



**[INSERT NAME OF MPTF/JOINT PROGRAMME]  
FINAL PROGRAMME<sup>1</sup> NARRATIVE REPORT**

<p align="center"><b>Programme Title &amp; Project Number</b></p> <ul style="list-style-type: none"> <li>• Programme Title: Support for Environmental Management of the Iraqi Marshlands</li> <li>• Programme Number (if applicable): A5-11</li> <li>• MPTF Office Project Reference Number: <i>a/a</i></li> </ul>	<p align="center"><b>Country, Locality(s), Thematic Area(s)<sup>2</sup></b></p> <p>Southern Iraq</p> <hr/> <p><i>Thematic/Priority</i></p> <p>Economic reform &amp; diversification (Environment) in UN</p>
<p align="center"><b>Participating Organization(s)</b></p> <p>United Nations Environment Programme (UNEP)</p>	<p align="center"><b>Implementing Partners</b></p> <ul style="list-style-type: none"> <li>• National counterparts (government, private, NGOs &amp; others) and other International Organizations</li> </ul>
<p align="center"><b>Programme/Project Cost (US\$)</b></p> <p>MPTF/JP Fund Contribution: <b>US\$ 11,000,000</b> <i>(UNDG Iraq ITF)</i></p> <p>Agency Contribution</p> <p>Government Contribution</p> <p>Other Contributions (donors) <i>(if applicable)</i></p> <p><b>TOTAL:</b> US\$ 11,000,000</p>	<p align="center"><b>Programme Duration (months)</b></p> <p>Overall Duration (months) 40 months</p> <p>Start Date<sup>3</sup> 20 September 2004</p> <p>End Date (or Revised End Date)<sup>4</sup> 20 September 2005 <i>Retroactively approved on 26 February 2008</i></p> <p>Operational Closure Date<sup>5</sup> 31 December 2007</p> <p>Expected Financial Closure Date 31 December 2012</p>
<p align="center"><b>Final Programme/ Project Evaluation</b></p> <p>Evaluation Completed</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Date: April 2011</p> <p>Evaluation Report - Attached</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p align="center"><b>Submitted By</b></p> <ul style="list-style-type: none"> <li>○ Name:</li> <li>○ Title:</li> <li>○ Participating Organization (Lead):</li> <li>○ Contact information:</li> </ul>

<sup>1</sup> The term “programme” is used for programmes, joint programmes and projects.

<sup>2</sup> Priority Area for the Peacebuilding Fund; Sector for the UNDG ITF.

<sup>3</sup> The start date is the date of the first transfer of the funds from the MPTF Office as Administrative Agent. Transfer date is available on the [MPTF Office GATEWAY](#).

<sup>4</sup> As per approval by the relevant decision-making body/Steering Committee.

<sup>5</sup> All activities for which a Participating Organization is responsible under an approved MPTF programme have been completed. Agencies to advise the MPTF Office.

## **FINAL PROGRAMME REPORT**

### **I. PURPOSE**

- a. Provide a brief introduction to the programme/ project (*one paragraph*).

The development goal of this project, as stated in the approved project document, was to support the sustainable management and restoration of the Iraqi Marshlands. This project worked to identify suitable options and data necessary to (1) manage marshland water quality, (2) provide drinking water, and (3) provide sanitation. The project also addressed the capacity of Iraqi authorities, experts, and communities to analyze, implement, and assess results, and to recommend policy and strategy frameworks needed to support options. The outputs of this project, particularly data on suitable EST implementation, implementation capacity in Iraqi decision makers, and policy and strategy recommendations, are crucial for wider implementation of sustainable management practices for the Iraqi Marshlands and beyond. Immediate objectives of the project were as follows;

- To monitor and assess baseline characteristics of the marshland conditions, to provide objective and up-to-date information, and to disseminate tools needed for assessment and management
- To build capacity of Iraqi decision makers and community representatives on aspects of marshland management, including: policy and institutional aspects, technical subjects, and analytical tools
- To identify Environmental Sound Technology (EST) options that are suitable for immediate provision of drinking water and sanitation, as well as wetland management, and to implement them on a pilot basis
- To identify needs for additional strategy formulation and coordination for the development of longer term marshland management plan based on pilot results and cross-sectorial dialogue.

- b. Provide a list of the main outputs and outcomes of the programme as per the approved programmatic document.

In terms of outcomes, the project was expected to raise the basic capacity in technical and policy aspects of water quality and wetland management. Utilizing such expertise, suitable EST options will be identified and implemented on a pilot basis to meet the urgent need for water and sanitation in a number of marshland communities. Based on these activities, a strategy for wider application of technical options for marshland management was developed. The strategy, as well as expertise and knowledge, provide valuable input for the eventual development of a master plan for the Iraqi Marshland, and its subsequent implementation by domestic institutions.

#### Outputs

- Establishment of a Project Implementation Unit within the Ministry of Environment to address marshland management
- Satellite-based observation system for marshland monitoring and regular real-time reports
- Marshland Information Network established with equipment and proper user training
- Training materials on wetland management, water quality management, technical options and assessment methodology prepared and made available in English and Arabic
- Cadre of trained decision makers, experts, and community leaders with on-the-ground experience of technical implementation and policy and institutional aspects of wetland management

- Pilot implementation for drinking water, sanitation, and wetland management (\$3 million worth, plus assessments and monitoring), for immediate relief to marshland communities
  - Reports on suitable technological options for wider implementation, and analysis of policy and institutional needs to support longer-term management plan development
  - Awareness raising materials on the Marshlands
- c. Explain how the Programme relates to the Strategic (UN) Planning Framework guiding the operations of the Fund.

Link to UN Assistance Strategy to Iraq: The project fits in with the UN Strategy for Assistance to Iraq and its three objectives as follows:

- Objective 1: Improve quality of and widespread access to basic social services and food including humanitarian emergency response and preparedness:
- Objective 2: Rehabilitate and develop the country's social, economic, financial, physical and institutional infrastructure to ensure sustainable livelihoods:
- Objective 3: Promote better governance, peace-building and protection of human rights:

The project objectives are in line with *MDG Goal 7 Ensure environmental sustainability*, in particular Target 9 and 10, of MDG Goal 7: *Target 9 To integrate the principle of sustainable development into country policies and programmes and reverse the loss of environmental resources and Target 10 To reduce by half the proportion of people without access to safe drinking water by 2015*. In addition, the project made contributions to addressing the Johannesburg Plan of Implementation on halving the number of people without access to basic sanitation.

Joint Needs Assessment: The United Nations/World Bank Joint Needs Assessment Initiative for the Reconstruction of Iraq identified the extensive ecological damage to the Marshlands as well as the accompanying displacement of much of indigenous population as one of the country's major environmental and humanitarian disasters. The project directly addresses the concerns identified in the Joint assessment, as it is providing humanitarian assistance in the provision of water and sanitation to the indigenous population in an environmentally sound manner, and is also contributing to the sustainable management of the ecosystem.

Support to National Development Strategy 2005: The project supports Pillar Three of the revised National Development Strategy on Improving the Quality of Life, focusing on improving access to clean water and sanitation. In particular, the project has contributed in increasing access to potable water to rural areas, raising sanitary coverage, building capacity and enhancing management systems, and improving water quality, and helping to develop a timetable for the implementation of new projects.

- d. List primary implementing partners and stakeholders including key beneficiaries.

Implementing partners and stakeholders

UNEP has maintained cooperation with the following implementation partners and stakeholders with specific roles as described below:

Ministry of Environment (MoEnv): MoEnv is the line ministry for the project and facilitates activity coordination and implementation. The project maintained regular communication with MoEnv, and regularly consults the Minister on strategic issues.

Ministry of Water Resources (MoWR): MoWR is responsible for water management, and hosts the Centre for Restoration of the Iraqi Marshlands (CRIM), which has been established as an entity to address marshland restoration issues

Ministry of Municipalities and Public Works (MMPW): MMPW is closely associated with

the project, as the ministry responsible for water and sanitation service provision at the national level. State Ministry for the Marshlands: Although this Ministry was dismantled, State Ministry played an important role to facilitate coordination and cooperation on issues and initiatives related to the Iraqi Marshlands.

Ministry of Planning (MoP): As the Ministry in charge of planning and development, including technical assistance initiatives, the involvement of this ministry has been deemed crucial in ensuring country-level coordination of marshland management initiatives.

Governorates of Basrah, Missan, and Thi-Qar: The project has established ties with the three governorates and governorate councils, which are now provided with the mandate and authority to monitor and approve projects that take place within their own governorates.

Marsh Arab Forum (MAF): As a group of tribes and leaders (sheikhs) in the Southern Governorate, the Forum representatives provided voices of the local communities to the project. Universities: Universities were responsible for delivering secondary training courses of key marshland management issues, which was organized by Basrah University and Thi-Qar University.

Iraq Foundation and Nature Iraq: Iraq Foundation is an NGO with an established work programme in the Iraqi Marshlands, with support from the Government of Italy and other countries. Nature Iraq is an NGO that has spun-off from Iraq Foundation. Strengthen environmental NGOs was also a key to ensure the sustainability of the project.

#### Key beneficiaries

Key beneficiaries included the Iraqi officials and decision makers in the main implementing partners listed above, local marshland communities where project activities on drinking water provision, sanitation provision and water quality /wetland restoration were implemented.

## II. ASSESSMENT OF PROGRAMME/ PROJECT RESULTS

- a. Report on the key outputs achieved and explain any variance in achieved versus planned results.

Through this project and other initiatives, UNEP has taken an active role in providing assistance to Iraq to promote sustainable management in the post-conflict period. Even during a period of great security constraints and political changes, UNEP has managed to complete major project activities in Iraq, which is an achievement in itself.

The project identified nine anticipated outputs at the inception of the project, many of which were also relevant for the subsequent follow-up projects funded by bilateral contribution. Specific descriptions of achievements and benefits realized are highlighted below.

**Output 1:** Contributed to the restoration and management of the Iraqi Marshlands through identification of suitable mitigation options, particularly for water, sanitation and marshland management

- The project identified and implemented EST options on a pilot basis to evaluate their performance and suitability under local conditions, including the following:
  - Water: modular reverse osmosis water treatment technology; distribution with common standpipes; solar stills for small-scale household water provision
  - Sanitation: constructed wetlands
  - Marshland management: natural wetland system management; replanting with native species; monitoring of water quality and biodiversity; civil works for water flow restoration; restoration of marsh interconnections; flow regulation through channel connection and irrigation management

**Output 2:** Improved access to drinking water and sanitation/wastewater for residents and

improved ecosystems and biodiversity in communities participating in the pilot projects

- In Phase I, up to 22,000 people in six pilot communities gained access to safe drinking water supplied by common distribution taps. 23 kilometres of water distribution pipes and 127 common distribution taps were installed.
- A sanitation system utilizing constructed wetland was installed to serve approximately 170 inhabitants facing health hazards from untreated wastewater discharges.
- Wetland rehabilitation and reconstruction initiatives were implemented in a community in cooperation with the Centre for Restoration of the Iraqi Marshlands (CRIM) of the Ministry of Water Resources.
- Feasibility of utilizing the Main Drain water as a water source for reflooding the Marshlands was investigated through the application of engineered and natural wetlands for water quality/wetland improvement.
- Biodiversity monitoring conducted in 2005 and 2008 indicated that both biodiversity and species richness increased over this period in the water treatment pilot sites monitored for phytoplankton, zooplankton and macrobenthos. While there was no significant variation in biodiversity of fish over this period, its richness has been observed to increase during this period. The results of water quality sampling surveys at three water treatment facilities showed higher concentrations of TDS and nutrient loading compared to the 2005-2006 sampling results. The results may have been impacted by the drought conditions in the area.

**Output 3:** Extensive data (water quality, satellite image analysis and remote sensing), experience on suitable options (what options worked where, and how) and policy and institutional needs assessments, which will serve as inputs when formulating a long-term management plan to benefit the people and ecosystems of Southern Iraq

- The following assessments were conducted to generate the data and perform the analysis required to inform Iraqi Marshlands' management practices and policies:
  - Water quality and biodiversity assessments carried out in cooperation with the Ministry of Environment
  - Iraqi Marshlands Observation System (IMOS) developed to monitor reflooding and change in vegetation in cooperation with UNEP Post-Conflict and Disaster Management Branch (PCDMB) and UNEP Division of Early Warning and Assessment. Land cover data and vegetation maps utilizing satellite image analysis and remote sensing for the period commencing January 2003 were made available.
  - Marshlands Information Network (MIN) was established with Arabic and English interface to share data among various Iraqi institutions, with training on system management.
  - Assessment reports of pilot EST implementation were produced. In addition, third party monitoring and evaluation of pilot EST implementation was also carried out.
  - Institutional capacity assessment for the Ministry of Environment was conducted by UNEP PCDMB.

**Output 4:** Improved the capacity and knowledge of Iraqi decision makers, technical experts and communities on various aspects of marshland management, including policy and institutional aspects, technical subjects and analytical methods

- The capacity and knowledge of Iraqi decision makers, technical experts and community members were enhanced through 14 international and 10 domestic training courses and 2 study tours, with 477 training placements. Among them, 119 (25% of participants) were for women. Policy and institutional elements, technical knowledge, community engagement and analytical methods were among the aspects addressed. Training materials in English and Arabic were developed and distributed in hard copy, electronic form and as CD-ROM.
- More than 1,100 women in marshland communities benefited from community initiatives

to raise practical knowledge about environmental conservation and personal hygiene. Over 1,000 additional persons took part in other community level initiatives.

**Output 5:** Employment opportunities for professional and community level tasks related to assessment, pilot applications and monitoring

- At least 52,000 person-days of employment were generated for assessments, pilot applications, awareness raising, monitoring, training organization and security provision at professional and community levels. Close linkages between capacity building and project implementation were crucial in building capacity of Iraqi personnel and institutions for tasks associated with project activities. By training and utilizing personnel from institutions at the national, governorate and local levels with mandates on specific aspects of marshland management, the project succeeded in enhancing the longer-term sustainability of institutional capacity and gainful employment of their staff.

**Output 6:** US\$3 million worth of ESTs introduced and implemented in Iraq, with Iraqi expertise

- In total, more than US\$5.4 million worth of ESTs were procured and implemented in the region, including six modular reverse osmosis water treatment facilities, one rehabilitated treatment facility, distribution networks, one photovoltaic power supply unit to augment conventional power supply in one water treatment facility, one constructed wetland EST, one wetland rehabilitation facility, one pilot facility for natural wetland system and nine solar stills for household water provision.
- Many of the installation and management tasks were carried out with Iraqi expertise and under contract with government and academic institutions. The facilities have also been officially handed over to Iraqi institutions.

**Output 7:** Greater commitment and capacity for marshland management, water and sanitation issues

- National institutions including the Ministry of Environment, Ministry of Municipalities and Public Works, and the Ministry of Water Resources carried out and coordinated various project activities within the framework of this project with financial and substantive support from UNEP. Through such direct engagement, capacity and institutional commitments for marshland management, water and sanitation provision and overall sustainable development were enhanced.
- Coordination of donor-supported activities and domestically-led activities inside the Marshlands was facilitated to foster coordination and cooperation while minimizing waste. UNEP served as a liaison for donor coordination for marshland issues upon request from donors and Iraqi institutions.

**Output 8:** Improved dialogue and access to information and management tools

- Marshlands Information Network (MIN) server hardware and software were procured and installed in four locations within the Ministry of Environment, as well as in the Ministry of Water Resources, Ministry of Municipalities and Public Works, Nature Iraq and UNEP-DTIE-IETC. MIN information was uploaded to the Marsh Arab Forum, Thi-Qar University and other local institutions.
- Exchange of information, discussion of results and coordination of initiatives were supported through the Roundtable of Iraqi Marshlands Management, kick-off and evaluation meetings, an International Workshop on Iraqi Marshlands Management, as well as the final project evaluation meeting.

**Output 9:** Contribution to overall rebuilding efforts for the region and the country

- An external evaluation has found that the project's provision of drinking water has contributed to the return of formerly displaced residents. As community stability was re-established, possibilities for finding employment and rebuilding life in the marsh ecosystem tended to increase.
- Iraqi stakeholders and beneficiaries requested extension of the project with additional activities after recognizing the project's contributions to local and national level development.

In addition to the above nine benefits, the project provided yet another benefit by validating UNEP's track records on field project implementation. The project team was awarded the 2007 UN21 Award commendation from the UN Secretary General. The project was also considered as a model of international environmental cooperation by the Iraqi Minister of Environment and was lauded by community groups for making a real effort at engaging and benefiting local communities.

- b. Report on how achieved outputs have contributed to the achievement of the outcomes and explain any variance in actual versus planned contributions to the outcomes. Highlight any institutional and/ or behavioural changes amongst beneficiaries at the outcome level.

Without this project, the residents and ecosystem of Southern Iraq and beyond would remain vulnerable to serious environmental and public health threats. The failure to control and prevent water-borne diseases and ecosystem damage has serious negative implications for the well-being and livelihood of the population, which can lead to social instability within vulnerable communities. Without this project, options that are suitable for local conditions may not be identified and implemented within a short time period, leading to longer-term mismanagement and inefficiency in water/sanitation provision and ecosystem management. Also, lack or delay in the adoption of integrated water resource management approach through EST applications can lead to degradation of water resources and environment in the country, impacting the citizens of Iraq as a whole.

- c. Explain the overall contribution of the programme to the Strategy Planning Framework or other strategic documents as relevant, e.g.: MDGs, National Priorities, UNDAF outcomes, etc

The project produced outputs relevant to the UN Strategy for Assistance to Iraq to achieve the following three objectives:

- *Objective 1: Improve quality of and widespread access to basic social services and food including humanitarian emergency response and preparedness:* the project supported the planning and evaluation of policies and programmes to provide basic water and sanitation services in an environmentally sustainable manner, particularly in rural Marshland communities, and has lead the actual provision of such services in six communities.
- *Objective 2: Rehabilitate and develop the country's social, economic, financial, physical and institutional infrastructure to ensure sustainable livelihoods:* the project is mobilizing Iraqi human resources through training and engagement in project activities, and improving the quality of information and analytical tools for marshland management and access to such information. The project also facilitates the clarification of institutional frameworks for marshland management, by engaging all relevant ministries, governorates, and local communities, in project planning and implementation.
- *Objective 3: Promote better governance, peace-building and protection of human rights:* by recognizing and fully engaging the local Marshland communities, which have suffered from prosecution, discrimination, and displacement, the project is contributing to establish a people-centred programme and decision-making.

*MDG: Goal 7 Ensure environmental sustainability*

*Target 9 To integrate the principle of sustainable development into country policies and programmes and reverse the loss of environmental resources*

*Target 10 To reduce by half the proportion of people without access to safe drinking water by 2015*

Contributions to Millennium Development Goals: The project made tangible contributions towards achieving the Millennium Development Goals, particularly *Goal 7* to ensure environmental sustainability. Within this goal, two targets are relevant for this project: (a) Target 9 to integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources; and (b) Target 10 to reduce by half the proportion of people without access to safe drinking water by 2015. In addition, the project made contributions to addressing the Johannesburg Plan of Implementation on halving the number of people without access to basic sanitation.

- d. Explain the contribution of key partnerships and collaborations, and explain how such relationships impact on the achievement of results.

Ministry of Environment (MoEnv): The project maintained regular communication with MoEnv, and regularly consulted the Minister on strategic issues. The National Coordinator for the project was a former high-level official from the Ministry, who recently retired from the Ministry after going on leave of absence to serve on this project. At the technical level, the project established the practice to: (a) involve MoEnv partners in pilot implementation, (b) implement the water quality monitoring programme through a Memorandum of Understanding with MoEnv, in coordination with the other two main ministries listed below, (c) engage MoEnv governorate offices in the community level initiative coordination, and (d) organize secondary training inside Iraq with MoEnv.

Ministry of Water Resources (MoWR): MoWR was represented in all project activities, including capacity building, support for policy coordination initiatives, data collection and analysis, and other aspects. UNEP also signed a Memorandum of Understanding to carry out field assessment, planning, and supervision for marshland restoration and phyto-technology applications, on a cost-sharing basis.

Ministry of Municipalities and Public Works (MMPW): MMPW was represented in training sessions, planning for pilot implementation, and most other activities that took place. MMPW also agreed to oversee in the maintenance of water-sanitation installations after the completion of the project, and is expected to facilitate the wider replication of successful pilot projects. Similar to MoWR, the project maintained regular contact with MMPW.

State Ministry for the Marshlands: UNEP started dialogue with this ministry, and provided updates on UNEP-related initiatives in the Marshlands area. The representative from this Ministry also participated in an international workshop sponsored by UNEP.

Ministry of Planning (MoP): UNEP was in liaison with this ministry about project activities, and to encourage official clearance of various donor-led initiatives for marshlands by MoP. The representative from this Ministry had also participated in an international workshop sponsored by UNEP.

Governorates of Basrah, Missan, and Thi-Qar: The Governorates and councils were provided with advanced notice of activities that are planned in their governorates, and their input and advice were sought from the local perspectives. In addition, UNEP signed agreements with them to cooperate with local communities (Marsh Arab Forum – see below) to implement community level initiatives that were completed in 2005, and participated in training activities.

Marsh Arab Forum (MAF): MAF groups in the three governorates served as focal points to carry out community-based activities with UNEP and underwent training by UNEP on how to develop such activities. In addition, they worked with UNEP to ensure the provision of some security and other measures for field assessments and pilot implementation, which was indispensable contribution to successful implementation of activities on the ground.

Universities: The universities provided personnel on some field assessment works, in cooperation with the ministries. UNEP signed a Letter of Agreement (LOA) with Thi-Qar University to transfer the pilot sanitation facility constructed under this Project for the operation and monitoring of the facility by the university.

Iraq Foundation and Nature Iraq: UNEP worked very closely with them as contractors for field assessment and pilot implementation at the local level, and has facilitated field-level coordination and cooperation.

Main international partners for this project and their roles included the following:

UNOPS: UNOPS provided implementation assistance for this project, mainly focusing on activities that involve actions within Iraq, with project coordination and direction from UNEP. Daily contact has been established with UNOPS Amman. The procurement and monitoring have utilized the local network and experience of UNOPS field personnel.

UN agencies: Intra- and inter-cluster cooperation with member agencies, such as FAO, UNESCO, UNDP, and UNICEF was established. These agencies, as well as the Trust Fund itself, had also been invited to donor coordination meetings organized by UNEP, and some participated actively.

Donor countries: The project continued to maintain close communication and coordination with donor countries that were supporting activities within the Marshlands, including Canada, Italy, Japan, United Kingdom, and the United States. As each country was supporting different initiatives, such as biodiversity management (Canada), hydrology and water resources (Italy), and agriculture (US), coordination and sharing of data and information are beneficial to identify where priority action may be needed, where activities could be organized jointly, or how to minimize duplication. These countries also endorsed the donor coordination mechanism for the Marshlands, and endorsed UNEP to serve as a liaison between themselves and the Iraqi government.

- e. Who have been the primary beneficiaries and how they were engaged in the programme/project implementation? Provide percentages/number of beneficiary groups, if relevant.

The primary beneficiaries were roughly divided into two groups; government officials/technical experts and local communities. As mentioned in the previous subsection, government officials and experts from relevant ministries benefited from capacity building trainings, pilot project implementation and assessment studies in terms of sustainable management of the Iraqi Marshlands. While the local communities were provided community-based water supply and sanitation facilities, awareness training for environmental protection in addition to the employment generations for various activities of the project.

- f. Highlight the contribution of the programme on cross-cutting issues pertinent to the results being reported.

The main beneficiaries of local activities of the project were the Marsh Arabs, the indigenous inhabitants in the Marsh areas, who were marginalized for years by the previous regime. The local communities received community-based water and sanitation facilities with the necessary training for daily maintenance and operation. In relations to Output 4, 1,100 women from the local community benefited from capacity building activities on environmental protection and personal/family hygiene issues. The project also contributed to the local employment generation. As mentioned above in Output 5, at least 52,000 person-days of employment were created for assessments, pilot applications, awareness raising, monitoring, training organisation and security provision at professional and community levels.

- g. Has the funding provided by the MPTF/JP to the programme been catalytic in attracting

funding or other resources from other donors? If so, please elaborate.

The project received bilateral funding from Japan (1.9M USD) and Italy (1M USD) to continue activities on water and sanitation, wetland restoration and the information management as follow ups of the project.

This project also served as a foundation for UNEP to launch a new initiative with UNESCO in 2009 to establish and implement a longer-term management and preservation plan based on the World Heritage Convention. Building on the results of UNEP's Marshlands interventions, the new initiative addresses the need to transition from short-term post-conflict interventions towards longer-term sustainable re-development initiatives in the Marshlands with the potential for generating income and rural employment. The initiative also seeks to promote sustainable production and consumption. The project is important for the country, as it is the first initiative to recognize the importance of biological diversity and natural heritage in Iraq.

- h. Provide an assessment of the programme/ project based on performance indicators as per approved project document using the template in Section IV, if applicable.

This project supported sustainable management of the Iraqi Marshlands, by facilitating the implementation of environmentally sound means of drinking water provision, sanitation, and marshland rehabilitation. The level of domestic and international coordination for marshland management increased, through project initiatives for coordination, provision of objective data about marshland conditions, policy and strategy guidance, and capacity building. The project also made significant contributions to build confidence towards reconstruction and re-establishment of livelihoods among the residents in southern communities, according to third party evaluation reports.

In addition, the project introduced the stakeholder engagement and consensus-building approach to the relevant local, governorate, and national institutions, and received their support. The Iraqi Ministry of Environment recognized this project as a model case of technical cooperation. Local communities have commended UNEP as one of the “only international organizations that have made a difference on the ground and improved lives of the people.” The project has generated significant positive press coverage about UN efforts in Iraq, raised international awareness of the Iraqi Marshlands, and highlighted the importance of efforts to promote sustainable development initiatives even under the challenging post-conflict conditions.

Note: this project was approved and funded by the UNDG ITF steering committee as of August 2004 without being required Indicator baselines and Planned Indicator targets in the project document. However, considering the fact that there was no project in the past to support the environmental management of the Marshlands, in addition, the Ministry of Environment, the line ministry of the project, was newly established after 2003 and did not hold any historical data and institutional memory, therefore most of Indicator baselines were quite difficult to set at the initiation of the project.

### III. EVALUATION & LESSONS LEARNED

- a. Report on any assessments, evaluations or studies undertaken relating to the programme and how they were used during implementation. Has there been a final project evaluation and what are the key findings? Provide reasons if no evaluation of the programme have been done yet?

To assess the project results and impacts, UNEP organized several project evaluation meetings with stakeholders and donors. In particular, the evaluation meeting in Kyoto in September 2008 was organized to review the outcomes and results achieved by all project phases, and to formulate recommendations for future work to be undertaken by the Iraqi government and the international community in order to mainstream environmental issues into a sustainable development agenda for Iraq.

The former Iraqi Minister of Environment, Her Excellency Mrs. Narmin Othman, headed the

Iraqi delegation and participated in the meeting together with high-level officials from the Iraqi ministries. The workshop was also attended by representatives from the Government of Japan, the Government of Italy and UNESCO. The Iraqi Minister of Environment indicated her satisfaction with the project outcomes and benefits, especially concerning the implementation of ESTs in the Marshlands' ecosystem and capacity building for the ministry staff. In summary, the project has addressed the objectives set forth at the commencement of the initiative, and generated tangible results thus far. This has been made possible with continuous dialogue and partnership with Iraqi institutions.

Third party monitoring and evaluation for pilot projects was also conducted, with site visits and consultations with stakeholders. Their findings are summarized below.

**Drinking water pilot project:** The final monitoring and evaluation report of pilot projects for drinking water provision for Phase I was released in September 2006. The monitoring and evaluation was carried out by a third party organization through a series of four site visits to each pilot community. Monitoring and evaluation activities included interviews with local residents and project personnel, as well as review and analysis of relevant documents. The final report concluded that the project, which was successfully implemented under very difficult circumstances, has made “a tremendous impact in confidence building within the communities”, and that “the contribution and support given to the returning families of the Iraqi Marshlands through this project is deeply appreciated by the beneficiaries and has to a great extent alleviated suffering and covered the basic humanitarian need for sustaining life”. The report also found “an increased confidence and desire on reviving life within the Marshlands' ecosystem, encouraging many households to return to their village and begin their livelihood in their ancestral lands, in turn resulting in an increased number of livestock, active production and supply of dairy products, reed-related crafts, and other commodities for the major urban market, thus adding to income generation, employment and general prosperity of the community” (PRODEV Resources and Associates, 2006).

**Sanitation and wetland restoration pilot projects:** An assessment of the pilot projects on sanitation provision and wetland restoration in Phase I was released in January 2008, with overall positive evaluations. The evaluators concluded that the selection of the pilot projects' concepts and technology was appropriate, and that similar projects might be implemented in other parts of Iraq. The short-term benefits identified included the enhancement of water quality and the Marshlands' environment, and the reduction of waterborne diseases and infections. The long-term benefits included: encouraging the original marshland population to return; increasing biodiversity such as fish, livestock and bird reserves; rehabilitation of the agricultural sector, boosting of the economy; creation of job opportunities; as well as contributing to the enhancement of the Marshlands' environment and restoration of the original wetlands (Stars Orbit Consultants, 2007).

UNEP carried out an external evaluation of the project during 2010, and the final version of the evaluation report is attached.

- b. Explain, if relevant, challenges such as delays in programme implementation, and the nature of the constraints such as management arrangements, human resources, as well as the actions taken to mitigate, and how such challenges and/or actions impacted on the overall achievement of results.

The project highlighted UNEP's dilemma as a non-resident agency. While the UN Country Team operated out of Amman, Jordan, UNEP's lack of a permanent presence restricted formal and informal communications and partnership opportunities with UN sister agencies. Budget constraints also limited direct engagement opportunities to discuss and build cooperative programming. UNEP's involvement and internal coordination, particularly with our Regional Office in Bahrain, merit further strengthening in terms of the Country Team programming and particularly the ongoing UNDAF CCA process. Despite such institutional constraints, the project gave credence to the fact that UNEP can carry out technology support and

implementation projects provided there is sufficient personnel, administrative responsiveness and senior level leadership within the organization.

- c. Report key lessons learned that would facilitate future programme design and implementation, including issues related to management arrangements, human resources, resources, etc.,

The project generated the following lessons learned:

### **1. *Project management structure***

- *Establishing a local presence and management structure for project implementation:*  
Such local structure is essential to build local ownership of the concept and the project, and will serve to further support and enhance a successful and promising structure in the eventual mainstreaming and replication phases.
- *Engaging stakeholders, especially involvement and buy-in of local groups:*  
Stakeholder engagement and support is essential to assess real needs, provide security and maintain initiatives on the ground.
- *Understanding that mainstreaming requires relevant information on the EST applications to be accepted by a large portion of the local population:*  
Local language use and formulation of appropriate messages are recommended to improve learning and communication, especially for training and for consultation with local communities.

### **2. *Governance***

- *Recognizing the project's potential to serve as a foundation for MEA accession, which can lead to additional support for EST implementation:*  
The Marshlands project supported Iraq's accession to key MEAs, including the Biodiversity Convention, Ramsar Convention, Desertification Convention and Framework Convention on Climate Change, by introducing MEA concepts and practical support, by building capacity of national government officials, and by clarifying the potential for management support through the MEA financing mechanism.

### **3. *Capacity building***

- *Understanding the role of different types of capacity building for mainstreaming:*  
Mainstreaming of pilot project results and EST approaches requires a certain critical mass of human resources within a country, a sufficient number of similar applications under different conditions to determine key principles, adjustments to meet local conditions, supportive policy and regulatory frameworks, as well as the existence of potential replicating institutions. In Iraq, each element required extensive and long-term support.

### **4. *EST implementation***

- *Recognizing the priority for immediate basic needs and meeting such needs through ESTs:*  
In a post-conflict situation where the affected population suffers disruption to basic services such as drinking water, EST interventions for immediate basic needs should be prioritized and carried out as soon as it is feasible. Such interventions, when successful, have the additional benefit of building a solid foundation for trust and partnership to work towards longer-term management needs. In other words, well-intentioned interventions may fail to garner community support for long-term support if the immediate basic needs of the communities are not adequately addressed first.
- *Developing comprehensive programming towards wider EST adoption:*  
Comprehensive programming encompassing data collection, training and implementation is effective in facilitating wider EST adoption on the ground.

### **5. *Financing***

- *Articulating the need for long-term support and financing assistance:*  
Donors and national partners need to recognize that long-term reconstruction and development efforts require long-term support and sustained programmatic assistance. EST-relevant activities also need to be prioritized by both national partners and UNEP in

the United Nations Development Assistance Framework Common Country Assessment (UNDAF CCA) process.

## **6. *Local conditions and infrastructure***

- *Addressing post-conflict needs by careful selection of ESTs:*  
EST implementation can be carried out in a post-conflict environment by selecting options that address infrastructure limitations and security concerns. For example, modular container units which can be expanded as required with minimal construction were implemented successfully in Iraq.
- *Evaluating the constraints upon institutional frameworks for goal setting:*  
Constraints upon institutional frameworks should be evaluated and recognized by programme frameworks wherever possible to enable setting of realistic goals and timelines.
- *Recognizing the possibility of significant deterioration of conditions:*  
National and local conditions can jeopardize project results if they deteriorate beyond original expectations during and after the project period. For this project, deteriorating security during project implementation as well as unprecedented drought and climate change after the project period are two such examples. It is important to maintain communication with local partners to ensure that reasonable measures can be taken to provide continued support, and to request additional intervention from the international community as the need arises.

#### IV. INDICATOR BASED PERFORMANCE ASSESSMENT

	Performance Indicators	Indicator Baselines	Planned Indicator Targets	Achieved Indicator Targets	Reasons for Variance (if any)	Source of Verification	Comments (if any)
<b>Component 1: Support for strategy development and coordination</b>							
	1.1 Number of institutions represented in project dialogue and implementation, and change in representations			17		MOE, Baghdad Univ., Iraq Reconstruction Management Office, MMPW, local community leaders, Nasseriya Univ., Intellectual Bond in Thi-Qar, Japanese MOFA, Japanese MOE, Tokyo Univ., Jordanian MOE, CIMI, Italian MOE, USAID, JICA, Iraq Foundation	
	1.2 Number of strategic assessments completed and distributed			3 assessment completed and distributed		<ol style="list-style-type: none"> <li>1. Socio-economic survey</li> <li>2. Solid waste survey</li> <li>3. Main drain for restoration</li> </ol>	
	1.3 Number of meetings held & attended					<ul style="list-style-type: none"> <li>- Roundtable Meeting (21-22 Sep 04, Amman)</li> <li>- Donor Coordination Meeting (6-8 Nov 05, Paris)</li> </ul>	
	1.4 Commitments by donors for coordination			3 donor countries (Japan, Italy and USA)			
<b>Component 2: Data collection and baseline analysis</b>							
	2.1 Number of portable sampling equipments distributed			3 sets of portable water quality equipment		To MOE	

	2.2 Number of samples analysed			2			
	2.3 Number of small-scale field analysis conducted (need-based)			5 times of sampling survey at 6 sites from Apr to Dec 2005		Locations: Al-Jeweber, Al-Kirmashiya, Badir Al-Rumaidh, Al-Sewelmat, Al-Hadam and Al-Masahab	
	2.4 Number of institutions in info. network			15		Within the Marshlands Information Network (MIN)	
<b>Component 3: Capacity building</b>							
3.1 Training Courses							
	3.1.1 Number of nationals receiving training in various subjects			314 Iraqi - Male 241 - Female 73		<u>Training Courses</u> - 4 Policy and institutional - 4 Technical - 2 Data collection and analysis	
	3.1.2 Number of training packages prepared and distributed			400 training packages prepared and 314 packages			
	3.1.3 Number and scope of institutions represented in training			10		MOE, MOWR, MMPW, Basrah Univ., Thi-Qar Univ., Marsh Arab Forum, Return Eden Communities, 3 Governing Councils,	
	3.1.4 Number of materials distributed			1,200 sets of hard copies and 2,400 copies of CDs for 10 kinds of training manuals (English and Arabic versions)		<u>10 kinds of training manuals</u> (Participant's manual and trainer's manual) <b>English</b> - 60 sets of hard copies - 120 CDs	

						<b>Arabic</b> - 60 sets of hard copies - 120 CDs	
<b>3.2 Study Tours</b>							
	3.2.1 Number of nationals receiving training in various subjects			12 Iraqi - Male 10 - Female 2		Study Tour in Japan (Aug 2005)	
	3.2.2 Number of training packages prepared and distributed			20 packages prepared and 12 packages distributed			
	3.2.3 Number and scope of institutions represented in training			8 Iraqi institutions		MOWR, MMPW, Parliament, Governorates of Basrah, Missan, and Thi-Qar, Thi-Qar Univ., Marsh Arab Council	
<b>3.3 Secondary Training</b>							
	3.3.1 Number of locally-based initiatives			6 secondary training organized inside Iraq		Secondary training on MIN (1) & (2), IWRM Community level initiative, Water Quality Management, Phytotechnology,	
	3.3.2 Number of institutions benefiting from local initiative support			13 institutions or more		MOE, MOWR, MMPW, Basrah Marsh Arab Forum, Thi-Qar Marsh Arab Forum, Thi-Qar Univ., Basrah Univ., Nature Iraq, Thi-Qar Governing Council, Thi-Qar Local Government, NGOs in Thi-Qar, Community leaders	

	3.3.1 Number of nationals receiving training in various subjects			105 Iraqis - Male: 72 - Female: 33			
	3.3.2 Number of training packages prepared and distributed			6 secondary training courses			
	3.3.3 Number and scope of institutions represented in training			4 institutions		MOE, MOWR, Thi-Qar Univ. and Basrah Univ.	
	3.3.4 Number of materials distributed			5 kinds of respective training manuals			
<b>Component 4: Pilot implementation</b>							
	4.1 Number of ESTs implemented						
	4.2 Number of communities and residents that receive water, sanitation, improved marshlands environment			<u>Drinking water</u> - 6 communities - 22,000 residents <u>Sanitation</u> - 1 community - 170 residents <u>Marshlands rehabilitation</u> - 4 sites		<b>Targeted Communities</b> <u>Drinking water</u> Al-Kirmashiya, Badir Al-Rumaidh, Al-Masahab, Al-Jeweber, Al-Hadam and Al-Sewelmat <u>Sanitation</u> Al-Chibayish	
	4.3 Number of people involved in community level tasks for installation and maintenance			- 3,000 residents			
<b>Component 5: Awareness raising and follow-up</b>							
	5.1 Number of PR and informational materials prepared and distributed			6		- Booklet "Back to Life" (Vol. 1 & 2) - Project web-site - BBC Earth Report	

						<ul style="list-style-type: none"> <li>- Short video</li> <li>- Leaflets</li> <li>- Campaign posters (within Iraq)</li> </ul>	
	5.2 Number of participants in meetings			130 participants (including 12 Iraqi)		Public Symposium (24 Aug 05)	
	5.3 Frequency of media and press coverage			282 (From May 04 to Jan 09)		Japanese and international newspapers and broadcasting	
	5.4 Number of community-level initiatives			3 environmental awareness campaigns		1 each in Basrah, Thi-Qar and Missan	
	5.5 Number of follow-up proposals prepared			3 proposals were funded by Italy and Japan for the follow up activities			