAPA) process (2006), namely: “rehabilitation of coastal protection infrastructure” (high priority project 3G) and “community mangrove restoration and sustainable use of natural resources” (high priority project 4B), and contribute to adaptation priority “assessment of needs for setbacks, vegetation buffers and protection structures in coastal zones” (low priority project 2).

¹² Provincial stakeholders to be engaged with during the project will include those from the four coastal provinces, Kep, Sihanoukville, Kampot and Koh Kong.

The project will play an important role in achieving the goals of the National Strategic Development Plan (2006-2010), which include: achieving national economic growth; achieving poverty reduction; and preserving, conserving and using the country's natural resources sustainably. The project will contribute to the achievement of these goals through *inter alia* protecting agricultural production, rehabilitating ecosystems, raising awareness, reducing pressure placed on natural ecosystems and introducing alternative livelihoods.

Additionally, the RGC is promoting the contribution of the forestry sector (which includes mangrove forests) to poverty reduction by strengthening community forestry. The RGC recognises joint priorities among major national institutions and external stakeholders in alliance with local government as the optimal mechanism for rehabilitation of mangroves and forests¹³. The project will contribute directly to this government priority through the rehabilitation of degraded mangrove forests in collaboration with local government and communities, whilst also raising awareness regarding the need to rehabilitate degraded mangrove forests.

The Cambodian National Biodiversity Strategy and Action Plan points clearly to ensuring the protection of mangrove forests and coastal zones in general as well as to facilitating community participation in coastal resource planning and management, mangrove reforestation, and preparing and implementing management plans (including land use/zoning for mangrove areas). All of these aspects are central to the project, making it well aligned with the National Biodiversity Strategy and Action Plan. Specifically, the project will contribute to this plan by: i) directly rehabilitating vulnerable areas of mangrove forest in the demonstration sites; ii) protecting areas within the demonstration sites that are particularly susceptible to storm-inflicted erosion; and iii) facilitating community participation in coastal resource planning and management as well as mangrove rehabilitation.

Cambodia's Strategy for Agriculture and Water (2006-2010) aims to contribute to reducing poverty, improving food security and promoting economic growth by: i) enhancing agricultural productivity and diversification; and ii) improving water resources development and management. These aims will be achieved principally by: i) more efficient use and management of water and land; ii) increased agricultural productivity; and iii) institutional capacity building. The activities included in the project thus link closely to the stated aims of this strategy.

Additionally, the project will contribute to the achievement of Cambodian Millennium Development Goal (CMDG¹⁴) 7 'ensuring environmental sustainability' and 1 'eradicate extreme poverty and hunger' by: i) improving the resilience of natural coastal buffering systems (e.g. mangrove forests) to climate change impacts; ii) promoting the sustainable use of coastal resources; iii) improving agricultural production in the face of climate change; and iii) improving community livelihoods under climate change conditions. In so doing, the project will also contribute towards the achievement of the following UNDAF Outcome 1: "by 2010, achieve significant progress towards effective participation, accountability and integrity of government in decision making and policy implementation for the full realisation of human rights and meeting the CMDGs"¹⁵. At present, both of the abovementioned CMDGs are considered to be off-track¹⁶. To date, Cambodia has not yet achieved any of its nine CMDGs.

The project will also contribute to UNDAF Outcome 2 "by 2010, agriculture and rural development activities have improved livelihoods and food security, as well as reinforcing the economic and social rights of the most vulnerable in targeted rural areas"¹⁷ by improving livelihoods and agricultural activities in the demonstration sites in the face of climate change.

¹³ Land cover along within the coastal zone is predominately forest (e.g. dense and deciduous mosaic) but forest cover within the coastal zone has declined from 84% to 71% between 1993 and 2005 largely as a result of clearing to aid agricultural expansion (Forest Administration, Forest Statistics, Cambodia, 2002 and 2004. GIS Unit, MoE, 2005).

¹⁴ The RGC recognized unexploded ordinance (UXO), victim assistance and the number of live mines in the country as a significant hindrance to development. As such, the RGC added a ninth MDG to its list, namely "De-mining, UXO and victim assistance". In addition, the CMDGs set up monitoring indicators for environmental sustainability with the focus on people's participation in the management of natural resources.

¹⁵ United Nations Development Assistance Framework (UNDAF), Cambodia 2006 – 2010.

¹⁶ United Nations Development Goals, Kingdom of Cambodia. Available at: <http://www.un.org.kh/undp/CMDGs/What-are-the-Cambodia-Millennium-Development-Goals.html>.

¹⁷ United Nations Development Assistance Framework (UNDAF), Cambodia 2006 – 2010.

In addition, the project will contribute to the achievement of the objectives of a number of important Cambodian policies, including:

- The National Poverty Reduction Strategy (NPRS, 2002), by contributing to the following of the strategy's priority poverty reduction actions within the coastal zone¹⁸: i) improving rural livelihoods; ii) improving capabilities; iii) strengthening institutions and improving governance; iv) reducing vulnerability and strengthening social inclusion; and v) promoting gender equality.
- The Agricultural Sector Strategic Development Plan (2006 – 2010), by contributing to the plan's overall goal of "poverty reduction and economic growth through enhancement of agricultural sector development" through improving the protection of agricultural production within the coastal zone to climate change impacts and by introducing alternative livelihoods and thereby improving income streams.
- The National Programme for Sub-National Democratic Development (NP-SNDD), by: i) strengthening local councils (e.g. Commune and District Councils) and committees (e.g. FWUCs) through their inclusion in capacity building activities and in the identification of additional adaptation measures, and in their participation as management committees for the adaptation measures; ii) incorporating climate change considerations in the Commune and District Development Plans (including Investment Plans) for coastal communes following extensive collaboration with Commune and District Councils; iii) involving sub-national (provincial) institutions in capacity building and dissemination of lessons learned; iv) alleviating poverty in the demonstration sites through the reduction of vulnerability to climate change impacts as well as through the improvement of livelihoods and agricultural production despite climate change impacts; and v) involving provincial institutions in coastal climate change adaptation planning.
- The National Water Resources Policy (NWRP, 2004) by: i) strengthening the FWUCs in Prey Nup through training and employing them as management committees overseeing adaptation measures; ii) introducing and raising awareness regarding climate-resilient irrigation techniques; iii) improving access to safe water for drinking and irrigation purposes through the distribution of water storage technologies in the demonstration sites; and iv) strengthening existing flood management structures (i.e. dykes).

C. DESCRIBE THE CONSISTENCY OF THE PROJECT WITH LDCF ELIGIBILITY CRITERIA AND PRIORITIES:

The LDCF was created with the objective of funding urgent and immediate adaptation needs in the Least Developed Countries as identified in their NAPAs. The project conforms to the LDCF's eligibility criteria, namely: i) undertaking a country driven and participatory approach; ii) implementing the NAPA priorities; iii) supporting a "learning by doing" approach; iv) undertaking a multi-disciplinary approach; v) promoting gender equality; and vi) undertaking a complementary approach. This is elaborated on below:

Country drivenness and undertaking a participatory approach: The information included in Section B above indicates country drivenness. Activities to be undertaken by the project were selected through numerous stakeholder consultations and thus are in line with country priorities. Specifically, these consultations included meetings with eight key ministries and their NCCC members, eight development partners, four province governors and provincial departments in two provinces, two community workshops and a national consultation seminar. The consultations took place in the period from late January to mid-June 2010, and the outcomes are presented in Appendix 19 of the project document. The following ministries and agencies were met with between 25 January and 12 February 2010:

- Ministry of Agriculture, Forestry and Fisheries (MAFF);
- Ministry of Industry, Mines and Energy (MIME);
- Ministry of Land Management, Urban Planning and Construction (MLMUPC);
- Ministry of Environment (MoE);
- Ministry of Health (MoH);
- Ministry of Public Works and Transportation (MPWT);
- Ministry of Rural Development (MRD);
- Ministry of Water Resources and Meteorology (MoWRAM);
- National Committee for Disaster Management (NCDM);

¹⁸ These actions are elaborated upon in the NPRS (2002).

- Danida;
- The Delegation of the European Commission;
- SIDA;
- United Nations Development Programme (UNDP);
- Asian Development Bank (ADB);
- French Development Agency (AFD);
- Food and Agricultural Organisation (FAO); and
- World Health Organisation (WHO).

Additionally, the following meetings and workshops were held during the PPG Phase (see Appendix 19 unless otherwise specified):

- 12 February 2010: Project debriefing with CCCA partners¹⁹.
- 12 February 2010: Project debriefing with MoE.
- 28 February 2010: Community workshop in Koh Kong Province.
- 01 March 2010: Community workshop in Sihanoukville Province.
- 16 March 2010: National-level workshop.
- 12 June 2010: Meeting with commune leaders in Prey Nup to facilitate site selection (see Appendix 18).
- 13 June 2010: Meeting with commune leaders in Peam Krasaop/Koh Kong to facilitate site selection (see Appendix 18).

Implement NAPA priorities: the project will implement the following high priority adaptation projects identified during the Cambodian NAPA process: 3G ‘rehabilitation of coastal protection infrastructure’ and 4B ‘community mangrove restoration and sustainable use of natural resources’. Additionally, the project will contribute to the achievement of project 2 ‘assessment of needs for setbacks, vegetation buffers and protection structures in coastal zones’, a low priority adaptation project identified through the NAPA process.

Supporting a “learning by doing” approach: the project will support a “learning by doing” approach by building capacity at national and provincial levels, which will allow for the identification of additional vulnerable areas and relevant adaptation measures. As a result, successful adaptation measures are more likely to be upscaled and replicated in other coastal areas of Cambodia. Additionally, the successful adaptation measures piloted by the project will be used to inform national and sub-national development plans and policies. Furthermore, the project is designed to complement other ongoing and planned projects and programmes without duplicating them.

Multi-disciplinary approach: as mentioned above, the project includes three mutually supportive components, namely: i) providing policy advice at the national level to strengthen adaptive capacity; ii) strengthening climate change-related science in Cambodia (thereby improving scientific tools for effective adaptation planning); and iii) demonstrating effective on-the-ground adaptation at the local scale. Within each component, the project will undertake a number of activities to facilitate adaptation within the coastal zone.

Gender equality: project outcomes will contribute to an understanding of how adaptation responses can be designed to strengthen gender equality. Efforts to promote gender equality will also be integrated in all aspects of the project’s activities and management. This will be achieved through the development and use of gender-disaggregated indicators where relevant (see the Project Results Framework, Annex A), as well as through the conscious integration of women in community-based activities, including training, and through the introduction of alternative livelihoods.

Complementary approach: In order to build upon existing plans and avoid the duplication of efforts, the project will work in conjunction with relevant ongoing projects in Cambodia (see Section D below).

D. OUTLINE THE COORDINATION WITH OTHER RELATED INITIATIVES:

¹⁹ The CCCA partners are: SIDA, UNDP, EU and Danida.

The project will establish linkages with ongoing relevant projects/programmes in Cambodia, as well as benefit from the capacity and experience developed through projects or programmes which have ended. A full list of relevant projects is included in Section 2.8 of the project document. Of particular relevance, however, are the following projects:

- The Danida-funded project ‘Environmental Management within the coastal zone’²⁰, which was underway between 1997 and 2008. The project will build heavily on the experiences and lessons learned regarding capacity development during the implementation of the Danida-funded project over the past decade and will make use of the detailed information collected and analysed through the Danida project when assessing climate change vulnerability and risk assessment within the coastal zone. Furthermore, the lessons learned from the Danida project will be used by the project, for example, regarding how to achieve cost-effectiveness of the capacity building activities.
- The UNDP-GEF project ‘Climate-resilient water management and agricultural practices’, which is the first NAPA implementation project. The UNEP-GEF project is currently underway in its two target districts, Siem Reap and Battambang. Although the UNDP-GEF project is not operating near the coastal zone, links between the two projects will be established and all efforts will be made to coordinate with this project to ensure effective implementation of the NAPA priorities, and to exchange technology and knowledge on climate change adaptation in the agriculture sector. In this way, the project will avoid duplicating activities (e.g. awareness raising or capacity building at the national level) and will establish synergies with the UNDP-GEF project. In order to establish links and exchange lessons, a communication mechanism between the project and the UNDP-GEF project will be established whereby practical and informal meetings will be held at least every six months between the two implementation teams to share progress on-the-ground, learn lessons and explore the possibilities of undertaking joint activities (e.g. awareness raising).
- The Natural Resource Management and Livelihoods Programme, the joint programme between the RGC, Danida and DFID, which has been implemented since 2006 and is currently in the final stage of its first phase. This programme focuses on investment in rural people of Cambodia (i.e. those particularly vulnerable to adverse weather conditions and natural disasters) who are under increasing pressure to sustain their livelihoods and access and use natural resources. The project will make use of the land use plans developed by the programme when the project undertakes its vulnerability mapping and land use planning activities. The project implementation team will work closely with the Natural Resources Management and Livelihoods Programme implementation team to avoid duplication of efforts, learn valuable lessons and encourage synergies.
- The National Integrated Strategy of Coastal Zone and Master Plan of Sihanoukville Province for Sustainable Development, which was supported by the Japanese International Cooperation Agency (JICA) and implemented through the MLMUPC. Planning maps for Sihanoukville Province were generated during the development of this strategy. These will be valuable for the project and, in particular, the scenario development for SLR will be applied in zoning plans. For this reason, this master plan will be consulted during the vulnerability assessments undertaken in Sihanoukville Province by the project.
- The Participatory Management of Mangrove Resources (PMMR) project, which was implemented by the MoE and the International Research Centre-Canada (IDRC). This project focuses on promoting sustainable community-based management of natural resources and began in Peam Krasaop’s Wildlife Sanctuary in 1990 with great success. The experience obtained and the lessons learned from the PMMR project will be built upon and used by the project, particularly when establishing work relations with the local communities in the mangrove rehabilitation demonstration sites.
- The Participatory Irrigation Management and Development (PIMD) programme, which is being implemented by the Ministry of Water Resources and Meteorology (MoWRAM). The PIMD programme is seeking to devolve responsibility for all aspects of scheme operations to the Farmer Water Use Communities (FWUCs), which constitute the focal institutional mechanism of PIMD. The communities in Prey Nup, one of project’s demonstration sites, have established a FWUC and the experience from PIMD activities will be used in the planning of the adaptation measures in this area. Additionally, the FWUC in Prey Nup will be used as the management committee responsible for adaptation measures.

²⁰ The executive summary from Completion Report of Environmental Management within the coastal zone, Phase 3, is included in Appendix 16. Further information can be found in: Danida/MoE 2008. Environmental Management of the Coastal Zone, Cambodia – Phase 3, Completion Report and Lessons learned from the Natural Resource and Environment Programme, Danida supported NRE Programme 2001-2006, Royal Danish Embassy, Danida Development Cooperation Section, Cambodia, December 2006. 12

- The Regional Climate Change Adaptation Knowledge Platform for Asia and Asia Pacific Adaptation Network (hereafter referred to as the Adaptation Knowledge Platform), which has been developed to serve as an effective information sharing mechanism for climate change adaptation-related projects and information in South and South-East Asian countries. In so doing, the Adaptation Knowledge Platform supports research and capacity building, policy-making and information sharing and thereby facilitates climate change adaptation at local, regional and levels to strengthen adaptive capacity of countries in the region, while working with existing and emerging networks and initiatives. The project will compile and document lessons learned through the implementation of its activities, and disseminate them in the appropriate format to the Adaptation Knowledge Platform.

The following ongoing initiatives will serve as co-financing for the project:

- The Cambodia Climate Change Alliance (CCCA), which is receiving funds from European Union, Sida, Danida and UNDP, and was developed in order to address climate change and disaster risks in Cambodia. The overall objective of the CCCA is that: *Climate Change activities in Cambodia are nationally owned, led and aligned with Cambodia's development priorities, and are effectively coordinated and implemented.* The CCCA is the leading climate change facility in Cambodia and has US\$ 8.5 million committed, of which US\$ 2.2 million has been committed as parallel co-financing for the project. CCCA funding will be allocated predominantly towards on-the-ground adaptation measures (e.g. improving the resilience of coastal buffer systems and reducing the vulnerability of coastal communities to climate change impacts) and climate change and/or adaptation-related capacity building at the local level.
- MoWRAM's project P.90 'Rehabilitation of Prey Nup Reservoir', which will serve as baseline co-financing to the value of US\$ 1.4 million.
- MAFF's project 1D 'Forestry reforms- Proper Management of Mangrove Forest Resources' which will contribute US\$ 400,000 of baseline co-financing to the project.

E. DESCRIBE ADDITIONAL COST REASONING:

The anticipated costs associated with climate change-induced damage within the Cambodian coastal zone are, without effective adaptation, likely to increase over time. In anticipation of the likely impacts, the project will contribute towards reducing these anticipated costs by implementing priority NAPA interventions as well as other appropriate adaptation interventions. Additionally, without the project, it is unlikely that communities within the coastal zone will be able to withstand or adapt to the threats climate change and climate variability pose to their livelihoods and to the coastal zone in general. The implementation of risk reduction measures identified by the project for particularly vulnerable communities/areas within the coastal zone will contribute towards improving current coping strategies employed by vulnerable coastal communities to climate variability and change and thereby enhance their preparedness and resilience towards adverse climate change impacts. Overall, the project aims to capacitate both public and private stakeholders in order to reduce their vulnerability to climate change impacts within the coastal zone.

Specifically, the project will: i) strengthen national policy, regulatory and institutional coordination at the national level for managing climate change adaptation, and provide scientific tools for proper adaptation planning (Outcomes 1 and 2); and ii) demonstrate effective measures to improve the resilience of coastal communities, productive systems and coastal ecosystems at the local level to withstand adverse climate change impacts (Outcomes 3 and 4). These aims will be realised through the achievement of the following outcomes:

Outcome 1: Institutional capacity to assess climate change risks and integrate them into national development policies strengthened.

Coordination of line ministries on climate change measures is lacking at the national level and capacity to identify, design and implement effective adaptation measures is presently insufficient. Project resources will also be allocated towards strengthening inter-sectoral coordination at the national level and improving institutional capacity to implement effective adaptation measures within the coastal zone. In particular, the project will improve on the baseline situation by encouraging and enabling data-sharing between ministries and other institutions through the establishment of a data network. In so doing, the project will facilitate the gathering of a full complement of climate-related data to aid preparedness, climate risk assessments and for the development/assessment of additional adaptation measures. Additionally, project resources will be allocated towards:

- strengthening awareness and capacity within relevant national-level institutions related to climate change impacts and adaptation within the coastal zone;
- improving climate change-related science regarding impacts and scenarios for the coastal zone; and
- incorporating climate change considerations into national development plans and policy to develop an enabling environment at the national level.

Overall, activities undertaken as part of Outcome 1 will improve institutional, technical and technological capacity at the national level to implement integrated natural resources management within the coastal zone in the context of a changing climate. Without the project's proposed intervention, it is unlikely that concrete actions will be taken to integrate climate change adaptation in coastal zone management, as none are foreseen at present. Resources will also be allocated towards undertaking climate risk modelling for the coastal zone, which can be used by the relevant line ministries and local communities to provide budget allocations for the necessary climate change adaptation measures to be implemented following evidence-based planning.

In the absence of the outcome, the lack of inter-sectoral coordination regarding climate change adaptation will continue to the detriment of vulnerable sectors and communities. Additionally, capacity to identify and implement adaptation measures within the coastal zone at the national level will remain insufficient and national policies and plans will not benefit from the inclusion of identified climate change risks on the coastal zone. Furthermore, monitoring of climate change impacts within the coastal zone will not be undertaken.

Co-financing for Outcome 1:

CCCA: US\$ 315,000
MAFF: US\$ 200,000.

LDCF Project Grant Requested: US\$ 485,400.

Outcome 2: Adaptation planning in the coastal zone improved.

To date, extensive development has been carried out within the Cambodian coastal zone. However, such development has been implemented without consideration of climate change impacts and has placed local communities in highly vulnerable areas without the necessary tools or systems to effectively adapt to predicted climate change impacts. Furthermore, coastal development takes place without consideration of setback lines and zoning, thereby rendering the coastal zone (including infrastructure within the coastal zone) more vulnerable to storm surges and SLR, which are likely to be exacerbated by climate change. Additionally, current setback lines and zoning arrangements were determined in the absence of a climate change risk assessment and are thus unlikely to protect coastal development from future climate change risks. In the absence of this outcome, the communities within the Cambodian coastal zone would experience continued uncoordinated planning and development without due attention given to the consequences of the concomitant increase in the vulnerability of coastal communities, infrastructure and ecosystems.

To improve the baseline situation, the project will allocate resources to preparing and building capacity in the relevant provincial- and district-level institutions and to producing detailed vulnerability maps for climate change planning purposes within the coastal zone. Activities undertaken as part of Outcome 2 will contribute towards the establishment of a climate change-resilient coastal development regime that will be able to withstand anticipated increased frequency of climate-induced coastal inundations and storm surges through the provision of setback lines and zones based on coastal vulnerability and predicted SLR. It is expected that the achievements and approach applied in the coastal zone could be replicated in other parts of Cambodia, using the established capacity developed during the project's implementation.

In the absence of this outcome, vulnerability mapping within the coastal zone will be lacking, which will hinder the efficacy of future development plans and future adaptation endeavours. Additionally, capacity at the provincial and local level to identify and implement adaptation measures will remain insufficient in the absence of the project's adaptive capacity-building efforts. Development within the coastal zone will remain uncoordinated and be undertaken without respect for appropriate zoning and land use planning, given climate change impacts, which will continue to₁₄

lead to the degradation of natural coastal buffering systems. Importantly, in the absence of the outcome, an adaptation plan to coordinate adaptation and guide future funding within the coastal zone will not exist.

Co-financing for Outcome 2:

CCCA: US\$ 459,600.

LDCF Project Grant Requested: US\$ 385,736.

Outcome 3: Vulnerability of productive systems to increased floods reduced.

Presently, rice production within the coastal zone is inadequate to meet local demand. At the same time, rice production is being adversely affected by current climate variability (including floods and drought). Although significant development assistance efforts have been undertaken to increase production and provide protection measures that alleviate flooding risks, such as dykes, these are unlikely to withstand future climate change impacts as the design of such measures did not consider factors such as SLR and increased cyclonic activity as a result of climate change. The present height of many dykes, for example, is likely to be too low to effectively protect agricultural fields from increased flooding risks resulting from climate change.

Outcome 3 will thus seek to address the climate change-induced increased risk of flooding (both as a result of increased variability of rainfall and as a result of increased storm surges and SLR) on agricultural productive systems in communities identified as being particularly vulnerable to climate change. To achieve this, the project will work closely with the affected communities in vulnerable areas to build awareness and resilience regarding anticipated climate change impacts. Additionally, adaptation measures will be carried out in the demonstration sites to rehabilitate existing dykes beyond baseline measures to counter the increased risk of flooding. It is expected that the interest and willingness of the local communities to participate actively in the adaptation measures will be further ensured if they are able to secure a better livelihood as part of the project's adaptation measures. Hence, resources will also be allocated towards identifying and piloting alternative livelihoods, as well as to improving water supply in areas where it is threatened by increased saline intrusion. The demonstration component of this outcome will provide significant and tangible benefits for the coastal communities, which is likely to result in replication in other areas experiencing similar impacts.

In the absence of this outcome, agricultural productivity within the coastal zone will continue to be hampered by climate change and variability. This will be the case largely as a result of the limited capacity of provincial- and district-level stakeholders to act against climate change impacts and the limited understanding regarding climate change and adaptation of local communities. Levels of poverty and food insecurity will continue to increase as current community coping strategies are largely inappropriate, particularly given predicted climate change impacts.

Co-financing for Outcome 3:

CCCA: US\$ 479,700.

MoWRAM: US\$ 1,400,000.

LDCF Project Grant Requested: US\$ 336,104.

Outcome 4: Resilience of coastal buffers to climate change increased and livelihoods improved.

Currently, local communities and developers are exerting considerable pressure on natural ecosystems within the coastal zone. Mangrove forests, for example, are cut down illegally within the Cambodian coastal zone for use as firewood and/or for charcoal production and are being cleared to accommodate intensive shrimp aquaculture and/or salt pans. Coastal development is also infringing on mangrove forests, which is contributing to their further degradation. Mangrove forests are also at risk of dying as a result of SLR, which will alter the salinity of the estuarine waters. Amongst other benefits, intact mangrove forests are particularly important within the coastal zone due to their ability to function as effective buffers against tropical cyclones, strong winds and storm surges. Degraded mangrove forests are thus more sensitive to and less effective at mitigating tropical cyclones, strong winds and storm surges. Thus,¹⁵

rehabilitating degraded mangrove forests is of critical importance for protecting local communities and productive systems against the predicted increase in tropical cyclones, strong winds, SLR and storm surges due to climate change. Resources will be allocated towards rehabilitating degraded mangrove forests, assessing the monetary benefits of intact mangrove forests and to educating coastal communities on the benefits associated with intact mangrove forests. Additionally, alternative livelihoods will be sought and piloted for the communities currently reliant on the mangrove forests as an income stream.

Replanting efforts will be undertaken following research into appropriate species and planting strategies given anticipated climate change impacts. Additionally, the planting strategy will be monitored during the project lifetime in order to inform future adaptation efforts in the mangrove forests.

In the absence of this outcome, degradation of key coastal climate buffers (such as mangrove forests) and unsustainable exploitation of these systems at the demonstration sites will continue unabated as few alternatives exist for local populations. This will increase environmental vulnerability as well as potentially hamper another critical livelihood, namely fishing, as mangrove forests provide protective breeding grounds for numerous high-value fish species.

Co-financing for Outcome 4:

CCCA: US\$ 640,700.

MAFF: US\$ 200,000.

LDCF Project Grant Requested: US\$ 198,880.

F. INDICATE THE RISK THAT MIGHT PREVENT THE PROJECT OBJECTIVE(S) FROM BEING ACHIEVED AND OUTLINE RISK MITIGATION MEASURES:

Risks that may prevent the project from achieving its objectives have been identified and are summarized in the table below, as follows:

Table 2. Risk log for the project with proposed mitigation measures.

#	Description of the risk	Potential consequence	Countermeasures / Management response	Type (Risk category)	Probability & Impact (1-5)
1	Institutions do not allow for inter-institutional data sharing, planning and implementation of actions for climate change adaptation measures.	Will hamper the effectiveness of the data network and thus limits the identification of appropriate adaptation measures.	Clear commitment from all relevant ministries/departments regarding data collection and distribution. Participatory stakeholder consultations have been undertaken to identify and clarify expectations and responsibilities and additional consultations will be undertaken during project implementation.	Political and organisational	P=2 I=3

2	Limited gain in livelihood related to agricultural protection measures and/or mangrove rehabilitation might reduce community participation.	Will hamper identification of additional adaptation measures and reduce community participation and acceptance of project activities.	Involving communities in selection of supporting practices and development of local ownership. The identification and piloting of alternative livelihoods is also a critical part of the project's activities, and these will ensure and demonstrate improved livelihoods despite climate change impacts.	Strategic, organisational and environmental	P=3 I=2
3	Extreme climate events such as floods and droughts could disrupt project activities and/or damage ecosystems and infrastructure.	May limit the demonstrability of implemented adaptation measures.	Coordination will be undertaken with partners such as NCDM for disaster response in order to ensure that relief interventions are also directed towards demonstration sites impacted by any droughts or floods.	Environmental	P=2 I=4
4	Competing activities for land use could cause conflict in relation to the implementation of adaptation measures.	Will hinder the implementation of identified adaptation measures.	The project will plan interventions in close collaboration with local communities to avoid conflicts of interest.	Strategic and political	P=2 I=3
5	Limited activity of government staff due to the salary supplement problem in Cambodia, which has not yet been clarified between government and development partners.	Will limit the involvement and support provided by government staff and affect project management.	This is outside the project's control but it is understood that a solution will soon be reached between government and development partners.	Political and organisational	P=3 I=4
6	Lack of commitment from communities.	Threat to implementation and success of project activities.	The project will avoid a 'top down' approach and seek to create community ownership of all pilot interventions through participatory planning.	Strategic	P=1 I=3
7	Adaptation measures implemented are not found to be cost effective.	Potential for up scaling reduced.	Cost-effectiveness will be a core principle in the implementation of adaptation measures and those measures identified during the PPG Phase were found to be cost-effective based on preliminary information. Detailed information will be recorded regarding cost effectiveness, which will be of use to future adaptation endeavours and will be widely disseminated.	Strategic	P=2 I=2

8.	Activities financed by CCCA fail or CCCA-funded project staff does not contribute as required.	Potential for upscaling reduced and may reduce the scale of the project. Reporting may be affected.	The risk of such situations is minimal given the CCCA Coastal Component implementation team's accountability to the four CCCA donor partners, namely SIDA, Danida, EU and UNDP. In addition, the project will engage in continual dialogue with the CCCA donor partners to mitigate these risks.	Strategic	P=1 I=3
9.	Mangroves replanted by the project are cut down by communities/	Hinder the success of the project's activities under Outcome 4.	Community involvement ('bottom up' approach) and awareness raising are likely to prevent this risk. The project will also keep an eye out for the cause of the mangrove cutting.	Strategic	P=2 I=2

G. EXPLAIN HOW COST-EFFECTIVENESS IS REFLECTED IN THE PROJECT DESIGN:

Cost information was determined for the on-the-ground adaptation measures identified following the analyses undertaken during the PPG Phase and, based on this, the activities were deemed cost-effective (details included in Appendix 18 and the budget notes within Appendix 1 of the project document). The effectiveness of these activities in increasing resilience to climate change will be tested and measured during the course of the project. This will involve undertaking an economic analysis and performing cost-benefit analyses to ascertain whether each activity is an economically viable option given predicted climate change impacts. The most successful activities will be prioritised for up-scaling to neighbouring communes/districts and provinces within the coastal zone and details regarding their implementation and the subsequent lessons learned will be disseminated widely at workshops/training events undertaken by the project at the national and local level. Project cost-effectiveness of the on-the-ground adaptation measures will also be ensured through the identification and introduction of effective alternative livelihoods for vulnerable communities, which will reduce the pressure placed on natural coastal buffering systems, such as mangrove forests.

Additionally, the project will ensure a cost-effective approach by building upon the last decade of work undertaken within the Cambodian coastal zone and specifically by building upon the capacity that was developed as a result of this work. Lessons will also be taken from previous work within the coastal zone (for example from the Danida project, see Section D above) to follow successful methods and avoid pitfalls.

The technical and financial support provided to the Commune Councils and FWUCs within the demonstration sites to act as management committees, which is an integral component of the proposed adaptation measures, will ensure capacity and ownership is developed within the communities. This will ensure cost-effectiveness in terms of monitoring, operating and maintaining of the activities and will thus enhance sustainability beyond the project lifespan.

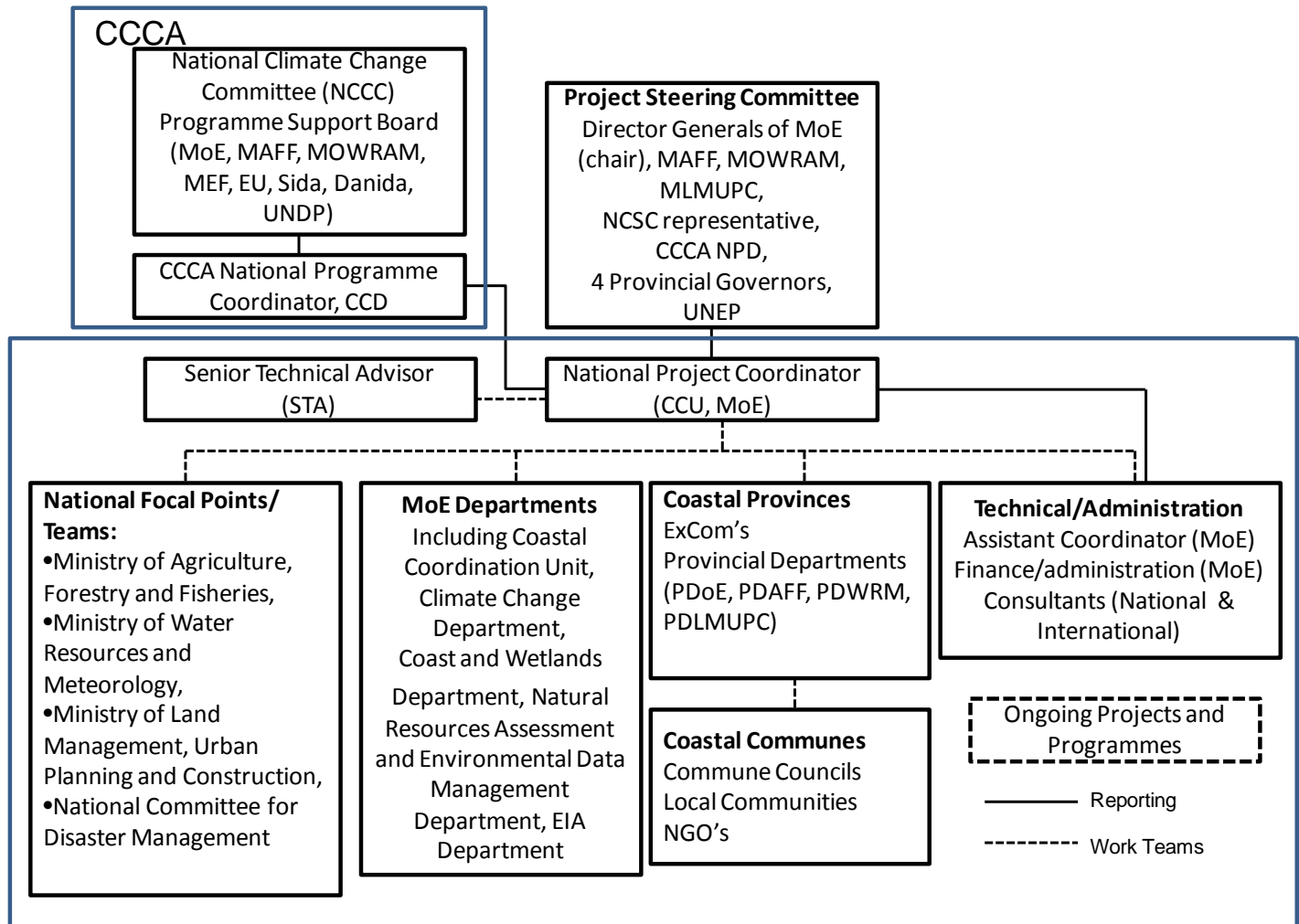
The approach taken for the development of this project has also sought to build on linkages with and incorporate climate change considerations into national policies and strategies, which is expected to generate multiple benefits nationally. Each of the four outcomes is expected to build on the activities, outputs and outcomes of the others: for example, the long-term sustainability of the on-the-ground adaptation measures (i.e. protecting agricultural systems and improving natural coastal buffer systems) (Outcomes 3 and 4) will be supported by both the project's capacity building efforts (Outcome 1) and the detailed adaptation planning conducted by the project (Outcome 2). By linking the outcomes in this way, the project presents the least costly means of achieving rapid benefits.

Furthermore, Outcome 1 will ensure that climate change and adaptation considerations are integrated into relevant

national and coastal development plans and policies and are therefore replicated and sustained through the implementation of those policies, which will also contribute to cost-effectiveness of the project.

PART III: INSTITUTIONAL COORDINATION AND SUPPORT

A. PROJECT IMPLEMENTATION ARRANGEMENT:



UNEP will be the project’s Implementing Agency (IA) and will provide technical backstopping. The MoE will serve as the project’s Executing Agency (EA). The project will also report to the National Climate Change Committee (NCCC) to ensure national ownership of the project. The NCCC is the government-designated body for climate change coordination in Cambodia.

The MoE will appoint a full-time National Project Coordinator (NPC) who will work under the CCCA National Programme Coordinator. The NPC will oversee overall project management and ensure that the project is managed in accordance with approved work plans and budgets and UNEP and GEF protocols. The NPC will be supported by a full-time Assistant Coordinator who will assist the NPC in managing the project’s activities. The Assistant Coordinator will also act as a liaison between the technical and administration staff and the NPC.

A Senior Technical Advisor (STA) will be appointed to provide guidance and ensure technical soundness of the project. The STA will advise the NPC and ensure strategic strengthening of the project at the national and provincial levels. In so doing, the STA will strengthen the technical capacity of those responsible for climate change adaptation and involved in the project at the national level. This will be achieved through, for example, ‘on the job’ training and relating experiences and good practices from the STA’s own experiences. Support provided by the STA is likely to be reduced

over the project's lifetime as in-country technical capacity is developed in order to ensure the sustainability of project activities.

National and international consultants will be hired for specific project activities where necessary, with emphasis on building in-country capacity (see details regarding the consultants in Annex C). As such, international consultants will only be hired for specialized tasks where insufficient capacity is available among government staff or national consultants. In addition, an administration/finance assistant will be employed.

The project will be based within the Coastal Coordination Unit (CCU), which is situated within the MoE. The NPC will be the director of the CCU. The CCU has been the core unit supported through Danida's development efforts within Cambodia, and has become increasingly responsible for the implementation of projects along the coast. During the project's implementation, the CCU will work closely with relevant ministries and departments (including the Climate Change Department, CCD) whilst the inter-sectoral working groups (which will comprise staff from relevant ministries, provincial departments as well as District and Commune Councils) will work towards achieving the outcomes.

A Project Steering Committee (PSC) will be established for the project, comprising senior technical representatives (Director Generals) from the key ministries (MoE, MAFF, MoWRAM and MLMUPC), a representative from the National Coastal Steering Committee (NCSC), the Governors²¹ of the coastal provinces (Kampot, Koh Kong, Kep and Sihanoukville), the CCCA National Programme Director (NPD) (or his alternate) and a representative from UNEP. The PSC will steer the project implementation process and any problems encountered will be discussed during the regular meetings (every six months throughout the project implementation with additional meetings held as and when necessary) and/or *ad hoc* sessions. The PSC will approve annual work plans and procurement plans, and review project periodical reports as well as any deviations from the approved plans. PSC members will facilitate the implementation of the project activities in their respective agencies, ensure that activities are implemented in a timely manner and facilitate the integration of project activities into existing programmes and practices. In the event that changes to the project's Results Framework (see Annex A), which will impact on the delivery of project outcomes, are required, UNEP as well as the CCCA PSB will be advised. Similarly, if implementation progress is such that the project outcomes are unlikely to be delivered then UNEP and the CCCA PSB must be advised well in advance. The NPC will serve as secretary of the PSC.

In order to ensure UNEP's ultimate accountability for the project results, the PSC's decisions will be made in accordance with standards that ensure management for development results, best value for money, fairness, integrity, transparency and effective international competition. If consensus cannot be reached within the PSC, the final decision shall rest with the UNEP Task Manager(s).

PART IV: EXPLAIN THE ALIGNMENT OF PROJECT DESIGN WITH THE ORIGINAL PIF:

The project follows and substantiates the rationale set out in the PIF. The PIF initially set out four outcomes. These have been retained, however, some changes to the wording of the outcomes have been made to be more specific with regards to the scope and system boundaries of the project. Additionally, the PIF's expected outputs have been slightly revised during the project preparation process. The content remains the same as in the PIF, but the order of presentation and the wording have been altered to improve the logical structure of the project. Table 3 below depicts the differences between the PIF's outcomes and outputs and those included in the project document.

The distribution of LDCF-GEF funds across outcomes differs between the PIF and the budget proposed within the project document. It is noted, however, that the co-financing amount is greater than that indicated in the PIF. CCCA co-financing will be focused predominantly (following decisions made during the CCCA Programme Support Board meeting concerning the CCCA Coastal Component document) on adaptation measures to be implemented in the demonstration sites.

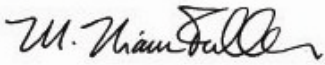
Table 3. The original outcomes and outputs as set out in the PIF and the outcomes and outputs as included in the project document.

²¹ Alternatively, the Governors may instead elect to include their Deputy or Provincial Secretary on the PSC.

Original (PIF)		Modified (project document)	
Outcomes	Outputs	Outcomes	Outputs
1. Increased and strengthened institutional capacity to design and implement climate change adaptation measures	<p>1.1 Methodology for designing and implementing adaptation measures developed and adopted by government.</p> <p>1.2 Climate change risks and measures identified and incorporated into national development plans.</p> <p>1.3 Increased awareness and coordination of intersectoral coordination committee on climate change adaptation.</p> <p>1.4 Development and use of indicators for monitoring climate change impacts in coastal zones (to be included in the State of Coastal Environment Report).</p>	1. Institutional capacity to assess climate change risks and integrate them into national development policies strengthened.	<p>1.1 Systems and processes for identification and implementation of adaptation measures.</p> <p>1.2 Climate change risks are incorporated into development plans and policy.</p> <p>1.3 Relevant government departments are trained on climate change risks and adaptation within the coastal zone.</p> <p>1.4 Indicators for monitoring climate change impacts and assessing risks in the coastal zone in place.</p>
2. Improved adaptation planning by identifying climate change hotspots and ecosystem buffers against climate stresses.	<p>2.1 Vulnerability and risk assessments produced for sensitive ecosystems and infrastructure.</p> <p>2.2 Vulnerability maps produced for planning purposes.</p> <p>2.3 Development of institutional capacity for identifying adaptation solutions based on different climate scenarios.</p> <p>2.4 Climate change science integrated into policy (i.e. land use/coastal development plans).</p>	2. Adaptation planning in the coastal zone improved.	<p>2.1 Vulnerability maps for sensitive ecosystems and infrastructure within the coastal zone.</p> <p>2.2 Relevant provincial- and district-level stakeholders are trained on climate-proofing development and adaptation planning within the coastal zone.</p>
3. Reduced vulnerability of productive systems to increased floods.	<p>3.1 Organisation of local communities for operation and maintenance of water resources protection measures in areas identified in the adaptation plan.</p> <p>3.2 Adapting coastal agricultural practices to changing climate conditions for livelihood improvement through integrated farming principles.</p> <p>3.3 Training plan implemented for participatory community.</p>	3. Vulnerability of productive systems to increased floods reduced.	3.1 Coastal communities use agricultural practices protected from changing climatic conditions and livelihoods are improved.
4. Increased resilience of coastal buffers to climate change and improved livelihoods.	<p>4.1 Ecosystem based coastal protection through mangrove systems established.</p> <p>4.2 Reduced pressures on mangrove systems, i.e. sustainable harvesting and management, alternative fuel and livelihood sources.</p> <p>4.3 Training plan implemented for participatory community.</p>	4. Resilience of coastal buffers to climate change increased and livelihoods improved.	<p>4.1 Ecosystem-based coastal protection through mangrove system restoration.</p> <p>4.2 Increased awareness on the importance of mangrove system restoration.</p>

PART V: AGENCY(IES) CERTIFICATION

This request has been prepared in accordance with LDCF policies and procedures and meets the LDCF criteria for project endorsement.

Agency Coordinator, Agency name	Signature	Date (Month, day, year)	Project Contact Person	Telephone	Email Address
Maryam Niamir Fuller Director Division for GEF Coordination		01/28/2010	Ermira FIDA Task Manager, Adaptation UNEP/GEF	+254-20 762 3113	ermira.fida@unep.org

ANNEX A: PROJECT RESULTS FRAMEWORK

	Indicator	Baseline	Targets	Source of verification	Risks and Assumptions
<p>Project Objective: “to reduce the vulnerability of coastal communities to the impacts of climate change by strengthening policy and science, and demonstrating targeted local interventions to increase ecosystem resilience.”</p>	<p>1. The percentage change in vulnerability of men and women living in the demonstration sites to climate change risks threatening the coastal zone.</p>	<p>1. The baseline will be determined in the demonstration sites in the inception phase through a VRA.</p>	<p>1a. Mid-way through the project, a 20% increase in the VRA score.</p> <p>1b. By the end of the project, a 50% increase in the VRA score.</p>	<p>1. Gender-sensitive field surveys/VRA.</p>	<p>Assumption: Demonstration sites are best placed to demonstrate the benefits of measures to adapt to climate change.</p> <p>Assumption: Climate change concerns are not overshadowed by other emergency matters or urgent projects.</p>
<p>Outcome 1 Institutional capacity to assess climate change risks and integrate them into national development policies strengthened.</p>	<p>1. Number of government agencies participating in the data network (i.e. collecting and analysing climate-related data related to the coastal zone and disseminating results to the CCU).</p> <p>2. Climate change risks determined for the coastal zone through modelling of climate change impacts (yes/no).</p>	<p>1. A data network has not been established in Cambodia.</p> <p>2. Climate change impacts and risks have not yet been modelled for the coastal zone in Cambodia.</p>	<p>1. At least 5 relevant government agencies participating in the network and disseminating climate-related analyses relevant to the coastal zone to the CCU.</p> <p>2a. Mid-way through the project, summary reports and policy briefs regarding the results of modelling have been developed for Koh Kong and Sihanoukville provinces.</p> <p>2b. By the end of the project,</p>	<p>1. Interviews with relevant government agencies and with the CCU.</p> <p>2. Summary report and policy briefs developed regarding the modelling.</p>	<p>Assumption: Demonstration sites are best placed to demonstrate the benefits of measures to adapt to climate change.</p> <p>Assumption: Climate change concerns are not overshadowed by other emergency matters or urgent projects.</p> <p>Risk: Institutions do not allow for inter-institutional data sharing, planning and implementation of actions for climate change adaptation measures.</p>

	<p>3. Number of relevant national development plans and policies which include climate change considerations.</p> <p>4. Number of indicators for monitoring climate change impacts within the coastal zone developed.</p>	<p>3. At present, climate change considerations (including adaptation) are largely absent from relevant national development plans and policy (although climate change is included in the updated NSDP) and emphasis is placed, rather, on post-disaster emergency relief.</p> <p>4. At present, specific indicators to measure climate change indicators are not available.</p>	<p>summary reports and policy briefs regarding the results of modelling have been developed for Kampot and Kep provinces.</p> <p>3. By the end of the project, at least two national development plans/policies relevant to the coastal zone are revised to include climate change considerations.</p> <p>4. By the end of the project, at least five indicators have been developed, measured and documented for the coastal zone.</p>	<p>3a. Revised documents.</p> <p>3b. Interviews with agencies concerned.</p> <p>4. The report developed detailing the indicators for inclusion in the 3rd State of the Environment Report.</p>	
<p>Outcome 2 Adaptation planning in the coastal zone improved.</p>	<p>1. Number of detailed vulnerability maps produced.</p> <p>2. A comprehensive adaptation plan, including guidance on zoning and land use planning in the context of climate change, is developed for the coastal zone</p>	<p>1. Vulnerability maps taking into account climate change risks are not presently available for the entire coastal zone (one was developed for Koh Kong for the INC, 2002, see Figure 6).</p> <p>2. Such a comprehensive adaptation plan has not yet been developed for the coastal zone.</p>	<p>1. By the end of the project, vulnerability maps for each of the four coastal provinces are produced.</p> <p>2. By the end of the project, a comprehensive adaptation plan is developed for the coastal zone.</p>	<p>1a. Vulnerability maps.</p> <p>1b. Interviews with MLMUPC.</p> <p>2a. Interviews with district- and provincial-level authorities and the CCU.</p> <p>2b. The adaptation plan.</p>	<p>Assumption: Climate change concerns are not overshadowed by other emergency matters or urgent projects.</p> <p>Assumption: There is political commitment at the national and local levels to enforce existing regulations on the use and development of marine and coastal natural resources.</p> <p>Risk: Lack of commitment from communities.</p>

	(yes/no).				Risk: Institutions do not allow for inter-institutional data sharing, planning and implementation of actions for climate change adaptation measures.
Outcome 3 Vulnerability of productive systems to increased floods reduced.	<p>1. The percentage change in the income of men and women in the demonstration sites. This is a proxy for climate-resilient income production.</p> <p>2. The percentage change in subsistence food production of male and female subsistence farmers in the demonstration sites. This is a proxy for climate-resilient food production.</p> <p>3. Number of men and women from local communities aware of climate change vulnerability and adaptation responses.</p>	<p>1. The baseline will be determined through surveys undertaken during project implementation.</p> <p>2. The baseline will be determined through surveys undertaken during project implementation.</p> <p>3. At present, local communities' understanding of climate change and its impacts and importantly, how to adapt, is minimal. The baseline will be determined in the inception phase through surveys.</p>	<p>1a. Mid-way through the project, a 10% increase in income of men and women.</p> <p>1b. By the end of the project, a 20% increase in income of men and women.</p> <p>2a. Mid-way through the project, a 10% increase in annual food production.</p> <p>2b. By the end of the project, a 20% increase in annual food production.</p> <p>3a. Mid-way through the project, at least 20% of the population within demonstration site communities are aware of climate change impacts and adaptation options based on their involvement with demonstration site interventions.</p> <p>3b. By the end of the project, at least 50% of the population within demonstration site communities are aware of climate change impacts and adaptation options.</p>	<p>1a. Gender-sensitive surveys undertaken within demonstration sites.</p> <p>1b. End of project evaluation reports.</p> <p>2a. Gender-sensitive surveys undertaken within demonstration sites.</p> <p>2b. VRAs.</p> <p>2c. End of project evaluation reports.</p> <p>3. Gender-sensitive surveys among demonstration site communities regarding climate change impacts and adaptation options, VRAs.</p>	<p>Assumption: Large-scale infrastructural developments will not take place within the coastal zone during project implementation that will unduly disturb the coastal ecosystem or the project's planned activities.</p> <p>Assumption: There is political commitment at the national and local levels to enforce existing regulations on the use and development of marine and coastal natural resources.</p> <p>Assumption: Demonstration sites are best placed to demonstrate the benefits of measures to adapt to climate change.</p> <p>Assumption: Local communities are willing to pursue alternative livelihoods.</p> <p>Risk: Lack of commitment from communities.</p> <p>Risk: Limited gain in</p>

	4. Number of men and women in the demonstration sites whose perceived vulnerability to climate change has decreased.	4. Perceived vulnerability to climate change will be determined during the inception phase through surveys.	4. By the end of the project, at least 80 people in the demonstration sites express a reduction in their perceived vulnerability to climate change.	4. Gender-sensitive surveys among demonstration site communities.	<p>livelihood related to agricultural protection measures and/or mangrove rehabilitation might reduce community participation.</p> <p>Risk: Extreme climate events such as floods and droughts could disrupt project activities and/or damage ecosystems and infrastructure.</p> <p>Risk: Competing activities for land use could cause conflict in relation to the implementation of adaptation measures.</p>
Outcome 4 Resilience of coastal buffers to climate change increased and livelihoods improved.	<p>1. Number of hectares of mangrove forests rehabilitated to withstand climate change impacts within the demonstrations sites.</p> <p>2. Number of hectares of replanted mangroves that survive.</p> <p>3. Report on mangrove restoration practices in response to climate change developed.</p>	<p>1. Surveys undertaken during the inception phase will determine the extent of mangrove forests within the demonstration site requiring rehabilitation.</p> <p>2. Not applicable as replanting by the project is yet to take place.</p> <p>3. No such report exists at present in Cambodia.</p>	<p>1a. Mid-way through the project, at least 15 ha of mangrove forests within the demonstration sites is replanted.</p> <p>1b. By the end of the project, at least 60 ha of the mangrove forests within the demonstration sites is replanted. (These targets are likely to be re-assessed in light of the baseline)</p> <p>2. By the end of the project, at least 30 ha of mangroves planted by the project's efforts survive.</p> <p>3. By the end of the project, a report detailing the restoration strategy undertaken in response to anticipated climate change impacts developed based on the data collected during the project</p>	<p>1. Ecological surveys and field visits.</p> <p>2. Ecological surveys and field visits.</p> <p>3. The restoration report.</p>	<p>Assumption: Demonstration sites are best placed to demonstrate the benefits of measures to adapt to climate change.</p> <p>Assumption: Local communities are willing to pursue alternative livelihoods.</p> <p>Risk: Limited gain in livelihood related to agricultural protection measures and/or mangrove rehabilitation might reduce community participation.</p> <p>Risk: Extreme climate events such as floods and droughts could disrupt project activities and/or damage ecosystems and</p>

			lifetime.		infrastructure. Risk: Competing activities for land use could cause conflict in relation to the implementation of adaptation measures. Risk: Lack of commitment from communities.
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ANNEX B: RESPONSES TO PROJECT REVIEWS (from GEF Secretariat and GEF Agencies, Responses to Comments from the Convention Secretariat made at PIF)

ANNEX C: CONSULTANTS TO BE HIRED FOR THE PROJECT

<i>Position Titles</i>			
For Project Management			
<i>International</i>	<i>\$/person days</i>	<i>Estimated person days</i>	<i>Tasks to be performed</i>
STA	730	136	The STA will fulfill the following functions: i) quality assurance and technical review of project outputs (e.g. studies and assessments); ii) assistance in drafting TORs for technical consultancies and supervision of consultants work; iii) assistance in monitoring the technical quality of project M&E systems, including annual workplans, indicators and targets; iv) providing advice on best suitable approaches and methodologies for achieving project targets and objectives; and v) assisting in knowledge management, and communications.
For Technical Assistance			
<i>Local</i>	<i>\$/person months</i>	<i>Estimated person months</i>	<i>Tasks to be performed</i>
Local M&E Expert	3000	2	The local M&E Expert will work closely with the International M&E Expert, who will delegate work to the local M&E Expert (see below).
Climate change expert	3000	8	Work closely with other national consultants (NCs) to collect relevant data for the identification of the climate change indicators; assist with the assessment of climate change risks in the coastal zone; assist with the identification of appropriate climate change models; assist the international consultants (ICs) where necessary; undertake the gap analysis with the policy expert IC to determine the extent to which climate change considerations are included; contribute to the development of the climate change trends monitoring plan; work closely with the other NCs and with the ICs employed for activities under Outcome 2 and the STA to undertake investigations into vulnerability to climate change impacts along the coastal zone; assist in the identification of additional demonstration adaptation activities.
GIS Expert	3000	2	Develop the maps to be included in the climate change indicators report detailing the extent of each particular indicator within each province/district/commune within the coastal zone; contribute to the development of the land use planning guide.
Socio-economist	3000	8	Contribute to the identification of the climate change indicators; assist in the development of the land use planning guide; contribute to the vulnerability assessments and mapping exercises; assist in the identification of additional demonstration sites/activities; ascertain the cost-effectiveness and potential for up-scaling of the adaptation measures.
Natural resources specialist	3000	1	Contribute to the identification of the climate change indicators; assist in the development of the land use planning guide.

Environmental specialist	3000	1	Contribute to the identification of the climate change indicators; assist in the development of the land use planning guide.
Workshop facilitator	3000	1	Facilitate and run the national-level climate change adaptation training workshop and the workshop regarding the climate change indicators identified.
Water resources	3000	5	Work closely with the other NCs and with the ICs employed for activities under Outcome 2 and the STA to undertake investigations into vulnerability to climate change impacts along the coastal zone; assist in the identification of additional demonstration adaptation activities.
Agriculture	3000	7	Work closely with the other NCs and with the ICs employed for activities under Outcome 2 and the STA to undertake investigations into vulnerability to climate change impacts along the coastal zone; assist in the identification of additional demonstration adaptation activities.
Forestry/mangrove	3000	6	Work closely with the other NCs and with the ICs employed for activities under Outcome 2 and the STA to undertake investigations into vulnerability to climate change impacts along the coastal zone; assist in the identification of additional demonstration adaptation activities.
Infrastructure	3000	1	Work closely with the other NCs and with the ICs employed for activities under Outcome 2 and the STA to undertake investigations into vulnerability to climate change impacts along the coastal zone; assist in the identification of additional demonstration adaptation activities.
Cartographic expert	3000	2	Assist in the development of the vulnerability maps for the coastal zone.
Land use/spatial planner	3000	7	Work with the STA and the anthropologist to develop the detailed vulnerability maps (including working closely with community members to gather their input) and to provide advice regarding the development of the adaptation plans.
Anthropologist	3000	2	Work with the STA and the land use/spatial planner to develop the detailed vulnerability maps (including working closely with community members to gather their input) and to provide advice regarding the development of the adaptation plans.
Meteorologist	3000	2	Work closely with the other NCs and with the ICs employed for activities under Outcome 2 and the STA to undertake investigations into vulnerability to climate change impacts along the coastal zone; assist in the identification of additional demonstration adaptation activities.

Policy expert	3000	3	Develop policy briefs and guidelines for local application based on the assessments undertaken as part of Output 4.2.
<i>International</i>	<i>\$/person days</i>	<i>Estimated person days</i>	
STA	550	376	The STA will fulfill the following functions: i) quality assurance and technical review of project outputs (e.g. studies and assessments); ii) assistance in drafting TORs for technical consultancies and supervision of consultants work; iii) assistance in monitoring the technical quality of project M&E systems, including annual workplans, indicators and targets; iv) providing advice on best suitable approaches and methodologies for achieving project targets and objectives; v) provide a technical supervisory function to the work carried out by the other technical assistance consultants hired by the project; and vi) assisting in knowledge management, communications and awareness raising.
Climate change adaptation specialist	550	172	Provide technical assistance on the training to be undertaken (which will include training on assessing climate change impacts, sensitivity, exposure, trends and vulnerability, risk analysis and risk assessment, and funding for adaptation measures including an analysis of the climate change analytical tools, methodologies, software available for identification and implementation of adaptation measures); develop the adaptation methodology with help from other ICs and NCs; assist with the capturing of the project's lessons learned for the awareness raising workshops; assist in the development of climate change-related indicators for the coastal zone; undertake the training of national- and provincial-level staff required regarding climate change considerations in the coastal zone; assist in the capacity building exercises related to climate risk assessments and analyses; develop the coastal adaptation plans in collaboration with CCD, MoE and other key departments; work closely with the NCs to determine the cost-effectiveness of each demonstration activity through the conduction of an economic analysis and cost-benefit analyses.
Policy expert	550	20	Work closely with the NCs to identify existing policy gaps relating to the coastal zone (and specifically the lack of consideration for climate change impacts and adaptation); draft suggested revisions to national policy documents in order to increase the efficiency of climate risk reduction in the coastal zone.
Climate change modeller	550	100	Undertake climate scenario modelling of climate change impacts on the coastal zone; undertake capacity building exercises related to the interpretation of climate modelling and impact modelling results; provide input related to the development of the coastal adaptation plans.
Water resources modeler	550	53	Model the impacts climate change is likely to have on water resources within the coastal zone.
Oceanographer	550	33	Model climate change impacts on oceanic variables.

Shoreline management expert	550	27	Provide land use planning and advice relevant to vulnerable areas along the coast; work with the STA to identify particularly vulnerable sites and sensitive communities and to further clarify the extent of climate change impacts on the coastal zone.
Spatial/land use planner	550	66	Develop detailed coastal vulnerability maps; provide advice regarding the development of the adaptation plans.
Ecosystem services expert	550	40	Determine the value of ecosystem services from intact mangrove forests and the costs of damaging the mangroves.
Livelihoods expert	550	66	Conduct assessments to determine the costs and benefits of particular alternative livelihood options.
International M&E Expert	550	37	The M&E expert will be responsible for the following: establishing the overall results-based M&E strategy in accordance with M&E plans outlined in the project document; providing project performance information to the PSC and the NPC; designing a system for collecting information on project lessons; preparing lessons learned documents; developing questionnaires and other data collection tools that will be used to collect information during the project period for writing technical reports (together with subject matter specialists); guiding the review of the project Strategic Results Framework. This will be undertaken with assistance from the local M&E expert.

ANNEX D: STATUS OF IMPLEMENTATION OF PROJECT PREPARATION ACTIVITIES AND THE USE OF FUNDS

A. EXPLAIN IF THE PPG OBJECTIVE HAS BEEN ACHIEVED THROUGH THE PPG ACTIVITIES UNDERTAKEN.

The table below details the extent of the PPG objective achieved (according to the activities set out in the request for the Project Preparation Grant document).

ACTIVITY	STATUS
Establishing the baseline.	Completed.
Climate change risk assessment for coastal area.	Partially completed, to be improved through the project's activities.
Identification of specific sites for intervention.	Completed.
Clarifying additionality of proposed outcomes and interventions.	Completed.
Integration with development plans and policies.	Completed.
Defining the logical framework, M&E indicators and work plan for the Programme.	Completed.
Definition of Roles and Responsibilities.	Completed.
Development of a Stakeholder Involvement Plan.	Completed.
Definition of a Monitoring and Evaluation Plan.	Completed.
Identification of quantitative and qualitative indicators.	Completed.
Exit Strategy (Sustainability).	Completed.
Mobilize and engage stakeholders.	Completed.
Determining priorities and forge expanded partnerships.	Completed.
Community mobilization.	Completed.

Project Technical and Policy Reviews.	Comments raised to date regarding the project have been addressed and reviews during project implementation are included in the project's M&E strategy.
Negotiate with Government Counterpart.	Completed.
Explore Multilateral and Bilateral funding opportunities.	Completed.
Obtain official endorsement letters and guarantees.	Completed.

B. DESCRIBE FINDINGS THAT MIGHT AFFECT THE PROJECT DESIGN OR ANY CONCERNS ON PROJECT IMPLEMENTATION, IF ANY.

No additional risks have been identified other than those identified in the risk table in Section F.

C. PROVIDE DETAILED FUNDING AMOUNT OF THE PPG ACTIVITIES AND THEIR IMPLEMENTATION STATUS IN THE TABLE BELOW:

<i>Project Preparation Activities Approved</i>	<i>Implementation Status</i>	<i>LDCF Amount (\$)</i>				<i>Co-financing (\$)</i>
		<i>Amount Approved</i>	<i>Amount Spent To-date</i>	<i>Amount Committed</i>	<i>Uncommitted Amount*</i>	
Activity 1: Technical review and Feasibility	Completed	10,000	10,000	0	0	10,000
Activity 2: Programme Scoping, Institutional arrangement for implementation phase, Development of Stakeholder Involvement Plan, Definition of a Monitoring and Evaluation Plan	Completed	15,000	5,000	10,000	0	20,000
Activity 3: Consultations with key stakeholders	Completed	20,000	20,000	0	0	12,500
Activity 4: Develop a financial plan and co-funding scheme	Completed	5,000	0	5,000	0	10,000
Total		50,000	35,000	15,000	0	52,500