

PROJECT INFORMATION DOCUMENT (PID) CONCEPT STAGE

Report No.: PIDC897

Project Name	Climate Resilience of Rural Communities Project (CRRC) (P144764)
Region	MIDDLE EAST AND NORTH AFRICA
Country	Yemen, Republic of
Sector(s)	General agriculture, fishing and forestry sector (50%), Public administration- Water, sanitation and flood protection (50%)
Theme(s)	Climate change (60%), Other rural development (20%), Other environment and natural resources management (20%)
Lending Instrument	Specific Investment Loan
Project ID	P144764
Borrower(s)	Ministry of Planning and International Cooperation
Implementing Agency	Ministry of Agriculture and Irrigation
Environmental Category	B-Partial Assessment
Date PID Prepared/ Updated	24-Jul-2013
Date PID Approved/ Disclosed	06-Feb-2014
Estimated Date of Appraisal Completion	25-Apr-2014
Estimated Date of Board Approval	02-Feb-2015
Concept Review Decision	

I. Introduction and Context

Country Context

The Republic of Yemen, situated on the southern end of the Arabian Peninsula, is one of the poorest countries in the world. Yemen has a population of some 24 million, of which about 76 percent live in rural areas. The country ranks 160 out of 186 countries in the 2012 Human Development Index. Yemen is among the ten countries in the world with the highest rates of food insecurity, and the country has the third highest level of malnutrition in the world. Yemen is also facing rapid population growth, lack of clear alternatives to the oil economy, limited institutional capacity and outreach of the State, limited and rapidly depleting water reserves, poor infrastructure, significant rural-to-urban migration, and acute gender inequality.

The recent security, political, and economic crisis left significant impacts on development. Yemen experienced far-reaching unrest from February until November 2011. During this period of crisis,

the economy contracted by 10.5 percent and the number of people living below the poverty line is estimated to have increased from about 42 percent to 50 percent of the Yemeni population.

Besides the extractive oil industry, Yemen is particularly reliant on its natural resources. Agriculture employs more than half of the labor force, and economic dependence on agriculture is growing because of reduced growth in the industrial, manufacturing and service sectors since 2000. Yemen is one of the most water-scarce countries in the world, with only about 120 cubic meters (m³) of renewable internal freshwater resources available per capita - just 2 percent of the global average. Yemen's diverse agro-ecological zones include highlands, plateaus, deserts, and sea coasts. About 75 percent of agricultural production comes from the rainfed highlands, which is home to 40 percent of the population. Rainfall is erratic and variable, a situation made worse by high evapotranspiration rates.

Yemen is particularly vulnerable to climate change. Climate change in Yemen is expected to increase the variability and intensity of rainfall, resulting in increased flood risks and increased aridity. The threats to the water sector from a changing climate would have serious implications on agriculture. For example, agricultural yields are expected to change significantly. Because of the interconnected nature of these critical sectors of the economy, changes in climatic variables will bring accompanying variations in the biophysical underpinnings of the economy, with corresponding knock-on effects that will ripple outward through the entire society.

Rural livelihoods are severely threatened by the interlocking problems of water and agriculture. More than 80 percent of the poor live in rural areas. Rural households tend to be asset-poor, with small landholdings and inadequate access to irrigation. The rural population is also mostly food-insecure; food insecurity (in terms of per capita calorie intake) is estimated at 32 percent of the population. The vulnerability of rural livelihoods, especially in rainfed areas, will be further exacerbated by the impacts of climate change. A resilient rural development strategy will be instrumental in improving the landscape of rural agriculture, rendering rural livelihoods more sustainable and allowing rural residents to remain on their land and helping to curb migration.

Sectoral and Institutional Context

Yemeni agriculture is characterized by low productivity and inefficient water management. The agriculture sector produces about 11 percent of GDP (2010) and is the main source of income for 73 percent of the population – either directly (33 percent) or indirectly through the services and industries that are connected to the agricultural economy. Agriculture in Yemen uses about 90 percent of the water. Agricultural GDP consists of qat, which makes up about 30 percent and for which 40 percent of total water resource use is dedicated; vegetables and fruits, which make up another 30 percent; livestock production, which amounts to 20 percent; and cereals which contribute the remaining 10 percent. Low productivity is mainly due to the use of low yielding seed varieties, water shortages, scarce access to inputs and output markets, post harvest losses and inefficient agricultural research and extension services. Inefficient water management results in groundwater depletion and agricultural land degradation due to drought and excessive floods.

Analytical studies have shown how improved land and water management, combined with risk reduction measures, provides the basis for climate resilient growth and poverty reduction. The analysis and consultations carried out in Yemen under the Phase I of the Pilot Program for Climate Resilience (PPCR) highlighted the linkages between climate risks, soil and water conservation (SWC) and rural livelihoods. These challenges have been recognized in key development planning

documents – such as the Fourth Five-Year Socio-Economic Development Plan for Poverty Reduction (2011-2015) and Rural Development Strategy (2005). Also, the National Adaptation Program of Action (NAPA) has identified agriculture as one of the main vulnerable sectors in Yemen. According to the NAPA climate change may imply deterioration of landscapes, watersheds and terraces, which negatively affects agricultural incomes for local communities and results in national food insecurity as food production levels change. Yemen's National Agriculture Sector Strategy (NASS) proposes climate adaptation actions including water saving devices, increased use of water-efficient crops, and agricultural diversification.

The Yemeni government has been engaged in efforts to reduce poverty in rural areas and to improve natural resource management. These initiatives promote the improvement of livelihoods of poor farmers and their broader involvement through formal and informal organizations. Ongoing initiatives include the Rainfed Agriculture and Livestock Project (RALP) supported by IFAD and the World Bank, the Agro-biodiversity and Adaptation Project (ACAP), supported by the World Bank, the IFAD-funded Rural Employment Programme, and support to the fisheries sub-sector through funding from IFAD and the World Bank.

The proposed project will build partly on aspects of the Rainfed Agriculture and Livestock Project (RALP). The RALP was designed to enable poor rural producers in rainfed areas to improve their production, processing and marketing systems; to protect their assets such as soil, water, rangeland, seeds and animals; and to organize effectively for community-led activities. More specifically, the RALP's Productive Rural Development component (Component 3), implemented by the Social Fund for Development (SFD), is helping producers to upgrade and diversify their agriculture and livestock production, processing and marketing systems, and conserve soil and harvest water in the highlands. The SFD is implementing (i) soil and water management subprojects at local community level, (ii) integrated management for terraces rehabilitation and water harvesting at inter-community (district) level, and (iii) watershed management projects at governorate level. Mobilization of rural communities and producer groups is at the core of this component. The RALP is scheduled to close in September 2014.

Relationship to CAS

The proposed project is fully consistent with the FY13-14 Interim Strategy Note (ISN, October 2012). The ISN recognizes the severe challenges posed by climate change, water scarcity, and land degradation, and it identifies climate change as one of the main threats to economic development, especially since most of Yemen's poorest people are farmers, with 60 percent engaged in rainfed agriculture. The ISN Program highlights projects under the PPCR umbrella as a key ingredient in reducing Yemen's vulnerability to climate change and variability. This activity comes under the ISN Program's strategic pillar I – Achieving Quick Wins and Protecting the Poor.

The project is also aligned with the World Bank's commitment as an implementing agency of the Climate Investment Funds' Pilot Program for Climate Resilience (PPCR). Yemen is one of nine single-country pilots under the PPCR, which aims to pilot and demonstrate ways in which climate risk and resilience may be integrated into core development planning and implementation and promote transformational change. The PPCR is implemented in two phases, with the first Phase focused on the design of the Strategic Program for Climate Resilience (SPCR) and the development of relevant studies to inform the implementation of Phase II. The SPCR was developed by the Government of Yemen in cooperation with the World Bank and the International Finance Corporation through a two-year stakeholder consultation process under the guidance of the Inter-

Ministerial Committee for Climate Change (IMCCC). The SPCR aims to guide the preparation and subsequent implementation of priority investments under Phase II of the PPCR. The proposed project is one of three activities identified in Yemen's SPCR. The PPCR Sub-Committee endorsed the SPCR in April 2012 and subsequently approved the grant funding for this project.

II. Proposed Development Objective(s)

Proposed Development Objective(s) (From PCN)

The proposed development objective is to increase the resilience of the rural population to the impact of climate change through improved natural resource management.

Key Results (From PCN)

The following indicators are proposed to evaluate project progress toward achieving the development objective:

- (i) Number of participating households involved in integrated watershed management planning;
- (ii) Number of participating households implementing climate resilience measures, such as improved water harvesting techniques, terrace rehabilitation, and ground water recharge;
- (iii) Number of participating households benefiting from community risk-management activities;
- (iv) Water resource management indicators: slow-down of run-off, amount of rainwater infiltrated, improvement in the soil moisture content;
- (v) Number of community-based early warning system plans developed and adapted in the community development plans.

III. Preliminary Description

Concept Description

The proposed project, which will be implemented with a Strategic Climate Fund grant of US\$19 million over five years (2015-2020), will consist of three inter-related components.

- (i) Component 1: Climate resilient soil and water conservation

This component will improve the climate resilience of the watershed-based ecosystems in selected rainfed areas of Yemen through (i) integrated soil and water conservation measures at the watershed/basin level, (ii) a landscape approach through community mobilization and training to build local capacities to manage water and other natural resources in an integrated and sustainable manner, and (iii) piloting Payment for Environmental Services (PES) to maintain terraces and other water and soil saving devices.

This component will build on RALP and SFD experience and adopt an Integrated Watershed Management (IWM) approach for ecosystem management, which provides a framework to integrate natural resource management with community livelihoods in a sustainable way by focusing on the sustainability of ecosystem services as well as sustainable benefits for human well-being (as well as animal production). The IWM approach focuses on the watershed level, cutting across administrative districts, through formulation of a Comprehensive Watershed Management Plan and implementation of inter-community and district level sub-projects.

In this component the project will seek to develop the IWM approach into a broader landscape approach in selected project sites. In this context, the landscape approach will involve supporting

integrated approaches to managing land and water in a geographic area, supporting the intensification of production on fertile lands as well as landscape restoration in degraded areas. As part of its decentralized, community-based approach, the project will work with farmers groups (including herders) and WUAs, in developing capacities of local councils and communities to manage water resources (including groundwater), soil, plants and animals and to include climate resilience in local and community planning. Special focus will be given to building capacities and raising awareness for inter-community planning and action. Under this component the project will encourage investments in terrace rehabilitation, other water saving devices (water tanks) and other eco-system maintenance activities which would allow farmers better options for increasing agricultural diversification and productivity of both water and cropping and animal production systems. Agricultural diversification and water conservation will also be achieved by promoting high-value cash crops as alternatives to qat, in line with the strategic objectives of the National Agriculture Sector Strategy (NASS). Less water intensive alternatives to qat will be promoted, such as barbary cactus for fruit, aloe, almonds, and coffee - all of which have had some success in Yemen as alternative crops.

This component would aim to work through existing decentralized structures in developing capacities of local councils and communities to manage water resources (including groundwater) and to include climate resilience in local and community planning. It will focus on improving local water governance through community mobilization and working with National Water Resources Authority (NWRA) and local councils on water management aspects. Special focus will be given to building capacities and raising awareness for inter-community planning and action, as part of the investments for integrated watershed management, e.g. promoting coordination between communities covering upper and lower watershed management.

This component would build on established RALP field activities to provide additional funds to selected communities to assist them prepare special programs designed to better manage and utilize watershed structure especially as related to flood water through community action, local participation and self-help groups. The grant would support the testing of pilot models for managing floods with the objective of protecting vulnerable communities and their assets, protect natural resources, and increase groundwater recharge. Technology improvement of water harvesting is an essential part of improved watershed management because it could increase water storage needed to increase the recharge of local aquifers.

(ii) Component 2: Integrated community risk management.

This component will improve climate resilience of the rural population by addressing the risks associated with droughts and flood hazards and other shocks. This component will adopt a comprehensive approach, combining initiatives in climate change adaptation through an early warning system, social protection, and asset protection, such as animal health protection to protect livestock assets. For each community, specific activities will be determined based on the key risks identified by the community and corresponding risk-management plan.

In climate change adaptation, the activities will include institutional capacity building for establishing an early warning system in support of climate resilience related initiatives. The objective is to revitalize traditional risk mitigation measures and incorporate them into the early warning system as part of community development plans. The project will not support upgrading of national hydro-meteorological and agro-meteorological networks. Support for such activities, and

support for improving the coordination of such networks between CAMA, MAI, and NWRA, is to be provided by the Climate Information System & PPCR Coordination Project (P132116). Activities under this proposed project supporting early warning systems in the targeted communities will be closely linked to other PPCR activities to ensure synergies and to avoid duplication. This component will be prepared in coordination with MAI, CAMA, NWRA, and other relevant units/ programs of the SFD, such as the Labor Intensive Work Program.

The social protection activities will build on the scope of available instruments currently in use in the RALP, such as cash-for-work. This will help to target the most vulnerable groups and communities' living in chronic crisis situation and climate hazard prone locations. These types of programs can then operate as productive safety net programs that can be scaled up to respond to shocks of various kinds, such as crop failures or other natural disasters. This component will also explore opportunities for 'risk pooling of agricultural and livestock production', such as traditional solidarity mechanisms.

(iii) Component 3: Strategic knowledge management and project coordination.

This component will collect and document local best experiences and indigenous knowledge on activities improving climate resilience at the local level, undertake knowledge sharing and exchange in coordination with relevant local and national stakeholders, and promote the incorporation of this knowledge into national and sub-national policies and strategies. This knowledge management component will be implemented by SFD in coordination with the Ministry of Agriculture and Irrigation (MAI) and the PPCR Coordination Unit at the Environment Protection Authority (EPA).

This component will also finance the operating costs of the project. The project will rely upon the support units established in SFD. Costs will be financed through the provision of overhead costs to account for the increased volume of work and additional operating costs for SFD, including salaries, equipment, and consultancy services as needed.

IV. Safeguard Policies that might apply

Safeguard Policies Triggered by the Project	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	

V. Financing (in USD Million)

Total Project Cost:	18.60	Total Bank Financing:	0.00
Financing Gap:	0.00		
Financing Source			Amount
Borrower			0.00
Strategic Climate Fund Grant			18.60
Total			18.60

VI. Contact point

World Bank

Contact: Garry Charlier
 Title: Senior Rural Development Specialist
 Tel: 473-5676
 Email: gcharlier@worldbank.org

Borrower/Client/Recipient

Name: Ministry of Planning and International Cooperation
 Contact: H.E. Dr. Mohammed Saeed Al Sa'adi
 Title: Ministry of Planning and International Cooperation
 Tel: 967-1-250665
 Email:

Implementing Agencies

Name: Ministry of Agriculture and Irrigation
 Contact:
 Title:
 Tel: 967-1-449669
 Email:

VII. For more information contact:

The InfoShop
 The World Bank
 1818 H Street, NW
 Washington, D.C. 20433
 Telephone: (202) 458-4500
 Fax: (202) 522-1500
 Web: <http://www.worldbank.org/infoshop>