

IRAQI MINISTRIES  
of  
Water Resources      Municipalities and  
                                 Public Works  
Environment

NEW EDEN MASTER PLAN  
FOR INTEGRATED WATER RESOURCES  
MANAGEMENT IN THE MARSHLANDS AREA

Volume I

Overview of present conditions and current  
use of the water in the marshlands area

Book 2

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Report of the kick-off meeting

Prepared in cooperation with

The Italian Ministry for the Environment and Territory and Free Iraq Foundation

**ITALY - IRAQ**

**2006**

## Master Plan for Integrated Water Resources Management in the Marshland Area

### Water and Sanitation – 1<sup>st</sup> technical meeting – Padova 5<sup>th</sup>-8<sup>th</sup> April 2005

Participants:

***Iraqi Ministry of Municipalities and Public Works delegates***

Riadh al-Wazir	Director general of urban planning
Mahmood A. Ali	Chief Engineer - Head of follow-up dept. General Directorate of planning and follow-up
Rengber Sadiq Kittani	Program Manager - Strategic Management Office (SMO)
Amer Khakil Ismail	Chief Engineer - Director of planning & following dept. - Directorate general for sewerage
Ghazi Naji Majeed	Chief engineer - Deputy of d.g. water - General directorate

***Project team***

Andrea Cattarossi	Project Manager - Master Plan (Hydrology + Water/sanitation)
Giorgio Galli	Sub-Project Manager - Water and sanitation
Ali Douabul	Responsible for activities in Iraq - Water and sanitation
Mario Iannelli	Responsible for Sewer and wastewater treatment
Roland Bernardi	Responsible for survey organization and supervision

### DRAFT REPORT

Meeting was planned in order to present and discuss with Iraqi Ministry of Municipalities and Public Works delegates the ***work plan of the “Water and Sanitation Master Plan”*** that had been developed during 2004 and presented to Italian Ministry for the Environment and Territory for funds request.

The project team then illustrated ***basic guidelines of the proposed methodology*** for the development of the Master Plan in order to start the discussion with Iraqi Ministry of Municipalities and Public Works delegates and to receive their opinion and suggestions for improvement. In order to better clarify the target of each activity planned, a case study of a similar water and sanitation Master Plan recently performed in Italy was presented.

Iraqi Ministry of Municipalities and Public Works delegates agreed on the proposal of reviewing the draft methodology document during the next weeks in order to define, within the beginning of May, the guidelines for the development of main activities to be performed on Water and Sanitation Master Plan.

An important feature that have been underlined by both Iraqi Ministry of Municipalities and Public Works delegates and Project team is the necessity of carefully considering **urban planning aspects** during the development of Master Plan. Given the peculiarity of Iraqi current situation, the way of organizing urban planning has to be thoroughly discussed between Iraqi Ministry of Municipalities and Public Works and Project team during the next few weeks. Special attention has to be dedicated to the identification of best way to improve quality of living for the settlements of the Marshland Area in order to encourage people to come back to the area. The Master Plan will therefore be coordinated with Green Villages Pilot Projects.

The first activity to be performed on the Master Plan will be the **survey on current demographic structure of the entire region and on existing assets** of water supply, sewage and wastewater treatment system.

A first draft of the forms to be used by surveyors was presented to Iraqi Ministry of Municipalities and Public Works delegates together with the guidelines which contain indications on how the forms should be used.

Iraqi Ministry of Municipalities and Public Works delegates presented some suggestions for improvement of the survey documents: forms and guidelines have then been modified according to suggestions received. In addition to specific improvements to be done on water and sanitation assets forms, it has been agreed to integrate Town/Village/Settlement form with information on public services available in each settlement and to add a new form related to Urban Planning aspects.

In the next few days Ministry of Municipalities and Public Works (Mr. Wazir) will revise the town/village code system proposed in the guidelines in order to obtain a more appropriate codification system that will consider all administrative levels.

As for survey organization, it was decided to organize a **training course** for people that will perform the survey activities: the course will include both training on forms/survey guidelines and on GIS specifically developed for the Master Plan. The training course will take place presumably in Damascus at the beginning of May and will be attended by 10-12 people belonging to Iraqi Ministry of Municipalities and Public Works, to the three governorates interested by the survey (Basrah, Thi-Qar and Missan) and to Iraq Foundation.

In order to begin to gather data and information of water and sanitation master Plan and to better understand the optimal way to organize the activities, meeting attendees carefully analyzed and discussed **main aspects to be studied and assessed in the Master Plan**.

First of all the area that will be assessed with the Master Plan has to be precisely determined: Ministry of Municipalities and Public Works delegates assured that this will be done soon. Project team underlined anyway that information collected on each aspect should also include, as much as possible, the surrounding area and in particular the three cities of Basrah, Nassriya and Amarah that strongly influence the entire region in socio-economic and water use terms.

***Physical/geographical aspects of the Marshland Area:*** Ministry of Municipalities and Public Works will investigate the availability of reports and publication to be used by the project team for the characterization of the three governorates and in particular of the Marshland Area.

***Demography (current and expected for the future) of the Marshland Area:*** basic data o current demographic situation of the area will be obtained from the survey. Ministry of Municipalities and Public Works (Mr. Wazir) will verify the availability of recent studies on demography development foreseen in the area. It was communicated that reference data used in this moment for planning purposes is equal to 3% population increase for each year. Similar actions will be done also for the definition and the analysis of ***current state of the entire area in socio-economics terms*** (in particular significance of economic activities) and ***future development expected or estimated.***

***Iraq legislation on water supply, sewer and wastewater treatment systems:*** Mr. Naji Majeed and Mr. Ismail will be the reference persons for the Project Team as for current Iraqi legislation and for possible revisions to be performed in the next future. Project team will also have to gather information on relevant legislation regarding environmental protection.

***Current situation of water supply, sewer and wastewater treatment systems:*** main information on the entire region will be obtained by the specific survey that will be performed. Ministry of Municipalities and Public Works will verify the availability of recent surveys/studies (also on main city water and sanitation systems) that could be useful for the development of the Master Plan.

***Plans on water and sanitation systems development/reconstruction:*** Mr. Kittani will supply a mini Master Plan of Basrah water supply system that was completed recently. No other planning documents are available for other areas: should something be developed in the future months, Ministry of Municipalities and Public Works will supply it to the Project team. It was underlined that it is essential to consider water supply plans for the main cities of the three governorates (even if outside of Marshland Area boundaries) as they represent the most part of the water demand for domestic and industrial purposes and as a consequence they strongly influence future configuration of the water supply system of the entire region.

***Existing projects on water and sanitation systems not yet carried out and works in progress or to be started in the future:*** some significant projects have been started on the main cities. In particular a big project for water supply system for the city of Nasiriya (for a total of 10.000 m<sup>3</sup>/h, with the possibility of an expansion to 20.000 m<sup>3</sup>/h) is currently under way. Other projects have to be started in Basrah and Amarah. Ministry of Municipalities and Public Works (Mr. Kittani, Mr. Naji Majeed and Mr. Ismail) will communicate to the Project Team available information and data on existing projects and on works already in progress. Such information should be updated during the development of Master Plan activities.

***Studies on possible water sources for water supply systems:*** it was underlined the importance of carefully analyse and assess the different alternatives available in terms of water sources which can be used to feed water supply systems of the area. The Master Plan strategy will be that of the diversification of water sources, wherever possible: in any case the Master Plan will seek the identification of strategic water sources to be protected and developed in order to maximise water availability and quality for people living in the Marshland. Availability of specific hydrogeological studies on underground water characteristics of the different areas will be verified (also form Ministry for Water Resources): in any case the Ministry of Municipalities and Public Works and the Project Team will seek for information useful for the definition of possible water sources which can be considered.

***Information on current irrigation systems of the area in order to determine the possibility of reutilization of treated wastewater:*** it will be specifically assessed the possibility of reusing treated wastewater

discharged from the main treatment plants of the area for irrigation purposes. Information on irrigation needs around main cities that could be satisfied by such a water resource will be requested from Ministry for Water Resources.

In the next weeks available data and information on the different aspects listed before will be sent by the Ministry of Municipalities and Public Works to the Project team. These information will be discussed ***in a meeting to be held at the beginning of May***, just after the training course on survey and GIS. Main aim of the meeting will be the development of a ***work plan for the activities to be performed*** for the completion of the Water and Sanitation Master Plan.

### **Conclusions of last meeting of 8<sup>th</sup> April**

Last meeting is attended also by Augusto Pretner, senior advisor to the Italian Ministry for the Environment, who is the New Eden project coordinator of the Italian experts.

### ***Master Plan for Integrated Resources Management in the Marshland Area***

#### ***Phase 1***

As for activities to be performed on Phase 1 of the Master Plan, Mr. Pretner confirms the possibility of adding specific tasks for the assessment of urban planning issues for the Marshland Area.

As a consequence Iraqi and Italian delegations agreed on the following modifications of the work plan for Phase 1 of the Master Plan:

- 1) The survey will consider also public services and urban planning aspects: as mentioned before the forms have already been modified according to these needs. The new version of survey forms will be sent to Iraq within a few days in order to be revised by Iraqi Ministry of Municipalities and Public Works;
- 2) The Master Plan for the Marshland Area will be integrated with urban planning aspects: it will include specific urban planning studies for 3 pilot villages to be supplied with all services needed by the population that will be granted through the adoption of traditional and environmental friendly building techniques (Green Villages pilot projects). This will not involve any additional cost for the Italian Ministry for the Environment.