



# PROJECT IDENTIFICATION FORM (PIF).

PROJECT TYPE: FSP

TYPE OF TRUST FUND: LDCF

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## PART I: PROJECT INFORMATION

|                             |   |                              |                          |
|-----------------------------|---|------------------------------|--------------------------|
| Project Title:              | Building Resilience of Health Systems in Asian LDCs to Climate Change   |                              |                          |
| Country(ies):               | Bangladesh, Cambodia, Lao PDR, Myanmar, Nepal, Timor Leste  | GEF Project ID: <sup>1</sup> | 6984                     |
| GEF Agency(ies):            | UNDP  | GEF Agency Project ID:       | 5400                     |
| Other Executing Partner(s): | WHO   | Submission Date:             | Sept. 23, 2014           |
|                             |   | Resubmission Date:           | Nov. 6, 2014             |
| GEF Focal Area(s):          | Climate Change  | Project Duration (Months)    | 48                       |
| Integrated Approach Pilot   | IAP-Cities <input type="checkbox"/> IAP-Commodities <input type="checkbox"/> IAP-Food Security <input type="checkbox"/> | Corporate Program: SGP       | <input type="checkbox"/> |
| Name of parent program:     | N/A   | Agency Fee (\$)              | 855,000                  |

## A. INDICATIVE FOCAL AREA STRATEGY FRAMEWORK AND OTHER PROGRAM STRATEGIES<sup>2</sup>:

| Objectives/Programs (Focal Areas, Integrated Approach Pilot, Corporate Programs)        | Trust Fund | (in \$)               |              |
|---|------------|-----------------------|--------------|
|   |            | GEF Project Financing | Co-financing |
| CCA-1: Reduce vulnerability of people, livelihoods, physical assets and natural systems | LDCF       | 4,600,000             | 18,965,000   |
| CCA-2: Strengthen institutional and technical capacities for effective CCA              | LDCF       | 3,000,000             | 10,600,000   |
| CCA-3: Integrate CCA into relevant policies, plans and associated processes             | LDCF       | 1,400,000             | 5,000,500    |
| Total Project Cost  |            | 9,000,000             | 34,565,500   |

## B. INDICATIVE PROJECT DESCRIPTION SUMMARY

**Project Objective:** Increase the adaptive capacity of national health systems and institutions, and sub-national level actors, to respond to and manage long-term climate-sensitive health risks in six Asian LDCs.

| Project Component  | Financing Type <sup>3</sup> | Project Outcomes   | Trust Fund | (in \$)               |              |
|--|-----------------------------|--|------------|-----------------------|--------------|
|  |                             |  |            | GEF Project Financing | Co-financing |
| Policy frameworks and health standards incorporate climate change risks and adaptation | TA                          | 1.1: Institutional capacities are strengthened to effectively integrate climate risks and adaptation options in health sector planning and implementation  | LDCF       | 2,000,000             | 10,900,000   |
| Information, integrated surveillance and early warning systems                         | INV                         | 2.1 Effective decision-making for health interventions is enabled through generation of information and improved surveillance and/or early warning systems | LDCF       | 3,000,000             | 10,000,000   |
| Service delivery   | TA                          | 3.1 Climate resilience is enhanced in health service delivery  | LDCF       | 1,980,000             | 8,000,000    |
| Regional cooperation and knowledge management  | TA                          | 4.1 Enhanced regional cooperation and knowledge exchange for promoting scale-up and replication of interventions   | LDCF       | 1,200,000             | 3,000,000    |
|  |                             | 4.2 HNAP are effectively integrated into ongoing NAP processes   |            | 400,000               | 1,020,000    |
| Subtotal   |                             |  |            | 8,580,000             | 32,920,000   |

<sup>1</sup> Project ID number will be assigned by GEFSEC and to be entered by Agency in subsequent document submissions.

<sup>2</sup> When completing Table A, refer to the GEF Website, [Focal Area Results Framework](#) which is an Excerpt from [GEF-6 Programming Directions](#).

<sup>3</sup> Financing type can be either investment or technical assistance.

|  |      |                  |                   |
|--|------|------------------|-------------------|
| Project Management Cost (PMC) <sup>4</sup> | LDCF | 420,000          | 1,645,500         |
| <b>Total Project Cost</b>                  |      | <b>9,000,000</b> | <b>34,565,500</b> |

**C. INDICATIVE SOURCES OF CO-FINANCING FOR THE PROJECT BY NAME AND BY TYPE, IF AVAILABLE**

Please include confirmed co-financing letters for the project with this form.

| Sources of Co-financing    | Name of Co-financier | Type of Co-financing | Amount (\$)       |
|----------------------------|----------------------|----------------------|-------------------|
| International Organization | WHO                  | In-kind              | 900,000           |
| International Organization | UNDP                 | Grant                | 4,330,000         |
| National Government        | Govt of Bangladesh   | Grant                | 6,000,000         |
| National Government        | Govt of Cambodia     | Grant                | 10,835,500        |
| National Government        | Govt of Lao PDR      | Grant                | 3,000,000         |
| National Government        | Govt of Myanmar      | Grant                | 3,000,000         |
| National Government        | Govt of Nepal        | Grant                | 5,000,000         |
| National Government        | Govt of Timor L'este | Grant                | 1,500,000         |
| <b>Total Co-financing</b>  |                      |                      | <b>34,565,500</b> |

**D. INDICATIVE TRUST FUND RESOURCES REQUESTED BY AGENCY(IES), COUNTRY(IES) AND THE PROGRAMMING OF FUNDS<sup>a)</sup>**

| GEF Agency                 | Trust Fund | Country/ Regional/ Global | Focal Area     | Programming of Funds | (in \$)                   |                              |                  |
|----------------------------|------------|---------------------------|----------------|----------------------|---------------------------|------------------------------|------------------|
|                            |            |                           |                |                      | GEF Project Financing (a) | Agency Fee (b) <sup>b)</sup> | Total (c)=a+b    |
| UNDP                       | LDCF       | Regional Asia             | Climate Change | N/A                  | 9,000,000                 | 855,000                      | 9,855,000        |
| <b>Total GEF Resources</b> |            |                           |                |                      | <b>9,000,000</b>          | <b>855,000</b>               | <b>9,855,000</b> |

a) No need to fill this table if it is a single Agency, single Trust Fund, single focal area and single country project.

b) Refer to the [Fee Policy for GEF Partner Agencies](#).

**E. PROJECT PREPARATION GRANT (PPG)<sup>5</sup>**

Is Project Preparation Grant requested? Yes  No  If no, skip item E.

**PPG AMOUNT REQUESTED BY AGENCY(IES), TRUST FUND, COUNTRY(IES) AND THE PROGRAMMING OF FUNDS**

| GEF Agency              | Trust Fund | Country/ Regional/Global | Focal Area     | Programming of Funds | (in \$)        |                             |                 |
|-------------------------|------------|--------------------------|----------------|----------------------|----------------|-----------------------------|-----------------|
|                         |            |                          |                |                      | PPG (a)        | Agency Fee <sup>6</sup> (b) | Total c = a + b |
| UNDP                    | LDCF       | Regional Asia            | Climate Change | N/A                  | 480,000        | 45,600                      | 525,600         |
| <b>Total PPG Amount</b> |            |                          |                |                      | <b>480,000</b> | <b>45,600</b>               | <b>525,600</b>  |

**F. PROJECT'S TARGET CONTRIBUTIONS TO GLOBAL ENVIRONMENTAL BENEFITS<sup>7</sup>: N/A**

<sup>4</sup> For GEF Project Financing up to \$2 million, PMC could be up to 10% of the subtotal; above \$2 million, PMC could be up to 5% of the subtotal.

<sup>5</sup> PPG requested amount is determined by the size of the GEF Project Financing (PF) as follows: Up to \$50k for PF up to \$1 mil; \$100k for PF up to \$3 mil; \$150k for PF up to \$6 mil; \$200k for PF up to \$10 mil; and \$300k for PF above \$10m. On an exceptional basis, PPG amount may differ upon detailed discussion and justification with the GEFSEC.

<sup>6</sup> PPG fee percentage follows the percentage of the Agency fee over the GEF Project Financing amount requested.

<sup>7</sup> Provide those indicator values in this table to the extent applicable to your proposed project. Progress in programming against these targets for the projects per the *Corporate Results Framework* in the [GEF-6 Programming Directions](#), will be aggregated and reported during mid-term and at the conclusion of the replenishment period.

## **PART II: PROJECT JUSTIFICATION**

### **PROJECT OVERVIEW**

#### **A.1. Project Description.**

##### **The Problem, Root Causes and Barriers**

*Problem:* The health of populations in Asia is and will be further affected by climate variability and change. The IPCC 5th Assessment Report concluded that, in Asia heat waves will increase morbidity and mortality in vulnerable groups in urban areas; transmission of infectious disease will be affected due to changes in air and water temperatures and altered rain patterns and water flows. Further, it noted that population groups most at risk from climate extremes are those living in low-lying coastal zones and flood plains; such areas are home to 50% of Asia's urban population.

This problem is exacerbated in Asian LDCs (namely, Bangladesh, Cambodia, Lao, Myanmar, Nepal, and Timor L'este), where weak human resources and economic vulnerability limit the national capacities to make front to the impacts of climate change hazards on human health.

The *long-term solution* for the governments of these Asian LDCs would be to have enhanced national health systems and institutions which are able to respond effectively to climate change impacts on morbidity and mortality in vulnerable population groups.

*Barriers:* Some of the barriers that hinder the long-term solution in the context of these countries, include:

- Limited awareness of health risks of climate change;
- Insufficient integration of health into national adaptation plans and initiatives;
- Poor coordination across ministries and departments on climate change;
- Insufficient data and monitoring of climate-sensitive health outcomes; and
- Limited technical capacity of public health staff; limited human and financial resources to assess risks and to design, implement, and monitor adaptation.

##### **Baseline Scenario, Alternative Scenario, Additional cost reasoning, and Expected contributions from baseline per Component**

###### *Baseline Scenario*

Asian LDCs (namely, Bangladesh, Cambodia, Lao, Myanmar, Nepal, and Timor L'este) have limited technical capacity of health care systems and personnel to effectively integrate climate-related risks into policy, planning, and regulatory frames, and into interventions to control the burden of climate-sensitive health outcomes. Existing climate early warning systems managed by national meteorological organizations lack systematic coverage of observational data from regions and areas of the countries with high risks of climate-sensitive health outcomes. Climate information services are not adequately tailored to the needs of public health professionals. Primary health care facilities are ill-equipped to prepare for and respond to extreme weather and climate events, lacking information and cost-effective methods and technologies to provide adequate water and sanitation services during extreme events. Further, the NAPAs of the abovementioned LDCs prioritize adapting to the health risks of climate variability and change (more on NAPA priorities in Section B.1). The baseline without adaptation is for health systems, institutions and professionals to continue to lack adequate capacity to integrate climate change and weather information into health surveillance and early warning systems, emergency preparedness and response activities.

**Bangladesh:** Impacts of climate change are visible in the form of temperature extremes, erratic rainfall, and more intensified floods, cyclones, and droughts. Water-borne diseases will remain a major public health problem in Bangladesh with changes in climatic factors; therefore, improvement in water supply and sanitation management as well as protection of water resources should be prioritized. A comprehensive health vulnerability and adaptation assessment conducted in 2011 concluded there is a need to undertake capacity and preparedness assessment of the health care facilities and health professionals to identify the strengths, weaknesses, and gaps in responding to the rising threats of emerging and re-emerging infectious diseases and non-communicable diseases (including mental health) associated with climate change. Health professionals need to be trained on climate change and its impact on human health.

**Cambodia:** A wide range of health outcomes are associated with weather and climate variability. Strong storm surges cause death, injuries, morbidity and mental health issues. Flooding has been recorded almost every five years, becoming more frequent in the last 10 years. Incidence of waterborne disease is 47/1000, with 41% children below the age of four. Many

rural households do not have adequate latrines or waste disposal that may affect water quality of surface and ground water during heavy rain. Drought also is associated with water-borne diseases as a result of the shortage of water and poor sanitation practices. Malaria cases in Cambodia are associated with increase in rainfall. Health referrals and centers have improved over the last decade, but healthcare personnel still lack basic knowledge and skills on environmental health, climate-sensitive diseases, surveillance and monitoring, and prevention, control, and treatment practices.

Lao PRD: Lao has experienced the impacts of climate variability, especially from floods and droughts. A climate change and health vulnerability assessment (2010-2011) concluded that waterborne diseases, especially dysentery and typhoid, remain a significant source of morbidity, with the health burden expected to increase with climate change. Vectorborne diseases, particularly dengue, also are expected to increase. Limited data and information are available on who is most vulnerable and which geographical areas will be more affected. There is capacity gap in assessing vulnerability and addressing climate change and health issues. A health system review in 2014, organized by WHO on behalf of the Asia Pacific Observatory on Health Systems and Policies, concluded that despite strong government commitments to health, as reflected by policy statements, decrees, national strategies and plans, and a comprehensive health reform strategy, there are gaps between policy intentions and effective implementation. Political commitments have not yet been translated into increased health spending.

Myanmar: Current climate variability and change are already affecting communities and socioeconomic sectors. Drought is the most severe weather event affecting local communities and causing health impacts. Projections suggest extreme events are expected to increase in frequency and intensity, further increasing these risks. Main health risks include limited clean drinking water and poor sanitation services. Food insecurity is also widespread. The greatest concern regarding CC impacts on human health is related to freshwater sources. Increases in intense rain events and tropical storms will lead to increases in flooding and storm surges which results in freshwater sources being contaminated by rising floodwater levels. Further, rising sea levels will result in fresh groundwater resources being displaced with salt water. An increase in non-potable fresh water will result in communities without safe drinking water and increasing dehydration risks, further exacerbated by diarrheal diseases. In addition, increases in occurrence and severity of droughts will decrease water availability and water quality. NAPA recognized public health as the second most important sector for implementing priority adaptation projects.

Nepal: Current lack of primary healthcare for most of the population contributes to vulnerability. Weather patterns are associated with many infectious diseases (water- and vector-borne) prevalent in Nepal, particularly the growing risk of malaria, kala-azar (visceral leishmaniasis), Japanese encephalitis, and diarrheal diseases (including cholera). Increasing temperatures will put more communities at risk if the diseases spread to new regions. Changing settlement patterns can further increase risks. Weather-induced disasters, such as flooding, adversely affect public health. Declining crop yields would increase undernutrition. Adaptation strategies in the health sector have largely focused on awareness raising and public health initiatives at the community level. Further action is needed to better understand risks and to increase access to information, particularly with regards to the emergence of climate-sensitive infectious diseases.

Timor-Leste: The country's vulnerability and susceptibility are high and it lacks coping and adaptive capacity. Implications of climate change include an increase in the risk of dengue and malaria until 2040. Further, Timor L'este faces major water and sanitation-related health problems, such as water-borne disease such as diarrhea and other parasitic and bacterial infections. Climate change is likely to aggravate vulnerability in terms of water and sanitation conditions as well as vulnerability to natural hazards such as frequent tropical cyclones, floods, droughts and landslides, all of which have negative impacts on health. The NAPA proposes nine programs to cover the key adaptation actions, including enhancing the capacity of the health sector to anticipate and respond to changes and reduce the vulnerability of the population at risk from the expansion of climate-related health outcomes.

#### *Proposed alternative scenario*

The adaptation alternative scenario supported by the proposed project will achieve the objective of **increasing the adaptive capacity of national health systems and institutions, and sub-national level actors, to respond to and manage long-term climate-sensitive health risks in six Asian LDCs, (namely, Bangladesh, Cambodia, Laos, Myanmar, Nepal and Timor L'este)**. This objective will be achieved through on-the-ground interventions and policy-level actions, under five regional-level outcomes, as described below. *This project will be overseen by UNDP. Project components will be executed by WHO and UNDP, in cooperation with Ministries of Health.*

#### **Outcome 1.1: Institutional capacities are strengthened to effectively integrate climate risks and adaptation options in health sector planning and implementation**

As the participating LDCs have completed their NAPAs and are getting ready to start their NAP processes, it is critical to achieve the goals of healthy communities and ensure that the health sector is properly represented in this process. In this context, ministries of health in participating LDCs will be supported to incorporate climate risks and opportunities into national health plans, policies and programs. A detailed national health adaptation plan, or H-NAP will be designed in each country to achieve national health adaptation goals within a specific period of time and given a specific budget. This H-NAP will be developed using guidelines from WHO that are consistent with the LEG guidelines and will be integrated into the countries' overall NAP processes. In addition, national standards and guidelines for priority climate-resilient health protection programs and care facilities will be developed, based on country needs.

Strengthening the capacity of development of health planners, particularly on climate change vulnerabilities is required to ensure an enabling environment exists for implementation of the H-NAP. Under this outcome, the capacity of staff involved in the implementation of the H-NAP (at the national and sub-national levels) will be strengthened in climate change and health issues, as well as in project management. Health institutions that will be capacitated include both the centralized agencies, whose mandate will normally include national level monitoring of health risks, the processing of data, and the issuance of health advisories; and local health practitioners who will need to respond to and make appropriate use of information generated by centralized agencies. Information, education, and communication materials will be developed to increase awareness of the health risks of climate change across a range of stakeholders within and outside the health sector. Awareness campaigns will be conducted among particularly vulnerable communities.

During initial consultations, countries specified the following priorities to be implemented under Component 1<sup>8</sup>:

| <b>Bangladesh</b>   | <b>Cambodia</b>  | <b>Laos</b>  | <b>Myanmar</b>  | <b>Nepal</b>   | <b>T.L.</b>   |
|---|--|--|---|--|---|
| <ul style="list-style-type: none"> <li>- An integrated health national adaptation plan is designed to achieve the national health adaptation goals</li> <li>- National standards and guidelines strengthened for monitoring the implementation of climate change and health policies</li> <li>- Capacity building of health decision-makers on integration of CC risks in health interventions</li> </ul> | <ul style="list-style-type: none"> <li>- An integrated health national adaptation plan is designed to achieve the national health adaptation goals</li> <li>- National operational coordination mechanism established between meteorological, environmental, and health sectors, and database established for information sharing</li> <li>- Capacity building of health decision-makers on integration of CC risks in health interventions</li> </ul> | <ul style="list-style-type: none"> <li>- An integrated health national adaptation plan is designed to achieve the national health adaptation goals</li> <li>- National operational coordination mechanism established between meteorological, environmental, and health sectors, and database established for information sharing</li> <li>- Capacity building of health decision-makers on integration of CC risks in health interventions</li> </ul> | <ul style="list-style-type: none"> <li>- An integrated health national adaptation plan is designed to achieve the national health adaptation goals</li> <li>- National SOPs developed for managing climate-sensitive health outcomes</li> <li>- Capacity building of health decision-makers on integration of CC risks in health interventions</li> </ul> | <ul style="list-style-type: none"> <li>- An integrated health national adaptation plan is designed to achieve the national health adaptation goals</li> <li>- National standards and guidelines for climate-resilient healthcare facilities developed</li> <li>- Capacity building of health decision-makers on integration of CC risks in health interventions</li> </ul> | <ul style="list-style-type: none"> <li>- The National Strategy for Environmental Health revised, incorporating an integrated national strategy to protect health from climate change</li> <li>- National standards and guidelines developed for mainstreaming the risks of climate change into health systems programs</li> <li>- Capacity building of health decision-makers on integration of CC risks in health interventions</li> </ul> |

<sup>8</sup> These were only indicative outputs at initial consultations. Outputs and activities and their scope are subject to change during PPG phase after needs and gaps are identified and activities are costed.

**Outcome 2.1: Effective decision-making for health interventions is enabled through generation of information and improved surveillance and/or early warning systems**

Currently, national health systems and climate monitoring systems are not linked. Evidence-based interventions are available for all climate-sensitive health outcomes, although the extent of their implementation varies across countries. However, these interventions were designed without considering changing weather patterns with climate change. Hence human health in Asian LDCs, continues to be at risk from extreme and/or erratic weather events. This Outcome addresses the urgent need to link climate, weather, and health information systems to effectively establish early warnings and improve surveillance. LDCF resources will be used to cover the additional costs of establishing these linkages. Vulnerability assessments will be conducted to project health burdens under different scenarios of development and climate change. This will reflect legal, policy and socio-economic barriers for special vulnerable and marginalized populations such as persons with disabilities, the elderly, socially-discriminated, and ethnic minorities.

Surveillance serves different purposes: i) it can serve as an early warning system for impending health emergencies; ii) it is used to document the impacts of an intervention; and iii) monitor and clarify the epidemiology of health problems, to allow priorities to be set and to inform public health policy and strategies. Improved integrated surveillance and monitoring systems will be critical for detecting trends in any health outcome and for identifying outbreaks early enough for effective interventions. This approach will in turn improve management of changes in the geographic range, seasonality, and incidence of climate-sensitive health outcomes. It is expected that during PPG, a more in-depth assessment of each country’s gaps needs in terms of strengthening surveillance, early warnings, and response measures will be conducted in order to identify and design the most adequate intervention for each LDC.

During initial consultations, countries specified the following priorities to be implemented under Component 2<sup>9</sup>:

| <b>Bangladesh</b>   | <b>Cambodia</b>   | <b>Laos</b>  | <b>Myanmar</b>  | <b>Nepal</b>   | <b>T.L.</b>  |
|---|---|--|---|--|--|
| <ul style="list-style-type: none"> <li>- Integrated surveillance system strengthened for climate-sensitive infectious and non-infectious health outcomes in pilot sites</li> <li>- Community maps prepared for pilot sites of health vulnerabilities to climate change</li> </ul> | <ul style="list-style-type: none"> <li>- Surveillance implemented for adverse health outcomes from extreme weather</li> <li>- National institutional capacity strengthened on surveillance for climate-sensitive health outcomes</li> </ul> | <ul style="list-style-type: none"> <li>- Vulnerability assessment conducted for future health burdens considering development and climate change</li> <li>- Integrated surveillance system strengthened of climate-sensitive health outcomes</li> <li>- Early warning system strengthened in selected provinces</li> </ul> | <ul style="list-style-type: none"> <li>- Vulnerability assessment conducted for future health burdens considering development and climate change</li> <li>- Integrated surveillance system strengthened of climate-sensitive health outcomes, including emerging diseases, in disaster prone regions</li> </ul> | <ul style="list-style-type: none"> <li>- Tools developed for socioeconomic analysis of climate change adaptation measures in regards to health</li> <li>- Early warning and response systems for extreme temperature events developed</li> </ul> | <ul style="list-style-type: none"> <li>- Vulnerability assessment conducted for future health burdens considering development and climate change</li> <li>- Integrated surveillance system strengthened of climate-sensitive health outcomes in pilot districts</li> </ul> |

**Outcome 3.1: Climate resilience is enhanced in health service delivery**

Currently, emergency preparedness and response plans for public health and disaster management do not include consideration of climate change. Demonstrating effective responses requires substantial improvements to existing health delivery systems. Under this outcome, specific health outcome control programs will be strengthened and emergency preparedness and management will be improved. Further, interventions will also involve (where appropriate) “climate-proofing” of existing health infrastructures, particularly those that are located in remote or vulnerable communities. Efforts

<sup>9</sup> These were only indicative outputs at initial consultations. Outputs and activities and their scope are subject to change during PPG phase after needs and gaps are identified and activities are costed.

will also be done to enhance coordination at the institutional level to ensure that the health sector maximizes synergies and promotes health co-benefits across health-determining sectors such as disaster risk management, energy, agriculture, housing, and water.

During initial consultations, countries specified the following priorities to be implemented under Component 3<sup>10</sup>:

| Bangladesh  | Cambodia   | Laos  | Myanmar  | Nepal   | T.L.  |
|---|--|---|--|---|---|
| <ul style="list-style-type: none"> <li>- Health care facilities are climate-proofed in remote pilot sites</li> <li>- Improved coordination between health systems and CDMP, informed by climate change risks</li> </ul> | <ul style="list-style-type: none"> <li>- Health care infrastructure and capacity of health personnel improved to cope with climate-sensitive health outcomes in selected target sites</li> <li>- Coordination improved between health systems and NCDM, informed by climate risks</li> </ul> | <ul style="list-style-type: none"> <li>- Capacity of health personnel improved to cope with climate-sensitive health outcomes in selected target sites</li> <li>- Climate-sensitive management and response plans developed in selected provincial hospitals</li> </ul> | <ul style="list-style-type: none"> <li>- Climate change mainstreamed into ongoing vector-borne diseases control programs (malaria and dengue)</li> <li>- Capacity of health personnel is strengthened to implement above programs</li> </ul> | <ul style="list-style-type: none"> <li>- Climate-smart emergency preparedness and management implemented in selected health care facilities</li> <li>- Ongoing vector control programmes strengthened with climate information in selected sites</li> <li>- Capacity of health personnel improved to cope with climate-sensitive health outcomes</li> </ul> | <ul style="list-style-type: none"> <li>- Preparedness and response to emergencies increased in selected health care facilities/ community health centers</li> <li>- Coordination strengthened between health systems and disaster management plans, taking into account CC risks</li> <li>- Capacity development of laboratory staff for detecting and confirming cases of climate-sensitive health outcomes</li> </ul> |

**Outcome 4.1: Enhanced regional cooperation and knowledge exchange for promoting scale-up and replication of interventions (implemented by WHO)**

This Outcome aims to address technical assistance for implementation and coordination, as well as knowledge management at the regional-level. The regional approach proposed allows for learning and exchange of lessons between countries which will explicitly be promoted as one of the project’s outcomes. This is the case of the development of a training package on climate change and health. Similarly, both regions have passed climate change and health resolutions and have programmes on the topic”. Countries will also be able to evaluate and track the costs and benefits of different interventions and their impacts, systematically. Economies of scale will be considered as well as the avoidance of duplication in terms of the technical support provided, ensuring the most cost-effective solutions. Scientific and technical support will be provided to ensure that climate information is utilized appropriately. Guidelines, manuals, and other relevant technical documents in the priority areas of intervention will be developed or strengthened to define normative aspects of climate resilient health.

**Outcome 4.2: HNAP are effectively integrated into ongoing NAP processes (Implemented by UNDP)**

<sup>10</sup> These were only indicative outputs at initial consultations. Outputs and activities and their scope are subject to change during PPG phase after needs and gaps are identified and activities are costed.

Through this Outcome, UNDP will provide technical assistance to Govts of the participating LDCs to effectively embed the H-NAP process (under Outcome 1.1) with the ongoing NAP processes in the countries to ensure climate change is integrated into planning across economic sectors. Currently, UNDP is supporting LDCs in advancing their NAP processes through the ongoing NAP GSP for LDCs (jointly implemented with UNEP). UNDP is also supporting countries to access finance from vertical funds and other donors to implement NAP elements, as per the LEG guidelines. The proposed project will use UNDP's technical expertise to build on capacity-building and awareness efforts on NAP as a "whole of government" process. This outcome will also ensure the continuity of South-South and triangular cooperation on advancing the National Adaptation Plan process in LDCs.

Under Outcome 4.1 and 4.2, regional knowledge exchange (on technical issues related to interventions as well as integration of HNAP into ongoing NAP processes) is expected to result from different types of activities: i) definition of normative aspects related to climate-resilient health systems by developing regional-level guidelines, manuals, and other relevant technical documents in the priority areas of intervention, as determined by countries; ii) regional capacity-building events for different topics (on policy, science and implementation of interventions) and conferences; and iii) systematization of regional experiences and promotion of North-South and South-South cooperation and knowledge exchange (which may include virtual communities of practice and platforms). This last point is particularly important as countries have noted that they are keen on learning from each other and benefitting from real case studies to overcome similar socio-economic and political challenges in regards to on-the-ground implementation. Regional exchanges for project managers can also be considered. Further, it is expected that North and South cooperation events can also serve to create catalytic partnerships and shine a light on best practices from each country in order to mobilize additional sources of financing (domestic and international) for replication and sustainability.

#### *Additional Cost Reasoning, Baseline projects and expected contributions from baseline*

The proposed adaptation interventions will build on ongoing efforts of the health sectors in participating LDCs (either stand-alone national health priority programmes or sectoral programmes and plans that include health as a priority sector) as well as on-the-ground interventions to ensure that LDCF resources will cover the additional cost of incorporating climate change risks and opportunities and mainstreaming adaptation measures in each baseline initiative. Baseline initiatives per country are listed below. It is important to note that during national consultations carried out during PPG phase, an in-depth analysis of these and other initiatives will be conducted in order to further fine-tune areas of LDCF intervention, that are additional to the baseline.

**Bangladesh:** One of the largest programs of the Directorate of the Health Services is "**Health Population and Nutrition Sector Development Program (HPNSDP)**", supported by WHO. The HPNSDP is the third sector-wide program for overall improvement of health, population and nutrition sub-sectors. The priority of the program is to stimulate demand and improve access to and utilization of health population and Nutrition (HPN) services in order to reduce morbidity and mortality, to reduce population growth rate and to improve nutritional status, especially of women and children. The **Urban Public and Environmental Health Sector Development Program (UPEHSDP)** is designed to improve the public and environmental health conditions in the urban areas of Bangladesh, particularly in the six city corporations (Barisal, Chittagong, Dhaka, Khulna, Rajshahi, and Sylhet) with the financial assistance of Asian Development Bank and technical assistance from WHO. The project has been working in four thematic areas namely capacity development, environmental sustainability, gender equity and social development. The project impact will improve public and environmental health of urban inhabitants. Finally, the proposed project will enhance the coordination between the health sector and the Comprehensive Disaster Management Programme (CDMP), a collaborative initiative between Ministry of Disaster Management and Relief and UNDP with the objective to strengthen national capacity to manage risks related to disasters, as well as the immediate response and recovery efforts. (*Expected co-financing from Govt of Bangladesh: \$6,000,000*)

The proposed project will build on these Govt investments to deliver the following additional interventions in Bangladesh: i) design of a HNAP; ii) strengthen national standards and guidelines for monitoring the implementation of climate change and health policies; iii) increase awareness of the health risks of climate change among health professionals and training on sanitary inspections related to climate-sensitive health outcomes; iv) improved integrated surveillance systems that incorporate climate-sensitive infectious and non-infectious diseases; v) develop community vulnerability maps; vi) improve coordination between health systems and the CDMP, among others.

**Cambodia:** The Department of Preventive Medicine (DPM) of Ministry of Health aims to reduce public health risks from disasters; road traffic accidents and other injuries (including risks that may lead to disabilities) and risks from non-communicable diseases, all of which are being supported by WHO programmes, by establishing policies and regulations, strategic planning, capacity-building, prevention, management and coordination of public health issues. DPM operational budget is supported by HSSP-2 pooled funds (AUSAID, DFID, UNICEF, and World Bank), KOICA and MoH. Through the



proposed LDCF project, DPM aims to: strengthen disease surveillance and diagnostic capability and clinical management in public and private sectors; promote early referral and hospitalization and appropriate treatment; strengthen adaptive capacity in health to lessen the effects of CC and protect vulnerable populations; build capacity in Cambodia to minimize consequences of water-related diseases and acute respiratory infections to populations in high-risk areas that are prone to CC; identify and fill knowledge gaps to strengthen programme management. The National Committee on Disaster Management (NDMC) is a network of various government agencies engaged in managing emergencies and implementing prevention and mitigation strategies, leads government initiatives and is supported by local and international NGOs in implementing community-based disaster risk reduction strategies. Currently, the NDMC coordinates a working group for emergency response which includes representatives from the health sector; however, coordination needs to be enhanced to improve response on climate-induced health risks, especially at the sub-national level.

Despite major progress in the past decade, malaria remains a major public health problem in Cambodia; the poor face highest risks. **The National Malaria Control Program (NMCP)** is directly responsible for malaria control. The program is based on the National Malaria Control Strategy developed for 2011-2025 and the main goal is to 1) move towards pre-elimination of malaria across Cambodia with special efforts to contain artemisinin resistant Plasmodium falciparum malaria by 2015; 2) move towards elimination of malaria across Cambodia with an initial focus on P. falciparum malaria and ensure zero deaths from malaria by 2020 and; 3) achieve phased elimination of all forms of malaria in Cambodia by 2025. Operational budget is supported by the Global Fund and MoH.

Through the LDCF proposed project, the National Malaria Control Program (NMCP) will be strengthened to: i) determine the correlation between climatic data and malaria incidences so as to develop an early warning system for malaria control; ii) implement an integrated mosquito control mechanism, with community and inter-sectoral participation; and iii) enhance public awareness on personal protection against mosquito bites. Further, it is expected that through Outcome 3, the institutional coordination between NDMC and health sector will be improved.  
(Expected co-financing from Govt of Cambodia: \$10,835,500)

**Lao PDR:** The **Lao PDR National Socioeconomic Development Plan for 2011-2015** includes seven objectives, one of which is to protect people through better sanitation, diseases control, and health extension. Within the plan are two priorities for health systems: health development and nutritional development, both of which are being supported also by WHO programmes. The goal of health and nutrition development includes creating conditions for access to health services and quality care; attaining equality in receiving health services; and ensuring adequate nutrition and food security. Targets include to decrease maternal mortality to not more than 260 per 100,000 live births; decrease under-five child mortality to 70 per 1,000 live births; 80% of total population to have access to potable water; 60% of total population to have and use latrines; to decrease the proportion of underweight children age under five years to 20%; and to decrease the proportion of stunted children under five years to 34%. The document notes that much of the health infrastructure is below standards, with maternal and childhood mortality rates and under-nutrition very high despite recent gains. The Health Sector Development Plan notes that although progress was made in achieving the goals and targets for the period 2006-2010, work is still needed. The primary constraints were human and financial resources. The Plan details requirements to achieve the 2011-2015 goals and targets. The overall goal is to bring the health sector out of LDC status by 2020. (Expected co-financing from Govt of Lao PDR: \$3,000,000)

The proposed project will build on these Govt investments to deliver the following additional interventions in Lao PDR: i) design of a HNAP; ii) establish a national operational coordination mechanism between meteorological, environmental, and health sectors, and database established for information sharing; iii) long-term sustainable mechanism and training program established on health adaptation and resilience for public health officers and health care workers at national, provincial, and district health facilities; iv) definition of roles and responsibilities of the Division of Environmental and Occupational Health, MoH, and the National Center for Environmental Health and Water, in regards to CCA and health linkages; v) awareness activities at community level on prevention and control of water-borne diseases; vi) identification of populations and areas vulnerable to climate change; vii) vulnerability assessments conducted for future health burdens considering development and CC; viii) climate-sensitive health management and response plans developed in most vulnerable provincial hospitals; among others.

**Myanmar:** The National Disaster Preparedness Central Committee (NDPCC) was established in 2005 to prevent/mitigate the loss of human lives, settlement and property to disaster events. In accordance with guidance of the NDPCC, Government departments are currently preparing **Natural Disaster Management Plans**, while Health and Agriculture have already completed their plans. The country has also formulated **Myanmar Action Plan on Disaster Risk Reduction (MAPDRR)** for 2009-2015 which aims to improve disaster management in Myanmar e.g. protect lives, livelihoods, and secure development. Several WHO programmes on reduction of vulnerability to disasters are being implemented in the country in

coordination with national plans on DRM/DRR. The Department of Health has implemented several measures to reduce health risks in local communities from climate variability by raising awareness using newspapers, TV Spot and posters on the necessary precautions (appropriate behavior changes) vulnerable communities should take to prevent climate-related health risks such as heat-related disorders and the spread of water-borne diseases. These awareness campaigns mainly target communities in the Central Dry Zone and flood risk areas of the country. To address sanitation issues, the Department of Health provides communities with pan and pipe sanitation systems for reducing outbreaks of water-borne diseases especially in flood prone areas. 'National Sanitation Weeks' are held annually to highlight the importance of personal hygiene and sanitation for decreasing health risks. (Expected co-financing from Myanmar Govt: \$3,000,000)

The proposed project will strengthen the existing Govt. actions and expand them to a wider population. The project will develop capacity both at community level and among the health workers to be better prepared for responding to climate related risks and to mitigate risks through preparedness.

Nepal: Government of Nepal is committed to bringing about tangible changes in the health sector development process by providing an equitable, high quality health care system for the Nepalese people. Two Nepal Health Sector Program Implementation Plans (NHSPs) have been implemented and the third NHSP (NHSP III, 2015 -2020) is now in the process of preparation. The **NHSP II** aims to increase the coverage and raise the quality of essential health care services, with a special emphasis on improved access for poor and vulnerable groups; through an efficient sector wide health management system developed with provision of adequate financial resources. Apart from that, introduction of an integrated disease surveillance policy and guidelines to monitor existing and new threats, such as new viruses and the impact of climate change on the geographical spread of vector-borne diseases, as well as strengthen the capacity of public health laboratories is the objective of MoHP. The commitment to the control of communicable diseases is an ongoing one, although a number of new challenges will need to be faced. WHO is implementing programmes that support MoH in integrated disease surveillance and control of communicable diseases. (Expected co-financing from this initiative or Nepal Govt: \$5,000,000)

The proposed project will build on these Govt investments to deliver the following additional interventions in Nepal, as corresponding to each of the above Outcomes: i) design of a HNAP; ii) develop national standards and guidelines for climate-resilient health care facilities; iii) build capacities of MhHP, MoSTE, and MoUDO and other relevant ministries on implementation of HNAP; iv) conduct training for health professionals on climate change and health; v) develop awareness materials for communities; vi) document the extent of water source depletion in urban water supply systems; vii) develop tools for socio-economic analysis of adaptation measures in health; viii) develop early warning and response systems for extreme temperature events; ix) strengthen vector control programmes; x) design climate-related emergency preparedness activities in communities; xi) implement climate-related emergency management in health facilities; among others.

Timor-Leste: The NAPA ranked health risks from climate change as a high priority (priority 3). However, at present the health sector is not equipped to assess the scale of the additional risks from climate change to community health and to adjust its policies and strategies accordingly. The Environmental Health Department, MoH is charged with the responsibilities of climate change and health. Supported by WHO, the Department has conducted pilot activities on adaptation measures in primary schools. Through the school health program, awareness on mitigation and adaptation measures such as vector control, waste management, promotion of school gardening, improved water and sanitation are implemented. In parallel, WHO is implementing a National Malaria Control Program (NMCP) which has achieved a significant reduction of malaria cases (from 223,000 in 2006 to 1,042 in 2014) helping Timor L'este achieve its MDG target for malaria.

The proposed project will be useful in developing national level capacity to undertake health vulnerability and adaptation assessments which would further support in revising plans, strategies and policies. The project will support in creating awareness and developing resilience of both communities and the health systems in addressing climate risks. These efforts will build on the best practices and experiences of the NMCP. (Expected co-financing from Timor-Leste Govt: \$1,500,000).

#### UNDP and WHO co-financing initiatives

The project will build on two UNDP initiatives in the region, which will also serve as co-financing for this project:

- "Building Capacity on Disaster Loss and Damage Information Systems in Asia": UNDP Asia-Pacific Regional Center is working with several countries in Asia to support national level processes in development and maintenance of national/state level disaster loss and damage information systems and to provide support to the identification and assessment of risks and integration of risk reduction strategies in national and sub-national development planning with the view of reducing losses and damages and supporting sustainable development. In addition to capturing the impacts of disasters on humans and various sectors for the last 30-40 years, these databases also have significant sub-national data on health impacts (dengue, diarrhea, cholera, etc.) collected from relevant national health agencies in each country. However, further analysis that links these health impacts to CC risks is needed. This data can serve as baseline for the

efforts in Outcome 3 above, related to EWS, but further, LDCF project can support the analysis and integration of CC information to identify risks that both disaster and climate have on epidemics in various parts of each country and how to better address them. The UNDP project is active in Lao PDR, Myanmar, and Cambodia, among other Asian countries. Support is expected to expand to Nepal, Timor L'este, and others. (Expected co-financing: \$330,000)

- “South-Asia HIV Programme” (UNDP/Global Fund): The LDCF project will build on a two-year \$16.7M investment in South Asia aimed at reducing the impacts of HIV on marginalized and discriminated vulnerable communities. The programme focuses on strengthening community systems to improve coordination with local governments and health care providers and deliver concentrated and quality capacity development support and advocacy, giving a critical role to national NGOs. The LDCF project can catalyze on these coordination efforts with communities and NGOs on the ground in order to expand awareness and advocacy efforts and to ensure that most vulnerable populations in the communities (including women, youth, and marginalized people) are actively involved in health service delivery expected under the LDCF proposal. (Expected co-financing from investments in Nepal and Bangladesh: \$4 M).
- WHO: The WHO/AUS Aid “Water Quality Partnership for Health” project is implemented in 12 countries (six in SEAR – Bangladesh, Bhutan, Nepal, Myanmar, Indonesia and Timor-L'este and six in WPRO -Cambodia, Lao PDR, Mongolia, Pacific Islands, Philippines, and Vietnam). The total amount committed by Australian Government is US\$15 million; implementation is from 2012- 2016. The project focuses on establishing water safety plans as a normal practice in the 12 countries. A Framework for Safe Drinking Water and Water Safety Plans is being developed under the project aimed for higher-level government planning. This framework, together with water safety plans being developed will serve to inform H-NAPs, while LDCF resources can be used to identify further climate change pressures and adaptation alternatives on water safety.

WHO is providing \$900,000 in in-kind co-financing in the form of WHO HQ, regional offices, and country offices staff time.

#### Adaptation Benefits

The project is expected to deliver local and national adaptation benefits. MoH/DoH staff in each country will benefit from the training and capacity building, ensuring improved management of climate-sensitive health outcomes over all temporal scales. The improved coordination across government departments and the sharing of information will reduce the frequency and intensity of outbreaks of climate-sensitive health outcomes. In addition, this improved coordination will likely spill over to facilitating management of other issues.

The strengthened surveillance and early warning systems at local and national levels will help prevent avoidable climate-sensitive health outcomes, thus contributing to socioeconomic development. Women and children will particularly experience benefits because they are more vulnerable to climate-sensitive health outcomes.

#### Innovativeness, sustainability and potential for scaling up

Innovative aspects of the project include that it builds on experience in the health sector on managing the risks of climate-sensitive health outcomes without considering climate change, thus extending their value. Further, the project will integrate adaptation activities in disaster risk management, as related to reduce disaster impacts on health. Embedding the project in Ministries of Health will ensure sustainability, as the MoH are responsible for maintaining the effectiveness of health systems. Once climate change is identified as a priority in strategic plans, and appropriate standards are modified, then managing the health risks of climate change will become part of the core activities of the MoH, therefore making this a sustainable initiative.

The regional approach will in itself ensure that catalytic partnerships across countries are developed and the regional-level systematization of lessons and best practices are compiled and analyzed to develop technical guidelines, manuals and tool-kits, thereby ensuring that these can be replicated and scaled-up across the region. Similarly, the project will serve to establish a network of skilled professionals and practitioners on adaptation and health, in the countries and partner agencies, forming a community of practice which can continue to engage, and provide support to other countries implementing similar projects to build health resilience and mainstream these into planning, through future programmes. The fact that climate risks are included into on-going climate-sensitive health programmes (e.g. malaria, water and sanitation, disaster risk reduction, and nutrition) rather than creating parallel interventions, will ensure that these programmes will become climate-resilient and that climate risks will continue being considered once the project is over. At the regional level, with the support of relevant technical experts, best practices on building climate resilience across different health programmes will be systematized and norms defined, so as to continue to support countries (and expand to others) on building health resilience.

The project has a large potential for scaling up. Within countries, once capacity is built and experience gained through the pilot projects, the experience can be applied to managing other climate-sensitive health risks and to informing national adaptation plans as they evolve. Further, the best practices identified across the countries can be applied to other countries in the region as they begin developing national health adaptation plans.

*A.2. Stakeholders:*

| Stakeholder   | Relevant roles   |
|---|--|
| <b>Bangladesh</b>   |  |
| 1. Ministry of Health and Family Welfare + DGHS<br>2. Ministry of Environment and Forest + DOE<br>3. Department of Public Health Engineering of Ministry of Local Government and Rural Development (DPHE)<br>4. UNDP<br>5. WHO<br>6. Institute of Epidemiology, Disease Control and Research (IEDCR)<br>7. Bangladesh Centre for Advance Studies (BCAS)<br>8. Communities, including local government institutes  | (1) Lead agency to implement the project jointly with other agencies and to develop the strategy for mainstreaming and incorporation of the H-NAP into the national health policy<br><br>(2) Monitoring and implementation of the H-NAP with advocacy for resource allocation in climate vulnerable area in terms of medication and water supply intervention.<br><br>(3) Develop capacity of health workers in various subjects as outlined in the proposal<br><br>(4) DPHE to assist in the improvement of WASH in health care facilities<br><br>(5) WHO to monitor implementation and to provide technical support<br><br>(6) IEDCR and BCAS to support in developing and strengthening the climate-sensitive diseases surveillance system<br><br>(7) NGO very active on adaptation to climate change; they will provide technical support and knowledge of which stakeholders to engage<br><br>(8) Communities will be consulted during the PPG phase  |
| <b>Cambodia</b>   |  |
| 1. Ministry of Health (MOH)<br>2. Preventive Medicine Department, MOH<br>3. Communicable Disease Control Department, MOH<br>4. National Center for Parasitology, Entomology and Malaria Control, MOH<br>5. National Institute of Public Health, MOH<br>6. Department of Planning, MOH<br>7. Ministry of Environment<br>8. Ministry of Education<br>9. Ministry of Water Resources and Meteorology<br>10. Non-governmental (local and international) organizations and community representatives<br>11. Selected provincial health departments<br>12. WHO<br>13. Communities | (1) Evaluation and identification of health care infrastructure needs and capacity of health personnel<br><br>(2) Developing of H-NAP, strategy for climate change and health, and strengthening of inter-sectoral coordination and data/information sharing among agencies. Provide overall coordination, implementation and management of projects related to waterborne diseases, respiratory diseases and other climate-sensitive diseases including emergency preparedness and response<br><br>(3) Provide coordination, management and surveillance of projects related to waterborne diseases, respiratory diseases and climate-sensitive diseases.<br><br>(4) Strengthening national institutional capacity, support for sustainability of the project such as development of training program for healthcare workers; and surveillance, control and prevention of vector borne diseases.<br><br>(5) Strengthening of laboratory capacity<br><br>(6) Coordination of Disaster Management Program and health systems<br><br>(7) Provide guidance on development of national action plan and strategy including advocacy support<br><br>(8) Promoting health education and raising awareness on climate change resilience and adaptation to climate sensitive health outcomes among school children and parents<br><br>(9) Provide climatic data and information for early warning system development and analysis<br><br>(10) Promoting public education and raising awareness on climate change resilience and adaptation to climate sensitive health outcomes<br><br>(11) Implementation of surveillance system and capacity building in diagnostic, case management, prevention and public education of climate-sensitive diseases |

|   |  |
|---|--|
|   | (12) Provide technical assistance and sourcing for expertise supports<br>(13) Communities will be consulted during the PPG phase   |
| Laos  |  |
| <ol style="list-style-type: none"> <li>1. Ministry of Natural Resource and Environment, Ministry of Health</li> <li>2. National Center for Environmental health and Water Supply</li> <li>3. Selected 2 provincial health departments, district health offices, provincial centers for environmental health and water supply</li> <li>4. Provincial hospitals</li> <li>5. Non-governmental (local and international) organizations and community representatives</li> <li>6. Communities</li> </ol>   | <ol style="list-style-type: none"> <li>1. Developing H-NAP, strategy for climate change and health, and strengthening inter-sectoral coordination</li> <li>2. Strengthening national institutional capacity, long term support for sustainability of the project such as development of training program for public health and healthcare workers, and control and prevention of waterborne diseases</li> <li>3. Strengthening local early warning system, and integrated surveillance</li> <li>4. Developing climate-sensitive health management and response plans and introducing Green Hospital Initiatives</li> <li>5. Raising awareness on climate change resilience and adaptation to climate sensitive health outcomes</li> <li>6. Communities will be consulted during the PPG phase</li> </ol> |
| Myanmar   |  |
| <ol style="list-style-type: none"> <li>(1) Ministry of Health</li> <li>(2) Ministry of Environmental Conservation and Forestry</li> <li>(3) Ministry of Transport,</li> <li>3.a Department of Meteorology</li> <li>(4) Department of Rural Development</li> <li>(5) City Development Committee</li> <li>(6) Ministry of Agricultural and Irrigation</li> <li>(7) WHO</li> <li>(8) Communities</li> </ol>  | <ol style="list-style-type: none"> <li>(1) Lead agency to implement the project and need to cooperate and collaborate with in line other Ministries</li> <li>(2) GEF country focal Ministry</li> <li>(3) Monitoring agency for the weather forecast and climate model</li> <li>(4) Responsible Agency for rural water supply to reduce the water scarcity</li> <li>(5) Agency for Urban Water supply</li> <li>(6) Responsible agency for food security</li> <li>(7) Financial and technical assistant agency</li> <li>(8) Communities will be consulted during the PPG phase</li> </ol>  |
| Nepal   |  |
| <ol style="list-style-type: none"> <li>(1) Ministry of Health and Population (MoHP)</li> <li>(2) Ministry of Urban Development (MUD)</li> <li>(3) Ministry of Science technology and Environment (MoSTE)</li> <li>(4) Research institutions/Academia</li> <li>(5) NGOs, Civil Society organizations</li> <li>(6) Communities</li> </ol>   | <ol style="list-style-type: none"> <li>(1) Lead government agency to implement the project</li> <li>(2) Government agency to implement some of the activities related to WASH</li> <li>(3) For technical support and coordination as focal ministry for climate change</li> <li>(4) For capacity building and research activities</li> <li>(5) Partnership with government agencies for awareness programs and implementation of adaptation activities at the local level</li> <li>(6) For sharing their experience on research studies and adaptation actions and for ownership of any physical work done that will be handed over to them</li> </ol>   |
| Timor-Leste   |  |
| <ol style="list-style-type: none"> <li>(1) Ministry of Health</li> <li>(2) WHO</li> <li>(3) Ministry of Education</li> <li>(4) Secretary of State of Environment, Ministry of Economic &amp; Development</li> <li>(5) Directorate of Meteorology, Ministry of Communication, Telecommunication &amp; Transport</li> <li>(6) Directorate of Water &amp; Sanitation, Ministry of Infrastructure</li> <li>(7) National NGOs (NGO Forum, NGO Haburas, etc),</li> <li>(8) Member of parliaments, local authorities, religious groups and civil societies</li> <li>(9) Communities</li> </ol> | <ol style="list-style-type: none"> <li>(1) Provide overall coordination, implementation, and management of the project</li> <li>(2) Provide technical assistance</li> <li>(3) Implement the relevant climate change adaptation activities</li> <li>(4) Involve in the advocacy and coordination</li> <li>(5) Involve in coordination and implementation, providing data and information on climate and weather forecast.</li> <li>(6) Implement the water safety plans</li> <li>(7) Implement the project in the pilot districts</li> <li>(8) Provide oversight and support for the projects</li> <li>(9) Communities will be consulted during the PPG phase ; implement activities</li> </ol>   |

### A.3. Gender Considerations:

The project will be designed with a strong emphasis on benefiting marginalized, excluded, and vulnerable community groups. It will ensure that vulnerability assessments take into account social and gender vulnerabilities, such as stigma, discrimination, and regulatory and legal barriers, which make certain populations particularly vulnerable to climate change and deter them from seeking relevant health services. Awareness campaigns will be designed to reach out to marginalized communities and most vulnerable groups such as women, youth, elderly and people with disabilities, enabling their engagement in discussions and decision-making. Further, particular attention will be given to ensure that the creation of national health standards and guidelines (component 1) consider the most vulnerable and excluded groups.

### A.4 Risks

| Risk  | Mitigation Measure   |
|---|--|
| Climatic: Potential hazards caused by extreme climatic effects may harm adaptation efforts in target communities and health care facilities   | Effectively harness the climate information and EWS to be strengthened for the design and scheduling of field interventions. Consider range of potential climate change scenarios and expected frequency and intensity of extreme weather events in the studies and plans to be developed for climate proofing of essential health facilities, as well as adjusting preparedness and contingency measures and associated regulatory and institutional frameworks and processes |
| Technical capacity: Stakeholders are not able to distinguish vulnerability to CC from baseline weaknesses in disease control practices and management of environmental determinants of health (especially related to food and water security) | Maintain proactive awareness raising and communication programmes, coupled with technical training and application of health information and early warnings to help differentiating climate and non-climate drivers for the implementation of integrated adaptation interventions  |
| Institutional: Poor collaboration between national project partners delays project implementation, considering the cross-sectoral nature of health  | Address institutional arrangements for cross-agency cooperation during project formulation and implementation inception phases, harness existing national and subnational coordination mechanisms  |

### A.5. Coordination.

The LDCF project will coordinate with ongoing government efforts (especially from MoH), as well as initiatives from UNDP, WHO, CSOs and NGOs, and other development partner initiatives, at the national and regional levels, that aim at incorporating climate information into health intervention, to ensure that there is no duplication of efforts and that benefits of the proposed project are maximized. Other initiatives active on mainstreaming adaptation in policies, strengthening data and information on health, and health service delivery will also be taken into account. Coordination will also be ensured with GEF, LDCF, and AF-funded projects active on the ground (national and regional), and especially with the ongoing global support programmes on NAPs (jointly implemented by UNDP and UNEP). The following are some of the initiatives highlighted during initial consultations with Govts of participating LDCs:

- “Building adaptation to climate change in health in LDCs through resilient Water, Sanitation and Hygiene (WASH)” (DFID/WHO, Bangladesh and Nepal)
- “The Development of Research and Innovative Policies Specific to the Water-related Impacts of Climate Change on Health in Cambodia” (DRIP-SWICCH)
- “Strengthened Capacity for CCA in Health: Integrated Response to Climate Sensitive Vector-Borne Diseases in Cambodia” (EU, SIDA, UNDP)
- “Mainstreaming Disaster and Climate Risk Management into Investment Decisions” (WB, Laos)
- EU Climate Change Adaptation Initiative (Laos, Cambodia)
- “Pro-Poor Community Infrastructure and Basic Services” (ADB, Myanmar)
- “Pilot Program for Climate Resilience (PPCR)” (CIF, Bangladesh, Cambodia, Nepal)
- “Developing Timor L’este Coastal Economy- Assessing Potential Climate Change Impacts on Adaptation Options” (Govt Australia, Timor L’este)

During PPG stage, further consultations with development partners and NGOs will be conducted to ensure coordination with an exhaustive list of initiatives in each country.

**DESCRIPTION OF THE CONSISTENCY OF THE PROJECT WITH:**

**B.1 National strategies and plans or reports and assessments under relevant conventions**

This PIF bundles requests from six countries to access LDCF financing: Bangladesh, Cambodia, Laos, Myanmar, Nepal, and Timor-Leste, to respond to priorities and actions identified in the NAPAs, in the context of climate change negative impacts on human health. This project strategy and the NAPA of each of country are linked by a common goal of **informing climate-resilient health systems management and development planning through improved risk management**. The country NAPAs prioritize adapting to the health risks of climate variability and change. Health is a priority sector in all of these countries’ NAPAs. The NAPAs list priority activities within the health sector and in other sectors that affect health. All countries prioritized the following:

- Health systems strengthening
- Mainstreaming adaptation into policies
- Water security and safety
- Food security
- Extreme weather and climate events
- Training and knowledge building

Early warning systems were frequently mentioned in the context of water and food security. Also mentioned was managing the risks of extreme weather and climate events.

Further, as explained in the baseline initiatives section, the project is consistent with national health policies and programmes and will build on these to execute the proposed climate change adaptation measures.

**PART III: APPROVAL/ENDORSEMENT BY GEF OPERATIONAL FOCAL POINT(S) AND GEF AGENCY(IES)**

**A. Record of Endorsement<sup>11</sup> of GEF Operational Focal Point (S) on Behalf of the Government(s):** (Please attach the [Operational Focal Point endorsement letter\(s\)](#) with this template. For SGP, use this [SGP OFP endorsement letter](#)).


| NAME                          | POSITION  | MINISTRY  | DATE (MM/dd/yyyy)  |
|-------------------------------|---|---|--------------------|
| Md. Shafiqur Rahman Patwari   | Secretary and GEF OFP                             | Ministry of Env and Forests (Bangladesh)        | 21 May, 2014       |
| H.E. Dr. Lonh Heal            | General Director of Technical Affairs and GEF OFP | Ministry of Environmnet (Cambodia)              | 23 June, 2014      |
| Mr. KhampAdith Khammounheuang | Director General and GEF OFP                      | Environment Quality Promotion Department (Laos) | 19 September, 2014 |
| Hla Maung Thein               | Deputy Director General and GEF OFP               | Environment Conservation Dept (Myanmar)         | 7 August, 2014     |
| Madhu Kumar Marasini          | Joint Secretary and GEF OFP                       | Ministry of Finance (Nelap)                     | 21 July, 2014      |
| Joao Carlos Soares            | GEF OFP   | Ministry of Commerece, Industry and             | 26 May, 2014       |

<sup>11</sup> For regional and/or global projects in which participating countries are identified, OFP endorsement letters from these countries are required even though there may not be a STAR allocation associated with the project.

|  |  |                           |  |
|--|--|---------------------------|--|
|  |  | Environment (Timor Leste) |  |
|--|--|---------------------------|--|

**B. GEF Agency(ies) Certification**

|  |
|--|
| <b>This request has been prepared in accordance with GEF policies<sup>12</sup> and procedures and meets the GEF criteria for project identification and preparation under GEF-6.</b> |
|--|

| <b>Agency Coordinator, Agency name</b>             | <b>Signature</b>  | <b>Date (MM/dd/yyyy)</b> | <b>Project Contact Person</b>                 | <b>Telephone</b> | <b>Email</b>           |
|--|---|--------------------------|---|------------------|------------------------|
| Adriana Dinu<br>Executive Coordinator,<br>UNDP/GEF |  | Nov 6, 2014              | Claudia Ortiz,<br>RTS,<br>Bangkok,<br>GLECRDS |                  | Claudia.ortiz@undp.org |

**C. Additional GEF Project Agency Certification** (*Applicable Only to newly accredited GEF Project Agencies*)

For newly accredited GEF Project Agencies, please download and fill up the required **GEF Project Agency Certification of Ceiling Information Template** to be attached as an annex to the PIF.

<sup>12</sup> GEF policies encompass all managed trust funds, namely: GEFTF, LDCF, and SCCF