

# CLIMATE INVESTMENT FUNDS

PPCR/SC.6/5  
June 7, 2010

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Meeting of the PPCR Sub-Committee  
Washington D.C.  
June 23, 2010

## **YEMEN: PROPOSAL FOR PHASE 1 FUNDING**

**Proposed Decision by PPCR Sub-Committee**

The PPCR Sub-Committee reviewed the proposal PPCR/SC.6/5, *Yemen: Proposal for Phase 1 Funding*, and approves \$1.5 million in financing to support the preparation of Yemen's Strategic Pilot Program. The Sub-Committee invites the World Bank Group to work with Yemen, in consultation with other development partners, to prepare the Yemen's Strategic Program for Climate Resilience.

## PILOT PROGRAM FOR CLIMATE RESILIENCE: YEMEN

### Summary Phase I Grant Proposal

1. Country/Region:	Yemen (pilot country program)	2. CIF Project ID #:	{Trustee will assign ID.}
3. Date of First Joint Mission:	14-23 November 2009		
4. Funding request:	US \$ 1,500,000.00		
5. Type of request:	Accelerated funding for phase 1: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
6. Multilateral Development Banks/focal points:	IFC: Sherif Motawe IBRD (LEAD): Kanta Kumari Rigaud	A. David Craig, Country Director Kanta K. Rigaud, Task Team Leader	
7. National Implementing Agency: Environmental Protection Authority (EPA) Government focal point: Mr. Mahmoud Shidiwah, Chairman, Environmental Protection Authority (Fax No.: 967 1 207 327)			
8. Project Description:			
(i) <b>Key development challenges</b> (vulnerability) related to climate change/variability: <ul style="list-style-type: none"> <li>• Exacerbation of water scarcity due to increased incidence of droughts, floods, rainfall variability</li> <li>• Reduced crop harvests due to irregular rainfall and reduced water supply</li> <li>• Increased threat to fisheries, coastal and marine ecosystem and coastal communities</li> <li>• Reduced female education due to increases in water transport duties</li> <li>• Increased food insecurity due to decreased agricultural income from reduced crop harvests</li> <li>• Increased frequency of natural disasters (floods, storms, ) both in the hinterland and coastal areas</li> </ul>			
(ii) <b>Areas of intervention</b> - Strategic program for climate resilience (SPCR) (indicative): <ul style="list-style-type: none"> <li>• Climate Change Information System and Awareness Raising</li> <li>• Mainstreaming Climate Change Resilience into National Development Planning</li> <li>• Formulation of Yemen's SPCR and Identification of Phase II Interventions</li> <li>• PPCR Program Coordination</li> </ul>			
(iii) <b>Outcome:</b> <ul style="list-style-type: none"> <li>• Broaden and strengthen the existing MOU for establishing a shared mechanism for climate data collection and management by relevant agencies, including greater public awareness.</li> <li>• Equip line agencies to integrate climate and other risk considerations into sectoral and cross-sectoral policy, strategy and plans.</li> <li>• Develop Yemen's Strategic Program for Climate Resilience (SPCR) and identify potential interventions for preparation and implementation under Phase 2</li> <li>• Enhance the capacity of the EPA as the technical secretariat of IMCCC to coordinate the preparation and coordinate the implementation of PPCR (under Phase 1 and 2) and to provide technical guidance.</li> </ul>			
(iv) <b>Key Results:</b> <ul style="list-style-type: none"> <li>• The 4<sup>th</sup> Five Year National Development Plan (2010-2015) incorporates climate resilience as a smart growth strategy in key sectors</li> <li>• A clear road map for key line agencies on how to mainstream climate resilience, based on in depth institutional assessments, needs and gaps, including identification of priority actions that need to be addressed.</li> <li>• Agreement on a joint, shared mechanism for climate information management in place, and a short, medium and long-term plan for Yemen to address this issue as a foundation for response to climate change and climate variability.</li> <li>• Fully functioning mechanisms to effectively address climate change at the policy, institutional, and implementation levels.</li> </ul>			

9. Budget (indicative):

<b>Expenditures</b>	<b>Amount (\$) - estimates</b>
Consultants:	
International	700,000
Local	500,000
Equipment:	100,000
Workshops/seminars:	200,000
Contingencies:	
<b>Total Cost:</b>	<b>1,500,000</b>
Other contributions (bilateral or private sector):	250,000 (Government of Yemen)

10. Timeframe (tentative) – milestones

Submission for Trust Fund Committee approval:	June 2010
Phase I – Second Joint mission:	January 2011
SPCR for Trust Fund Committee approval:	May 2011

# REPUBLIC OF YEMEN

Ministry Of Planning &  
International Cooperation

Minister



الجمهورية اليمنية  
وزارة التخطيط والتعاون الدولي  
الوزير

Ref : MPIC/1/3/7

الرقم: .....

Date : 29/5/2010

التاريخ: .....

Ms. Patricia A. Bliss-Guest  
Program Manager  
Climate Investment Funds Administrative Unit  
The World Bank  
Washington, DC, United States of America  
(Transmission by fax: 001-202-522-2937)  
Email: cifadminunit@worldbank.org)

Dear Ms. Bliss-Guest,

**Subject: Yemen Pilot Program for Climate Resilience (PPCR) - Phase I Proposal Submission (P118304)**

The Ministry of Planning and International Cooperation, on behalf of the Government of the Republic of Yemen, wishes to formally submit the Phase I proposal of the Pilot Program for Climate Resilience in Yemen with its annexes to the Climate Investment Fund (CIF) Administrative Unit. This Phase I proposal will assist Yemen to produce a Strategic Program for Climate Resilience for the country, and to identify priority interventions and investments to be supported under Phase II of the PPCR.

This proposal is an outcome of a consultative processes that commenced from the scoping mission (July 2009) and continued consultations throughout, including from the joint and other missions, under the leadership of the Government of the Republic of Yemen, and in cooperation with the World Bank and the International Finance Corporation. The proposal is based on broad-based consultations and dialogue with key national and local stakeholders, and development partners.

We look forward to the approval of the Phase I approval by the PPCR Sub-Committee so that the Government of the Republic of Yemen may proceed with the implementation of the activities as contained in the attached proposal.

Details of the submission are as outlined in the emailed documentation from the Environment Protection Authority, and the CIF Administrative Unit may publish the information.

In view of their interest and participation in the above, I am copying this letter to other agencies.

Sincerely yours,

Abdulkarim I. Al-Arhabi

Deputy Prime Minister for Economical Affairs  
Minister of Planning and International Cooperation (MOPIC)



# Preparation of a Strategic Program for Climate Resilience (SPCR) for Yemen Proposal for Phase I Funding from the Pilot Program for Climate Resilience

## Table of Contents

<b>A. OVERVIEW .....</b>	<b>9</b>
A.1 COUNTRY CONTEXT .....	9
A.2 SECTOR CONTEXT AND CLIMATE VULNERABILITY .....	10
A.3 CLIMATE CHANGE DIAGNOSIS IN YEMEN .....	13
A.4 INSTITUTIONAL CONTEXT AND STRATEGIC PROCESSES TO ENHANCE CLIMATE RESILIENCE .....	16
A.5 COOPERATION WITH DONOR AND DEVELOPMENT PARTNERS .....	20
A.6 ONGOING STRATEGIC AND CLIMATE RESILIENCE WORK .....	21
<b>B. KEY MESSAGES AND EMERGING IDEAS FROM THE PPCR CONSULTATIVE PROCESS .....</b>	<b>23</b>
B.1 CONSULTATION PROCESS .....	23
B.2 KEY MESSAGES AND EMERGING IDEAS .....	23
<b>C. OVERALL FRAMEWORK OF THE PPCR IN YEMEN AND PHASE I PROPOSAL .....</b>	<b>27</b>
C.1 GOAL AND OBJECTIVE OF THE PPCR .....	27
C.2 PHASE 1 PPCR: PILLARS AND DESCRIPTION .....	27
C.3 PHASE 2 PPCR: IMPLEMENTATION OF YEMEN’S STRATEGIC PROGRAM FOR CLIMATE RESILIENCE .....	30
<b>D. PROPOSED IMPLEMENTATION ARRANGEMENTS AND BUDGET FOR PHASE 1 OF THE PPCR .....</b>	<b>32</b>
D.1 IMPLEMENTATION ARRANGEMENTS .....	32
D.2 PROPOSED BUDGET AND SCHEDULE FOR PHASE I .....	33
<b>E. LIST OF ANNEXES .....</b>	<b>38</b>
Annex 1: Ranked Priority Adaptation Projects from the National Adaptation Program of Action (NAPA) .....	39
Annex 2: Summary of Potential Areas of Cooperation with Development Partners .....	40
Annex 3: List of Key Investments and Climate Initiatives in Yemen .....	41
Annex 4: Overall Summary of the Consultation Process under the PPCR .....	48
Annex 5: Detailed Description of Activities under Phase I of the PPCR .....	60
Annex 6: Terms of Reference (TORs) of the Program Coordination Unit Core Staff .....	64
Annex 7: Strategic Environmental and Social Assessment .....	73

## List of Acronyms

AFD	French Development Agency
AREA	Agriculture Research Extension Authority
BGR	Federal Institute for Geosciences and Natural Resources (Germany)
CA	Certified Accountant
CAMA	Civil Aviation and Meteorology Authority
CAS	Country Assistance Strategy
CBO	Community Based Organizations
CC	Climate Change
CIF	Climate Investment Funds
CPA	Certified Public Accountant
CSO	Civil Society Organizations
CZM	Coastal Zone Management
DfID	Department for International Development (United Kingdom)
DP	Development Partner
DRR	Disaster Risk Reduction
EKN	Embassy of the Kingdom of the Netherlands
EOI	Expression of Interest
EPA	Environment Protection Authority
ESDIP	Environment and Sustainable Development Investment Program
EU	European Union
FAO	United Nations Food and Agriculture Organization
FCU	Fisheries Cooperative Union
FM	Financial Manager
FRMCP	Fisheries Resources Management and Conservation Project
FY	Fiscal Year
GDP	Gross Domestic Product
GEF	Global Environment Facility
GFDRR	Global Facility for Disaster Reduction and Recovery
GHG	Greenhouse Gas
GIS	Geographic Information System
GOY	Government of Yemen
GSCP	Groundwater and Soil Conservation Project
IBRD	International Bank for Reconstruction and Development
IC	Irrigation Councils
ICZM	Integrated Coastal Zone Management
IDA	International Development Association
IFAD	International Fund for Agricultural Development
IFC	International Finance Corporation
IFR	Interim Financial Report

IMCCC	Inter-Ministerial Committee on Climate Change
INC	Initial National Communication
IPCC	Inter-governmental Panel on Climate Change
IPP	Irrigation Improvement Project
IWRM	Integrated Water Resources Management
JICA	Japan International Cooperation Agency
JSDF	Japan Social Development Fund
KfW	German Development Bank
MAA	Maritime Affairs Authority
MAI	Ministry of Agriculture and Irrigation
MENA	Middle East and North Africa
MFW	Ministry of Fish Wealth
MLA	Ministry of Local Administration
MOF	Ministry of Finance
MOMR	Ministry of Oil and Mineral Resources
MOPIC	Ministry of Planning and International Cooperation
MOT	Ministry of Transport
MOU	Memorandum of Understanding
MTIT	Ministry of Telecommunications and Information Technology
MWE	Ministry of Water and Environment
NAPA	National Adaptation Program of Action
NBSAP	National Biodiversity Strategies and Action Plan
NCAP	Netherlands Climate Assistance Programme
NCSA	National Capacity Self-Assessment
NEAP	National Environmental Action Plan
NFSSP	National Food Security Strategy Paper
NGO	Non-Governmental Organization
NOAA	National Oceanic and Atmospheric Administration
NPA	National Program of Action
NRM	Natural Resources Management
NWRA	National Water Resources Authority
NWSSIP	National Water Security Strategy and Investment Plan
PCDP	Port Cities Development Program
PCU	Program Coordination Unit
PPCR	Pilot Program for Climate Resilience
PRSP	Poverty Reduction Strategy Paper
RALP	Rainfed Agriculture and Livestock Project
S&EIA	Strategic and
SCDP	Sustainable Development and Biodiversity Conservation
SCF	Strategic Climate Fund



SDF	Social development Funds
SESA	Strategic Environmental and Social Assessment
SME	Small- and Medium-sized Enterprises
SNC	Strategic National Communication
SPCR	Strategic Program for Climate Resilience
SWaP	Sector Wide Approaches
SWESIA	Sector wide environmental and social impact assessment
TA	Technical Assistance
TBD	To Be Decided
TFESSD	Trust Fund for Environmentally and Socially Sustainable Development
TOR	Terms of Reference
TS	Technical Secretariat
UK	United Kingdom
UN	United Nations
UNCCD	United Nations Convention to Combat Desertification
UNDP	United Nations Development Program
UNEP	United Nations Environment Program
UNFCCC	United Nations Framework Convention on Climate Change
US	United States
WB	World Bank
WBG	World Bank Group
WEC	Water and Environment Center
WFP	World Food Program
WHO	World Health Organization
WRM	Water Resources Management
WSSP	Water Sector Support Project
WUA	Water User Association
YGSMRB	Yemen Geological Survey and Mineral Resources Board
YRSC	Yemen Remote Sensing Center
YSAEP	Yemen Society for Environmental Protection
YWU	Yemeni Women's Union

**Preparation of a Strategic Program for Climate Resilience (SPCR) for Yemen**  
**Proposal for Phase I Funding from the PPCR**

## **A. Overview**

### **A.1 Country Context**

1. **Yemen is the poorest country in the Middle East and North Africa (MENA) region.** GDP per capita (US\$) stands at about \$1,006, and over 40 % of Yemenis live in poverty, especially in rural areas. Yemen faces decreasing financial and economic resilience as oil revenues dwindle. There is an urgent need for Yemen to understand and address climate change, climate variability, and climate impacts as part of its broader development challenges.
2. **The PPCR provides Yemen with a unique opportunity to understand climate change, and prepare a road map for climate resilience** to be mainstreamed into development planning, while showcasing transformation changes at the institutional and sector levels through the implementation of key pilots. Phase I of the PPCR is the preparatory phase for the overall program and will lay the foundation for climate resilience to be mainstreamed into development planning, and inform the identification of specific interventions and investments that would be supported under Phase II.
3. **Yemen's Phase I PPCR program consists of four pillars, namely:**
  - I. Climate Change Information System and Awareness Raising
  - II. Mainstreaming Climate Change Resilience into National Development Planning
  - III. Formulation of Yemen's SPCR & Identification of Phase II Interventions
  - IV. Program Coordination of the PPCR
4. These pillars will be supported by \$1.5 million grant through the PPCR, and are addressed further in Section C.



## **A.2 Sector Context and Climate Vulnerability**

5. **All the key development sectors in Yemen face fundamental challenges, and there are numerous indices which underscore the adverse state of the resources which underpin these sectors.** The vulnerability of Yemen's landscapes and seascapes, and the local communities, are further compounded by climate change. In Yemen, vulnerability to climate change, especially of the rural poor who constitute almost 85% of the total population, are multiplied because of the integral linkages between key development sectors. The following brief overview of the sectors provides a synopsis of the linkages and challenges across sectors and climate vulnerability.
6. **The vulnerability of the water sector in Yemen is unsurpassed in the region, and likely in the world.** With growing acute and chronic water shortages, demand outstripping supply, ground water abstraction reaching up to 4-6 times in some basins; it is not surprising to note that in some important cities, such as Tai'z, running water is already available only a few hours every other week. In the capital Sana'a and other urban centers, aquifers may be fully exhausted in a few decades. Yemen has prepared a National Water Sector Strategy and Investment Program (NWSSIP), which was updated in 2009, and which calls for finding appropriate solutions to better water resources management, increase irrigation efficiency, increase urban and rural water supply and sanitation coverage and increase institutional, technical and managerial capacity of water utilities. The Bank and other Development Partners (DPs) have come together to support NWSSIP through the Water Sector Support Program (WSSP), which has recently become effective. The PPCR provides an excellent opportunity to fully assess the impacts of climate change and mainstream climate resilience measures into this critically important sector through the WSSP.
7. **Agricultural income plays a vital role in poverty reduction, and there would be considerable multiplier effects through the economy from changes in agricultural output as a consequence of climate and other related risks.** In Yemen, both irrigated and rainfed areas, each covering 50% of the land area, are vulnerable to climate change. Irrigated agriculture is threatened by groundwater depletion and spreading of Qat plantation and rainfed agriculture is dwindling due to flood and draught extremes. Excessive floods resulted in soil erosion and damages in agriculture infrastructure and losses in rural economy. White draught negatively affects agricultural production and lower farmers income and reduces groundwater recharge. This is coupled with low quality seeds and primitive agricultural practices. The agricultural has brought some prosperity to rural areas in terms of income. However, it is not sustainable and there is lack of export competitiveness country wide, thus reducing the macroeconomic returns from irrigation. Irrigated agriculture has irrigated agriculture uses about 90% of total water resources and Qat is consuming about 40% of this scarce and precious resource. If groundwater abstraction continued in the same rate (two and

have time more that recharge) people live in the highlands (65% of total population will be forced to leave their homes and, hence, create economic crisis and social unrest in the country. There are some ongoing programs in the sector to improve efficiency and conservation of water use (Groundwater Soil Conservation Project); the efficiency and productivity in rainfed areas (Rainfed Agriculture Livestock Project), and piloting of climate coping strategies for rainfed communities, including development of a climate resilient strategy for rainfed agriculture (Agro-biodiversity and Climate Adaptation Project). However, there is an urgent need, through the PPCR, to understand fully the implications to the wider economy of changes in agriculture due to the added impacts of climate – and to prepare the sector adequately to respond to the challenge.

8. **Food price hikes will have the dual effect of increasing food insecurity and malnutrition, both of which will be compounded by climate change.** More than 90% of the households are net food buyers, even in rural areas, and food price hikes will have a direct consequence on malnutrition, with Yemen already having the second highest child malnutrition rate in the world (50%). Independently of climate change, food prices in Yemen will increase over the long-term, reflecting higher world prices, declining oil exports, and a weakening exchange rate. While higher prices would increase incentives for domestic food production, the capacity of agriculture to respond is limited, particularly with declining (ground) water availability. A pessimistic climatic change scenario with no adaptation action would exaggerate price rises and food insecurity and would push several million people below the poverty line, with direct consequences on health and malnutrition. The livestock sector which plays a critical role in food security strategies will also likely be impacted by climate change as a consequence of changes in pasture productivity, nomadic livestock patterns and increased disease burdens. Building on the Draft National Food Security Strategy Paper (NFSSP), the EU, IFAD the World Bank and other partners are providing assistance to Yemen as part of the Global Agricultural Food Security Program. The PPCR provides a timely opportunity to mainstream climate resilience as a core element of the overall food security response strategy.
9. **Yemen's population faces increased risk to individual health and education due to the effects of climate change.** Yemen already ranks second among Arab countries in rates of incidence of malaria (1.2 million) and prevalence in schistosomiasis (3.0 million). Climatic factors such as temperature, relative humidity, rainfall volume and wind speed will likely increase the incidence of malaria and dengue fever. Kidney stones are a major problem as well for increasingly younger populations due to reduced personal water consumption. Literacy rates are extremely low in Yemen and will be negatively impacted as a consequence of climate change effects. As a consequence of the increased disability in households (due to disease), the ability of the rural population, especially girls, to attend school will be impaired because they must attend to more demands in the household, including fetching water from

more remote locations. Literacy rates are directly linked to birth rates, and will transitively, negatively affect population growth. There is very limited work that has been done on the climate consequences on the health and education sectors, despite the far reaching links and impacts of these sectors on the overall economy and development indicators. The PPCR will undertake some seminal assessments to inform the dialogue and feed into ongoing programs and plans.

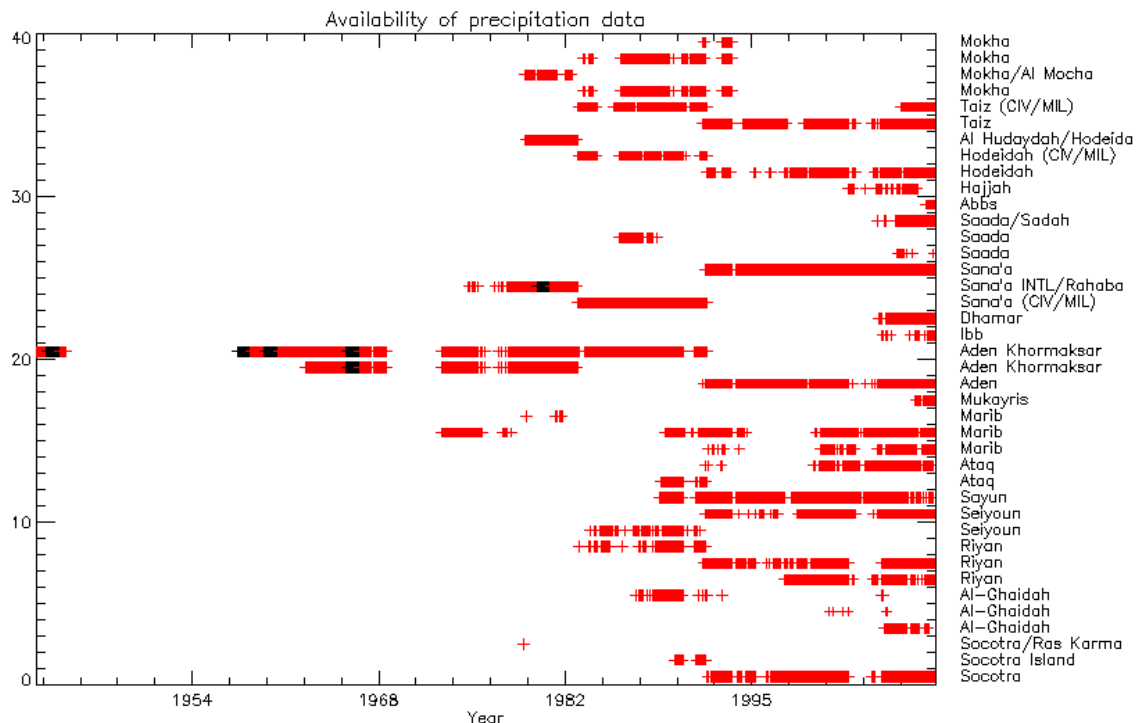
10. **Yemen's coastal ecosystems, which have the potential of stabilizing the nation by providing food security and economic revenues, are vulnerable to extreme climate change.** The fisheries and coastal resources of Yemen along the Red Sea, Gulf of Aden and Arabian Sea, are the most important source of protein for Yemen population without the need for using freshwater and for non-oil export revenues. Sea level rise will increase coastal flooding, raise costs of protection, lead to deterioration of wetlands, mangroves and corals, and increase saltwater intrusion into surface and groundwater, thereby impacting key sectors of the economy. Aden is cited as one of top 20 cities in the world in terms of vulnerability to sea level rise. The predicted decline in the 2-3% of the country's GDP from the fisheries sector will have a severe impact on economy which employs a significant number of the population that live along the coast. The ongoing programs in the fisheries sector, through the World Bank, EU, IFAD and other development partners have focused on institutional reforms, infrastructure, and cooperatives development, but there is a need to look more closely at the implications of climate change on the sector and the coastal communities themselves. There is an opportunity for the PPCR to guide the implementation of the National Coastal Zone Management Decree which was recently approved (November 2009), as well as feed into other major ongoing initiatives related to the coast, specifically the 'Flood Emergency project', and 'Port Cities Development Program', and the ongoing preparation of the 'Climate resilient Integrated Coastal Zone Management Project'.
11. **Yemen's biodiversity and agro-biodiversity, together with traditional knowledge and local practices, has been the cornerstone of communities' ability to adapt to changing climatic conditions in the past.** The biodiversity in the 4 globally important eco-regions of Yemen: (1) Red Sea, (2) Gulf of Aden/ Arabian Sea, (3) Arabian woodlands and (4) Socotra is under various human threats. There is also a need to understand the impact of climate change on these natural and agro-ecosystems, and to further their climate resilience as part of a broader conservation and use strategy. With systematic documentation and testing for climate resilience, the agro-biodiversity resources and the traditional knowledge have the potential to 'climate proof' agriculture and enhance both national and global food security. The PPCR will build on existing and planned national and regional initiatives to enhance the resilience of these natural and agro-ecosystems as the foundation for an ecosystem based approach to adaptation.

12. **Yemen is prone to various types of disasters including earthquakes, flash floods, floods (coastal storm surges and tsunamis), and landslides.** Increased occurrences and intensity of natural disasters is one of the observed impacts of climate change. During the 2008 floods, ninety (90) mm rain fell in 30 hours (the amount of water for two months normally) over 200,000 hectares in the southern coastal governorates of Hadramout and Al Mahara, and 75% of the affected people were the poor. The cost of rebuilding damaged public infrastructure alone was estimated at US\$ 375 million (based on damage values). This coupled with the fact that climate change also increases vulnerability of population (via impacts on food, water, ecosystems, and livelihoods), thus increasing their risk of not being better prepared for disasters. At least one disaster strikes the country every year with estimated annual economic losses averaging \$70 million. In recent years, it has become clear that such losses can be greatly reduced when climate information is used for early warning and preparedness. It is also increasingly clear that climate information is most effective when the climate and disaster risk communities work together. The PPCR in Yemen will seek to promote synergies between climate resilience and disaster risk management, especially in view of the limited resources and capacity constraints in the country.

### *A.3 Climate Change Diagnosis in Yemen*

13. **There is no consensus among the 21 global climate models in the IPCC Fourth Assessment Report about the sign of the projected changes in winter, summer, or annual rainfall or its distribution pattern over Yemen** (Wilby, 2008). Yemen has a complex situation as the country lies in the latitudinal band where global circulation models differ in projected precipitation trends. The effect of complex topography of the highlands is poorly modeled in current global climate models and there are few, if any, regional climate models that provide detailed scenarios for Yemen. Yet, although there is a wide divergence in projections of the trend of average annual and seasonal rainfall, there is general agreement amongst the models that temperatures will steadily rise, and that there is likely to be an increase in variability of rainfall including extreme events.
14. **Records of climate data in Yemen are largely short term, lack adequate spatial coverage and there are significant quality concerns** (World Bank, 2010). Long-term, systematic records of rainfall and temperature are very scarce in Yemen (See Figure 1: Precipitation stations in Yemen with their approximate record length until 2009 (National Climatic Data Centre, NOAA). Only seven stations have more than 20 years of data. Similarly, distribution of weather monitoring stations is sparse and concentrated in the western highlands of the country although considerable efforts have recently been made to improve the situation. Early, short-lived precipitation records exist for Sana'a in the 1930s and 1940s, and for Ta'iz in the 1940s and 1950s. Other data are tied to specific projects such

as the Irrigation Improvement Project (IPP) of the Tehama Development Agency, or to short-term campaigns, such as rainfall monitoring undertaken by Sana'a University in 2007. The longest (but incomplete) record of monthly rainfall and temperature is available for Aden since 1881. There is also fragmentation of institutional responsibility for climate related data collection, and little cooperation between agencies. At present, climate data are collected and processed by the Civil Aviation and Meteorology Authority (CAMA), the National Water Resources Authority (NWRA), the Ministry of Agriculture and Irrigation (MAI), and the Agriculture Research Extension Authority (AREA). There is also a concern by some agencies on the need to purchase data, while at the same time these sales are conducted as part of a cost recovery mechanism. These data are of typically daily resolution with an average record length of around 10 yrs or less. A database including tools for data evaluation does not exist and record length is often too short for most of the time-series analysis, and since density is limited this reduces the chance to test data by comparison to a neighboring station.



**Figure 1: Precipitation stations in Yemen with their approximate record length until 2009 (National Climatic Data Centre, NOAA).**

15. **Better understanding of historical climate trends through collection and analysis of virtually all climate data is one of the prerequisites of regional climate modeling.** Given the brevity and quality of records, and sparse networks, there is limited scope for evaluating long-term trends in climate variables, especially for extremes. And given the limited chance

to investigate trends in the past, there is also a lack of data to evaluate any model output. The collection and analysis of data should be done for the past and – by a coordinated program involving all organizations with access to climate data – for the immediate future. These data should be evaluated for gaps, homogeneity and consistency by appropriate statistical methods in order to improve quality of data (see e.g., Franke et al., 2004 or Schönwiese & Malcher, 1985).

16. **There exists a basic to intermediate climate data management capacity in contrast to the generally poor data situation, in all aspects, like in amount, quality and accessibility.** There are sufficiently large proportion of trained people at least in relevant institutions including CAMA, NWRA, MAI, AREA and Yemen Remote Sensing Center (YRSC). This data management capacity can be enlarged on the basis of the existing one to meet growing demands.
17. **Global and regional climate change studies show large uncertainty in climate change projections for Yemen.** The Bank has undertaken some early studies on this aspect. Three early studies have been done for Yemen: (i) An Evaluation of Climate Data and Downscaling Options for Yemen (Wilby, 2009), (Dresden, 2009); (ii) Climate Modeling for Rainfed Highlands of Yemen (Bernhoffer and Baarfus, 2009), and (iii) Assessing the Impacts of Climate Change and Variability on the Water and Agriculture Sectors, and the Policy Implications (World Bank, 2010). These studies confirm the need for a cautionary approach to modeling and downscaling, and interpretation of results due to the uncertainty of the data, both for the past and for the future. This is due to: (i) poor data coverage for understanding of historical climate trends and for model validation, (ii) the large topographic enhancement of precipitation in Yemen, not well covered by existing models, and (iii) the fuzzy output of global climate models showing no clear sign of the precipitation trend in 21<sup>st</sup> century for the region.
18. **The climate modeling capacity in Yemen is not sufficient yet and needs to be enhanced at the sector level and with global communities of practice.** There is a need to build skills in both working *with* the climate modeling community (which is increasingly a global cooperative process) *and* in local impacts analysis which includes agricultural modeling, water and irrigation budgets etc. There is, based on current assessments, no relevant University study in Atmospheric Sciences. Climate related subjects are discussed in context of adaptation in life sciences (agriculture, biology), in physical sciences (physics), and in geo-sciences (geography). It would be important for Yemen to prepare itself with sufficient capacity to understand, interpret and undertake modeling and projections as part of a global community of practice. A pre-requisite for advances in climate modeling will be training at regional centers of excellence, where those models are developed and applied.



19. **Yemen will need to develop both a ‘knowledge response’ and adaptation measures to the risks and opportunities of climate change and variability in precipitation and temperature.** Given the uncertainty over climate models, a program of forecasting and early warning systems, together with improved data collection and sharing, public awareness and stakeholder involvement, and the assessment of a range of resilience measures and technologies are important preparedness measures for Yemen.
20. **A core part of this knowledge response is the strengthening/establishment of appropriate data collection and sharing framework whereby all relevant agencies that collect climate related data share their data.** Improvement of climate data coverage (in space and time) should be an integral part of Yemen’s adaptive management to impacts of climate change and variability. Given that there is lack of homogeneity among different climate data collection agencies, part of this knowledge response should also be to institutionalize international standards for data collection, quality control, and reporting and dissemination. This knowledge response is the basis of the Pillar I under the Phase I proposal.

#### ***A.4 Institutional Context and Strategic Processes to Enhance Climate Resilience <sup>1</sup>***

21. **The PPCR in Yemen reflects high level and sustained institutional ownership from the outset.** The high level political commitment to the PPCR was underscored by the formation of the Inter-Ministerial Committee for Climate Change Coordination (IMCCC) under the Chairmanship of the Deputy Prime Minister, and Minister of Planning and International Cooperation soon after the selection of Yemen as a pilot country. The IMCCC was approved by a Cabinet decision on November 10, 2009 in response to the need for institutional strengthening and capacity building in climate related issues and in order to streamline and coordinate cross-sectoral activities. This shows a first but strong political commitment, beyond the traditional entities, for coordinating and nurturing mainstreaming of climate resilience into the overall development program of Yemen. The committee includes representation of key line agencies as core members: Ministry of Planning and International Cooperation (MOPIC), Ministry of Water and Environment (MWE), Ministry of Agriculture and Irrigation (MAI), Ministry of Transport (MOT), Ministry of Telecommunications and Information Technology, Ministry of Oil and Mineral Resources, Ministry of Finance, Ministry of Fish Wealth, and Ministry of Local Administration, and the Environmental Protection Authority. This IMCCC has met promptly and frequently, and provided strategic

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<sup>1</sup> The broad based consultative process under PPCR has informed the institutional context and approach to mainstreaming of climate resilience through Phase I of the PPCR (see Section B).

direction and guidance to ensure that both the PPCR and climate continue to receive the highest level of attention.

22. **The EPA was designated as the Technical Secretariat of the IMCCC and for the PPCR, and hence assumes overall coordinating responsibility for the program.** This decision was based on a consideration of various options presented to the meeting of the IMCCC in November 2009 which demonstrated that EPA had the right strategic and technical competencies to lead the program<sup>2</sup>. The EPA, under the Ministry of Water and Environment, is the designated authority for climate change. It has a Climate Change Unit which has taken the lead in the coordination and production of the Initial National Communication to the UNFCCC and is presently preparing the Second National Communication (SNC). The EPA also took the lead on the National Adaptation Program for Action (NAPA) on climate change which was a highly consultative process that culminated in the endorsement of the document by the Cabinet in June 2009. The EPA has increasingly taken on a cross-sectoral outreach and coordinating role through these processes and the PPCR will build on these aspects. There is, however, a clear need to strengthen its capacity to fully deliver on the program (see Section E).
23. **The 4<sup>th</sup> Five-Year Socio-Economic and Development Plan for Yemen (2010-2015) is being finalized, and the PPCR will use this as a key vehicle to mainstream climate change into development planning.** Climate change is a core development issue and needs to be addressed explicitly in this five year plan. MOPIC is coordinating this work with the line agencies and the PPCR process will seek to actively work with and inform this process. Proper timing and linking the upcoming PPCR activities, dialoguing with line agencies and across agencies on their plans, programs, and existing and future development plans in Yemen will facilitate the process of mainstreaming climate change resilience into the national, sectoral, and local government plans and programs.
24. **The PPCR will work at the sector level with line agencies to systematically raise awareness, build capacity, and mainstream climate resilience into their policies, strategies and plans, building as far as possible on existing instruments.** For example, The National Water Sector Strategy and Investment Program (NWSSIP) and the NWSSIP Update (2009 – 2014) identified measures to properly manage water resources, and provide an overarching framework for mainstreaming climate resilience. An important part of working with sectors will include an institutional gap analyses and recommendations for budgetary allocations to ensure that specific measures for climate resilience can be mainstreamed and implemented accordingly.

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<sup>2</sup> See Aide Memoire of Joint Mission (November 2009).

25. **Yemen's SPCR must build on the findings of the NAPA, which was a highly consultative process, and enjoys good ownership at all levels.** The NAPA identified three main sectors vulnerable to climate change, namely water resources, agriculture, and coastal zones, through an extensive consultation process at local, governorate, and national levels. The NAPA effort focused on these critical sectors as they pose potentially severe implications to the citizens at large, and are considered to be in need of immediate and urgent adaptation. The consultations also identified additional sectors – biodiversity, health, tourism – for which further delay in adaptation would significantly increase their vulnerability, and/or lead to much higher adaptation costs in the future. The PPCR will build on these findings for the development of Yemen's Strategic Program for Climate Resilience. The NAPA also identified 12 ranked high priority projects in these priority sectors, and cross-cutting activities (awareness, capacity building, databases, and education (see Annex 1). The work under the PPCR may need to rationalise the selection of geographic areas for selected investments under phase 2 based on strategic transparent criteria to pilot transformational climate resilience in line with the SPCR framework
26. **Yemen faces various implementation challenges in integrating environmental issues into development planning, and the PPCR must be mindful of these and ensure more strategic and simplified ways to do so.** In recent years, the Government has taken significant steps to enable a more systematic consideration of environmental issues. It has created provisions in environment protection law to enable lawmakers to incorporate environmental aspects and concerns into all stages of the development plans. However, vested interests, poor governance, and a lack of capacity for implementation and enforcement impede some reforms, even though they may have been in place for a decade. The PPCR needs to work at practical levels (including targeted capacity building) and through pilot initiatives to demonstrate the advantages of addressing climate resilience.
27. **In seeking to mainstream climate resilience into development, the PPCR must be cognizant of other key strategies and processes.** For the PPCR to trigger transformational change it needs to be linked to other strategic processes which can leverage reforms, financing and investments. Additionally, it should seek to build on the key indicators that Yemen is working towards under national and international processes. Some of the key strategies and processes include:
- **IDA and IFC Country Assistance Strategy (2010-2013)**<sup>3</sup> recognizes that climate change is expected to amplify some of the longstanding natural constraints to Yemen's development, in particular through climatic changes in precipitation, and increased occurrences of floods and droughts. One of the overarching goals of the

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<sup>3</sup> This CAS represents a joint World Bank and IFC strategy.

CAS is to goal is to manage natural resource scarcity and natural risks, particularly as it relates to water resources management; natural disaster response and climate change adaptation.

- **IFC** has provided increasing support over the CAS period, with a focus on the financial sector, SME development, education and health, manufacturing, and agribusiness. IFC's portfolio has grown to US\$150 million, up from only US\$16 million in FY2005, thus supporting private sector development (CAS Strategy 2010-2013).
- **The Poverty Reduction Strategy Paper 2003-2005 (PRSP)**<sup>4</sup> supports the need for action to preserve the environment and indicates that poverty alleviation is not productive if it is achieved at the expense of the environment. The strategy explicitly recognized that the effects of climate change (water scarcity and pollution, desertification, increased flooding and droughts, etc.) negatively impact the poor.
- **The Vision 2025**<sup>5</sup> emphasizes that the relationship between the environment and development is a long-term concern to be tackled immediately. As such, it prioritizes supporting water management, preventing the pollution of water basins, halting the deterioration of land and rangeland resources, regulating waste management and industrial effects, management of the coastline and pollution of the marine environment, and studying the impact of climatic change on environment and on desertification, in addition to the protection of agriculture terraces and biodiversity in the protected zones
- **Millennium Development Goals.** These relate to poverty, hunger, education, gender equality, women empowerment, child mortality, maternal health and international development partnerships. Early indications are that the process is slow and unlikely to attain its goals by 2015.
- **Reform Priorities for Yemen and the 10 point agenda:** The 10-Point Plan endorsed by the President aims at assist the government to strengthen the rule of law, providing job opportunities and tackling Yemen's water problems. An overarching part of these reforms are to improve the social safety net.
- **The National Water Sector Strategy and Investment Program (NWSSIP) and its recent updates** (2009-2014) supports addressing issues related to water in Yemen in a comprehensive and basin approach. More specifically, NWSSIP aims to: (i) strengthen institutions for sustainable water resources management; (ii) improve community based water resource management; (iii) increase access to water supply and sanitation services; (iv) increase returns to water use in agriculture; and (iv) stabilize and reduce groundwater abstraction for agricultural use in critical water basins.

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<sup>4</sup> Section 1.1.2.4 of the PRSP

<sup>5</sup> Vision 2025

## *A.5 Cooperation with Donor and Development Partners*

28. **The donor and development partners in Yemen play an active and strategic role in the overall development process in Yemen.** A number of bilateral partners, such as the Governments of Germany, the Netherlands, France, the UK, the US, Japan, Italy, and several of multilateral partners like the World Bank, the UN System, FAO and WHO are active in the country. Other important partners include the Kuwait Fund, Islamic Development Bank who the PPCR process has begun to have initial dialogue with and will work to deepen that engagement. Overall, the donors and development partners cooperate with the Government to reduce poverty and sustain development gains towards achieving Yemen's Development Goals and the MDGs 2015. The donor support programmes are aligned with the Government strategies such as the National Plan for Development and Poverty Reduction, and aim to support the Government to develop and monitor integrated national development plans towards achieving the Millennium Development Goals (MDGs). Donors support several key sectors in Yemen, such as water, agriculture/food security, health, education, fisheries, economic development and natural resources management. These contributions have underpinned key analytical work, capacity enhancement, and support for investments. They have been actively consulted and engaged, including four consultation sessions with development partners, since the start of the PPCR process.
29. **Development partners in Yemen play an instrumental role in several key sectors and thematic areas, including water, agriculture, environment, energy, fisheries, conservation, capacity building.** These contributions have underpinned key analytical work, capacity enhancement, and support for investments. They have been actively consulted and engaged, including four consultation sessions with development partners, since the start of the PPCR process. In the event of the four consultation sessions and a number of bilateral meetings, there was strong support to engage throughout the implementation of Phase I and subsequently also Phase II particularly in the water, agriculture/food security and health sector. A summary of the potential areas of contribution from the latest consultation with these partners is provided in Annex 2.
30. **Nevertheless, “development cooperation as usual”, without consideration of climate risks and opportunities, is no longer seen as an option.** Although a range of development activities contribute to reducing vulnerability to many climate change impacts, a more coherent approach is needed for applying a climate-lens to development cooperation. Adaptation will require adjustments to the cooperation framework to make it responsive to the new challenges created by climate change, thus aiming at putting in place a more flexible and forward-looking process bearing in mind the risks posed and opportunities offered by the changing climate. This entails a shift in approach among both development partners and

donors in order to consider climate change not purely as an environmental issue but as a broad development issue.

31. **The monthly meeting of development partners which provides a platform to share experiences and streamline their efforts could be a useful forum for continued engagement on climate resilience during the PPCR preparation phase.** By signing the Declaration on Harmonization and Alignment on January 30, 2005, the Development Partners committed themselves to deliver development assistance in accordance with the country's priorities and agree to develop a Partnership Report on an annual basis for a Consultative Group meeting. These reports aim to take stock of progress and to enable the Government and donors to share emerging good practices with the donor's headquarters and with the international community. These reports could provide an optimal platform to share experiences and to create synergies with donor programmes, thus ultimately applying a climate-lens to development support in Yemen.
32. The PPCR needs to continue its good dialogue with development partners under the PPCR, specifically: i) promote understanding of the implication of climate change on development practices; ii) to identify appropriate approaches for integrating climate adaptation into ongoing and proposed programs and projects; and iii) to identify practical ways for donors and development partners to support the Government in its efforts to reduce vulnerability to climate change.

#### *A.6 Ongoing Strategic and Climate Resilience Work*

33. **The PPCR will actively seek to 'mainstream and climate proof' ongoing or planned programs and projects, while also building on elements of climate resilience that are already part of ongoing investments.** There are huge efficiencies and gains to be made in adopting this two pronged approach in the key priority sectors (agriculture, water and coastal zones) that have been identified for climate resilience.
34. **The ongoing investments in the water and agriculture sector of more than \$200 million provide an excellent baseline for transformational PPCR investments both in terms of financing and adaptation elements.** For example, it is estimated that 20 to 30 % of the water can be saved each year by applying modern irrigation techniques such as sprinkler irrigation, drip systems and micro tube-bubbler systems. The Bank is already involved in a series of agricultural and water projects - with the objective to save water- such as (i) the Groundwater and Soil Conservation Project (US\$40 million plus additional financing of US\$15 million) to be closed on October 31, 2011, (ii) Sana'a Basin Water Management Project (US\$24 million) to be closed on June 30, 2010, and (iii) Water Sector Support Project (US\$90 million) has just become effective on December 15, 2009; The Bank and

IFAD are also financing the Rainfed Agriculture and Livestock project which is being implemented over 5 governorates and aims to preserve and improve traditional cereal seeds through traditional seed producer associations; soil and water conservation; and improvement in livestock practices (US\$ 36 M, including \$ 20 from WB and \$ 16 M from IFAD and will close in June 2012). The Agro-biodiversity and Climate Adaptation project (\$ 5 M with \$ 4 M from the GEF) will start in August 2010 will complement the GSCP and RALP project to develop coping options for farmers to deal with climate change, and will develop a Climate Resilient Strategy for Rainfed Agriculture.

35. **The coastal zone, another identified priority under the NAPA, has several key investments underway which could both inform and form the basis for climate resilience work with coastal governorates.** The vulnerability of the coasts, both from climate related impacts and natural disasters, was felt most recently during the recent level three tropical storm and flood that hit Yemen in October 2008 - a first in the last 100 years. The overall damages and losses from the flood disaster were estimated as \$1.7 billion, which represents 6% of Yemen's GDP in 2007. This disaster was followed by approval in 2009 of the "Flood Protection and Emergency Reconstruction Project" of \$35 M (to close in 2013). Other key investments in this area including the Fisheries Resources Conservation and Management project (\$25 M) which is due to close in 2011; the three phase Port Cities Development Program – which has completed the first phase (\$23M) and will be commencing the second phase for \$35 M, and will close in 2015. The Climate Resilient Integrated Coastal Zone Management (ICZM) project (\$4.5 M) is under preparation. The National ICZM decree approved in November 2009, provides a framework for cross-sector coordination and incorporation of climate resilience into development planning and to address key economic sectors. The PPCR clearly has an opportunity to build on these and other investment to reduce the vulnerability of the coastal systems, resources and communities to climate and other related risks.
36. **The PPCR needs to consolidate and build on the knowledge base from analytical studies underway on climate change, adaptation and disaster risks both in Yemen and elsewhere.** There are various studies and technical assistance work underway in Yemen (e.g. Costing Adaptation through local institutions, Probabilistic Risk Assessment in Yemen, etc.) and the PPCR will continue to build its database of ongoing and planned activities that are related to climate resilience. Existing initiatives/projects should be showcased to both policy makers and local stakeholders to demystify what climate resilience means in practical terms. A (partial) list of these activities and projects is appended as Annex 3.

## **B. Key Messages and Emerging Ideas from the PPCR Consultative Process**

### **B.1 Consultation Process**

37. **The PPCR in Yemen reflects a highly consultative process at all levels of stakeholders.** The PPCR in Yemen has had four formal missions: scoping, joint mission, and two follow-up missions. EPA as the lead coordinating agencies has also had bilateral consultation with key line agencies and development partners throughout the process. All of the consultations have been very well attended and the process, results and outputs are well documented. These consultations have been instrumental in shaping the thrust and the design of the Phase I proposal.
38. **The EPA as the Technical Secretariat of the PPCR has worked to ensure that the development of the Phase I proposal benefitted from both bottom-up and top-down consultation processes.** While the continued guidance, engagement, and commitment from the IMCCC has been instrumental in nurturing, sustained and high level ownership of the PPCR process, the rich feedback from consultations with civil society, women's groups, media, academia, local government, line agencies and other stakeholders were very productive in highlighting the challenges of dealing with environmental, development and climate challenges from these various perspectives. The PPCR process has also received strong support and input from the development partners through a series of direct consultations with them. A full summary of the consultation processes and the feedback is summarized in Annex 4 and is also contained in the aide memoires.

### **B.2 Key Messages and Emerging Ideas**

39. **Some recurrent messages and emerging ideas from the consultation process could be instrumental in shaping Yemen's strategic vision and approach to climate resilience.** The very rich and substantive feedback through the consultations emphasized the need to ensure that the Yemeni challenges, circumstances, and context define the character of Yemen's strategic approach to climate resilience. This consolidated feedback translates into some recurrent message and emerging ideas which should guide the PPCR process both in Phase I and Phase II. This feedback has already informed the formulation of the Phase I proposal, specifically the activities under each of the pillars. The key messages and emerging ideas, which will continue to be discussed and refined during Phase I, are summarized here:
- i. **Climate Change as an opportunity, not a catastrophe.** Climate change is a core development issues that impacts multiple sectors. Gathered under the umbrella of



adaptation to climate change, methods to address one sector will necessarily benefit others, producing a larger effect than targeted projects otherwise would. This would also set the tone for ‘transformational change’.

- ii. **‘Whole of Government approach’.** The consultations during the First Joint Mission emphasized that a “whole of government approach” should be adopted for the overall framework for the PPCR. Institutional assessments and an assessment of the impact of climate change on development planning, policies, and strategies, strengths and gaps will identify potential winners and losers, as well as the entry points for integrating climate change within the government policies and programs. Linking this analysis to policy dialogue with broad range of stakeholders provides not only the analytical underpinning but also the necessary stakeholder buy-in for the SPCR activities. Given the highly fragmented political system in Yemen special care should be taken to note the interactions between the various sectors and divisions of government, including planning and finance commissions dealing with budgetary decision-making. The PPCR must also implement and mainstream climate resilience into capacity building efforts.
- iii. **Mainstreaming Climate resilience into national and sector planning processes.** There has been limited attention paid to climate risk concerns in national and sector planning processes and in the design of individual projects financed in Yemen. Few line agencies appear to have explored what climate change could imply for their respective sectors. There is a real timely opportunity to integrate and mainstream climate into core development planning through the 4th Five-Year Socio-Economic and Development Plan which is currently being finalized.
- iv. **Integrated response to climate and other risks, as part of a comprehensive approach to risk management and sound development.** Each sector has fundamental risks that undermine its effective delivery or impact (e.g. disaster risks, agriculture risks, food security risks, health risks, sea level risks, social insecurity etc.), and often these sector and climate risks act concurrently and/or collectively on the same individuals, communities, and on the same spatial terrain. These individuals and communities do not and cannot differentiate their response to these various risks; and they would benefit from a collective, strategic response to these various risks. This is especially true in the central rainfed areas where the farmers have been subject to climate change risk (variability and intensity of rainfall), food security risks (due to failure of crops and food price hikes) and disaster risks (due to flooding and other events). The PPCR in Yemen will consider exploring pilots which seek to integrate climate risk with other risks in an effort to demonstrate opportunities for synergies and cost-effectiveness at the community and institutional levels in view of some common ingredients to risk response (e.g. data information systems, awareness raising, capacity building, early warning systems,

climate coping measures etc) and win-win options. Given the multi-sectoral nature of risks, and the need to boost the capacity of Yemeni Institutions, the PPCR will consider the need for a multisectoral approach to develop an integrated risk profile for Yemen<sup>6</sup>. Through collaborative working arrangements, the sharing of human and financial resources, and joint mission planning to reduce the burden of donor missions on the client, the team is developing an integrated work program or activities to be financed by different donors to avoid duplication on the one hand, and enhance efficiency of donor support for Yemen. This cohesive approach that is being crafted across Climate Change, Food Security, Water and Disaster Risk Management, will increase efficiency not just for the Yemeni counterparts, and the donor community. This approach is expected to increase national awareness on risks faced by Yemen, paving the way for the integration of risk reduction efforts into sector development policies, and planning in the years ahead.

- v. **Adaptation to climate change in sub-national planning processes.** Adaptation has yet to be integrated into provincial policy, planning and budgeting processes. There are limited budget resources to meet even current priority development needs, let alone the cost of adaptation. There is also a limited institutional comprehension of climate risks and a lack of technical capacity to integrate adaptation to climate change into governorate planning processes. There has been no evidence reported of any training organized at the governorate or local council levels to provide such a capacity. The PPCR may explore the possibility of targeting and piloting its “transformative approach” at a sub-national level by selecting one or two governorates based on clear agreed criteria (e.g. good governance, good capacity, ongoing programs, etc.). This should be aligned to the current regulatory (Local Authority Law #2) and decentralization framework that was first approved in 2000 and amended recently to address weaknesses in the system. The law provides for fiscal decentralization through the distribution of budgetary resources between the local and central government to the 21 provincial municipalities. These ongoing efforts could be supported by formalizing the role of local councils and supporting communities as the lowest level of governance (e.g. through water user associations) for improving the responsiveness and transparency of key sectors. The selected areas could achieve multiple objectives closer to the ground, such as demonstrating climate resilience in agriculture, coastal zone, community and livelihood issues, decentralized capacity, harnessing local communities, women, and civil society organizations.
- vi. **Direct involvement of civil society organizations (CSOs), including gender groups as implementation partners.** There was repeated mention during the PPCR consultations and missions that the rural poor (farmers, fishers, etc.) and women are highly impacted by climate change and other adverse environmental impacts. There was a sense of

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<sup>6</sup> This would also be done from the Bank side.

frustrations from the representatives that CSOs that the poor and marginalized are often consulted in processes, but are subsequently not direct recipients and/or beneficiaries of projects or programs. These constituencies reflected specific needs for capacity and information, but also felt that they brought important local and traditional knowledge that could be an important part of solutions, and there should be a way for them to be more directly a part of the implementation process of the PPCR (see proposed Building Block 2 under Phase II).

- vii. **Private sector in Yemen consists mainly of micro and small enterprises which are highly vulnerable to climate change impacts and need to be targeted.** The expected implications will go beyond reduction of productivity or marginal losses in profits to and could result in thousands of families losing their main source of income. The vulnerability of Yemen's major economic sectors (agriculture, fisheries, tourism) to climate change was reaffirmed during the consultation process. The business environment, environmental legislation and laws, SMEs financing mechanisms and private sector capacity in Yemen is still rudimentary. In that regard, the PPCR can build on these interventions to promote and implement climate resilience technologies in these sectors. Private sector engagement in Yemen needs to be informed by a targeted private sector impact study in key sectors assessing risks, opportunities, adaptation, and policy aspects of water, coastal degradation, and bio-diversity to identify areas of potential private sector interventions and highlight implementation challenges. Further, early awareness among the private sector on climate risks is deemed highly important and will help establishing communication channels and stimulate policy dialogue between private sector members and other stakeholders in PPCR including GoY, NGOs, and donors leading to effective integration of private sector development strategy into the overall PPCR strategy.
- viii. **'Rurban' as part of both a climate resilience and strategic development strategy.** The Yemeni population generally has very strong links to their land and local contexts. However, with increasing challenges faced by local communities especially in the agricultural areas due to water, food security and other challenges, including a demand for improved living standards there is a slow attrition of people to the urban and coastal areas, leaving those left behind even more destitute. The PPCR should explore the prospects for bringing urban elements to rural populations ('rurban') as part of both a climate resilience and strategic development strategy.
- ix. **Hotspot Targeting.** Development activities or projects often tend to be concentrated spatially in certain geographic areas. This could provide an opportunity for the PPCR to promote synergies across sectors to mainstream climate resilience, as well as a synergistic way of dealing with multiple risks.

- x. **Stakeholder targeting.** Alternatively, the PPCR could select stakeholder groups as a way to pilot/test for transformational change. The PPCR should view pro-poor adaptation practices as essential ingredients of its strategy, but recognizing that the impact of climate change on a particular group of stakeholders depends not only on their exposure and sensitivity, but also on their adaptive capacity. There is need for common but differentiated approaches for targeting different stakeholders.

## C. Overall Framework of the PPCR in Yemen and Phase I Proposal

### C.1 Goal and Objective of the PPCR

40. **Goal:** Mainstream Climate Resilience into development for transformational change

**Objective of the PPCR:** to address climate resilience as a core development issue, and as part of a comprehensive response to various vulnerabilities facing Yemen.

Specifically the PPCR will:

1. Mainstream climate change and resilience into national and sectoral development, policies, plans, and programs including private sector initiatives;
2. Target the vulnerable stakeholders and communities especially women who are disproportionately affected by climate change.
3. Raise awareness and strengthen capacity to deal with climate change in government, the private sector, local communities and civil society groups;
4. Scale-up successful climate resilient pilot investments to bring about transformational change.

### C.2 Phase 1 PPCR: Pillars and Description

41. The PPCR will be implemented in two phases. The objective of Phase I of the PPCR is to assist Yemen in addressing climate resilience as a core development issue, and as part of a comprehensive response to various vulnerabilities facing Yemen. It will also formulate a Strategic Program for Climate Resilience defined as *the aggregate of strategies, policies, programs, and projects identified by Phase I of the PPCR to serve as the basis for the development of Yemen as a climate resilient country*, through the following four pillars:.

- I. Climate Change Information System and Awareness Raising*
- II. Mainstreaming Climate Change Resilience into National Development Planning*
- III. Formulation of Yemen's SPCR and Identification of Phase II Interventions*
- IV. PPCR Program Coordination*

42. A summary of the key elements of each pillar are provided below, and the detailed description is provided in Annex 5.

*(i) Pillar I. Climate Change Information Systems and Awareness Raising*

43. **Objective:** Broaden and strengthen the existing MOU for establishing a shared mechanism for climate data collection and management by relevant agencies, including greater public awareness. This pillar will also perform a rapid multi-risk assessment to identify vulnerable areas and communities for identification of pilot investments (under Pillar IV).

**44. Activities:**

- 1.1 Data gap analysis for spatial, temporal and quality of data.
- 1.2 Institutional and capacity gap analysis, including tech software and hardware.
- 1.3 Broaden and strengthen existing MOU, including targeted/rapid capacity building.
- 1.4 Rapid multi-risk assessment (disaster, food security and climate).
- 1.5 Rapid capacity building for climate change policy and dialogue fora, including international fora
- 1.6 Awareness rising of all stakeholders through multi-media outreach (website, or wiki for information entry and dissemination, workshops and seminars).

**45. Primary Outputs:**

- 1.1 Improved and unified climate change information database and management system.
- 1.2 Vulnerable “hotpots” identified.
- 1.3 Policy makers have an increased understanding on the international dialogue for climate change and the relationship between science and policy
- 1.4 Public awareness and outreach multi-media training material prepared and available for use.

**46. Expected Outcomes:**

- 1.1.1 Relevant agencies are better prepared to deal with climate and other risks
- 1.1.2 Improved public awareness regarding climate and other risks.
- 1.1.3 National policy and representation in international fora enhanced.

(ii) ***Pillar II. Mainstreaming Climate Change Resilience into National Development Planning***

**47. Objective:** Equip key line agencies to integrate climate and other risk considerations into sectoral and cross-sectoral policy, strategy and plans.

**48. Activities:**

- 2.1 Institutional capacity assessment (gaps and needs), and initial targeted capacity building.
- 2.2 Sectoral climate, and other risks, impact assessment (e.g. water, agriculture, coastal zones, gender, health, etc.)
- 2.3 Develop guidelines for policy makers and practitioners to mainstream climate resilience into sectoral and cross-sectoral policies, programs and plan.
- 2.4 Develop strategy for integration of climate and risk into curricula and non curricula activities.
- 2.5 Develop continuing education program for practitioners for DRR (would be extended to climate resilience).

**49. Primary Outputs:**

- 2.1 Report on institutional capacity assessment.
- 2.2 Report on climate and other risks impact assessments of key sectors.
- 2.3 Guidelines for policy makers and practitioners to mainstream climate resilience into sectoral and cross-sectoral policy, programs and plans.
- 2. 4 Curricula/non curricula strategy for climate change risk (and other risks).

**50. Expected Outcomes:**

- 2.1 Line agencies are better prepared to integrate climate and other risks to sectoral and cross-sectoral policy, strategy and plans.
- 2.2 Strategic and long term vision to formal and informal curricula developed.

(iii)***Pillar III. Formulation of Yemen's SPCR and Identification of Phase 2 Interventions***

**51. Objective:** Develop Yemen's Strategic Program for Climate Resilience (SPCR) and identify potential interventions for preparation and implementation under Phase 2

**52. Activities:**

- 3.1 Conducting participatory multi stakeholder consultations.
- 3.2 Preparation of SPCR, based on inputs from Pillars 1 and 2, including Strategic Environmental and Social Assessment report<sup>7</sup>

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<sup>7</sup> See Annex 7 for the Safeguards Summary Assessment

3.3 Identification of priority pilot interventions (including request for project preparation funding) based on consultative processes and analyses from Pillars 1 and 2.

**53. Outputs:**

- 3.1 Strategic Program for Climate Resilience Report prepared.
- 3.2 Strategic interventions for phase two identified.
- 3.3 Strategic environment and social assessment report.

**54. Outcomes:**

- 3.1 Yemen has a strategic vision and plan for mainstreaming climate resilience into development plans.
- 3.2 Strong local and national ownership of pilot interventions.

*(iv) Pillar IV: PPCR Program Coordination*

**55. Objective:** Enhance the capacity of the EPA as the technical secretariat of IMCCC to coordinate the preparation and implementation of PPCR (under Phase 1 and 2).

**56. Activities:**

- 4.1 Assessment of institutional capacity needs for Program Coordination of the PPCR
- 4.2 Equipping the Program Coordination Unit (PCU) with core staff (manager, financial and procurement specialist), and provide training.
- 4.3 Provision of operating costs and goods (hardware and software).

**57. Outputs:**

- 4.1 PCU of PPCR/IMCCC Secretariat adequately staffed and trained.
- 4.2 Goods procured and PCU operational.

**58. Expected Outcomes:**

- 4.1 Improved capacity PCU to coordinate and oversee PPCR.
- 4.2 Improved leadership role by IMCCC to mainstream climate resilience into Yemen's development.

**C.3 Phase 2 PPCR: Implementation of Yemen's Strategic Program for Climate Resilience**

59. The Strategic Program for Climate Resilience (SPCR) for Yemen will be the overarching climate resilience framework for the country. It is anticipated that while some of the priority interventions and some pilot investments would be funded through the PPCR Phase II, the

need would be greater than the resources available under PPCR. Nevertheless the SPCR would set out a progressive, sustainable roadmap for climate resilience to be mainstreamed into development plans and actions.

60. Some of the critical building blocks that could be anticipated under Phase II are provided below. However, this should be treated as very preliminary, based on the current state of discussion, consultation and feedback, and may be subject to considerable adjustments during the preparatory Phase I.

(i) ***Building Block 1: Transforming and Sustaining Climate Resilience into Institutional Plans, Budgets, and Investments***

61. This activity would integrate climate resilience into core development plans, budgets, and investments according to the results of assessments executed during the initial stages of Phase I. Such integration is expected to be national in scope and comprehensive across all sectors related to and impacted by changing climate.

(ii) ***Building Block 2: Pilot Innovations to Reduce Social Vulnerability and Engaging CSOs as Champions and Agents for Climate Change***

62. This activity will have a three-fold objective: (i) engage CSO (including gender groups) directly as “agents and champions of climate change” and to build sustained capacity and awareness of climate issues on the ground; (ii) identify and implement in a participatory way priority pilot interventions based on local knowledge and/or innovations that would also reduce social vulnerability to climate and other related risks; and (iii) test successful bottom-up interventions for scale-up for through the larger PPCR investments (or other means). It is proposed to have an equivalent of national level “Yemen Climate Adaptation Marketplace” which will solicit request for proposals (for up to \$120K) each 6 months as a rolling program for about 2 years. Selection of top 10 proposals will be done (3 months after initial announcement) by an independent panel. The program will raise matching funds for this program from other donors and development partners. Such a component will address the repeated feedback during the consultations of exclusion of the very stakeholders who are most impacted, and who have much to offer.

(iii) ***Building Block 3: Transformational Investments to Mainstream Climate and Other related risks in Priority Sectors or ‘Hotspots’***

63. This would support 2-3 large investments which should trigger transformational change for dealing with climate resilient activities in the broad areas of land and water resources, working with ongoing programs or pioneering new approaches, including “integrated risk” and “hotspots” as discussed above under emerging ideas (Section B.2).



(iv) ***Building Block 4: Cross-cutting issues – Coordination, Knowledge, and Results Management***

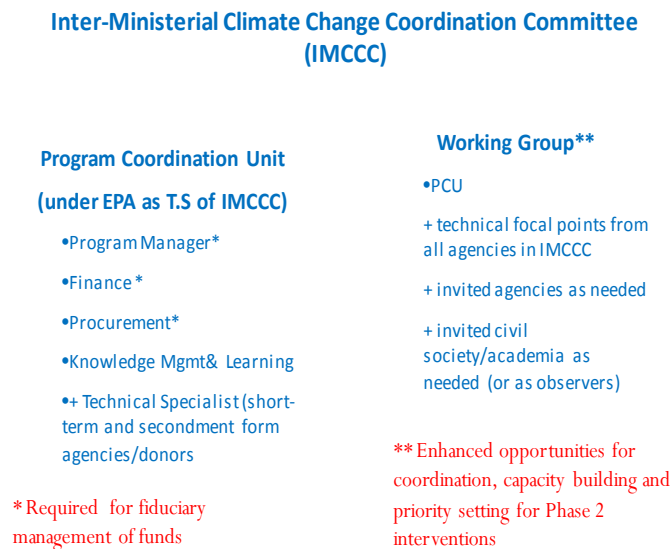
64. This activity would address critical cross-cutting elements of capacity, shared learning and knowledge management of key activities and programs in Yemen, and from other PPCR pilots, track results, and assess progress against Yemen's SPCR roadmap.

**D. Proposed Implementation Arrangements and Budget for Phase 1 of the PPCR**

***D.1 Implementation Arrangements***

65. **EPA was appointed as the Technical Secretariat for the IMCCC and will host the Program Coordination Unit (PCU) of the PPCR.** The selection of the EPA was supported unanimously by the IMCCC, following a consideration of different options, and in recognition of its extensive experience as the designated Climate Change focal point for Yemen since the early 1990s. The overall implementation arrangements for PPCR are presented in Figure 2.
66. **It is critical that EPA capacity is enhanced and sufficient resources made available to enable it to perform its implementation and fiduciary responsibilities under the PPCR efficiently and effectively.** The Bank as part of its fiduciary assessments has undertaken capacity needs assessment of the financial and procurement management aspects and made specific recommendations to addresses weaknesses in the system. In addition, the PCU will include a dedicated Program Manager with overall coordination and management of phase I. Donors and development partners have expressed their interest to support specific short term assignments with experts once these get more defined through Phase I. The TORs for the core positions (Program Manager, Financial Specialist and Procurement Specialist have been prepared) (See Annex 6).

**Figure 2: Implementation Arrangements for PPCR**



67. **As an indication of country ownership, and commitment to sustainability, staff from line agencies will be seconded to the PCU to enhance its core capacity.** Discussions are underway to have two full time staff from EPA placed within the PCU. This will allow the staff to benefit from hands-on capacity building as part of the Phase I process. There is also a possibility of a staff from the Disaster Management Program to be placed on a part-time basis in the PCU. Other agencies will be invited to do likewise once the program is underway.

68. **Working Groups will be set up to ensure strong coordination, ownership with key agencies and stakeholders during Phase I and in preparation of Phase II.** These working groups will be convened for each pillar and will

## ***D.2 Proposed Budget and Schedule for Phase I***

The proposed budget and schedule for Phase I of the PPCR is presented in the table below.

*Table: Proposed Budget and Schedule for Phase I of the Yemen PPCR*

Phase I Components	PPCR Funding	DRR Funding	Donor/Development Partner Funding	Ongoing Sectoral Work	Totals US\$
<b>PILLAR 1. Climate Change Information Management, Analysis, &amp; Public Awareness</b>					
1.1 Data gap analysis for spatial, temporal, and quality of data.	120,000	tbd			
1.2 Institutional and capacity gap analysis, including gaps in tech software and hardware.	120,000	tbd			
1.3 Broaden and strengthen existing MOU, including targeted capacity building.	50,000				
1.4 Pilot module for rapid multi-risk assessment (disaster, food security and climate)	50,000	tbd	seeking EOI		
1.5 Rapid capacity building for climate change policy and dialoguing fora	50,000				
1.6 Awareness raising of all stakeholders through multi-media outreach (website, or wiki for information entry and dissemination, workshops and seminars).	50,000	170,000			
	<b>440,000</b>	<b>170,000</b>			<b>610,000</b>
<b>PILLAR 2. Mainstreaming Climate Change Resilience into National Development Planning</b>					
2.1 Institutional capacity assessment (gaps and needs), and initial targeted capacity building.	100,000				
2.2 Sectoral Climate and Other Risks Impact Assessment (water, agriculture, coastal zone, gender, health, education, etc) including private sector and gender aspects					
Water	100,000		seeking EOI		
Agriculture	100,000		seeking EOI		
Coastal Zone	100,000		seeking EOI		
2.3 Develop guidelines for policy makers and practitioners to mainstream climate resilience into sectoral and cross-sectoral plans, programs and plan	50,000				

2.4 Develop strategy for integration of climate and risk into curricula and non-curricula activities.		220,000			
2.5 Develop continuing education program for practitioners (would be extended to climate resilience).		150,000			
	<b>450,000</b>	<b>370,000</b>			<b>820,000</b>
<b>PILLAR 3. Formulation of Yemen's SPCR and Identification of Phase 2 Investments/Interventions</b>					
3.1 Conduct participatory multi stakeholder consultations.	60,000				
3.2 Based on inputs from pillars 1 and 2, prepare SPCR, including Strategic and Environmental Social Assessment Report	130,000				
3.3 Identify priority pilot interventions (including request for project preparation funding) based on analysis from pillars 1 and 2.	160,000				
	<b>350,000</b>				<b>350,000</b>
<b>PILLAR 4. Program Coordination of the PPCR</b>					
4.1 Equip the Project Coordination Unit with core staff (manager, financial and procurement specialist) and provide training	125,000		seeking EOI		
4.2 Operating costs and goods (equipment, vehicles, travel)	125,000				
4.3 Automatic financial management system	10,000				
	<b>260,000</b>				<b>260,000</b>
	<b>PPCR</b>	<b>DRR</b>	<b>Donors</b>	<b>Sectors</b>	
<b>Sub-totals:</b>	1,500,000	540,000	-	-	2,040,000
<b>PPCR Total</b>	<b>1,500,000</b>	<b>540,000</b>			<b>2,040,000</b>
<b>GOVERNMENT CONTRIBUTION</b>	<b>250,000</b>				
<b>GRAND TOTAL</b>	<b>1,750,000</b>	<b>540,000</b>			<b>2,290,000</b>
	(*) Possible areas sought for collaboration on technical assistance or collaborative c-financing				
	Note: DRR funding estimates have not been verified by DRR staff				

## Timetable for Phase I Activities

Phase I Components	Start *	Duration (Months)	1	2	3	4	5	6	7	8	9	10	11	12
<b>PILLAR 1: Climate Change Information Management, Analysis, &amp; Public Awareness</b>														
1.1 Data gap analysis for spatial, temporal, and quality of data.		12												
1.2 Institutional and capacity gap analysis, including gaps in tech software and hardware.		1												
1.3 Broaden and strengthen existing MOU, including targeted capacity building.		2												
1.4 Pilot module for rapid multi-risk assessment (disaster, food security and climate)		3												
1.5 Rapid capacity building for climate change policy and dialogue fora		12												
1.6 Awareness raising of all stakeholders through multi-media outreach (website, or wiki for information entry and dissemination, workshops and seminars).		1												
<b>PILLAR 2: Mainstreaming Climate Change Resilience into National Development Planning</b>														
2.1 Institutional capacity assessment (gaps and needs), and initial targeted capacity building.		1												
2.2 Sectoral Climate and Other Risks Impact Assessment (water, agriculture, coastal zone, gender, health, education, etc)		7												
2.3 Develop guidelines for policy makers and practitioners to mainstream climate resilience into sectoral and cross-sectoral plans, programs and plan		3												
2.4 Develop strategy for integration of climate and risk into curricula and non-curricula activities.		2												
2.5 Develop continuing education program for practitioners (would be extended to climate resilience).		9												
<b>PILLAR 3: Formulation of Yemen's SPCR and Identification of Phase 2 Investments/Interventions</b>														
3.1 Conduct participatory multi stakeholder consultations.		3												
3.2 Based on inputs from pillars 1 and 2, prepare SPCR.		5												
3.3 Identify priority pilot interventions (including request for project preparation funding) based on analysis from pillars 1 and 2.		5												
<b>PILLAR 4: Program Coordination of the PPCR</b>														

4.1 Equip the Project Coordination Unit with core staff (manager, financial and procurement specialist) and provide training		3													
4.2 Operating costs and goods (equipment, vehicles, travel)		1													
4.3 Automatic financial management system		3													

\*Phase I is expected to begin in August 2010

## **E. List of Annexes**

**Annex 1:** Ranked Priority Adaptation Projects from the NAPA

**Annex 2:** Summary of Potential Areas of Cooperation with Development Partners

**Annex 3:** List of Key Investments and Climate Initiatives in Yemen

**Annex 4:** Overall Summary of the Consultation Process under the PPCR

**Annex 5:** Detailed Description of Activities under Phase I of the PPCR

**Annex 6:** Terms of References of the Program Coordination Unit Core Staff

**Annex 7:** Strategic Environmental and Social Assessment (SESA)

**Annex 1: Ranked Priority Adaptation Projects from the National Adaptation Program of Action (NAPA)**

<b>No.</b>	<b>Project Title</b>	<b>Sector</b>	<b>Time Frame</b>	<b>Budget (USD)</b>
1.	Develop and implement integrated coastal zone management	Marine and coastal areas	4 years	3.2 million
2.	Water conservation through reuse of treated waste water and grey water from mosques, and irrigation saving techniques	Water and agriculture	3 years	3.2 million
3.	Awareness raising on adaptation to climate changes	Public awareness	2 years	0.65 million
4.	Establishment and maintaining of climate change database	Cross-cutting	2 years	0.35 million
5.	Planting and re-planting of mangroves and palms for adaptation to sea-level rise	Marine and coastal areas	5 years	2.45 million
6.	Develop and implement programs to improve Yemen's preparedness to cope with extreme weather events	Cross-cutting	4 years	5 million
7.	Rainwater harvesting through various techniques including traditional methods	Water and agriculture	3 years	2.81 million
8.	Rehabilitation and maintenance of mountainous terraces	Agriculture and land resources	5 years	4.78 million
9.	Promotion of research on drought, heat, and salinity tolerant plant/crop varieties	Agriculture and land resources	4 years	3.15 million
10.	Sustainable land management to combat desertification and land degradation	Agriculture and land resources	3 years	2.33 million
11.	Sustainable management of fisheries resources	Marine and coastal areas	5 years	1.18 million
12.	Incorporation of climate change and adaptation into school education	Education and awareness	2 years	0.82 million



## Annex 2: Summary of Potential Areas of Cooperation with Development Partners<sup>8</sup>

No.	Donor	Type of Assistance
1.	Department for International Development (DfID)	Will share the assessment carried out by DfID on the PPCR process.
2.	Embassy of the Kingdom of the Netherlands (EKN)	Will help to coordinate funding with funding provided to the WSSP and will see whether WSSP funding can be utilized for the PPCR.
3.	Food and Agriculture Organization of the United Nations (FAO)	Offered – upon consultation with HQ – TA for capacity building for Pillar 1.
4.	German Development Bank (KfW)	<ul style="list-style-type: none"> <li>○ Stands ready to provide immediate short-term expertise to the PPCR on the water sector.</li> <li>○ Will support EKN in the dialogue to utilize funding from the WSSP.</li> <li>○ Will follow up with the Government of Germany for financing in 2011 and for financing for Phase II.</li> <li>○ Will assess whether support can be provided to priority projects identified in the NAPA.</li> </ul>
5.	German Technical Cooperation (GTZ):	Will provide TA for Pillar 2.
6.	United Nations Development Program (UNDP)	<ul style="list-style-type: none"> <li>○ Is interested to assist with capacity building and awareness raising.</li> <li>○ Is interested to provide TA regarding areas related to gender.</li> </ul>
7.	Japan International Cooperation Agency (JICA)	Will liaise regarding potential coordination of JICA projects and PPCR projects, especially as regards water and renewable energy.
8.	World Health Organization (WHO)	Expressed interest in providing TA from the health perspective in Phase I and II.
9.	Food and Agriculture Organization of the United Nations	Expressed interest in providing TA for capacity building for Pillar 1.

<sup>8</sup> These were expressed at the consultation with donors and development partners on May 11, 2010 and will need to be further confirmed during Phase I.

### Annex 3: List of Key Investments and Climate Initiatives in Yemen

No.	Year	Activity name and type	Support	Aims / Results
1.	Completed April 2010	Assessment of CC impacts in water and agricultural sectors—study	WB	Includes both CC projection and downscaling, and impacts assessment components
2.	Ongoing	Costing adaptation through local institutions—study	WB	To explore the feasibility of PES (no not right)
3.	Planned	Rural Community Resilience to CC (indigenous knowledge, etc)—study	WB/ JSDF/ JICA	Looking at feasibility of indigenous knowledge to adapt to CC impacts
4.	Ongoing	Probabilistic Risks Assessment Study (flood, etc)—study and TA	GFDRR + WB	To identify the risks and associated exposure to natural and man-made risks
5.	Start Aug. 2010	Agro-biodiversity and Climate Adaptation Project—TA and project	GEF, WB	Enhance capacity of local and national agencies on climate change; climate coping mechanisms for communities, and development of a climate resilient rainfed agriculture strategy.
6.	Preparation ongoing	Yemen Integrated Coastal Zone Management Project	GEF, WB	Promote climate resilient coastal zone management at two pilot sites.
7.	Ongoing	Rainfed Areas and Livestock Project	WB	Preserve and improve traditional cereal seeds through traditional seed producer associations, soil and water conservation
8.	Start Aug. 2010	Integrated urban development project	WB	Improve urban-rural interface and resource sharing
9.	Ongoing	Water Sector Support Program	WB, EKN, KFW, GTZ	Based on water SWaP under NWSSIP in order to improve overall WRM, improve water related database and capacity
10.	Ongoing	NWSSIP and its latest updates	GOY; Donors	National water sector strategy
11.	Ongoing	Emergency flood response project	WB	As response to a recent flood in Hadhramout and Al-Maharah
12.	Ongoing	Sustainable NRM project (Phases I & II)	GEF,	

			UNDP	
13.		Economic diversification project	UNDP	Looking at options in the promising sectors
14.	Planned	Biodiversity conservation of protected areas	GTZ	Looking at conservation of protected areas along the coast of the Arabian Sea
15.	Ongoing	Sector wide environmental and social impact assessment (SWESIA) for the water sector	EKN, WBG	Sectoral Social and Environmental Impact Assessment
16.		Netherlands climate assistance program (NCAP)—study	EKN	Looked at the implications of CC on water availability in three basins
17.		National strategy to combat desertification	UNDP, FAO, UNCCD	looked at the level and rate of desertification in Yemen, and outlined the strategy to combat such challenges
18.	Ongoing	National disaster management strategy	GFDRR	Developed a strategy to manage disaster
19.	Completed June 2009	National Adaptation Programs of Action (NAPA)	UNDP	Developed priority areas of adaptation to CC risks
20.	Completed Jan. 2010	Climate Change, Risk and Adaptation in Agriculture	DFID, GEF	Real option evaluation and climate change: case study on rainfed farmers in Yemen
21.	Ongoing	Assessment of Shifts in Ecosystems and Agro ecosystems induced by Climate Change in the Middle East and North Africa (Yemen,Syria, Morocco, Tunisia)	TFESSD/W B	Spatial shifts as a consequence of climate change, with implications on development planning, including socio-economic impacts.
22.	Ongoing	Yemen Flood Disaster Rehabilitation project	WB Grant	To contribute in rehabilitation and reconstruction of physical assets in Roads and Agriculture Hadhramout and Al-Maharah governorates aftermath of the devastating flood of October 2008
23.	Completed 2009	Tai'z Flood Protection	WB/IDA Credit	To prevent Tai'z city from excessive and frequent flood through building lined cannel and staling basins upstream, within the city and downstream the city
24.	Completed 2000	Emergency Flood Rehabilitation project	WB/IDA Credit	To help in rehabilitation of damaged assets aftermath the devastating flood took place in 1996 and hit Marib, Hadhramout and Abyan Governorates

25.	2003-2010	Urban Water and Sanitation project	WB/IDA Credit	To provide water and sanitation to a number of Yemen cities
26.	Ongoing	Ground and Water Conservation	IDA Credit	To increase groundwater and surface water irrigation efficiency through providing PVC conveyance and pressurized localized irrigation systems and building surface irrigation infrastructure. In addition, the project introduced Irrigation Advisory Services and Water Community Management.
27.	Completed	Irrigation Improvement Project	IDA Credit	Rehabilitate and Improve Irrigation Networks in Wadi Zabid in Hodeidah Governorate and Wadi Tuban Lahj Governorate and establishment of Water User Associations (WUA) and Irrigation Councils (ICs) and transfer Irrigation Management of Secondary and Tertiary Canals to these organization
28.	2003-2010	Sana'a Basin Water Management	IDA Credit	To pilot on Integrated Water Management in Sana'a Basin and create Sana'a Basin Management Commission with representation of Government, Local Council, WUAs, Agri. Cooperatives and Private sector to manage water resources and water use in Sana'a Basin.
29.	2006 - 2010	FRMCP: Fisheries Resources Management and Conservation Project	WB Credit/EU Grant	Three components: a) assess the capacities of the Ministry of Fish Wealth to manage the fisheries and the quality of fish, and help reorganizing the ministry; b) rehabilitate the big fishing harbors, build jetties, and new auction areas along the coastline; and c) undertake stock assessments and prepare fisheries management plans.
30.	Ongoing	PCDP: Port Cities Development Programme	WB Credit	Economic enhancement and infrastructure development for investment in the three main ports Aden, Mukalla and Hodeidah..

31.	Completed	NCSA: National Capacity Self-Assessment	GEF/UNDP	Identify and determine the nature of capacity constraints faced by the country to respond to the global conventions, and describe ways to address these constraints.
32.	Ongoing	Al-Dhala'a Community Resources Management Project	IFAD Loan	Achievement of logistic and sustainable development for rural livelihood levels and insures life access for poor family.
33.	Completed	Groundwater and Soil Conservation Project	IDA Credit	Improve water use efficiency, and increase ground and surface water levels through watershed management.
34.	Completed	National Capacity Building for Natural Resources Management	UNDP	Strengthen the performance of environmental protection and national poverty alleviation policies, to build capacities of central and local level institutions on integration of environmental and sustainability issues within the district development process, to enhance awareness at the local and policy making levels and to promote sustainable livelihood approaches in management of natural resources including establishment of nature reserves. Established and supported the management of the Aden Wetlands Protected Area, and supported implementation of Bura'a and Hawf Protected Areas.
35.	Completed	National Capacity Building for Natural Resources Management	UNDP	Support environmental management both at upstream and downstream levels.
36.	Completed	Decentralization and Local Development Support Programme (YEM/03/008)	UNDP	A pilot intervention, which is/was to develop into a major program to support the national strategy for the implementation of decentralization reforms.
37.	Rolling program	GEF SGP: GEF Small Grant Programme	GEF/UNDP	Deliver global environmental benefits in the area of biodiversity conservation, climate change mitigation, protection of international waters, prevention of land degradation (primarily desertification and deforestation), and elimination of persistent organic pollutants through community based approaches.
38.	2003/07 -	SCDP: Sustainable Development and	UNDP-	Support human development for the people of Socotra

	2008/12	Biodiversity Conservation for the People of Socotra Islands, various consecutive phases (YEM/03/004)	Netherlands -Italy (multiple phases)	islands, through the conservation and sustainable use of its unique biodiversity and natural resources. The program gives equal weight to biodiversity conservation requirements and developments of Socotra, through supporting the main engines of growth for the local economy, addressing most pressing basic community development needs and enhancing the professional capacities of the local government to pave the path of sustainable development.
39.	Completed	ESDIP: Environment and Sustainable Development Investment Programme	Yemen Gov.	The plan presents an outline strategy and priority interventions aimed at controlling and gradually reversing environmental impacts. It also aims at supporting sustainable human development for the people of Yemen.
40.	Completed	Assistance to the Government of Yemen to Coordinate and Monitor Implementation of Poverty Reduction Initiatives (YEM/03/001)	UNDP	Incorporating environmental assessment, social participation and the consideration of sustainability issues into poverty reduction strategies.
41.	Completed	PRSP: The Poverty Reduction Strategy Paper	Yemen Gov.	The plan reinforces sustainable management of natural resources, mobilizes beneficiaries, involves the poor and supports the role of women and youth in environmental conservation.
42.	Completed	NAPA: National Adaptation Programme of Action (YEM/03/G37)	GEF/UNDP	Broadly communicate to the international community priority activities that address Yemen's urgent needs for adapting to the adverse impacts of climate change.
43.	Completed	NPA: National Plan of Action for the Protection of the Marine Environment from Land Based Activities	EPA/UNEP	Assess and identify land-based activities and sources of pollutants. Major issues effecting Marine and Coastal areas were identified and prioritized, and a plan of action prepared.
44.	Completed	Fisheries Monitoring and Surveillance	European Commission	The aim was to establish a sustainable and cost-effective fisheries monitoring and control system (MCS) within the Ministry of Fish Wealth.
45.	Completed	National Recovery and Recycling	GEF/UNEP	Implement a comprehensive national program for

		Programme for Refrigerators in the Commercial and MAC Sectors in Yemen (YEM02\G61)		recovery and recycling of refrigerants in the refrigeration and air-conditioning sub-sectors according to the refrigerant management plan.
46.	Completed	CCF: Country Cooperation Framework	UNDP	Provide sustainable natural resources management and promote the integration of environmental management with national development policies and programs.
47.	2001 - 2010	Al-Maharah Rural Development Project	IFAD Loan	Support rural communities' self-development, enhance family income, promote suitable use of available natural resources, improve social infrastructure and services, and Increase local capacities.
48.	Completed	PAM/CZM: Protected Areas and Coastal Zone Management Project: CZM Pilot Project.	GEF/WB	Prepare baseline study on the marine biodiversity, and develop CZM and PAP plans for the two CZ pilot areas Sharma-Jethmun, and Bir Ali-Balhaf and two PA protected area in Jabal Bura'a in Hodeidah Governorate and In Jabal Hawf in Al-Maharah Governorate; with intensive consultation with the communities and related stakeholders. Besides, a series of related reports, maps, and guidelines were produced.
49.	Completed	Land and Water Conservation project	WB/ IDA Credit	To increase groundwater and surface water irrigation efficiency through providing PVC conveyance and pressurized localized irrigation systems and building surface irrigation infrastructure.
50.	Completed	Protection of the Marine Ecosystems of the Red Sea Coast Yemen, several phases (YEM/97/G32)	GEF/UNDP	To protect the marine ecosystems of the Yemeni Red Sea coast, including coral reefs and other critical habitats, which are important to fisheries and to maintaining high biodiversity, thereby assisting Yemen in achieving sustainable use of the marine resources in the area.
51.	Completed	NBSAP: National Biodiversity Strategy and Action Plan (YEM/96/G31)	GEF/UNDP	Assist the government in development of a national biodiversity strategy and action plan.
52.	Completed	Socotra Biodiversity Project	GEF/UNDP	Conduct baseline terrestrial and marine biodiversity, habitat, and ecosystem surveys, identify priority conservation issues, develop comprehensive zoning and

				conservation management plans, establish protected areas, implement monitoring programs, and pave the way for a long-term management of Socotra (see SCDP, 2003-2008).
53.	Completed	INC: Initial National Communication under the United Nations Framework Convention on Climate Change	GEF/UNDP	Presented the initial assessments of Republic of Yemen situation in implementing the UNFCCC. Estimated the GHG in Yemen, assessed different climate scenarios and their potential impact to critical sectors (e.g. CZM, Agriculture and water Sectors).
54.	Completed	NEAP: National Environmental Action Plan	Yemen Gov.	Promote sustainable use of natural resources through a set of policy options in addressing priority issues.



## **Annex 4: Overall Summary of the Consultation Process under the PPCR<sup>9,10</sup>**

### **Annex 4. 1: Narrative summary of the consultative process for the PPCR**

**The first scoping mission (July 18 – 22, 2009):** (i) Shared information about the PPCR objectives and process with primary GOY stakeholders; (ii) identified partners from the relevant government agencies, NGOs, academicians, civil society groups, private sector, and other Yemen-based development agencies; discussed the objectives, structure, and phases of the PPCR with the proposed Inter-Ministerial Council on Climate Change board members; (iii) confirmed the institutional set-up across sectors and the coordination mechanism envisaged; (iv) reviewed and consolidated relevant on-going activities on climate resilience in the different sectors; (v) discussed gaps and synergies between ongoing climate change related activities and identified additional priority actions required prior to the joint mission; (vi) discussed the timeframe for the initial joint mission, the process of formulating the SPCR, and the required initial steps to prepare the grant proposal; (vii) defined a formal agenda, identified preparatory work, and assigned a date for the joint mission; and (viii) coordinated with active development partners and agencies to share information and identify possibilities to enhance the effectiveness of the program through synergies and collaborative opportunities. (See the body of the First Scoping Mission Aide Memoire for more details on such activities and Appendix 1 of the same aide memoire for the mission's TORs)

The mission was led by the Environmental Protection Authority (EPA) and the World Bank. The United Nations Development Program (UNDP), the German Development Bank (KfW), the Department for International Development (DfID), the Embassy of the Kingdom of the Netherlands (EKN), and the International Finance Corporation (IFC) were present at meetings. One-on-one discussions were also held with representatives of the German Technical Cooperation (GTZ), UNDP, KfW and DfID in order to further explore opportunities for collaboration. While no workshops were held during this mission, relationships were developed and one-on-one meetings were held to foster positive future coordination and collaboration (See Appendix 2 of the First Scoping Mission Aide Memoire for a complete list of people met). All representatives of the development partners appreciated the initiative to involve all relevant stakeholders at this early stage and confirmed their willingness to collaborate and coordinate as much as possible in order to exploit the synergies that may exist among the various initiatives supported by these agencies.

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<sup>9</sup> The World Bank was present at all consultations listed herein.

<sup>10</sup> The security situation in Yemen during the Phase I proposal development process inhibited the World Bank staff from traveling outside of the capital, Sana'a. Staff were able, however, to invite those outside of Sana'a into the city to participate in any consultative processes. As such, the process attempted to be as inclusive *as possible* in its consultations.

**The first joint mission (November 14 – 23, 2009):** (i) followed up on actions agreed during the first scoping mission; (ii) took stock of country-level activities on climate resilience and identified gaps based on the review of implemented, in-country studies and investment projects; (iii) assessed opportunities to mainstream climate resilience in national and local development policy, planning, regulatory and budgetary processes and in key vulnerable sectors; (iv) conducted broad-based consultations with national stakeholders and development partners; (v) identified and outlined implementation arrangements for activities under Phase I; (vi) began preparation of a detailed proposal for developing the SPCR during Phase I to include, *inter alia*, a work program, timetable, implementation arrangements, roles and responsibilities, and budget; (vii) provided a platform for development agencies, the private sector, and NGOs to collaborate in supporting the GOY in its creation of an agreed strategic approach and investment program to integrate climate resilience into core national development and key sector strategies and actions, and (iv) conducted broad-based consultations with national stakeholder and development partners.

The mission was led by the Environmental Protection Authority (EPA) of the Government of Yemen (GOY) in order to ensure a country-driven process. It included the World Bank, UNDP, the French Development Agency (AFD), KfW, EKN, DfID, GTZ, and the Japan International Cooperation Agency (JICA), in collaboration with other key stakeholders (other government agencies, development partners, the private sector, and civil society). All representatives again appreciated the involvement of all relevant stakeholders and re-confirmed their willingness to collaborate and coordinate as much as possible in order to capitalize on potential synergies existing among the various agency-support initiatives.

The EPA, the World Bank, and the United Nations Development Programme (UNDP) jointly hosted an initial two-day workshop (November 15-16, 2009), which was attended by at least 119 participants from line ministries, academia, civil society groups, donor partners, and international experts. The purpose of the workshop was to:

1. Share the findings of Bank-supported climate change impacts assessments on agriculture and water study in Yemen;
2. Share information on UNDP-supported climate change initiatives in Yemen.

Participants identified issues related to climate change in Yemen, as well as priorities for adaptation. Themes cover water resources, agriculture, coastal zones, community development, and social and human development. As the results are lengthy, please see Appendix 3 from the First Joint Mission Aide Memoire for a comprehensive view. In short, however, all groups desired more information sharing, better awareness raising, increased civil society participation, better technology, and more Government support for implementing its (the Government's) own established policies and programs, as well as for traditional practices.

Following the two-day workshop, the EPA, the World Bank, and UNDP co-hosted a half-day stakeholder consultation attended by over 52 members of academia, NGOs, corporations, and other civil society groups, and a half-day donor roundtable with 12 representatives from AFD, KfW (together with the BGR group), EKN, and UNDP. The purpose of the stakeholder consultations and donor roundtable were to:

1. Kick-off the PPCR in Yemen, which included the discussion of climate change related issues and opportunities for Yemen. These discussions were divided into two sections, the first in the context of a working group on climate change in Yemen and the second in the context of direct consultations with members of civil society and academia.
  - a. The Working Group identified issues and opportunities related to climate change in Yemen and priorities for adaptation. The consultations confirmed that key vulnerable sectors and thematic areas for Yemen capable of being addressed by the PPCR are water, agriculture, coastal zones, and social and human development.
  - b. In the second section, members of civil society and academia were divided into three groups, each given an identical questionnaire, and asked to discuss and respond to the questions. Each group produced its own answers to the questions. (See Appendix 4 of the First Joint Mission Aide Memoire for the main findings from the civil society consultations.)

Civil society groups generally identified four key actions for the PPCR to undertake throughout its duration:

1. Involve and communicate with NGOs, civil society, the private sector, academia, and related government agencies in the information collection and analysis process, and use local knowledge to supplement scientific data;
2. Coordinate with the above groups during the formulation of PPCR documentation and implementation of PPCR projects;
3. Raise awareness on the effects of climate change and provide guidelines for action at local and national levels;
4. Increase the capacity of the above groups to encourage action at local and national levels.

**The Phase I preparatory mission (March 12 – 19, 2010):** (i) assisted the EPA in developing the proposal for Phase I of the PPCR; (ii) conducted consultations with development partners.

The mission was led by and included the EPA and the World Bank. A variety of development partners attended the 20-person Donor Roundtable on March 15, 2010, which (i) introduced the concept of the PPCR, (ii) explained the various substantive aspects of the PPCR, and (iii) attracted both technical and financial assistance from donors in support of the PPCR.

Development partners expressed their desires to support the PPCR in Yemen, but would not fully commit to support without a more substantive proposal. (See Appendix 2 of the Phase I Preparation Mission Aide Memoire for a detailed list of indicated potential donor interest in the PPCR).

**The Phase I finalization mission (May 8 – 12, 2010):** (i) coordinated and participated in consultations with line ministries, donors, and other stakeholders on the draft Phase I proposal; (ii) discussed and finalized the budget for Phase I; (iii) discussed and finalized the fiduciary and implementation arrangements for Phase I; (iv) discussed and agreed with donors upon specific contributions for Phase I; and (v) agreed on a time-table for next steps, including submission of the proposal to the PPCR Sub-Committee.

The mission was led by and included the EPA and the World Bank. A variety of development partners attended the Donor Roundtable meeting on May 10, 2010 and indicated commitments of financial and technical assistance. The mission also held consultations with various line ministries, civil society groups, and academics, during which participants were able to express their views about and desires for the PPCR in Yemen.

One of the primary objectives for this mission, in addition to finalizing the Phase I proposal, was to consult across many different civil society groups across a variety of regions in Yemen. While the security situation in Yemen made such a task very difficult, around 27 members of civil society and academia from Aden, Sheher, Dhamar, Hadramout, Tai'z, Ibb, Bura, and Sana'a attended the consultations with EPA on May 10. Such a showing, along with the general support for the PPCR, indicated that non-governmental actors were actively interested in the potential benefits the PPCR can bring to Yemen.

After the 4 pillars of Phase I were presented to attendees by the EPA Chairman, the floor was opened for discussion. Participants generally concentrated questions and comments on data inefficiency and an overall lack of data, involvement of civil society, and coordination. Other comments included requests for training, proposals for action, and inquiries on how civil society groups could get more involved.

## Annex 4. 2: Table summary of the consultative process for the PPCR

### First Scoping Mission (July 18-22, 2009)

Activity	Date and Location	Participant Groups	Participants (by Organization)	No. of Participants <sup>11</sup>	Topic(s) Discussed
Donor Roundtable	July 20 – Sana’a	Development partners	UNDP, KfW, DfID, EKN, IFC, GTZ	7	<ul style="list-style-type: none"> <li>Explored synergies among activities and programs supported by development partners</li> </ul>
		GOY	MOPIC, EPA, MWE, MAI, YRSC, NWRA, CAMA	14	

### First Joint Mission (November 14-23, 2009)

Activity	Date and Location	Participant Groups	Participants (by Organization)	No. of Participants	Aims / Results
Climate Change Impacts and Adaptation Workshop <sup>12</sup>	Nov. 15; Sana’a	Development partners	BGR, IFC, IOM, RALP Project, US Embassy, USAID, WFP	12	<ul style="list-style-type: none"> <li>Share the findings of Bank-supported climate change impacts assessments on agriculture and water study in Yemen, and climate risks and adaptation options study in Djibouti</li> <li>Share information on UNDP supported climate change initiatives in Yemen</li> <li>Kick-off the Yemen PPCR, which included the discussion of climate change related issues and opportunities for Yemen</li> </ul>
		Civil society	Water and Environment Center (Sana’a University), Al Thwrah Newspaper, Arabic Environment Union – Tai’z, Protected Area – Yemen, Sana’a University, Fisheries Cooperative Union (FCU), FCU Hodeida, FCU Hadramout, Marine Environment Monitoring, Our Life Society, SNC, Social Development Funds, Supporters of Environment Society (Sheher, Hadramout), Yemen Broadcasting Channel, Yemen News Agency “Saba”,	28	

<sup>11</sup> The World Bank is not counted among participant numbers.

<sup>12</sup> Findings from the workshop can be found in Appendices 3 and 4 of the First Joint Mission Aide Memoire

			Yemen Society for Environment Protection (Sana'a and Hodeidah), Yemen Women Union, YGSMRB, Agricultural Cooperative (Ibb), AREA		
		International experts	HR Wallingford, Hydro-Yemen, Robert Wilby	4	
		GOY	MWE, MOPIC, MAI, EPA, MFW, YRSC, CAMA, Yemeni Parliament, Embassy of Yemen, MHP, MOMR, MOLA, NWRA	32	
		Development partners	RALP, KfW, UNDP, IFC, WFP	6	
		Civil society	Sana'a University, YSAEP, Marine Environment Monitoring, Fisheries Cooperative (Hodeidah and Hadramout), Yemen Association for the Protection of the Environment (Hodeidah), Supporters of Environment Society (Sheher and Hadramout), Agricultural Cooperative (Ibb), Arabic Environment Union – Branch of Tai'z-Yemen, Our Life Society, SFD, WEC – Sana'a University, AREA	17	
		International experts	HR Wallingford, Robert Wilby	3	
		GOY	MWE, MOPIC, MOH, MAI, EPA, YGSMRB, MOM, EPA, YRSC, NWRA	17	
Climate Change Impacts and Adaptation Workshop and Working Group	Nov. 16; Sana'a				<ul style="list-style-type: none"> <li>Participants identified issues related to climate change in Yemen, as well as priorities for adaptation. Themes cover water resources, agriculture, coastal zones, community development, and social and human development. As the results are lengthy, please see Appendix 3 from the First Joint Mission Aide Memoire for a comprehensive view.</li> <li>In short, however, all groups desired more information sharing, better awareness raising, increased civil society participation, better technology, and more Government support for implementing its (the Government's) own established policies and programs, as well as for traditional practices.</li> </ul>
Civil Society Consultation	Nov. 17; Sana'a	Academia, NGOs,	Hadramout, Dhamar, Hodeidah, Tai'z, Sana'a Universities;	43	<ul style="list-style-type: none"> <li>Involve and communicate with NGOs, civil</li> </ul>

		Corporations, Civil society groups	YASAD, Women Environmental Society, Al-Nda'a Newspaper, YSAEP, YWU, Otma Society, Lifemaker Clubhouse, Our Life Society, Sana'a Tank Project, Water NGO (Sana'a), Arabic Environment Union – Branch of Taiz-Yemen, Environment Protection Society (Sana'a), Al Saida, Fisheries Cooperative (Hodeidah and Hadramout), Yemeni Association for the Protection of the Environment (Hodeidah), Supporters of Environment Society (Sheher and Hadramout), Environment and Development Society of Alheswa Protected Area (Aden), Agriculture Cooperative (Ibb), Marine Environment Monitoring, Environment Protection Society, AREA		<p>society, the private sector, academia, and related government agencies in the information collection and analysis process, and use local knowledge to supplement scientific data;</p> <ul style="list-style-type: none"> <li>• Coordinate with the above groups during the formulation of PPCR documentation and implementation of PPCR projects;</li> <li>• Raise awareness on the effects of climate change and provide guidelines for action at local and national levels;</li> <li>• Increase the capacity of the above groups to encourage action at local and national levels.</li> </ul>
		Development Partners	IFC, UNDP, UNDP Socotra Project	4	
		GOY	EPA, MWE, NWRA	5	
Donor Roundtable	Nov. 17; Sana'a	Development partners	AFD, KfW (together with the BGR group), EKN, JICA, and UNDP	8	<ul style="list-style-type: none"> <li>• share information, discuss the scope and objectives of the PPCR and identify opportunities where collaboration and synergies could be elaborated</li> </ul>
		GOY	MWE, EPA	4	
IMCCC meeting	Nov. 21; Sana'a	GOY	MOPIC, MWE, MFW, MOIT, MAI, MOF, MOMR, NWRA,	15	<ul style="list-style-type: none"> <li>• Discussion of the institutional arrangements for of</li> </ul>

			EPA, MAA		the PPCR <sup>13</sup>
		Development partners	UNDP, AFD, KfW, BGR, EKN, JICA	6	<ul style="list-style-type: none"> <li>• IMCCC needs to be underpinned by a good technical and coordination arrangement mechanism (a secretariat) to ensure necessary discussion of the proposals, recommendations and advice presented to the IMCCC so that the Committee can provide its unreserved support</li> </ul>
Bi-lateral meetings	Nov. 22; Sana'a	Development partners; GOY	JICA, Japanese Embassy, EKN; EPA	6	<ul style="list-style-type: none"> <li>• Negotiations on TA</li> </ul>
IMCCC meeting	Nov. 23; Sana'a	GOY	MOPIC, MWE, MFW, MOIT, MAI, MOF, MOMR, NWRA, EPA, MAA	15	<ul style="list-style-type: none"> <li>• Bank presented an analysis of the pros and cons of four different options for the technical secretariat to the IMCCC</li> <li>• EPA unanimously chosen by IMCCC as technical secretariat for PPCR</li> </ul>
Bi-lateral meetings	Nov. 23; Sana'a	Development partners	KfW	4	<ul style="list-style-type: none"> <li>• Negotiations on TA</li> </ul>

### Phase I Preparation Mission (March 12-19, 2010)

Activity	Date and Location	Participant Groups	Participants (by Organization)	No. of Participants	Aims / Results
Donor Roundtable	Mar. 15; Sana'a	Development Partners	KfW, USAID, GTZ, FAO, EKN, WHO, DfID, UNDP, JICA, Kuwaiti Govt, WFP, UNFPA, EU, AFD	17	<ul style="list-style-type: none"> <li>• DfID: <ul style="list-style-type: none"> <li>◦ Will consult on environmental screening and on environmental impact assessments.</li> </ul> </li> <li>• EKN: <ul style="list-style-type: none"> <li>◦ Will provide support for strengthening the capacity of EPA;</li> <li>◦ Will help to coordinate funding and programs on the water support sector.</li> </ul> </li> </ul>
		GOY	EPA, MWE	3	

<sup>13</sup> The matrix of possible institutional arrangements for the PPCR can be found in Appendix 9 of the First Joint Mission Aide Memoire



					<ul style="list-style-type: none"> <li>• <b>FAO:</b> <ul style="list-style-type: none"> <li>○ Offered general technical assistance in one of the four sectors (policy and strategy, capacity building, etc.)</li> </ul> </li> <li>• <b>AFD:</b> <ul style="list-style-type: none"> <li>○ Indicated its preparedness to contribute around €1 million following a review of PPCR operations regarding climate resilience.</li> </ul> </li> <li>• <b>KfW:</b> <ul style="list-style-type: none"> <li>○ Will provide immediate short-term expertise on the water sector following review of plans for integrated water management;</li> <li>○ Will support EPA to look at water management;</li> <li>○ Will support water efficiency projects.</li> </ul> </li> <li>• <b>GTZ:</b> <ul style="list-style-type: none"> <li>○ Will participate in deliberations and conceptual work on PPCR;</li> <li>○ May make financial commitments, but must first check with its home office.</li> </ul> </li> <li>• <b>UNDP:</b> <ul style="list-style-type: none"> <li>○ Will continue negotiations with EPA and World Bank regarding work on the PPCR;</li> <li>○ Is ready to put additional funding into PPCR;</li> <li>○ Is ready to support the creation of an institutional framework following a national capacity self-assessment.</li> </ul> </li> <li>• <b>UNFPA:</b> <ul style="list-style-type: none"> <li>○ Offered technical expertise regarding areas</li> </ul> </li> </ul>
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					<p>related to gender.</p> <ul style="list-style-type: none"> <li>• USAID: <ul style="list-style-type: none"> <li>○ Will liaise regarding potential coordination of USAID projects and PPCR projects in specific geographic areas, especially as regards agriculture, water, and gender.</li> </ul> </li> <li>• WHO: <ul style="list-style-type: none"> <li>○ Will help to support health programs for health sector preparedness.</li> </ul> </li> </ul>
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#### Phase I Finalization Mission (May 8-12, 2010)

Activity	Date and Location	Participant Groups	Participants (by Organization)	No. of Participants	Aims / Results
Consultations	May 9; Sana'a	GOY	YRSC, MPHP, MAI, Seismological Center, EPA, YGSMRB, MWE, MPW, MFW, MWE, MPWR, MAI, MOPIC, CAMA, NWRA, Yemeni Organization for the Protection of the environment	16	<ul style="list-style-type: none"> <li>• The EPA Chairman presented the main content of Phase I proposal to get feedback from participants, and described the 4 pillars planned to be implemented in Phase I.</li> <li>• After the floor was opened for discussion, all participants agreed on what came in PPCR Phase I proposal, the four pillars and the activities reflected under the four pillars.</li> <li>• However, they also commented on the overall lack of data in Yemen and inquired as to how that could be resolved.</li> <li>• They suggest also continuing such meeting for the program success.</li> </ul>
Consultations	May 10; Sana'a	Civil Society	Gzeran, Alajofana, Wadi Mokhtan, and Makhlav Aiash Societies (Sana'a Basin water	27	<ul style="list-style-type: none"> <li>• Mr. Mahmoud Shidiwah (Chairman, EPA) presented the main content of PPCR Phase I</li> </ul>

			users); YSAPE; Life Maker Clubhouse; Aden University (College of Agriculture); AREA; Yemen Organization for Environment Protection; Dhamar University (College of Agriculture); Taiz University (College of Science); Women Environmental Society (Bura); Al-Thawra Newspaper; Otma PA Society; Sana'a University; Cooperative Union (Water Society); Al Saida news network; Supporters of Environment Society (Sheher and Hadramout); Agriculture Cooperative Union (Ibb); Yemeni Family Patronage Society; Fisheries Cooperative Union (Hadramout)		<p>proposal to get feedback from participants. He described the 4 pillars planned to be implemented in Phase I and explained the main activities under those pillars.</p> <ul style="list-style-type: none"> <li>• After the floor was opened for discussion, participants generally concentrated questions and comments on data inefficiency and an overall lack of data, involvement of civil society, and coordination.</li> <li>• Other comments included requests for training, proposals for action, and inquiries on how civil society groups could get more involved.</li> </ul>
		GOY	EPA	4	
Consultations	May 10; Sana'a	Development Partners	UNDP, GTZ, WHO, FAO, EKN, DfID, JICA, KfW	10	<ul style="list-style-type: none"> <li>• DfID: <ul style="list-style-type: none"> <li>○ Will share the assessment carried out by DfID on the PPCR process.</li> </ul> </li> <li>• EKN: <ul style="list-style-type: none"> <li>○ Will help to coordinate funding with funding provided to the WSSP and will see whether WSSP funding can be utilized for the PPCR.</li> </ul> </li> <li>• FAO: <ul style="list-style-type: none"> <li>○ Offered – upon consultation with HQ – TA for capacity building for Pillar 1.</li> </ul> </li> <li>• KfW: <ul style="list-style-type: none"> <li>○ Stands ready to provide immediate short-term</li> </ul> </li> </ul>

					<p>expertise to the PPCR on the water sector.</p> <ul style="list-style-type: none"> <li>○ Will support EKN in the dialogue to utilize funding from the WSSP.</li> <li>○ Will follow up with the Government of Germany for financing in 2011 and for financing for Phase II.</li> <li>○ Will assess whether support can be provided to priority projects identified in the NAPA.</li> </ul> <p>• GTZ:</p> <ul style="list-style-type: none"> <li>○ Will provide TA for Pillar 2.</li> </ul> <p>• UNDP:</p> <ul style="list-style-type: none"> <li>○ Is interested to assist with capacity building and awareness raising.</li> <li>○ Is interested to provide TA regarding areas related to gender.</li> </ul> <p>• JICA:</p> <ul style="list-style-type: none"> <li>○ Will liaise regarding potential coordination of JICA projects and PPCR projects, especially as regards water and renewable energy.</li> </ul> <p>• WHO:</p> <ul style="list-style-type: none"> <li>○ Expressed interest in providing TA from the health perspective in Phase I and II.</li> </ul> <p>• FAO:</p> <ul style="list-style-type: none"> <li>○ Expressed interest in providing TA for capacity building for Pillar 1.</li> </ul>
IMCCC Meeting	May 11; Sana'a	GOY	MOPIC, MOIT, MOT, EPA, MOMR, MAI, MLA, MFW	13	<ul style="list-style-type: none"> <li>• Approved of the draft Phase I proposal</li> </ul>

## **Annex 5: Detailed Description of Activities under Phase I of the PPCR**

### **Pillar I. Climate Change Information Systems and Awareness Raising**

#### ***1.1 Data gap analysis for spatial, temporal and quality of data.***

In preparation for Phase I impact assessments, the gaps in current climate-related databases in Yemen must be identified and analyzed. Climate data to fill in crucial gaps in current knowledge must subsequently be collected and analyzed.

#### ***1.2 Institutional and capacity gap analysis, including tech software and hardware.***

This will take stock of current mandates, responsibilities, capacities, physical assets, and skill sets in the Government ministries and departments with the aim of eventually strengthening those aspects. A review of selected governorate and local council level development plans will take place. Suitable entry points will be identified for the creation and/or modification of provincial policies and regulations focusing on harnessing synergies between climate change adaptation and disaster risk reduction at commune and provincial levels (e.g. community-based disaster risk reduction schemes).

#### ***1.3 Broaden and strengthen existing MOU, including targeted/rapid capacity building.***

The establishment of a centralized, national mechanism responsible for climate information management could enable environmental data collection, quality assurance, climate modeling, and projections, including reporting and dissemination. To maximize impact and transparency, data would ideally be accessible via the internet in near real-time. All national data from all relevant agencies (e.g. NWRA, CAMA, AREA, etc.) should be available free of charge for legitimate and registered users, including government agencies, research institutes and partner organizations. The current MOU is insufficient for encouraging the establishment of such a mechanism. A business plan should be prepared with a view to sustaining the data mechanism over a 20-50 year time horizon. In due course, the data assets would become an integral part of Yemen's adaptive management and research efforts. Currently, incomplete datasets are maintained by various institutions and duplication of data collection by various agencies is commonplace.

#### ***1.4 Rapid multi-risk assessment (disaster, food security and climate).***

Using the available and any newly acquired data, multi-sectoral risks to various areas of Yemen will be identified. In order to approach the development of the SPCR using a risk management approach, potential risks affected by the changing climate must be identified.

#### ***1.5 Rapid capacity building for climate change policy and dialoguing fora***

Stakeholders and policy makers should understand the relationship between climate science and policies that are effective at adapting to climate change. Understanding the institutional design of the international climate change dialogue on international climate change policies will aid local stakeholders and policy makers in adapting international ideas to local situations. Greater local capacity to dialogue on climate policies can be rapidly achieved by sending local policy makers to relevant international climate change policy fora,

effectively giving them hands-on experience that they can bring back to Yemen and disseminate to others.

***1.6 Awareness raising of all stakeholders through multi-media outreach (website, or wiki for information entry and dissemination, workshops and seminars).***

Stakeholders should be involved in the PPCR process and have access to the climate data collected by the Government. Information must be disseminated to and coordinated with stakeholders during consultative and implementation processes. This could be done through a wiki or website similar to that for raising awareness. The final product of this activity will share such information with stakeholders and allow them to input their own climate data should they meet certain membership requirements. This will also potentially represent a public resource to encourage awareness of climate change in Yemen and the surrounding region.

**Pillar II. Mainstreaming Climate Change Resilience into National Development Planning**

***2.1 Institutional capacity assessment (gaps and needs), and initial targeted capacity building.***

Insufficient institutional capacity to implement the SPCR will impede the entire PPCR process. Capacity building is necessary to help mainstream climate change resilience within the various national (e.g., the 4th five-year social and economic development plan for poverty reduction) and sectoral (e.g. water, agriculture, fisheries, etc.) development plans. Through consultations and assessments, the capacity of the Government can be augmented or altered to accommodate best practices regarding mainstreaming climate change resilience into national development planning.

***2.2 Sectoral climate, and other risks, impact assessment (e.g. water, agriculture, coastal zones, gender, health, etc.)***

Using the information gained from data collection centers, geographic and sectoral areas will be identified to narrow down the area for PPCR implementation projects.

***2.3 Develop guidelines for policy makers and practitioners to mainstream climate resilience into sectoral and cross-sectoral policies, programs, and plans.***

This will provide guidelines to mainstream climate risk concerns into national and sectoral policies and develop related monitoring and evaluation indicators. Close dialogue should be maintained with other development partner initiatives in climate change adaptation, but also in the related fields of disaster risk management, food security and water management to ensure that PPCR activities complement and build on these undertakings. More specifically, climate change concerns should be mainstreamed into budgetary, allocation and reporting/tracking processes. It is important to incorporate climate risk concerns into the project preparation and prioritization process, including relevant appraisal tools, such as environmental impact assessments, and into related criteria for prioritizing development and investments.

#### ***2.4 Develop strategy for integration of climate and risk into curricula and non-curricula activities.***

The program would complement ongoing work on disaster risk management and work under EPA's regular work program to have climate risk and climate management into the formal and informal curricula (including school clubs, etc.).

#### ***2.5 Develop continuing education program for practitioners for DRR (would be extended to climate resilience).***

Training on various skills will be carried out on an ongoing basis to build necessary human capacity, which is critical for the continuation of the PPCR. Some of these skills require a longer timeframe to become useful for those who attend workshops, therefore, each must be addressed as soon as possible to minimize delays.

In order to effectively mainstream disaster risk reduction and climate change resilience into national development plans, practitioners must understand the risks of both disasters and the effects of climate change and recognize what steps must be taken to achieve resilience in those areas.

### **Pillar III. Formulation of Yemen's SPCR and Identification of Phase 2 Interventions**

#### ***3.1 Conduct participatory multi stakeholder consultations.***

Consultations on the findings and specific propositions related to institutional rearrangements and reforms are critical. Recommendations will be targeted at various levels (e.g. rapid capacity building, medium- to long-term capacity needs and enhanced mandates to incorporate climate aspects).

Furthermore, local Yemeni knowledge of local communities will perpetually exceed Bank or EPA knowledge and, therefore, discussions and awareness-raising during workshops with them are critical to the success of the PPCR. Workshops with involved stakeholders (i.e., local organizations and civil society groups) will raise awareness and help such stakeholders to understand the motivations behind projects proposed by the EPA. Each community can use the information presented in the workshops to create its own individualized solutions to the negative effects of climate change. There will be active involvement of each affected community during all-inclusive stakeholder consultations. Reaching out to all relevant stakeholders and improving their understanding of climate change risks and vulnerabilities through group discussions and the active involvement of communities and civil society are a pre-requisite for the successful implementation of the PPCR. For example, in the water sector some of the awareness-raising activities could include elaboration on the IWRM approach with active participation from all relevant institutions, especially MAI, NWRA, and the rural and urban water supply and sanitation sectors. This would instill a better sense of water resources development and management, rural and urban interfacing in terms of sharing responsibility to develop, and resource management at the basin scale.

### ***3.2 Based on inputs from Pillars 1 and 2, prepare SPCR.***

Using the information gathered throughout the majority of Phase I, the staff of EPA will create the SPCR and produce the financial framework for Phase II with the help of the fiduciary advisors.

### ***3.2 Identify priority pilot interventions (including request for project preparation funding) based on consultative processes and analyses from Pillars 1 and 2.***

The selected pilots should serve multiple objectives on the ground by showing climate resilience in key sectors (e.g. agriculture, coastal zone, community and livelihood issues, decentralized capacity, harnessing local communities, women and civil society organizations etc.).

## **Pillar IV: PPCR Program Coordination**

### ***4.1 Assess institutional capacity needs for Program Coordination of the PPCR***

It is also essential to build the capacity of the technical secretariat (EPA) to support the implementation of the PPCR and to provide the EPA with technical support. EPA should be equipped with adequate technical and support staff, communication specialists, office space, and other materials that facilitate coordination of the PPCR.

### ***4.2 Equip the Program Coordination Unit (PCU) with core staff (manager, financial and procurement specialist), and provide training.***

In order to build capacity in the EPA, additional human resources are required. The consultants budgeted for herein will add more and necessary expertise to the EPA team in order to build capacity for Phase I and, subsequently, develop and implement Phase II of the PPCR.

### ***4.3 Provide operating cost and goods (hardware and software).***

The current lack of capacity to implement Phase I necessitates increased non-staff resources. This represents the acquisition of hardware and software to carry out Phase I. Activities under this section include acquiring climate or water modeling programs and start-up instruments for collection of hydro-meteorological data at strategic sites, purchase of licenses for GIS software, satellite images, office network equipment, and other necessary materials towards implementation of the PPCR, including one vehicle. This also includes office supplies, office space, and other items related to running the technical secretariat for the PPCR.



## **Annex 6: Terms of Reference (TORs) of the Program Coordination Unit Core Staff**

### **TOR for National Coordinator of the Pilot Program for Climate Resilience (PPCR)**

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#### **1. Introduction**

Yemen has already been experiencing significant climatic change. The historical records since the 1970s indicate continuous warming over time. In terms of rainfall, while there does not seem to be an obvious trend of total annual precipitation, extreme events are increasingly becoming a source of concern. On October 25, 2008<sup>14</sup>, flash floods claimed the lives of more than 140 persons and left more than 20,000 without shelter in the Hadramout and Al-Maharah provinces. Just very recently (on May 6, 2010) flooding from torrential rains on the surrounding mountains claimed the lives of seven persons in the capital city, Sana'a. Further variations are expected in the future, with considerable impacts on freshwater availability. The projected distribution of precipitation in Yemen will also be more erratic, with possible higher frequency of high-intensity events. This will have significant implications for flood risks, land degradation, and availability of water.

Yemen faces serious problems of extreme water scarcity. It has one of the lowest rates of annual per capita freshwater availability (195 m<sup>3</sup>) in the world, compared to a regional average annual per capita of 1,250 m<sup>3</sup>. Despite the hydrological scarcity prevalent in the country, water use efficiency is low, and the capacity to manage water resources and enforce policies and laws that govern sustainable use of water are weak. Water demand is still rising while water resources are virtually all developed, and competition is growing between users at both local and regional levels and among various sectors. Because of its dependence on unpredictable water availability, the relatively strong agricultural sector (which currently uses more than 90% of available water) in Yemen is highly exposed to the risks of climate variability and change.

Furthermore, Yemen's coastal ecosystems are vulnerable to extreme climatic events and to the impacts of rapid warming. Sea level rise will increase coastal flooding, raise costs of protection, lead to deterioration of wetlands, mangroves and corals, fisheries, and fresh groundwater due to salt intrusion. The predicted decline of almost 15% of the country's GDP from the fisheries sector will have a severe impact on the economy which employs a significant number of the population along the coast.

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<sup>14</sup> Reported on the CNN news website @ <http://edition.cnn.com/2008/WORLD/meast/10/25/yemen.flooding/index.html>

Although adequate evidence is available that climate change impacts exacerbate the already grim situation of water scarcity and overall depletion of the natural resource base in Yemen, resilience to the changing climate is not yet part of the overall national development policy and strategy.

## **2. Background**

Due to its high vulnerability to climate change, Yemen has accepted an invitation to participate in the Pilot Program for Climate Resilience (PPCR) as one of the pilot countries. The PPCR is the first program under the Strategic Climate Fund (SCF) of the Climate Investment Funds (CIF). The objective of the PPCR is to provide incentives for scaled-up action and transformational change through pilot projects that demonstrate how to integrate climate risk and resilience into core development planning, while complementing other ongoing development activities in a given country. The PPCR will be country-led, and will enable pilot countries to transform country-specific plans and investment programs in order to address climate risks and vulnerabilities, building on National Adaptation Programs of Action (NAPAs) and other relevant country studies and strategies. Substantial programmatic resources will then be made available to help fund the newly identified public and private sector investments.

The PPCR process will have two phases: Phase I will prepare the Strategic Program for Climate Resilience (SPCR), and Phase II will implement priority interventions identified under Phase I. In Yemen, through a series of consultations with various stakeholders, including different line ministries and agencies of the Government of Yemen (GOY), development partners, and civil society, the PPCR process will concentrate on addressing the following four pillars under Phase I: (i) climate change information system and awareness raising related to climate resilience; (ii) mainstreaming climate change resilience into core national development planning and capacity building; (iii) developing the SPCR; and (iv) strengthening the Technical Secretariat (TS)/Environmental Protection Authority (EPA) and Program Coordination Unit (PCU) to facilitate implementation of the PPCR. Under phase II, the PPCR process in Yemen will implement the specific projects/programs that are proposed in the SPCR. The indicative timeframe for completion of Phase I is in the range of 12 to 18 months. The key activities during Phase I include: (a) development of a proposal and budget outline for the SPCR; (b) tasks related to the development of the SPCR; (c) review and finalization of the SPCR; and (d) submission of the final SPCR with specific investment recommendations, which is the primary output of Phase I.

### **Overall framework for the PPCR in Yemen**

Adaptation initiatives will be implemented as part of broader set of actions within Yemen's existing development processes, decision cycles, and institutional arrangements. Stand-alone adaptation measures are only called for under special circumstances. A 'whole of Government

approach’ should be adopted, which ideally means that integration should occur at all levels of governance. The process will begin with an institutional assessment and be followed by an assessment of climate risks to the GOY’s plans, policies, and strategies. Interactions between the various areas of government, including planning and finance (budgetary decision-making), should be noted. Capacity building is needed in order for climate resilience to be mainstreamed. At the sectoral level, the process should begin with the designated priority sectors/themes: agriculture, water resources, coastal zones, and social sectors.

### **Climate resilience in national planning processes:**

There has been limited attention to climate risk concerns in national and sector policy, planning, and budgetary processes and in the design of individual projects financed locally or by the Arab Fund to date in Yemen. Few line agencies appear to have explored what climate change could imply for their respective sectors.

Adaptation is yet to be integrated into provincial policy, planning, and budgeting processes. Budgets have difficulty meeting even current priority development needs, let alone the costs of adaptation, of limited understanding of climate risks, and the lack of technical capacity to integrate adaptation to climate change into governorate planning processes. There is no evidence reported of any training organized at governorate or local council levels to provide this capacity.

### **3. Objective**

The National PPCR Coordinator should hold as his/her objective to ensure systematic coordination between related stakeholders in Yemen and donors in implementing the PPCR. Furthermore, he/she should pledge to conduct all program activities within the context of a full and thorough understanding of ‘Climate Change Impact’ and ‘Climate change Resilience’. The National PPCR Coordinator should take as his/her closely related objective to help concerned sectors in Yemen to operationalize the aforementioned “full and thorough understanding of Climate Change Resilience” in their core overall development plans, activities, and initiatives.

Under the overall responsibility of the EPA Chairman or his designated representative, and in close coordination with the World Bank, the National PPCR Coordinator will be recruited on a full-time basis to support all logistical, technical, and substantive activities of the PPCR. The National PPCR Coordinator will report to EPA and indirectly to the World Bank, and will provide backstopping to the Secretariat of the Inter-Ministerial Committee on Climate Change.

### **4. Tasks**

The National PPCR Coordinator shall:

### *Lead and Coordinate*

- a) Ensure smooth overall operation of the PCU within the TS/EPA by coordinating activities related to PPCR with relevant stakeholders in Yemen and development partners. This may include, among others, managing staff of the PCU, calling meetings and preparing meeting agendas, communicating decisions, and following-up as necessary;
- b) In coordination with other PCU members and TS/EPA, prepare a general yearly work plan and detailed quarterly work plan, and follow through with implementation of such plans;
- c) Provide strategic direction for and coordinate the implementation of Phase I;
- d) Facilitate and support the timely implementation of Phase I activities;
- e) Identify relevant national partners and institutions related to the program, and their PPCR-related interventions/projects;
- f) Focus on building the operational foundation of the PPCR;
- g) Provide leadership and coordinate the preparation of TORs for all program inputs and activities;
- h) Coordinate PCU staff and short- and long-term consultants, and contribute to Phase II proposal development;
- i) Provide necessary support to program experts and subcontracted firms to undertake the proposed activities under Phase I while, in coordination with other PCU members and relevant stakeholders in different line agencies, ensuring a high quality of deliverables by consultants;
- j) Assist in the preparation of logistical arrangements for national consultations;
- k) Provide the necessary support to the administrative and financial processes of the program;

### *Communicate*

- l) Manage communications, including briefings, memos, and talking points, to describe progress in implementing Phase I;
- m) Prepare quarterly progress reports of program achievements and technical reports on each activity and input;
- n) Organize special briefings and disseminate information on PPCR implementation progress for IMCCC members;

- o) Carry out a jour-fix with all PPCR staff on a weekly basis to ensure information flow and optimal integration of such information, for which minutes of meetings will be prepared;
- p) Ensure regular contact and information exchange with all related national stakeholders where appropriate, and other regional institutions to support the program activities;
- q) In coordination with other PCU staff, prepare documentation for all national meetings, workshops, consultations, etc.; and
- r) Participate in national consultations and missions, as appropriate.

## **5. Qualifications**

- a) The National PPCR Coordinator shall have:
- b) An advanced university degree in agricultural economics, environmental/development management, or related fields, such as natural resource management, conservation, environmental policy, or environmental technology, with demonstrated relevant working experience of at least fifteen (15) years in implementing projects and programs focussing on the environment. Around five years of such experience should have been assigned to working with international partners in internationally supported projects;
- c) Demonstrated project management skills, including the ability to foster involvement of all concerned stakeholders; design and supervise program activities, such as field surveys and coordination workshops etc; and prepare work plans, progress reports, financial requests, and TORs;
- d) Demonstrated ability to present complex issues and solutions to key stakeholders in government, private sector, NGOs/CBOs, and/or members of the scientific and academic communities.
- e) Familiarity and experience in working with concerned ministries, authorities, NGOs, officials, and experts in this field;
- f) Good diplomatic skills, with the ability to work in a multi-cultural environment and an inter-disciplinary team; and
- g) Working knowledge of English and fluency of the Arabic language.

## **1. Duties and Responsibilities**

1. Under the general direction of the EPA Chairman, the Financial Manager (FM) is responsible for the financial management of the project. He/she ensures that an appropriate financial management system is in place, with internal controls, records, and books of accounts; and that the procedures and reports are reliable, timely, and in accordance with generally accepted accounting principles and donor and government requirements; and that financial and other reports as needed are maintained and prepared on a timely basis, communicated to the appropriate users, and properly filed at the Agency. He/she is also responsible for training and building the capacity of two accountants of the EPA and the oversight of the accountants work.
2. The FM will be responsible for developing the Financial and accounting policies and procedures manual of the Project and to ensure such policies and procedures adhere to World Bank Guidelines. The FM will ensure full understanding of the manual and provide technical training to the Accountants. The FM will be responsible for proposing any necessary amendments to the manual during the life of the project and ensuring timely update.
3. Key responsibilities of this position are as follows:
  - a) Ensure that the financial and accounting manual of policies and procedures prepared is appropriately applied in managing the project funds;
  - b) implementing and managing the financial and accounting system of the Project;
  - c) supervising the Project Accountants;
  - d) preparing the quarterly interim financial reports of the project and interpreting the variances when compared to the project budget;
  - e) preparing annual project financial statements and submitting them for audit;
  - f) coordinating with the MOF to ensure budget for the project funds and the counterpart financing, if needed, for implementation;
  - g) regularly reviewing the internal control system to ensure compliance with the agreed mechanisms, procedures, and systems;
  - h) compiling all project activities and monitoring operating costs;
  - i) preparing the yearly budget of the project in cooperation with the Bank's Team Leader and government counterparts;
  - j) preparing disbursement schedules and financial forecasts for the project;

- k) maintaining adequate records of authorized appropriations and ensuring that all sums expended pursuant thereto are properly accounted for;
- l) maintaining adequate records of all procurement and consultant contracts; and following up on the bid performance securities, validity and renewals;
- m) verifying payments to ensure that the expenditures have been properly budgeted, authorized and recorded;
- n) verifying, on a regular basis, the petty cash expenditures to ensure that these are properly authorized and recorded with all supporting documentation;
- o) managing the cash accounts designated for project use to ensure the efficient use of funds, through following up on the signed contracts and all committed funds;
- p) verifying withdrawal applications for the disbursement of the Grant funds on direct payment and reimbursement basis;
- q) establishing central policies and procedures for the safeguarding of project assets and supporting project documentation;
- r) communicating and cooperating with the project external auditor and the government audit bureau; and
- s) performing any other project-related duties requested by the EPA Chairman.

## **2. Qualifications**

4. Qualifications would be the following. However, experience and performance in prior assignments and especially in World Bank projects would also be a key factor in the selection process.

- a) A minimum of a Bachelor's degree with at least Yemeni CPA/CA designation;
- b) A minimum of seven years of private and public sector financial management experience, preferably with an auditing firm and/or donors funded projects;
- c) The ability to translate planned activities into concrete budgets, establish standard unit costs, and analyze and report them for the purpose of recommending improvements in operations;
- d) The ability to supervise accounting and other financial functions and report financial information usable to the various stakeholders: Government, World Bank, and auditors;
- e) The ability to supervise accounting work and motivate accountants to achieve positive actions and results;
- f) General understanding of procurement concepts;

- g) Proficiency in the use of computers, accounting and other software applications.
- h) Proficiency in Arabic and English.



## **TOR for Accounting Software for the Pilot Program for Climate Resilience (PPCR)**

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### **1. Objective (procurement of accounting and reporting system)**

The EPA is seeking to procure accounting and reporting system for its use in managing the Project's accounts and reporting requirements. The EPA requires receiving adequate training to 4 individuals on the software to enable them to use the software properly and independently.

### **2. Accounting System Specifications**

The system will include the ability to record transactions, and generate the required financial reports including trial balances, quarterly and annual financial statements reporting on sources and uses of funds. It should be compatible with pc-based computer systems. The software's technical support and maintenance services should be available in the Republic of Yemen. Software specifications are summarized below:

- a) Multi-currency recording and reporting function;
- b) Multi-language (i.e. English and Arabic);
- c) Single input of date;
- d) Ability to track and report by project funding entity, financing agreements expenditures categories, and projects' components;
- e) Ability to automatically generate Interim Financial Reports (IFRs) with a clear audit trail;
- f) Adequate internal security features (e.g. cannot delete posted transactions, controlled access, password protection, ability to back-up data);
- g) Ability to design chart of accounts adequate to properly account for and report on projects activities and disbursement categories following cash basis;
- h) Flexibility to modify as the project develops;
- i) Ability to retain all data for accounts and reports on permanent basis in a defined system that allows authorized users easy access.

## Annex 7: Strategic Environmental and Social Assessment

### Yemen: Pilot Program for Climate Resilience Phase I (PPCR I)

Project ID NO: P118304

#### Safeguards Summary Assessment

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The Government of Yemen has applied for a US\$1.5 million Grant from the Strategic Climate Fund to implement the first phase of the Pilot Program for Climate Resilience (PPCR-Phase I). The Grant Agreement will be processed through the International Bank for Reconstruction and Development (IBRD) acting as Implementing Agency of the Pilot Program for Climate Resilience Trust Fund and in accordance with the “*Procedures for Preparation and Approval of Phase I Technical Assistance Grants under the Climate Investment Funds where the World Bank is the Implementing Agency*” and OP 14.40.

#### I. OBJECTIVE AND DESCRIPTION OF PPCR-PHASE I

**Development Objective:** The objective of Phase I of the PPCR is to assist Yemen in addressing climate resilience as a core development issue, and as part of a comprehensive response to various vulnerabilities facing Yemen. It will also formulate a Strategic Program for Climate Resilience defined as *the aggregate of strategies, policies, programs, and projects identified by Phase I of the PPCR to serve as the basis for the development of Yemen as a climate resilient country.*

**Description of Phase I:** Phase I of the PPCR will consist of four pillars, as follows:

##### **Pillar (I) Climate Change Information System and Awareness Raising:**

The objective of this pillar is to broaden and strengthen the existing MOU for establishing a shared mechanism for climate data collection and management by relevant agencies, including greater public awareness. This pillar is premised on the understanding that systematic data collection, manipulation, and utilization for decision making purposes is critical towards mainstreaming climate resilience into core development policies, programs, and plans. It emphasizes the establishment of a shared mechanism for environmental data collection, quality assurance, reporting and dissemination.

The main activities include: (i) Data gap analysis for spatial, temporal and quality of data; (ii) Institutional and capacity gap analysis, including tech software and hardware; (iii) Broaden and strengthen existing MOU, including targeted/rapid capacity building; (iv) Rapid multi-risk assessment (disaster, food security and climate); (v) Awareness rising of all stakeholders through

multi-media outreach (website, or wiki for information entry and dissemination, workshops and seminars).

## **Pillar (II) Mainstreaming Climate Change Resilience into National Development Planning:**

The objective of this pillar is to equip key line agencies to integrate climate and other risk considerations into sectoral and cross-sectoral policy, strategy and plans. The rationale is that unless climate is adequately mainstreamed within the core national development policies, programs, and plans, including sectoral policies and budgets, sustainability of interventions is not assured. The PPCR will therefore work with relevant bodies during the preparation of the 4<sup>th</sup> five year development program (4<sup>th</sup> DPPR) and other existing policies and strategies (e.g. NAPA and NWSSIP) and help to integrate climate resilience within these programs and strategies.

The main activities include: (i) Institutional capacity assessment (gaps and needs), and initial targeted capacity building; (ii) Sectoral climate, and other risks, impact assessment (e.g. water, agriculture, coastal zones, gender, health, etc.); (iii) Develop guidelines for policy makers and practitioners to mainstream climate resilience into sectoral and cross-sectoral policies, programs and plan; (iv) Develop strategy for integration of climate and risk into curricula and non curricula activities; and (v) Develop continuing education program for practitioners for DRR (would be extended to climate resilience).

## **Pillar (III) Formulation of Yemen's SPCR and Identification of Phase II Interventions:**

The objective of this pillar is to develop Yemen's Strategic Program for Climate Resilience (SPCR) and identify potential interventions for preparation and implementation under Phase II. This pillar is premised on the understanding that the SPCR will provide a road map for climate resilience to be mainstreamed into development planning, through demonstration of transformation changes at the institutional and sector levels through the implementation of key pilots.

The main activities include: (i) Conducting participatory multi stakeholder consultations; (ii) Preparation of SPCR, based on inputs from Pillars 1 and 2; and (iii) Identification of priority pilot interventions (including request for project preparation funding) based on consultative processes and analyses from Pillars 1 and 2.

## **Pillar (IV) PPCR Program Coordination:**

The objective of this pillar is to enhance the capacity of the EPA as the technical secretariat of IMCCC to coordinate the preparation and implementation of PPCR (under Phase 1 and 2). The

main activities include: (i) Assessment of institutional capacity needs for Program Coordination of the PPCR; (ii) Equipping the Program Coordination Unit (PCU) with core staff (manager, financial and procurement specialist), and provide training; and (iii) Provision of operating cost and goods (hardware and software).

## II. SAFEGUARD POLICIES THAT MIGHT APPLY TO PPCR-PHASE I

Safeguard Policies Triggered	Yes	No	TBD
Environmental Assessment (OP/BP 4.01)		X	
Natural Habitats (OP/BP 4.04)		X	
Forests (OP/BP 4.36)		X	
Pest Management (OP 4.09)		X	
Physical Cultural Resources (OP/BP 4.11)		X	
Indigenous Peoples (OP/BP 4.10)		X	
Involuntary Resettlement (OP/BP 4.12)		X	
Safety of Dams (OP/BP 4.37)		X	
Projects on International Waterways (OP/BP 7.50)		X	
Projects in Disputed Areas (OP/BP 7.60)		X	

**Environmental Category:** C – Minimal Impact

None of the OP/BP requirements would apply to Phase I because of its role primarily in preparing the SPCR rather than implementing the SPCR.

The location, type and nature of the investments selected to be financed by all development partners under the Strategic Programmatic Framework for Climate Resilience is not yet known at this stage.

As this Strategic Framework for Climate Resilience is assembled jointly by development partners, it would be subject to a **Strategic Environmental and Social Assessment (SESA)** funded under the PPCR-Phase I, with terms of reference satisfactory to IDA and other key PPCR development partners. The SESA would systematically screen and scope out the proposed policies, programs and projects and review their environmental and social sustainability. In particular, the SESA would:

- Describe the proposed policy, program or project's scope, boundary, and key assets/population affected
- Identify, predict and evaluate potential impacts
- Recommend preferred alternatives

- Identify the safeguard risks and policies likely to be triggered by the investment
- Suggest monitoring and mitigations measures

Other technical assistance funded under the PPCR-Phase I, such as strengthening of institutional coordination, improved information and applied research, and public awareness dissemination, would involve primarily consultations, technical assistance and dissemination and are not expected to trigger safeguard policies.

The PPCR-Phase I will help to identify the pilot investments for Phase II, but the actual detailed design of these investments would need to be carried out from within the respective projects' budgets, or with an additional PPCR grant.

### **III. PROPOSED PROCEDURES FOR PREPARATION OF PHASE II**

Once there is more certainty on the Investment Project(s) to be included under Phase II, a Concept Review(s) and full Integrated Safeguards Data Sheet(s) would be prepared and discussed with Bank management according to normal Bank procedures.