

**INTEGRATED SAFEGUARDS DATASHEET  
APPRAISAL STAGE**

**I. Basic Information**

Date prepared/updated: 03/04/2010

Report No.: AC4688

**1. Basic Project Data**

Country: Yemen, Republic of	Project ID: P103922	
Project Name: Agro-biodiversity and Adaptation		
Task Team Leader: Kanta K. Rigaud		
GEF Focal Area: Climate change	Global Supplemental ID:	
Estimated Appraisal Date: February 13, 2010	Estimated Board Date: May 27, 2010	
Managing Unit: MNSSD	Lending Instrument: Specific Investment Loan	
Sector: Crops (60%);General agriculture, fishing and forestry sector (40%)		
Theme: Climate change (67%);Biodiversity (33%)		
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:		
<u>BORROWER/RECIPIENT</u>		0.00
		0.00
Environmental Category: B - Partial Assessment		
Simplified Processing	Simple <input type="checkbox"/>	Repeater <input type="checkbox"/>
Is this project processed under OP 8.50 (Emergency Recovery) or OP 8.00 (Rapid Response to Crises and Emergencies)	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>

**2. Project Objectives**

The overarching objectives of the Agro-biodiversity and Climate Adaptation Project (ACAP) are to enhance capacity and awareness at key national agencies and at local levels to respond to climate variability and change; and to better equip local communities to cope with climate change through the conservation and use of agro-biodiversity. The project will pilot and test the design of improved coping strategies through the use and conservation of agro-biodiversity resources in the rainfed highlands of Yemen.

**3. Project Description**

The proposed GEF project (\$4.0 million grant) will be implemented over four years. The operation will be co-financed by a PHRD grant (under the Climate Change window), and in part through complementary activities from the ongoing IDA operation Ground Water and Soil Conservation Project (GSCP). Primary coordination will be provided by the Ministry of Agriculture and Irrigation (MAI), and day to day implementation by the Project Coordination Unit (PCU) currently implementing the GSCP, with which the ACAP will share the PCU. The PCU will be supported in implementation by its Field Units (FU) in Sana'a (also supporting Al Mahweet) and in Taiz (also supporting Ibb). The

FUs have experience in implementing terrace construction, water harvesting and storage structures, spate irrigation and wadi bank protection, in addition to working with the Water User Groups and Associations. This arrangement will increase the leverage of the proposed operation in influencing the policy dialogue both, within the Ministry of Agriculture and Irrigation and with the other implementing agencies of the government.

The Project will have the following four components: Component 1 will build on the traditional knowledge of farmers and develop an inventory of local agro-biodiversity, and identify and test selected land races for climate resilience. Information on the agro-biodiversity resources will be used to develop natural resource management and alternative income generation plans with the communities as part of a "no regrets" approach to building climate resilience in the highlands. Component 2 will focus on raising awareness on climatic changes and developing initial local predictive capacity of weather patterns and long term climate change scenarios for the country. Component 3 will focus on integrating climate resilience into rain-fed agriculture. At the national level this will be done through capacity development of the MAI and development of a climate resilient rain-fed agriculture strategy and at the local level through the development and piloting of a menu of coping strategies in partnership with the communities. Component 4 will focus on project management, coordination and monitoring and evaluation. The detailed project description is provided in Annex 4 of the Project Appraisal Document.

Component 1: Agro-biodiversity and local knowledge Utilization and Assessment [GEF: US\$366,500]

Objective: To prepare inventories of land races and other agro-biodiversity and develop vulnerability profiles of selected land races

Outcome: Information to enhance and develop agro-biodiversity based coping strategies in place.

Activities financed under this component would include: (a) preparation of inventories of local agro-biodiversity and knowledge from farmers on adaptive characteristics of local landraces and wild relatives of crop species; (b) development of Climate resilience profiles of selected landraces#after testing and piloting for resilience to impacts of climate change; and, (c) preparation of a feasibility report for micro-enterprises using this agro-biodiversity. This will indicate the potential for alternative income generation through sustainable use of agro-biodiversity in the area.

Sub-components

1.1 Agro-biodiversity Inventories

1.2 Development of vulnerability profiles of selected Land Races

1.3 Micro enterprises assessment report on agro-biodiversity utilization

Component 2: Climate Change Modeling and Capacity Building [GEF: US\$600,000]

Objective: To lay the foundation for development of national capacity in climate modeling and data analysis

Outcome: Enhanced capacity of national institutions to develop climate scenarios based on regional climate models

This component will finance activities which will be the building blocks for developing capacity in climate change analysis and modeling. More specifically, the ACAP will finance (1) development of an improved climate database, including upgrading of select weather monitoring stations; (2) "downscaling" global climate models for relevance and use in-country; (3) development of technical capacity, specifically in relation to climate information management and modeling; and (4) sharing climate information inputs and outputs with other agencies and users.

#### Sub-components

- 2.1 Development of Improved Climate Database
- 2.2 Downscaling Climate Models
- 2.3 Training and Technical Capacity Development
- 2.4 Sharing Climate Information Inputs and Outputs

Component 3: Integrating Climate Change into Rain-fed Agriculture [GEF: US\$2,801,300]

Objective: To develop a strategic approach to integrate climate change into rain-fed agriculture

Outcome: Pilot coping strategies implemented; policies and investment plans of rain-fed agriculture reflect climate considerations

This component will have three sub-components. The first sub-component will finance capacity building activities at for the MAI and the communities. Technical capacity of MAI staff will be developed to take climate change into account when designing rain-fed agriculture programs. At the community level training programs for awareness raising on climate change issues would be financed.

The second sub-component will finance piloting of Coping mechanisms with communities, for better management of natural resources and for diversifying income generation activities. Under the former would be activities such as small scale upgrading of water harvesting and storage structures, terrace rehabilitation and flood protection structures. As part of the latter, income generation activities that use local agro-biodiversity, will be financed.

Under the third sub-component, a detailed assessment of the vulnerability of rain-fed agriculture to climate change will be financed. This will be followed by consultations with stakeholders to develop a climate resilient rain-fed agriculture strategy which the MAI would adopt.

#### Sub-components

- 3.1 Raising awareness and capacity building at national and local levels on climate change
- 3.2 Piloting coping strategies at local landscape units
- 3.3 Preparation of a Climate Resilient Agriculture Strategy for Rain-fed highlands

Component 4: Project Coordination and Management [GEF: US\$232,200]

Objective: To enable effective coordination and management of the project

Outcome: Effective project management, monitoring and improved Coordination

Project implementation will be overseen by the GSCP PCU. The PCU is headed by a Project Director and has staff to oversee procurement, financial management and administrative support functions. On the technical side the team will include a specialist in climate change and natural resources management and monitoring and evaluation.

A monitoring system will be put in place that tracks performance of the PCU in relation to (a) progress in achieving scheduled activities and outputs and against each component; (b) expenditure against budget allocations; (c) project impact on key outcomes and indicators of achievement; and (d) environmental and social management plan. Indicators and monitoring mechanisms are detailed in Annex 3 of the Project Appraisal Document.

#### **4. Project Location and salient physical characteristics relevant to the safeguard analysis**

The project will be implemented in the Governorates of Sana'a, Ibb, Taiz and Al Mahweet. Site selection was undertaken through purposively selected biophysical agro-ecological gradients to improve sample representativeness. Site selection was done to:

- a. include project sites located along a meso-scale geographic gradient,
- b. cover some of the most important areas of rain-fed highlands
- c. cover a range of altitudes within the highlands
- d. cover a range of mean annual precipitation
- e. cover a range of agro-ecological gradients
- f. overlap with the governorates of ongoing complementary projects to allow for

scale-up

Based on these criteria the following districts have been selected in the four project governorates:

(i) Governorate: Al Mahweet

Districts: Alrogm and Almahweet

Remarks: Northern extension of the meso-scale transect; ongoing RALP and GSCP

(ii) Governorate: Sana'a

Districts: Blad Alros; Bani; and Matter

Remarks: Northern central part of the meso-scale transect; ongoing RALP and GSCP

(iii) Governorate: Ibb

Districts: Alsadah and Badan

Remarks: Southern central part of the meso-scale transect; high altitudinal gradients; preceding agro-biodiversity projects; GSCP

(iv) Governorate: Taiz

Districts: Saber and Almoasat

Remarks: Southern extension of the meso-scale transect; preceding agro-biodiversity projects and GSCP

## 5. Environmental and Social Safeguards Specialists

Ms Banumathi Setlur (MNSEN)

Ms Minna Maria Kononen (SDV)

6. Safeguard Policies Triggered	Yes	No
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

## II. Key Safeguard Policy Issues and Their Management

### A. Summary of Key Safeguard Issues

1. Describe any safeguard issues and impacts associated with the proposed project. Identify and describe any potential large scale, significant and/or irreversible impacts: The project is expected to have positive environmental and social benefits. Components 1 and 2 provide the basis for designing coping strategies to adapt to climate change under component 3. Project activities under subcomponent 3.2 (under component 3) on "Piloting coping strategies in local landscape units" will include among other activities: (i) the upgrading of small scale community infrastructure as coping strategies; and (ii) piloting agro-biodiversity based income generation activities. Some examples of (i) could include: upgrading of terraces; creation or enhancement of community seed storage facilities; soil conservation measures, small flood protection structures, etc. Some examples of (ii) could include: construction of small nurseries/home-gardens with a preference for those using grey water and other conservation methods to produce plants, vegetables, fruits, aromatic and medicinal plants; planting, preparation and packaging of medicinal herbs (aromatic and spices); beekeeping, etc.

However, these activities are not expected to result in any large scale and/or irreversible negative impacts. The interventions initiated under this project are intended to be the building blocks which will help meet the challenges of climate change over the long term. Additionally, some specific coping options and strategies will be mainstreamed through the ongoing IDA funded operations: Groundwater and Soil Conservation Project (GSCP) and the Rainfed Agriculture and Livestock Project (RALP).

The project is classified as environmental category B and designed to ensure compliance with the requirements of the following safeguard polices that are triggered: Environmental Assessment (OP 4.01) and Pest Management (OP 4.09).

During early stages of project preparation and at the QER, the team triggered the Safeguard Policy OP 4.12 on Involuntary Resettlement as a precautionary measure, particularly in light of sub-component 3.2 (3.2.4 and 3.2.5) of the project that focuses on Piloting Coping Strategies in local landscape units. However, as project preparation progressed, the team has further defined the project components, sub-components, and activities. Consequently, it is now confirmed with the Regional Safeguards Advisor that project activities will not result in: (i) involuntary taking of land; (ii) relocation or resettlement; (iii) loss of assets or access to assets, and (iv) loss of income sources or means of livelihood. Furthermore, project activities are expected to result in stabilizing, increasing, and diversifying income for participating communities. Environmental and Social Impact Assessment (ESIA) carried out by the borrower also independently concluded that OP 4.12 is not triggered by project activities. Consequently, the decision taken was to un-trigger the involuntary resettlement safeguard policy OP 4.12. This process has been documented and the minutes have been filed in IRIS.

2. Describe any potential indirect and/or long term impacts due to anticipated future activities in the project area:

The project will develop and pilot coping mechanisms for climate resilience within local landscape units, which are intended to improve the living and socio-economic conditions of the participating communities. No potential indirect or long term negative impacts are expected.

3. Describe any project alternatives (if relevant) considered to help avoid or minimize adverse impacts.

Not applicable

4. Describe measures taken by the borrower to address safeguard policy issues. Provide an assessment of borrower capacity to plan and implement the measures described.

The safeguard policies on Environmental Assessment (OP 4.01) and Pest Management (OP 4.09) are triggered by the project. Accordingly, the borrower has prepared an Environmental and Social Impact Assessment (ESIA), which includes an environmental and social management plan (ESMP) and a brief matrix on integrated pest management (IPM). This ESIA which is satisfactory to the Bank underscores the largely positive environmental and social impacts that will be generated through the project. The ESMP includes potential environmental and social impacts and recommends mitigation measures. Under Component 3 #Integrating Climate Change into Rainfed Agriculture in the Highlands#, the project has developed a menu of likely subproject interventions. In addition, the project has developed geographic, ecological, social and environmental criteria that will guide site and community selection. The ESIA includes a chapter (10) on screening of sub-projects, which also consists of a checklist. ACAP sub-projects# coping mechanisms identified and to be carried out by water user groups and communities under Component 3# will be undertaken purely on a voluntary and demand basis. They are not expected to be of category A in nature, and the screening process will ensure that any such sub-projects will not be approved for funding/implementation. Fiduciary responsibilities will remain with the PCU.

The PCU will be in charge of implementing component 3, and will therefore will be responsible to ensure that all subproject proposals undergo a screening process (described in the ESIA) before they are approved for implementation. The screening process will help: (i) to confirm environmental category (B or C in nature); (ii) include mitigation measures according to potential impacts depending on subproject design; (iii) include chance-finds procedures as relevant; and (iv) include IPM measures as relevant, before approval of the subproject for funding and implementation.

With regards to the Pest Management Policy (OP 4.09), the project will not procure pesticides but rather encourage the use of environmentally friendly agro-chemicals. Further, the IPM will provide guidance on the safe use of agro-chemicals, fertilizers and use of other pest management techniques. Capacity building of farmers and MAI staff in IPM will be undertaken to address any pest management concerns. Additionally under the GSCP, the project governorate Field Units of the PCU have been provided with an action plan for IPM. They have also developed farmer education program that stresses IPM practices. These practices and procedures on IPM will continue with the ACAP. The policy OP 4.09 is triggered for precautionary purposes. The policy on Physical Cultural Resources (OP 4.11) will not be triggered by project activities. However, the subprojects will be screened for physical cultural resources, and chance-finds procedures will be followed as outlined in the ESMP.

No other safeguard policies are triggered as a result of project activities. The screening process will ensure that the project will not fund any category A type subprojects.

The project will be implemented over 4 years, with primary coordination provided by the Ministry of Agriculture and Irrigation (MAI), and day to day implementation oversight provided by the PCU. The PCU will comprise of the Project Director, supported by core staff including procurement and financial management. In addition, there would be an international expert to deal with climate change and natural resource management issues, including M&E. The PCU has built sufficient capacity under the GSCP to ensure safeguard compliance. If necessary, training and capacity strengthening will be undertaken by the project at both the PCU level (M&E specialist and international technical specialist on Bank safeguard policies, and on requirements for monitoring and reporting) and community level (specifically in the areas of natural resource management, integrated pest management, impacts of climate change and development of climate resilient coping strategies, chance-finds procedures, etc.).

The implementation of the environmental and social measures of the ESMP can be monitored since all environmental and social actions are linked to project components and to their performance indicators. A small M&E unit exists in the PCU for monitoring the progress of the project and evaluating the performance of the project, including its environmental and social impacts. In terms of reporting on compliance with safeguards, the PCU field units will include information on project compliance with ESMP in their quarterly reports, which the PCU will include in their reporting to IDA.

5. Identify the key stakeholders and describe the mechanisms for consultation and disclosure on safeguard policies, with an emphasis on potentially affected people. A wide range of stakeholders will be involved in the project, many of whom have already helped to shape the project design. They will participate during implementation in different ways: some will be involved as lead agencies, responsible for providing a leadership role and oversight of components; others will play a role as contributing technical agencies and partners in line with their institutional mandates. Community cooperatives and organizations will also be directly involved in the project delivery.

Key stakeholders include Ministry of Agriculture and Irrigation (MAI), Agriculture Research and Extension Authority (AREA) and Civil Aviation and Meteorology Authority (CAMA). Several other stakeholders that will be consulted on specific aspects, could include, the Rural Women Development General Directorate (RWDGD), the National Water Resources Authority (NWRA) Universities of Sana'a and Dhamar, the Yemeni Association for Sustainable Agricultural Development (YASAD), and Initiatives de Développement Durable et Equitable et Actions Locales pour les Echanges de Savoir (IDDEALES)- Initiatives for Sustainable and Equitable Development and Local Actions for Knowledge Exchange, amongst others.

In accordance with Bank policies, consultation with stakeholders (including local community representatives and women organizations) has been carried out during the preparation of the ESIA with the following objectives:

- # To find out whether the communities are likely to accept the coping measures suggested by the Agro Biodiversity and Climate Adaptation Project (ACAP)
- # To find out whether these measures have no or little environmental and social impacts on the communities and
- # To assess the present situation in these areas on how people are coping with the climate changes.

The ESIA has been disclosed prior to appraisal both in-country and at the Bank#s Infoshop. Also, the executive summary of the ESIA has been translated into Arabic and disclosed at the Bank Infoshop and in-country in easily accessible places to the public, including the Ministry of Agriculture and Irrigation website and at the PCU Field Units in Sana#a and Taiz governorates.

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***B. Disclosure Requirements Date***

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**Environmental Assessment/Audit/Management Plan/Other:**

Was the document disclosed <b>prior to appraisal?</b>	Yes
Date of receipt by the Bank	01/02/2010
Date of "in-country" disclosure	01/13/2010
Date of submission to InfoShop	02/09/2010
For category A projects, date of distributing the Executive Summary of the EA to the Executive Directors	

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**Resettlement Action Plan/Framework/Policy Process:**



Was the document disclosed **prior to appraisal?**

Date of receipt by the Bank

Date of "in-country" disclosure

Date of submission to InfoShop

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**Indigenous Peoples Plan/Planning Framework:**

Was the document disclosed **prior to appraisal?**

N/A

Date of receipt by the Bank

Date of "in-country" disclosure

Date of submission to InfoShop

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**Pest Management Plan:**

Was the document disclosed **prior to appraisal?**

Yes

Date of receipt by the Bank

01/02/2010

Date of "in-country" disclosure

01/13/2010

Date of submission to InfoShop

02/09/2010

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**\* If the project triggers the Pest Management and/or Physical Cultural Resources, the respective issues are to be addressed and disclosed as part of the Environmental Assessment/Audit/or EMP.**

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**If in-country disclosure of any of the above documents is not expected, please explain why:**

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*C. Compliance Monitoring Indicators at the Corporate Level (to be filled in when the ISDS is finalized by the project decision meeting)*

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**OP/BP/GP 4.01 - Environment Assessment**

Does the project require a stand-alone EA (including EMP) report?

Yes

If yes, then did the Regional Environment Unit or Sector Manager (SM) review and approve the EA report?

Yes

Are the cost and the accountabilities for the EMP incorporated in the credit/loan?

Yes

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**OP 4.09 - Pest Management**

Does the EA adequately address the pest management issues?

Yes

Is a separate PMP required?

No

If yes, has the PMP been reviewed and approved by a safeguards specialist or SM? Are PMP requirements included in project design? If yes, does the project team include a Pest Management Specialist?

N/A

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**The World Bank Policy on Disclosure of Information**

Have relevant safeguard policies documents been sent to the World Bank's Infoshop?

Yes

Have relevant documents been disclosed in-country in a public place in a form and language that are understandable and accessible to project-affected groups and local NGOs?

Yes

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**All Safeguard Policies**

Have satisfactory calendar, budget and clear institutional responsibilities been prepared for the implementation of measures related to safeguard

Yes

policies?

Have costs related to safeguard policy measures been included in the project cost? Yes

Does the Monitoring and Evaluation system of the project include the monitoring of safeguard impacts and measures related to safeguard policies? Yes

Have satisfactory implementation arrangements been agreed with the borrower and the same been adequately reflected in the project legal documents? Yes

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***D. Approvals***

<b><i>Signed and submitted by:</i></b>	<b><i>Name</i></b>	<b><i>Date</i></b>
Task Team Leader:	Ms Kanta K. Rigaud	03/03/2010
Environmental Specialist:	Ms Song Li	03/03/2010
Social Development Specialist Additional Environmental and/or Social Development Specialist(s):	Ms Mariana T. Felicio	03/03/2010
<b><i>Approved by:</i></b>		
Sector Manager:	Mr Luis F. Constantino	03/03/2010
Comments: Transfer of safeguards responsibility to the sector unit was authorized during Decision Meeting held on February 3, 2010.		