INTEGRATED SAFEGUARDS DATA SHEET
CONCEPT STAGE

Date ISDS Prepared/Updated: 01-Dec-2011

I. BASIC INFORMATION

A. Basic Project Data

<table>
<thead>
<tr>
<th>Country:</th>
<th>Tunisia</th>
<th>Project ID:</th>
<th>P125176</th>
</tr>
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<tbody>
<tr>
<td>Project Name:</td>
<td>Tunisia-WasteWater Reuse (P125176)</td>
<td></td>
<td></td>
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<tr>
<td>Task Team Leader:</td>
<td>Philippe Marin</td>
<td></td>
<td></td>
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<tr>
<td>Estimated Appraisal Date:</td>
<td>30-Jul-2012</td>
<td>Estimated Board Date:</td>
<td>31-Dec-2012</td>
</tr>
<tr>
<td>Managing Unit:</td>
<td>MNSSD</td>
<td>Lending Instrument:</td>
<td>Specific Investment Loan</td>
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<tr>
<td>Sector:</td>
<td>Irrigation and drainage (70%), Wastewater Treatment and Disposal (30%)</td>
<td></td>
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</tr>
<tr>
<td>Theme:</td>
<td>Water resource management (100%)</td>
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<table>
<thead>
<tr>
<th>Financing Source</th>
<th>Amount</th>
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<tr>
<td>Borrower</td>
<td>0.00</td>
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<tr>
<td>International Bank for Reconstruction and Development</td>
<td>50.00</td>
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<tr>
<td><strong>Total</strong></td>
<td>50.00</td>
</tr>
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</table>

Environmental Category: A - Full Assessment

Is this a Repeater project? No

B. Project Objectives

The proposed Project Development Objective is to sustainably increase agricultural productivity and to promote the use of treated wastewater, so as to overcome current and future water deficits.

C. Project Description

The original loan request submitted in September 2010 was for a 51.2 million TDN loan, equivalent to US$37.4 M. Based on the discussions during the identification mission carried out in June 2011, it is expected that the loan will be in the range of US$50 to 55 million, with a contribution from GoT, still to be determined. The GoT has requested the Bank to look for potential grant opportunities to reduce the borrowing costs and finance institutional strengthening activities and some infrastructure, in the same way as the GEF grant for the Tunis North Sanitation project approved in 2010. Potential opportunities with AWIFFS (food security) or GEF could materialize.

The project will finance the rehabilitation, extension and creation of at least 8 irrigation perimeters for agriculture using treated wastewater (TWW) in the Greater Tunis area, in the Center and the South of the country, for a total of about 4,700 hectares. It represents the first tranche of the GoT program to expand irrigated reuse in agriculture over the coming years, raising the current surface equipped for reuse from 25% to at least 35% of TWW produced in the country. It will also improve the rate of reuse in the North Tunis Borj Touil perimeter (by far the largest in the country) which will be rehabilitated. The investments covered under the project were selected based on the preliminary results of feasibility studies (demand from farmers, technical and economic viability) and their readiness for execution.

The Tunisian experience with wastewater reuse in agriculture has brought many lessons learned which will be incorporated in the design of the project during the preparation phase. Key questions to be addressed shall include inter alia: (i) farmers demand, (ii) promotion of higher value crops, (iii) coordination between ONAS, CRDA and beneficiary farmers, (iv) design (such as use of large capacity reservoirs) and sustainability (adequate assets management) of reuse infrastructure, (v) tariff level of TWW and cost recovery, (vi) quality and reliability of TWW supply from ONAS, (vii) role of wastewater reuse within integrated water resources management at national level, (viii) possibility of combining agricultural reuse with groundwater recharge during periods of low demand, (ix) careful assessment of the economic and environmental viability of each reuse scheme, (x) strengthening and/or creation of water users association for reuse perimeters (most reuse schemes in Tunisia are operated directly by CRDAs, mainly because the very low tariff levels do not provide sufficient revenues for community-based operation).

The project will be organized around three components:

Component 1: rehabilitation/extension/creation of agricultural reuse perimeters (66.8 million TDN)

A total of 8 reuse irrigation perimeters will be covered under this component:

-Sub-component 1.1: Rehabilitation and extension of the existing Borj Touil perimeter in North Tunis (35.5 M TDN)

The Borj Touil perimeter is currently the only area irrigated with TWW in the Greater Tunis area. It is, by far, the largest reuse irrigation scheme in the country, representing around 48% of total agricultural lands currently using TWW. Yet, the infrastructure is significantly deteriorated and the soils suffer from insufficient drainage (high and salty water table), which prevent farmers from moving into higher value-added crop. The actual rate of reuse is low, with less than half of the usable available volume of TWW actually consumed by farmers.
The project will fund the following infrastructure:
- Rehabilitation of 3,200 hectares of existing irrigation network, together with drainage works in order to improve the soil quality and allow the farmers to move to more value-added crops;
- Extension of the existing irrigation network to an additional 470 hectares.

The MAE has considered possible alternatives for the design of the new rehabilitated network. The option selected will take advantage of the new sewerage infrastructure financed by the Tunis North Sanitation project, using the new retention basin as a starting point for distribution to a portion of the area in order to reduce electricity consumption and achieve lower pumping costs. The cost-benefits of the proposed extension will be carefully assessed during project preparation, compared to the alternative of using the corresponding funds for reuse perimeters in the Center and South of the country where water scarcity is higher and offering more possibilities of developing high value crops through reuse.

-Sub-component 1.2: Creation of new irrigated perimeter in West Tunis (Mornaguia) (12 M TND)
The new irrigated perimeter of Mornaguia will use TWW produced by the new El Attar wastewater treatment plant (WWTP), which is due to start operation in early 2012 and is financed by the Bank through the Tunis West Sewerage project. It will be the second irrigation perimeter using TWW in the Greater Tunis area, after the Borj Touil perimeter in North Tunis. The total development potential of the Mornaguia area reaches 6,000 hectares, based on early studies carried out with Bank financing in 1999. The project will fund the first phase of the project, corresponding to 1,000 hectares of irrigated land, using a design study completed in 2010.

The project team will analyze with MAE the scoping of this first phase during project preparation, to ensure that the selection of the first 1,000 hectares is the most efficient in terms of cost-benefits. Given the good effluent quality expected to be produced by the new El Attar WWTP, the possibility of financing a larger area for reuse will also be discussed with the Tunisian authorities, as a lower-cost and faster alternative to the project of transferring most of the TWW produced in the Greater Tunis area to the Center of country, and/or the proposed extension of the Borj Touil perimeter.

-Sub-component 1.3: Extension/creation of irrigation perimeters in the Center/South (19.3 M TND)
The project will fund the extension and creation of reuse perimeters outside of the Greater Tunis area, mainly in the Center and South of the country, which are seriously affected by water scarcity and where the needs for non-conventional water resources is greater. The following infrastructure has already been identified (the list may be modified and/or expanded during project preparation):
-Extension of 3 existing reuse perimeters in the Sfax, Gabes and Medenine (Djerba island) governorates, for a total surface of 510 hectares;
-Creation of 3 new reuse perimeters in the Sfax, Gabes and Kebili governorates for a total of 490 hectares;

The MAE and the project team will analyze during project operation the economic viability of each proposed perimeters. They will also look for other reuse perimeters which could be financed under the project and are/would be located in the priority governorates (less developed rural areas in the center of the country).

Component 2: Improvement of the quality and reliability of TWW from ONAS WWTPs (amount to be determined)
This component will fund a series of improvement measures (rehabilitation and modernization of infrastructure, installation of control equipments, and buffer basins) for the various WWTPs which will provide TWW to the reuse perimeters covered under the project, to ensure that the TWW supplied to farmer is of adequate and reliable quality. The list of specific investments will be identified during project preparation.

Component 3: Technical assistance, monitoring and capacity strengthening (amount to be determined)
This component will fund a series of technical assistance activities directed at promoting wastewater reuse at the national level and strengthening the capacity of the various stakeholders involved. The list of activities under this component will be defined during project preparation, in coordination with donors. It would include inter alia: (i) establish a contractual relationship between ONAS (as supplier of TWW), the regional branches of the MAE (CRDAs) and farmers, to clarify the roles and ensure proper accountability of the various partners, (ii) carry out a study on TWW tariff for agricultural reuse, to foster cost recovery and financial sustainability in the long term, (iii) development of national strategy for wastewater reuse (as an integral part of integrated water resources management), (iv) purchase of TWW quality monitoring equipment, and (v) carry out training and promotion activities of reuse directed at beneficiary farmers.

Components 1 and 3 will be implemented by the Ministere de l’Agriculture et de l’Environnement (MAE), while component 2 will be implemented by ONAS.

D. Project location and salient physical characteristics relevant to the safeguard analysis (if known)
The project will be located in the Greater Tunis area (Borj Touil, Mornaguia) and in the governorates of Sfax, Gabes, Medenine and Kebili.

E. Borrowers Institutional Capacity for Safeguard Policies
Both the Ministere de l’Agriculture et de l’Environnement (MAE) and the Office National de l’Assainissement (ONAS) have prepared and implemented, with success, projects to Bank standards in the past. The Bank has currently one project under implementation with the MAE in the water and irrigation sector, and two projects with ONAS in the sanitation sector. Furthermore, Tunisia has an established and effective EIA system hosted by the National Environmental Protection (ANPE), including the review and the approval of EIA studies. The Tunisian Environmental Impact Assessment (EIA) system is in general relatively advanced in terms of institutional and legal capacity.

Also, in view of the new political situation and to support civil society’s demand for more openness, new public consultations will be carried out.

There is therefore strong capacity on the part of the Borrower to meet Safeguard requirements.

F. Environmental and Social Safeguards Specialists on the Team
Fatou Fall (MNSSO)
Mohamed Ghourabi (MNCTN)
II. SAFEGUARD POLICIES THAT MIGHT APPLY

<table>
<thead>
<tr>
<th>Safeguard Policies Triggered</th>
<th>Yes</th>
<th>No</th>
<th>TBD</th>
<th>Explanation</th>
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<tbody>
<tr>
<td>Environmental Assessment OP/BP 4.01</td>
<td>✗</td>
<td></td>
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<td>The project will finance infrastructure construction works which will entail the preparation of an environmental and social impact assessment (ESIA) in consultation with the beneficiaries and in accordance with both the Tunisian regulations and World Bank guidelines and procedures and will be disclosed prior to appraisal.</td>
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<tr>
<td>Natural Habitats OP/BP 4.04</td>
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<td>During the project preparation and planned field visits the project team will assess if the policy will be triggered and will accordingly include in the ESIA the appropriate mitigation measures. This will depend on the location of the planned infrastructure works.</td>
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<tr>
<td>Forests OP/BP 4.36</td>
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<tr>
<td>Pest Management OP 4.09</td>
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<td>Depending on the type of crops to be developed, the project team will during preparation and field visits determine if the policy is triggered.</td>
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<tr>
<td>Physical Cultural Resources OP/BP 4.11</td>
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<td>Indigenous Peoples OP/BP 4.10</td>
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<tr>
<td>Involuntary Resettlement OP/BP 4.12</td>
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<td>Project preparation in addition to field visits will allow to determine if the policy is triggered, based on the nature of activities proposed, the potential recourse to land and the ownership status of that land.</td>
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<tr>
<td>Safety of Dams OP/BP 4.37</td>
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<td>Projects on International Waterways OP/BP 7.50</td>
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<td>Projects in Disputed Areas OP/BP 7.60</td>
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III. SAFEGUARD PREPARATION PLAN

A. Tentative target date for preparing the PAD Stage ISDS: 31-Aug-2012

B. Time frame for launching and completing the safeguard-related studies that may be needed. The specific studies and their timing should be specified in the PAD-stage ISDS:

The specific studies and their timing should be specified in the PAD-stage ISDS. Completion of all safeguard related studies is expected by June 2012.

MAE has already carried out most of the ESIA corresponding to the rehabilitated or the new infrastructure to be financed under the project, in compliance with the requirements of the Tunisian regulations. These will be completed and updated as needed, in accordance with World Bank Guidelines and Procedures, including Operational Policy OP 4.01 “Environmental Assessment.” ONAS will also prepare a full Environmental and Social Impact Assessment report (ESIA) for the improvement measures at WWTP to be financed under component 4.

The trigger of OP 4.12 will be initially discussed during the preparation mission planned for January 2012 and determined by the Environmental and Social Impact Assessments which will be prepared and finalized before or by June 2012.

IV. APPROVALS

Signed and submitted by:
Task Team Leader: Name: Fatiha Amar Date: 01-Dec-2011
Approved By:
Regional Safeguards Coordinator: Name: Hocine Chalal (RSA) Date: 01-Dec-2011
Comments:
Sector Manager: Name: Francis Ato Brown (SM) Date: 05-Dec-2011
Comments:

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.