

**The World Bank Group
Middle East & North Africa Region**

**RED SEA – DEAD SEA WATER CONVEYANCE
STUDY PROGRAM
FEASIBILITY STUDY AND ENVIRONMENTAL AND SOCIAL
ASSESSMENT**

**INFORMATION SHEET
(29 November 2006)**

Introduction

The Middle East and North Africa (MNA) Region of the World Bank has established a multidonor trust fund to finance a comprehensive feasibility study and environmental and social assessment for water transfer from the Red Sea to the Dead Sea. This study will be managed by the World Bank at the joint request of Jordan, the Palestinian Authority, and Israel. The overall objective of the study is to evaluate conveyance of water from the Red Sea to the Dead Sea as a way to address the environmental degradation of the Dead Sea region and to examine the possibility of seawater desalination and energy production as additional options.

The Study Program consists of a full technical, economic, environmental and social evaluation of the proposed Red Sea–Dead Sea Water Conveyance concept through preparation by independent Consultants of: (i) a Feasibility Study; and (ii) an Environmental and Social Assessment.

The Study Program will make a specific point of:

- Carrying out the analysis of a wide range of technical, economic, financial, environmental, social and institutional issues to the highest professional standards.
- Attaching value to each of these issues to ensure that each receives its appropriate consideration.
- Evaluating whether the overall benefits exceed the costs to determine whether the concept is feasible, and if so, at what technical, economic, environmental, and social costs.
- Undertaking these tasks and studies in a manner that reflects and respects the unique political context of the Middle East.

In order to support an objective evaluation of the concept, the Feasibility Study and Environmental and Social Assessment will be conducted by two separate and independent consulting firms that will

be expected to work in an interactive manner to allow for the effective and timely exchange of information. A series of four Sub-Studies will be prepared to serve as building blocks for preparation of the Feasibility Study and Environmental and Social Assessment. These Sub-Studies will allow for the effective use of the findings from earlier studies and will address additional issues that may be identified.

The two independent consulting firms are expected to work with the beneficiary parties (Jordan, the Palestinian Authority, and Israel) to plan and conduct a series of public consultations to be carried out by Jordan, Israel, and Palestinian Authority regarding the technical, economic, environmental and social aspects of the concept. The Feasibility Study and Environmental and Social Assessment will be disclosed in draft and final form to support public discussion and debate concerning the proposed concept.

Elements of the Study Program

- **Feasibility Study.** This will be a comprehensive Feasibility Study that will review and assess in an integrated manner the technical, economic, environmental, and social dimensions of the proposed concept. The Feasibility Study includes identification and evaluation of relevant technical aspects at the feasibility level including review of alternative sites for project components, evaluation of technologies and design standards and a preliminary layout for the infrastructure including cost estimates and implementation schedule.

The potential environmental impacts of the concept on the Red Sea, Wadi Araba and the Dead Sea are integral and central parts of the Feasibility Study. It should be established that on the long-run the concept, if implemented, will not result in damages to the Dead Sea that surpass current and future degradation in the no-action alternative. The impact of pumping large volumes of seawater from the Red Sea needs to be quantified. Environmentally and seismically sensitive areas should be identified and considered during the final selection of the alignment.

An element of the Feasibility Study is preparation of an evaluation of the overall economic and financial aspects of the concept. This would include use of an analytical approach that recognizes the complexity of the issues involved and the uncertainties regarding the values to be placed on the numerous non-quantifiable costs and benefits.

- **Environmental and Social Assessment.** This will be a comprehensive Environmental and Social Assessment of the concept at the regional and project specific level. It will include an assessment of potential positive and negative impacts, review alternatives to the concept (including the “no- action” or “without-Project” alternative,) and provide an Environmental and Social Management Plan (ESMP) that outlines measures to avoid or mitigate impacts, as well as provisions for monitoring an devaluation.

- **Four Key Sub-Studies.** Preparation of both the Feasibility Study and Environmental and Social Assessment will benefit from the preparation of a series of four complementary Sub-Studies that would be prepared by interdisciplinary teams of specialists. The Sub-Studies will provide detailed examinations, based on existing studies and new investigations, for the following distinct elements of the concept:
 - **Gulf of Aqaba/Eilat intake area**
 - **Water Conveyance along Wadi Araba**
 - **Dead Sea Region**
 - **Hydropower Facilities and Desalination Plant** (carried out only if water conveyance is found feasible)

Recognizing the wealth of knowledge and data relevant to the Feasibility Study and Environmental and Social Assessment that has been accumulated over the years, provisions have been made in the work program for the preparation of the Sub-Studies to draw heavily on regional expertise in order to fully benefit from the previous experience, studies, and investigations into the issues associated with the proposed Project. In some cases these experience and expertise may reside with the regionally-based organizations and institutions affiliated with governments, applied research institutes, and universities.

The following are important concepts of the Study Program that must be reflected in the work of the consulting firms:

- **Integration of Environmental and Social Management Plan (ESMP).** Provisions have been made for integration of the ESMP, prepared as a key element of the Environmental and Social Assessment, into the Feasibility Study. This would allow the key mitigation, as well as monitoring and evaluation measures including overall cost estimate, schedule for Project preparation and implementation, if any, to be integrated into the Study output.
- **Consultation and Disclosure.** The Study Program includes specific provisions for public consultation during the preparation of the various studies and their disclosure to the public. These consultations will be documented in the Feasibility Study and Environmental and Social Assessment. Key draft and final documents prepared under the work program will be disclosed in Jordan, Israel, and Palestinian Authority and at the InfoShop of the World Bank.
- **Post Study Program Processes and Activities.** Following completion of the Study Program and if found feasible, the Study would proceed into a detailed design phase. This will include legal, institutional, technical/engineering, environmental/social, and financial steps and processes that would be undertaken.

Supervision and Oversight of the Study Program

- **Study Technical Steering Committee.** This committee will be responsible for the overall oversight of the preparation of the Feasibility Study and the Environmental and Social Assessment. The Committee will direct the activities of the Study Management Unit.
- **Study Management Unit.** This Unit will oversee the activities of the consultants on a day-to-day basis and will be directed by and reports to the Technical Steering Committee.
- **Cooperation and Coordination between the two Prime Consultants.** It is essential for the efficient and timely preparation of both the Feasibility Study and the Environmental and Social Assessment that the two prime consultants work in a fully coordinated, open, and collaborative manner. Under the supervision of the Study Management Unit, they will jointly develop and implement a complementary work program in accordance with the Study Program schedule.

Process for Selecting Consultants

The selection of consultants will be in accordance with the World Bank's Guidelines for Selection and Employment of Consultants by World Bank Borrowers (May 2004) and will be open to all eligible consultants as defined in the Guidelines. The selection process will be carried out and contracts will be awarded by the World Bank.

Specific Requests for Expression of Interest in the consulting contracts will be announced in due course in UN Development Business, dgMarket (<http://www.dgmarket.com>) and in the appropriate regional and local newspapers. These Requests for Expressions of Interest will include outlines of the terms of reference for each consulting contract.

In the meantime, consultants seeking additional information are invited to visit the procurement page of the Study website at www.worldbank.org/RDS-procurement.

The Study will consider environmental, economic, technical, social, and financial aspects of the concept, and shall not prejudice the riparian rights of any of the beneficiary parties.