INTEGRATED SAFEGUARDS DATA SHEET
CONCEPT STAGE

Report No.: AC2927

Date ISDS Prepared/Updated: 06/05/2007

I. BASIC INFORMATION

A. Basic Project Data

Country: Yemen, Republic of	Project ID: P103922
Project Name: YEMEN: Adaptation to climate change using agrobiodiversity resources in the rainfed highlands of Yemen	
Task Team Leader: Kanta K. Rigaud	
GEF Focal Area: Climate change	Global Supplemental ID:
Estimated Appraisal Date: June 2, 2008	Estimated Board Date: October 6, 2008
Managing Unit: MNC03	Lending Instrument: Specific Investment Loan
Sector: Crops (60%);General agriculture, fishing and forestry sector (40%)	
Theme: Climate change (P);Biodiversity (S)	
IBRD Amount (US$m.): 0.00 IDA Amount (US$m.): 0.00 GEF Amount (US$m.): 4.00 PCF Amount (US$m.): 0.00 Other financing amounts by source: BORROWER/RECIPIENT 0.00 Intl. Center for Agri. Research in the Dry Areas (ICARDA) 0.30 HIPC-Transfers from IDA grants 3.00 3.30	

B. Project Objectives [from section 2 of PCN]

Yemen's economy, the poorest among the Arabian Peninsula countries, relies mostly on agriculture which contributes more than 15% to GDP and employs more than 55% of the active population. Poverty is widespread in the rural areas, home to 83% of the poor, who derive their livelihoods and incomes exclusively from agriculture and agriculture-related activities. Rainfed agriculture in the highlands represents more than half of the total cultivated area of Yemen.

  Climate change is a real concern for Yemen. Most climate modeling scenarios indicate that the drylands of West Asia and North Africa will be the most affected by droughts and high temperatures in the years to come. A greater frequency of droughts and flash floods has already been observed in recent years. Rainfed agricultural areas are the most vulnerable to the impact of climate change. Lower rainfall, a consequence of climate change, would have immediate detrimental impacts on rain-based agricultural systems. One study estimates that climate change

could lead up to 50% reduction of crop yields for rain-based agricultural crops by 2020 (Agoumi, 2003).

The communities in the highlands in Yemen retain important agrobiodiversity and traditional knowledge related to the utilization of their agrobiodiversity resources. Yemen is well known for its agrobiodiversity based on the large number of landraces of barley, wheat, sorghum, millet, lentil, and cowpea which have evolved over more than two thousand years, and for the construction and management of terraces which help minimize land degradation and improve water use efficiency. A large number of landraces of different crops are still used within the prevailing and diverse farm systems to meet the food needs of these communities and those of their livestock. Most of these landraces have accumulated adaptive attributes for coping with the adverse environmental and climatic conditions and to the need of local communities. This invaluable agrobiodiversity should be conserved, both in-situ (on-farm) and ex-situ (genebanks), as it provides an important genetic base for crop improvement programs, specifically for the development of crop varieties which are likely to be better adapted to impending shifts in climatic patterns.

Adaptation to climate change entails a process of building a country's adaptive capacity to respond and adjust to climate variability and extremes by increasing its ability to moderate potential damages, take advantage of new opportunities due to climate change and cope with the consequences of the adverse effects. To achieve optimum adaptation on the ground, it is critical to downscale regional and global predictive climate models and develop vulnerability profiles, at the appropriate scale, for these communities. This localized information and prediction models would ensure that appropriate coping mechanisms are mobilized through improved extension delivery systems to the farming communities.

Both agrobiodiversity conservation and adaptation to climatic changes have been identified as issues of importance to the country by Yemen's Ministry of Water and Environment, the Ministry of Agriculture and Irrigation, the General Authority for Research and Extension and other research and development institutions, including universities (Sana?a University and others) and some local NGOs (Sustainable Agriculture Association and others). This priority is evident in two recent initiatives in the country:

(i) Yemen recently completed its National Adaptation Plan of Action. This proposed project will directly target the top two of the four articulated priorities in the Plan, namely: 1. Improving community resilience to climate change through the development of sustainable rural livelihoods; and 2. Improving agricultural production under erratic rains and changing climatic conditions.

(ii) The Government's Rural Development and Agricultural Development strategies not only stress the importance of agriculture as the driving force for development in the highlands of Yemen, but also the need to take advantage of local agrobiodiversity and local knowledge to prevent further land degradation and to help farmers adapt to climate change.

This proposed GEF project is closely linked to the World Bank financed 'Rainfed Agricultural and Livestock Project' (RALP) which focuses on highland agriculture and has a component to promote community-based seed increase of landraces of field crops. This project will supplement the RALP through research and pilot projects in areas that address the global aspects of adaptation to climate change and conservation and utilization of agrobiodiversity resources. The RALP will help provide continuity to implement the findings of the GEF project, as well as a

stronger institutionalized connection with the counterpart agencies, which will be crucial for the sustainability of the GEF-financed project.

In cooperation with international and regional organizations, Yemen has developed over the years, a strong partnership with ICARDA through the implementation of several research projects, including some which focused on the preserving local agrobiodiversity and improving the productivity of traditional farming systems.

While Yemen has some technical expertise related to the conservation of plant genetic resources, including in-situ and ex-situ collections, it has no capacity to link agrobiodiversity resources and conservation with coping mechanisms for communities to adapt to climate change through predictive modeling. This project provides an opportunity to fill critical gaps of information and propose coping mechanisms which will be mainstreamed directly through the World Bank-financed RALP project.

C. Project Description [from section 3 of PCN]
The Project Objective is to develop coping strategies for adaptation to climate change for farmers who rely on rainfed agriculture in the Yemen highlands, through the conservation and utilization of biodiversity important to agriculture (particularly the local land races and their wild relatives) and associated local traditional knowledge.

In terms of its overall strategic approach, the project seeks to integrate adaptation to climate change with the conservation and utilization of agrobiodiversity resources by:
  (i) bringing together local/traditional knowledge, particularly that of female farmers, with modern farming techniques and practices;
  (ii) developing vulnerability profiles at the appropriate (community/district/governorate) level for target species/varieties, and
  (iii) developing adequate and appropriate coping mechanisms as well as policy, institutional and technology options.

D. Project location (if known)
The project will focus on the rainfed agricultural systems of at least two of the governorates that are the focus of the RALP, and will explore other areas which meet specific criteria of indigenous knowledge and in-situ conservation of agro-biodiversity.

E. Borrower's Institutional Capacity for Safeguard Policies [from PCN]
The project will utilize the same PIU as the RALP, and in that context will build on the capacity arrangements for safeguard compliance that have been recommended through that project. Any additional requirements for capacity will be identified during the preparation stage.

F. Environmental and Social Safeguards Specialists

II. SAFEGUARD POLICIES THAT MIGHT APPLY

Safeguard Policies Triggered	Yes	No	TBD
Environmental Assessment (OP/BP 4.01)	X		
A partial EA will be undertaken during preparation, and an EMP prepared.			
Natural Habitats (OP/BP 4.04)			X
TBD			
Forests (OP/BP 4.36)			X
TBD			
Pest Management (OP 4.09)			X
TBD			
Physical Cultural Resources (OP/BP 4.11)			X
TBD			
Indigenous Peoples (OP/BP 4.10)			X
TBD			
Involuntary Resettlement (OP/BP 4.12)			X
TBD			
Safety of Dams (OP/BP 4.37)			X
TBD			
Projects on International Waterways (OP/BP 7.50)			X
TBD			
Projects in Disputed Areas (OP/BP 7.60)			X
TBD			

Environmental Category: B - Partial Assessment

III. SAFEGUARD PREPARATION PLAN

A. Target date for the Quality Enhancement Review (QER), at which time the PAD-stage ISDS would be prepared: 05/15/2008

B. For simple projects that will not require a QER, the target date for preparing the PAD-stage ISDS: N/A

C. Time frame for launching and completing the safeguard-related studies that may be needed. The specific studies and their timing[1] should be specified in the PAD-stage ISDS.
   May 2008

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[1] Reminder: The Bank's Disclosure Policy requires that safeguard-related documents be disclosed before appraisal (i) at the InfoShop and (ii) in-country, at publicly accessible locations and in a form and language that are accessible to potentially affected persons.

IV. APPROVALS

Signed and submitted by:		
Task Team Leader:	**Ms Kanta K. Rigaud**	**05/24/2007**
Approved by:		
Regional Safeguards Coordinator:	**Mr Sherif Kamel F. Arif**	**05/25/2007**
Comments:		
Sector Manager:	**Mr Luis F. Constantino**	**05/25/2007**
Comments:		