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## Global Environment Facility

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July 30, 2009

Dear LDCF/SCCF Council Member:

The UNDP as the Implementing Agency for the project entitled ***Ghana: Integrating Climate Change into the Management of Priority Health Risks*** has submitted the attached revised PIF document following Council request.

The Secretariat has reviewed the revised PIF document and it satisfactorily addresses the Council comments. We have today posted the revised PIF document on the GEF website at [www.TheGEF.org](http://www.TheGEF.org) for your information.

If you do not have access to the Web, you may request the local field office of UNDP or the World Bank to download the document for you. Alternatively, you may request a copy of the document from the Secretariat. If you make such a request, please confirm for us your current mailing address.

Sincerely,

A handwritten signature in black ink, appearing to read 'M. Barbut', with a horizontal line extending to the right.

Attachment: Revised PIF

cc: Alternates, GEF Agencies, STAP, Trustee



# PROJECT IDENTIFICATION FORM (PIF)

PROJECT TYPE: FULL-SIZED PROJECT

THE SPECIAL CLIMATE CHANGE FUND (SCCF) <sup>1</sup>

**Submission Date:** September 11, 2008

**Re-submission Date:** April 9, 2009 & April 16, 2009

GEFSEC PROJECT ID<sup>2</sup>:

GEF AGENCY PROJECT ID: 3796

COUNTRY(IES): Ghana

PROJECT TITLE: Integrating Climate Change Into the Management of Priority Health Risks in Ghana.

GEF AGENCY(IES): UNDP

OTHER EXECUTING PARTNER(S): **MINISTRY OF HEALTH, ENVIRONMENTAL PROTECTION AGENCY, GHANA**

GEF FOCAL AREA (S): Climate Change Adaptation

INDICATIVE CALENDAR	
Milestones	Expected Dates
Work Program (for FSP)	N/A
CEO Endorsement/Approval	May 2010
GEF Agency Approval	Oct 2010
Implementation Start	Nov 2010
Mid-term Review (if planned)	May 2011
Implementation Completion	Dec 2013

## A. PROJECT FRAMEWORK (Expand table as necessary)

<b>Project Objective:</b> <i>To identify, implement, monitor, and evaluate adaptations to reduce current and likely future burdens of malaria, diarrheal diseases, and meningococcal meningitis.</i>								
Project Components	Investmt, TA, or STA**	Expected Outcomes	Expected Outputs	Indicative GEF Financing*		Indicative Co-financing*		Total (\$)
				(\$)	%	(\$)	%	
1. Strengthen technical capacities to manage climate change-related health risks	TA	1. Improved national and local health technical sector capacity to plan and manage climate change induced disease burdens such as malaria, diarrhoeal diseases, and meningococcal meningitis and some respiratory diseases like asthma	1.1 National health control programme staff of the malaria and Guinea worm control programmes and the national disease surveillance unit trained to anticipate and have an action plan for climate change impacts on disease burdens in Ghana 1.2 Information and analytical systems established under the Ministry of Health and Ghana Health Service, which will be integrated with regional, district and sub-district systems for diagnosing climate change implications on disease burdens at sub-national level 1.3 Sub-national level climate change health risks maps developed depicting areas vulnerable to climate change health risks 1.4 Cost-effective strategies and measures that reduce the long-term risk of climate change impacts on diseases such as malaria developed and costed	950,002	36	1,700,000	64	2,650,002
2. Climate change health	TA	2. Mechanisms established for	2.1 Gaps, opportunities and a national strategy for	400,000	30	950,000	70	1,350,000

<sup>1</sup> This template is for the use of SCCF Adaptation projects only. For other SCCF projects under Technology Transfer, Sectors and Economic Diversification windows, other templates will be provided.

<sup>2</sup> Project ID number will be assigned initially by GEFSEC.

<p>risk mainstreamed into decision-making at local and national health policy levels.</p>		<p>cross-sectoral coordination mechanisms established to support climate change-resilient health policy formulation at national and local policy-making levels.</p>	<p>mainstreaming climate change risks into health sector policies identified and developed in collaboration with WHO, Ministry of Health, Ghana Health Service, Ministry of Environment and donors in the Health and environment sector</p> <p>2.2 Inter-Ministerial Committee (led by the Ministry of Health and appropriate representatives from the National Climate Change Committee) established to coordinate responses to manage climate change induced health risks</p> <p>2.3 The Ministry of Health and Ghana Health Service together with Environmental Protection Agency to review and recommend to district and parliament policy makers adjustments to existing health regulations to factor in climate change risks</p> <p>2.4 Under the guidance of National Development and Planning Commission and the Ministry of Environment and Local Government, the MOH and Ghana Health Service will set up legal instruments to clarify jurisdictions and roles between different tiers of government to manage climate change related health risks</p> <p>2.5 Collaborated efforts from the Ministry of Health's malaria control programme and Ministry of Environment (EPA) to take into account climate change risks within the existing Roll Back Malaria programme, the Global Malaria Programme and other relevant campaigns mount a nation-wide campaign to improve environmental sanitation</p> <p>2.6 Review and field test of participatory climate change sensitive health risk reduction interventions (including nation-wide campaigns) in additional pilot districts (to be identified during the preparatory phase)</p>					
<p>3. Information</p>	<p>TA</p>	<p>3 'Lessons</p>	<p>3.1. Costing tool(s) for climate</p>	<p>218,180</p>	<p>24</p>	<p>700,000</p>	<p>76</p>	<p>9,180</p>

management and effective dissemination of climate change health risk knowledge base.		learned' collected and knowledge management components established	change sensitive health risk reduction measures developed for use by relevant Ministries (Agriculture, Water, Environment, Health, etc) 3.2. Best practices and 'lessons learned' from adaptation to climate change health risk are collected, codified and disseminated at the local, national and international level using appropriate modalities (e.g. Adaptation Learning Mechanism)					
4. Project Management, Monitoring, Evaluation				150,000	27	400,000	73	550,000
<b>Total project costs</b>				1,718,182	31%	3,750,000	69%	5,468,182

\* List the \$ by project components. The percentage is the share of GEF and Co-financing respectively to the total amount for the component.

\*\* TA = Technical Assistance; STA = Scientific & technical analysis.

#### B. INDICATIVE FINANCING PLAN SUMMARY FOR THE PROJECT (\$)

	Previous Project Preparation Amount (a) <sup>3</sup>	Project	Agency Fee	Total
GEF	0	1,718,182	171,818	1,890,000
Co-financing	0	3,750,000		3,750,000
<b>Total</b>		5,468,182	171,818	5,640,000

#### C. INDICATIVE CO-FINANCING FOR THE PROJECT (including project preparation amount) BY SOURCE and BY NAME (in parenthesis) if available, (\$)

Sources of Co-financing	Type of Co-financing	Amount
Project Government Contribution (EPA, Ministry of Environment)	Grant (Parallel)	2,000,000
	In -Kind	850,000
GEF Agency (UNDP Multilateral Fund)	Grant	500,000
GEF Agency (UNDP Ghana)	Grant	200,000
Other - bilateral	Grant	200,000
<b>Total co-financing</b>		3,750,000

#### D. GEF RESOURCES REQUESTED BY FOCAL AREA(S), AGENCY (IES) SHARE AND COUNTRY(IES)\*

N/A

<sup>3</sup> Include project preparation funds that were previously approved but exclude PPGs that are waiting for approval.

## PART II: PROJECT JUSTIFICATION

### **A. STATE THE ISSUE, HOW THE PROJECT SEEKS TO ADDRESS IT, AND THE EXPECTED ADAPTATION BENEFITS TO BE DELIVERED:**

1. Ghana's physical location renders the country especially vulnerable to climate change impacts on the human population. Expected impacts, as identified in the Initial National Communication<sup>4</sup>, focus on across three resource sectors: water, coastal, and agricultural. Future climate change scenarios have indicated that both maximum and minimum temperatures will increase across all agro-climatic zones of Ghana, with the highest increases in the Sudan Savannah Zone. This average maximum temperature increase is projected to be around 3°C in the Sudan Savannah Zone and 2.5°C in all other agro-climatic zones by the year 2020. Historically, Ghana has experienced a rising temperature of approximately 1°C over the previous 30 year period and a resultant 20% reduction in rainfall, and 30% reduction in surface water runoff and discharges. With continued projected warming these runoff amounts could decrease by 15-20% for the year 2020 and 30-40% for the year 2050, reductions with serious implications for groundwater recharge, hydropower generation, and other national ecosystems services of the water cycle. Mean annual rainfall is projected by 2100 to have decreased by 170 mm in the Sudan Savannah Zone, 74 mm in the Guinea Savannah Zone and 99 mm in the Semi-Deciduous Rainforest Zone, with some rainfall *increase* in the High Rainforest Zone. About 7% of land area in Ghana is categorized as coastal zone, and is home to 25% of the population who live in and around the main urban centres of Accra-Tema, Sekondi-Takoradi, and Cape Coast. Significant sea-level rise by the year 2020 is expected to inundate two-thirds of the total coastal land area, leading to a potential loss of more than 1000 km<sup>2</sup> of land area.

2. These long-term changes to climatic variables impact human health by mostly acting as a "stress-multiplier" to existing climate-sensitive burdens of disease. The projected reduction in available irrigation water, symptomatic of reduced rainfall and increased demand in warming regions, will directly affect already vulnerable vector-disease habitats, food-crop production, and quantities of safe water for drinking and washing. Potentially very vulnerable populations are those living in Ghana's very dry, wedge like strip of land extending east 40 km from Sekondi-Takoradi. Expected sea-level rise will not only likely require movement of coastal populations and infrastructure due to land-loss, but will also increase the salinity of groundwater sources, affect fishing industries, and decrease resiliency to flooding and storm damage. With such impacts, the potential for exacerbating existing Ghana disease burdens of malaria, diarrhoeal illness, meningitis, respiratory diseases, and malnutrition, is very large.

3. The adverse impacts of climate change on health risk are compounded by a current and significantly large disease burden. Malaria is identified as one of the leading causes of death in Ghana and diarrhoeal disease is a major cause of childhood mortality and morbidity. Malaria, guinea worm infestation, cholera, meningitis, and diarrhoeal diseases account for about 50% of the total disease burden in Ghana. Climate is a primary determinant of whether a particular location has suitable environmental conditions for the transmission of malaria, meningitis, and diarrheal diseases. At the same time, while climate is an important driver of malaria, it is not the only one. However, even if these other drivers could be resolved, malaria in Ghana (for example) is likely to see some alterations in its seasonality of incidence (currently, a 7 month season in the North to year-round on the coast), rather than changes to an area's endemic potential. This is due to the fact that almost every region of Ghana already has (more than 90% of the time) a climate suitable to endemic malaria<sup>5</sup>. Given seasonal cycles of food- and waterborne diseases, climate change is likely to affect their incidence and distribution. Without implementation of effective and efficient of health policies and measures that explicitly recognize climate change risks, in conjunction with efforts to reduce other current risks, development gains in Ghana are likely to be seriously compromised.

4. Since 1998 Ghana has committed itself to the Roll Back Malaria (RBM) Initiative of WHO, which builds on the Global Malaria Strategy with a focus on Africa. The goal of the Roll Back Malaria Initiative is to halve the world's malaria burden by 2010. Consequently the country drew up a 'Medium Term Strategic Plan for Malaria Control in Ghana' (1998-2002), which sought to improve the coverage of malaria control activity by adopting an inter-sectoral approach involving other government sectors and partnership with the private sector and the community<sup>3</sup>. It has also committed itself to the Abuja Declaration on Roll Back Malaria in Africa, which similarly seeks to achieve specific targets on malaria prevention and control with time limits.

5. The Ministry of Health produced a Roll Back Malaria (RBM) Strategic Plan in 2000 with the overall goal of facilitating human development by reducing the malaria disease burden. The RBM plan is in line with the objectives of MDG 6. The following priority interventions in the RBM plan will be promoted and strengthened in Ghana's Growth and Poverty Reduction Strategy (GPRS II), a key national policy framework directed primarily towards the attainment of the anti-poverty objectives of the UN's Millennium Development Goals (MDGs): improve malaria case management; multiple prevention (including promotion and use of insecticide treated bed-nets, especially by children and pregnant women; encourage drainage, mosquito proofing and general sanitation; promote

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<sup>4</sup> Ministry of Environment, Science and Technology, 2001. Ghana's Initial National Communication under the United Nations Framework Convention on Climate Change. USEPA: Accra.

<sup>5</sup> MARA/ARMA, 2005. Ghana: Distribution of endemic malaria. Available: <http://www.mara.org.za>, Durban.

limited application of indoor and outdoor residual spraying; and promote chemoprophylaxis for pregnant women); improved partnership; and focused research. In improving malaria case management, primary interventions include ensuring early case recognition, ensuring appropriate response and referral and improving access to prevention and treatment services.

6. Current interventions to support the health sector do not take the risks of climate change into account. To date, Ghana's approach to climate change in relation with human health vulnerability has been a reactive, and is characterised by an absence of a well-defined strategic and policy intervention plan for both the medium and long-term. Besides financing shortages, the absence of a policy framework for addressing climate change related health risks, absence of technical and institutional capacities at local and national levels makes the need for corrective interventions even more urgent. Current control programs for malaria, diarrheal diseases, and meningococcal meningitis are also of limited value, as evident by the high disease burdens despite the efforts to manage such health risks. While the Roll Back Malaria programme, Integrated Management of Childhood Illness (IMCI), and other programs have recently commenced implementation to help reduce morbidity and mortality, these programs do not integrate the implications of climate change, including variability, on disease control activities.

7. The project will seek to lift these barriers to counter the increased probability of health risks from climate change. This will entail institutional strengthening, capacity building, and awareness raising under a programmatic approach to climate change sensitive health risk management. Three critical components underpin this initiative: (1) Strengthening technical capacities to manage climate change-related health risks; (2) Climate change health risk mainstreamed into decision-making at local and national health policy levels, and (3) Information management and effective dissemination of climate change health risk knowledge. Demonstration activities will also be implemented in selected pilot areas identified to be at particularly high health related risks due to climate change.

8. The project will generate adaptation benefits by building local and institutional capacity to manage adverse climate change impacts on human health, especially among vulnerable sub-groups such as women and children. The results of the project will be relevant to decision-makers in other parts of sub-Saharan Africa and in regions of the world where climate sensitive diseases such as malaria, diarrhoeal diseases, and meningococcal meningitis are prevalent. It will complement the governments' present initiatives such as the Roll Back Malaria programme, Integrated Management of Childhood Illness (IMCI). The project will address long term adaptation to climate change needs by supporting the development of local capacities and institutions to explicitly factor in climate change risks on key disease burdens and various national level plans and programmes that are designed to manage their expected spread and impact on development. As this project is closely aligned with national development priorities, this will not require large-scale diversion of development resources. With SCCF support, this project will result in a measurable increase in the adaptive capacity of Ghana to reduce current and climate change-attributed increases in malaria, diarrheal diseases, and meningococcal meningitis. The project will help to mobilize various national stakeholders to learn, develop, and implement comprehensive strategies and cost-effective adaptation measures that aim to build community resilience to climate change impacts. The implementation of the demonstration projects and development of early warning systems (with partners such as Bureau for Crisis Prevention and Recovery, WHO, WMO and others) will serve as a focus for capacity building and as a learning opportunity to guide further adaptation interventions in health and other sectors.

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

9. At the 2007 ECOSOC Annual Ministerial Review (AMR) in Geneva, national development goals for Ghana were reconsidered in perspective of past poverty-reduction strategies, the MDGs, and strategic actions forward<sup>6</sup>. Ghana's poverty reduction strategies in the form of GPRS I and GPRS II first sought policy-frameworks broadly attuned to attain national poverty reduction objectives while remaining consistent with MDGs. This was done through a focus on: macroeconomic stability, production and gainful employment, human development and basic services, and special programmes for the vulnerable and excluded. These policies secondly sought to rectify vulnerabilities in the private sector and social structure weaknesses. These programs have helped progress Ghana towards attainment of MDGs. In relation to climate-sensitive health outcomes, some MDG attainments are of particular interest. Malnutrition has seen some change over recent years, with 23% of children under three still suffering from stunting, down 7% from 2003. Malaria still remains a top cause of mortality and morbidity in Ghana, but a new strategic National Malaria Control Programme (NMCP) has recently been initiated and supports a state-private sector partnership to improve use and availability of Insecticide Treated Nets (ITNs), whose use have grown substantially in recent years. Water and sanitation sectors have also seen great improvement and development in recent years (including access to safe drinking water of 91% of urban dwellers and 69% of rural dwellers) but regularity and quality are not always guaranteed. Ghana has set out a course<sup>7</sup> of continued actions against these impediments to achieve MDGs and poverty-reduction generally.

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<sup>6</sup> Government of Ghana, 2007. Strengthening efforts for the eradication of poverty and hunger, Ghana: Country review report. ECOSOC Annual Ministerial Review: Geneva.

<sup>7</sup> Government of Ghana & UNDP, 2006. Country Programme Action Plan: 2006-2010. UNDP: Ghana.

10. This proposed project has been designed as a comprehensive and flexible way to appropriately respond to the climate change health risk, contribute to the attainment of health-related MDGs, and increase the sustainability of the health sector through the current century. As poverty and socio-economic status are well-known as determinants of human health, it is evident that as this project pursues outputs that improve population health through MDG-relevant disease pathways, it is simultaneously contributing to national priorities of Ghana in general.

### **C. DESCRIBE THE CONSISTENCY OF THE PROJECT WITH LDCF/SCCF ELIGIBILITY CRITERIA AND PRIORITIES:**

11. In line with guidance for the SCCF (GEF/LDCF.SCCF.2/4 May 17, 2007), this proposal seeks SCCF funding for a Full-Size Project (FSP) to implement climate change adaptation priorities identified during Ghana's Initial National Communication and National Capacity Self-Assessment Report, and through activities undertaken in preparation for the Second National Communications. UNDP, together with other relevant partners (such as WHO, WMO and others) will support Ghana in making the necessary adjustments to existing policies and practices, and in adopting new policies to secure the health-related Millennium Development Goals (MDGs) under changing climatic conditions. The project is innovative in that it is one of the first health adaptation projects funded by the GEF/SCCF in West Africa, which is likely to bear the brunt of climate change impacts.

12. The project will implement long-term risk reduction measures that will support the health sector and its officers to manage the likely increase in health related impacts. This area of work is consistent with the eligibility criteria of the Special Climate Change Fund (SCCF). In line with the SCCF goal to establish projects that demonstrate how adaptation planning and assessment can be practically translated into activities that will provide real benefits to vulnerable communities and be integrated into national policies, the proposed interventions aim at piloting practical adaptation approaches at the local level, capacity building and mainstreaming of climate change and health management in Government policies. The project will implement long-term adaptation measures that increase local and national resilience to climate-sensitive disease burden so as to reduce their associated morbidity and mortality. The Project focuses on key cross-sectoral adaptation options which have been identified as a priority by National Communications to the UNFCCC. Building on the baseline activities of the government of Ghana, and introducing additional activities that address specific climate change induced risks, the project has the potential to form an important component of the SCCF portfolio, providing lessons to inform long-term adaptation to increased health risks. As outlined in the SCCF guidance paper, these will include innovative institutional frameworks, and monitoring and forecasting and early warning systems, and strengthening and establishing national and regional centres and information networks to effective responses to climate change induced health risks.

### **D. OUTLINE THE COORDINATION WITH OTHER RELATED INITIATIVES:**

13. Many of the factors that affect the ability of the health sector to prevent outbreaks of malaria, diarrheal diseases, and meningitis are not directly related to climate change, so partnerships with related initiatives are critical to the success of this initiative. This SCCF project has the potential to bring together several Ministries, the World Health Organization, and other donors (World Bank) to pursue a coordinated approach to managing climate change and health issues. Relevant to the intent outlined in this proposal, are those ongoing projects under the aegis of the Ministry of Health's "Roll Back Malaria Strategic Plan". This SCCF project also provides an opportunity to catalyze change across relevant government agencies, NGOs, and communities to (a) better align programmes and projects that address climate change and health; and (b) introduce a proactive (as opposed to reactive) risk management approach for climate change and health issues.

In this context, UNDP is currently supporting Ghana with adaptation to climate change with both secured and anticipated funding from multiple sources. UNDP's Africa Adaptation Programme has allocated approx. \$2.7m for climate change adaptation, UNDP, through its Bureau for Crisis Prevention and Reconstruction (BCPR) has allocated approx. \$2m for climate change and disaster risk reduction to effectively respond to the perennial disasters confronting the three northern regions which includes floods, pests and diseases. In addition, a UNEP-UNDP Project, which provides small grants and technical human resource capacities to Ghana for removal of urgent barriers to integrating climate change risks into development, the World Bank's Global Fund for Disaster Risk Reduction has allocated \$5m along with numerous other initiatives of smaller scale such as CB2, UNDP Country Office's Climate Risk Management Programme, a World Bank project looking into the economics of climate change, a GEF Terra Africa Project, not to mention an in country multi-donor budget support (MDBS) mechanism for natural resources and the environment (currently resourced to the amount of \$70m). The Project Preparatory Phase will explore these and other relevant initiatives that should be explicitly coordinated with, in order to support Ghana to pursue a strategic vision on adaptation. The project will also be linked to the UNDP/WHO global project "Piloting climate change adaptation to protect human health" (also submitted to the SCCF Work Programme in June 2009). Linkages will be made in the form of (a) ensuring that the PMU of the Ghana project is linked to the PMU of the global project so that technical advice can be shared between the global project and the initiative in Ghana; and (b) ensuring that knowledge is collected, codified, developed and shared using standardized methods and processes. Other linkages between the global project and the Ghana initiative will be discussed and identified during the preparatory phase and outlined in the project document submitted for CEO endorsement. At national, district and lower levels, co-ordination mechanisms will be established to facilitate full

participation of district assemblies, social organisations, and communities in the project. Regular exchange and coherence between all stakeholders will also be facilitated throughout the process.

Efforts to coordinate the different and synergistic initiatives have already commenced but are not as yet finalized given that the preparatory phase for this SCCF project is at a very early stage. In recognition that the timely convergence of multiple sources of funds presents an opportunity to exercise a programmatic approach to adaptation in Ghana, a joint programming mission to Accra, comprising of staff from UNDP, World Bank and UNEP, took place in April 2009. List of proposed and ongoing projects are indicated as follows:

- World Bank/ GFDRR: support for development and implementation of a Country DRM Plan (\$5.0m)
- UNDP Ghana: Mainstreaming DRR and CCA (\$700,000 ) – mainly for capacity and institutional building;
- UNDP BCPR: Recovery Program for Northern Region (\$1.2 m)
- UNDP GEF: Impacts of climate change on Health (\$2 m)
- UNDP UNEP: CC-DARE to help finalize preparation of the National Climate Change Adaptation Strategy (\$150,000)
- UNDP Africa Adaptation Program (AAP): support for CRM/ CCA (\$2.5 million, 2009 – 2012).
- CB2: Targeting coordination of environmental conventions (\$450,000)

Specific linkages between these synergistic projects in terms of scope, finance envelop and relevant parties were identified. Based on this initial stock-take, specific details of the modalities for linking each of these projects are currently being defined through the ongoing project preparatory work for all these initiatives. The same UNDP staff (at the country and regional level) are involved in the design of these initiatives. They are explicitly bearing in mind the operational and substantive inter-linkages of these initiatives in the design of each of these projects. The details of these linkages, as they pertain to the SCCF project will be spelt out at the time of CEO endorsement.

## **E. DESCRIBE ADDITIONAL COST REASONING**

### *Without GEF Intervention*

14. Malaria, diarrhoeal illness, meningitis, and other diseases already incur a heavy toll on development in Ghana. Programmes designed and implemented by the health as well as other key development sectors (such as agriculture and water) that do not consider the future environment in which they will be embedded (with respect to climate change and health) are likely to be short-sighted. A business-as-usual strategy in the face of climate change risks the failure of several key health interventions for key diseases, inadequate information and technical capacity, and absence of necessary public health protection and management services to the people of Ghana.

### *With SCCF Intervention (Adaptation Alternative)*

15. Under the adaptation scenario, interventions that focus on explicitly managing climate change risks on health will be supported that are country-drive, cost-effective, and integrated into national sustainable development and poverty-reduction strategies. The SCCF-funded interventions will focus particularly on capacity building, including institutional capacity and awareness raising as well as demonstrations of effective management of climate sensitive health risks. It will focus on supporting decision-making to take into account climate change risks, increase up-take of health-climate change relevant information, test interventions in the context of managing changing probabilities of disease burdens as climate itself shifts, and knowledge sharing and collaboration. Based on the adaptation baseline, the project will identify new and modify existing health-related and other relevant strategies, policies, and measures to increase resilience to climate change, including variability. The project will contribute towards more anticipatory, rapid and effective responses to climate-related infectious disease outbreaks.

16. Co-financing, to be identified during the preparatory phase, will be used to continue support for activities associated with baseline development. The magnitude of SCCF funding will be determined by the sliding scale formula specified in GEF/C.24/12. As the expected magnitude of GEF funding is in the order of \$2 million, the SCCF will cover up to one third of the costs, meaning that co-financing of at least \$3 million will be mobilized.

### Component 1: Strengthen technical capacities to manage climate change-related health risks

*Outcome 1: Improved national and local health technical sector capacity to plan and manage climate change induced disease burdens such as malaria, diarrhoeal diseases, and meningococcal meningitis and some respiratory diseases like asthma*

### *Without SCCF Intervention*

17. Most indicators show that progress has been made in improving the health status of the Ghanaian population. There exist marked mortality and morbidity differential by climate-sensitive indices across geographical and climatic regions and socio-economic groupings. However, current interventions to support the health sector do not take the risks of climate change into account. The baseline situation is that epidemics of malaria, diarrhoeal diseases, and meningococcal meningitis are dealt with through reactive and curative interventions, such as by insecticide spraying and treatment. Current interventions do not consider how climate change could affect future disease burdens and the preventive interventions that could reduce current and future vulnerability. Strategies for



surveillance and anticipatory responses are poorly integrated across the responsible agencies, including meteorological services and animal and human health agencies.

*With SCCF Intervention (Adaptation Alternative)*

18. Financing from the SCCF will be used to meet the additional costs of the interventions necessary to manage the additional risks posed by climate change, including variability. In particular, national and local level health officials will be technically capacitated to better manage the likely future implications on disease burdens. Training will be provided on the implications of climate change on health burdens, and “systems” will be put in place for relevant authorities to make informed management decisions in anticipation of climate change impacts on key diseases. That is, rather than using funds to provide a snapshot of the implications of climate change on health, the project will assist to set up a diagnostic system within relevant institutions (Ministry of Health, National Planning Departments) to reiteratively examine the implications of climate change on disease burdens and to feed findings into health and development planning and financing processes. A regular supply of sub-national level maps indicating hot-spots for climate induced health risks will assist with precautionary and anticipatory actions to be identified by the relevant national and sub-national entities. In addition, SCCF funds will be used to develop effective national and sub-national strategies to explicitly manage the likely increase in the probability of higher disease burdens. The project will build upon and expand the current government and donor initiatives, specially the Roll Back Malaria programme to reduce the burdens of malaria, diarrheal diseases, and meningitis, thus increasing resilience to climate variability and change. Funds will also be used to test interventions (to be identified during the preparatory phase) that are aimed at reducing the risk of health incidences as climate changes. In this context, stakeholders at the national and local level will be trained in monitoring and evaluating these risk reduction interventions. This is critical as numerous other interventions are likely to be necessary over time as climate changes. No project, alone, will provide the requisite solutions. However, as finance for adaptation increases over time, it is critical that there are tried and tested means of verifying hypothesised impacts of various interventions.

Outputs:

- 1.1 National health control programme staff of the malaria and Guinea worm control programmes and the national disease surveillance unit trained to anticipate and have an action plan for climate change impacts on disease burdens in Ghana
- 1.2 Information and analytical systems established under the Ministry of Health and Ghana Health Service, which will be integrated with regional, district and sub-district systems for diagnosing climate change implications on disease burdens at sub-national level
- 1.3 Sub-national level climate change health risks maps developed depicting areas vulnerable to climate change health risks
- 1.4 Cost-effective strategies and measures that reduce the long-term risk of climate change impacts on diseases such as malaria developed and costed

Component 2: Climate change health risk mainstreamed into decision-making at local and national health policy levels.

*Outcome 2: Mechanisms established for cross-sectoral coordination mechanisms established to support climate change-resilient health policy formulation at national and local policy-making levels.*

*Without SCCF Intervention*

19. At present, health related issues are not integrated with core development programmes. Strategies for surveillance and anticipatory responses to health issues are poorly integrated across the responsible agencies, including meteorological services and animal and human health agencies. Without this project, Ghana will continue to pursue health policies, and by extension development programmes and policies, that do not factor in the implications of climate change. Policy makers will continue to make decisions with incomplete information and a systematic and holistic approach to risk reduction will remain largely out of reach.

*With SCCF Intervention (Adaptation Alternative)*

20. SCCF funds will be used to measurably increase the adaptive capacity of Ghana to reduce current and climate change-attributed increases in malaria, diarrhoeal diseases, and meningococcal meningitis. Especially, given that climate change is a cross-cutting issue, funds will be used to ensure that key concerns are effectively factored into the development plans and strategies including national and local health policies and strategies. Building on work previously done in the context of the National Communications and other similar initiatives, funds will be used to review and recommend adjustments to existing health regulations so that they factor in climate change risks. In particular, gaps and opportunities for mainstreaming climate change adaptation into health sector policies will be identified. A comprehensive capacity development plan prepared for decision-makers to systematically develop awareness of anticipated projections of climate change related health risks will be developed. This will not only facilitate decision makers to be made more aware of the implications of climate change related health risks and their impact on core development targets but it will enable them to design and implement necessary prevention and risks management strategies, policies and measures at the sub-national level. This will contribute towards furthering cross-sectoral decision-making processes and the development of a national strategy for mainstreaming adaptation practices into health sector programs and planning developed. This outcome will also serve to improve awareness of climate risks and facilitate improved preparedness and prevention policies at the local level.

### Indicative Outputs

- 2.1 Gaps, opportunities and a national strategy for mainstreaming climate change risks into health sector policies identified and developed in collaboration with WHO, Ministry of Health, Ghana Health Service, Ministry of Environment and donors in the Health and environment sector
- 2.2 Inter-Ministerial Committee (led by the Ministry of Health and appropriate representatives from the National Climate Change Committee) established to coordinate responses to manage climate change induced health risks
- 2.3 The Ministry of Health and Ghana Health Service together with Environmental Protection Agency to review and recommend to district and parliament policy makers adjustments to existing health regulations to factor in climate change risks
- 2.4 Under the guidance of National Development and Planning Commission and the Ministry of Environment and Local Government, the MOH and Ghana Health Service will set up legal instruments to clarify jurisdictions and roles between different tiers of government to manage climate change related health risks
- 2.5 Collaborated efforts from the Ministry of Health's malaria control programme and Ministry of Environment (EPA) to take into account climate change risks within the existing Roll Back Malaria programme, the Global Malaria Programme and other relevant campaigns, mount a nation-wide campaign to improve environmental sanitation
- 2.6 Review and field test of participatory climate change sensitive health risk reduction interventions (including nation-wide campaigns) in additional pilot districts (to be identified during the preparatory phase)

### Component 3: Information management and effective dissemination of climate change health risk knowledge base.

#### *Outcome 3: 'Lessons learned' collected and knowledge management components established*

##### *Without SCCF Intervention*

21. The complexity of inter-relationships between climate change and human health has led to poor assessment of vulnerability. Currently, information on the impacts of climate change on human health in Ghana is scattered and poorly disseminated. Coordination among the various stakeholders and sharing of knowledge among users is very poor. Control activities are undertaken by different divisions within various organizations and institutions and there is no systematic monitoring or evaluation.

##### *With SCCF Intervention (Adaptation Alternative)*

22. Under the alternative scenario, the project will enhance local knowledge on adaptive management of climate induced-health risks. Based on activities from outcomes (1) and (2), SCCF funds will support the identification of good practices and disseminating knowledge on adaptive management of health risks. These products will be essential to developing capacity to reduce climate change induced health risk reduction strategies, policies and measures as well as reduce impacts on key economic activities. Linkages will be made to UNDP-GEF's Adaptation Learning Mechanism so that lessons from this project will reach a broader audience. The National media (TV) FM radio stations' open forum, group participatory discussions, drama etc. will all be employed to enhance effective dissemination of coping and acceptable practices of adaptation. The project will be closely coordinated with other adaptation projects to maximise learning across the GEF portfolio with a long-term and sustainable planning. Sharing knowledge among users will ensure that the GEF portfolio can benefit from the comparative strengths and experience of the various projects. The lessons learned from this project will facilitate adaptation learning and implementation in other low-income countries that are vulnerable to increases in burdens of malaria, diarrheal diseases, and meningococcal meningitis due to climate change.

### Indicative Outputs

- 3.1. Costing tool(s) for climate change sensitive health risk reduction measures developed for use by relevant Ministries (Agriculture, Water, Environment, Health, etc)
- 3.2. Best practices and 'lessons learned' from adaptation to climate change health risk are collected, codified and disseminated at the local, national and international level using appropriate modalities (e.g. Adaptation Learning Mechanism)

## **F. INDICATE THE RISK THAT MIGHT PREVENT THE PROJECT OBJECTIVE(S) FROM BEING ACHIEVED AND OUTLINE**

### **RISK MITIGATION MEASURES:**

- Difficulty of stake-holders to agree on appropriate interventions for climate-sensitive diseases
- Reluctance of key stakeholders to participate in mainstreaming climate change issues into difficult decision-making processes
- Poor multi-sectoral cooperation.
- Uncoordinated disease-control activities
- Poor monitoring and evaluation

23. The following table details non-achievement risks and their mitigation measures:

<b>Risk</b>	<b>Risk rate</b>	<b>Mitigation</b>
<i>Difficulty of stake-holders to agree on appropriate interventions for climate-sensitive diseases</i>	<i>L</i>	<i>Stakeholders (government, NGOs and communities) may have some differing health objectives. But promotion of cost-effective and scaling up, existing on the ground interventions will receive the greatest focus.</i>
<i>Reluctance of key stakeholders to participate in mainstreaming climate change issues into difficult decision-making processes</i>	<i>L</i>	<i>The risk of reluctance of stakeholders should be low as climate change is increasingly being recognized for its magnitude and detrimental potential to all sectors of society. However, the collected on the ground knowledge base that results from these projects will be continually presented as a tool for easy mainstreaming of the climate change risk.</i>
<i>Evolution of the Climate change risk</i>	<i>L</i>	<i>The commitment to interventions, mainstreaming, and information management in this project is a comprehensive approach and protective measure against a health risk that will continue to change over this century.</i>
<i>Uncoordinated disease-control activities</i>	<i>L</i>	<i>A management structure will be adopted that will have responsibility for facilitating coordination and management of the multisectoral national implementation team on disease-control activities.</i>

Additional project risks will be further identified, and a comprehensive risk analysis and risk management strategy could be prepared.

**G. DESCRIBE, IF POSSIBLE, THE EXPECTED COST-EFFECTIVENESS OF THE PROJECT:**

24. The Financing Plan for the Full Project will be determined during the PDF-B phase of the project. A preliminary estimate of the level of funding required implementing the anticipated range and scope of the proposed activities is in the region of US\$ 6 million in total, of which approximately US\$ 2 million would be sought as a GEF grant plus an estimated US\$ 4 million in co-financing. The co-financing for the FSP will be of both “initial” and “subsequent” nature. During the project formulation, co-financing resources to develop the adaptation models will need to be identified, mainly with “in cash” co-financing, whilst later spread and adoption of the models is expected with Government “in-kind” co-financing. Co-financing for long-term capacity development activities will be identified and mobilized throughout the project implementation as the context evolves. The co-financing for the PDF-B will be Government contribution, both “in-kind” and “in-cash” through established practice in most GEF/UNDP projects to make the project cost-effective.

**H. JUSTIFY THE COMPARATIVE ADVANTAGE OF GEF AGENCY:**

25. This project is aligned with UNDP’s comparative advantage in the areas of sustainable development and increased population resiliency to detrimental burdens of disease and socio-economic shocks. The project is aligned with UNDP’s climate change strategy, especially the strategic priority on promoting “early adaptation actions and long-term adaptive capacity of developing countries in a programmatic manner” This is linked directly to UNDP’s Strategic Plan (2008-2011) outcome on “Promoting adaptation to climate change”. UNDP will provide the following services under this strategic priority.

- (i) Support the development of national climate change platforms and networks to collect and disseminate information on climate change impacts and adaptation options.
- (ii) Enhance the capacity of developing countries to design and implement policies to integrate adaptation into domestic plans, budgetary and fiscal policies, investments and practices.
- (iii) Help countries identify and prioritize with all stakeholders short-term “no regrets” adaptation responses to reduce adverse impacts on existing livelihoods.

26. This project will be closely coordinated with other adaptation projects to maximise learning across the GEF portfolio. Sharing knowledge among users will ensure that the GEF portfolio can benefit from the comparative strengths and experience of the various projects. Cooperation with international and regional organisations and agencies (especially the World Health Organization) will continue and be expanded during project design and implementation. The Ministry of Health will lead the multi-sectoral national implementation team, and some external technical expertise will be required. The Implementing Agencies are national and technical agencies with skilled professionals. The organisation with the main responsibility for formulating the project will be the Ministry of Health, with technical assistance from UNDP Ghana.


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

**A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT(S) ON BEHALF OF THE GOVERNMENT:**

(Please attach the [country endorsement letter\(s\)](#) or [regional endorsement letter\(s\)](#) with this template).

<b>NAME</b>	<b>POSITION</b>	<b>MINISTRY</b>	<b>DATE</b>
Jonathan A. Allotey	GEF Operational Focal Point	Environment Protection Agency	April 6, 2008

**B. AGENCY(IES) CERTIFICATION**

This request has been prepared in accordance with SCCF policies and procedures and meets the SCCF criteria for project identification and preparation.					
Agency Coordinator, Agency name	Signature	Date	Project Contact Person	Telephone	Email Address
John Hough Officer-In-Charge UNDP/GEF		July 15, 2009	Tom Twining-Ward, Regional Technical Advisor for CC-A, West Africa	+27 12 3548136	<a href="mailto:tom.twining-ward@undp.org">tom.twining-ward@undp.org</a>

**Letter of  
Endorsement**

Tel: (021) 664697 / 664698,  
662465 / 667524  
Fax: 233 (021) 662690

Email: support@epaghana.org



**Environmental Protection Agency**

P. O. Box M 326  
Ministries Post Office  
Accra, Ghana

6 April 2008

**The Executive Coordinator  
GEF Secretariat  
Washington DC  
USA**

Dear Sir,

**ENDORSEMENT FOR CLIMATE CHANGE AND HUMAN HEALTH PROGRAMME  
IN GHANA**

In my capacity as GEF Operational Focal Point for Ghana, I confirm that that above project proposal

- (a) is in accordance with the government's national priorities, including, if available, the priorities identified in the National Adaptation Plan of Action, and the commitments made by Ghana under the relevant global environmental conventions and
- (b) has been discussed with relevant stakeholders, including the UNFCCC Focal Point, in accordance with GEF's policy on public involvement.

Accordingly, I am pleased to endorse the preparation of the above project proposal with the support of the United Nations Development Programme (UNDP) and implemented by Ministry of Health. Further, I request UNDP to provide a copy of the project for purpose of request before it is submitted to the GEF Secretariat for CEO endorsement.

I understand that the total Special Climate Change Fund financing being requested for this project is US\$2,000,000.00, inclusive of project preparation grant (PPG), if any, and Agency fee (10%) to UNDP for project cycle management services associated with this project.

Sincerely,

  
**Jonathan A. Allotey  
Operational Focal Point, Ghana  
Executive Director, EPA**

Copy to: **Mr. William Kojó Agyemang-Bonsu  
UNFCCC Focal Point, Ghana  
EPA, Ghana**