

**FINAL NARRATIVE REPORT
IRFFI/UNDG IRAQ TRUST FUND (UNDG ITF)**

Participating UN Organization(s)
United Nations Development Programme

Sector(s)/Area(s)/Theme(s)
Old Cluster: E3 Water and Sanitation
New Sector: WatSan SOT

Programme/Project Title
Addressing Short and Long Term Water and Sanitation Needs for Umm Qasr

Programme/Project Number
ATLAS Project Number: UNDG 66874 UNDP Iraq 52775
ATLAS Award Number: UNDG 54874 UNDP Iraq 44784
Cluster No. E3-08

Programme/Project Budget	
UNDG ITF:	USD 1,020,000
Govt. Contribution:	USD 0
Agency Core:	
Other:	
TOTAL:	USD 1,020,000

Programme/Project Location
Region (s): South Iraq
Governorate(s): Basrah Governorate
District(s): Umm Qasr Town

Final Programme/ Project Evaluation
Evaluation Done <input type="checkbox"/> Yes <input checked="" type="checkbox"/> Pre-Evaluation conducted for selection of area, Evaluation report submitted June 2009, plus systems quality controlled and Certificate of Completion issued with one year retainer
Evaluation Report Attached <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Programme/Project Timeline/Duration
Overall Duration <i>33 months: July 2006- April 2009</i>
Original Duration <i>7 months: July 2006-February 2007</i>
Programme/ Project Extensions <i>18 February 2007 until 18 July 2007</i> <i>18 July 2007 until 30 June 2008</i> <i>30 June 2008 until 31 March 2009</i> <i>31 March 2009 until 30 June 2009</i>

FINAL NARRATIVE REPORT

I. PURPOSE

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

UNDP identified urgent needs in Basrah governorate where the water and sanitation (WatSan) situation had severely deteriorated as illustrated by the 2004 Iraq Living Conditions Survey that identified 76% of the households had unsafe drinking water. Following a comprehensive WatSan assessment carried out for several Basrah governorate towns, Umm Qasr City was identified as suffering immense shortage in potable water supply services and other basic social services.

This project focused on the rapid improvement of the water supply and wastewater conditions through the provision of sustainable potable water and access to improved sanitation to 54,000 inhabitants in Umm Qasr Town. Deliverables have included the provision of a 50 cum/hr Reverse Osmosis (RO) plant in addition to the supply of one (1) solid waste skip loader and one hundred (100) solid waste containers.

The project additionally built capacity for local structures to operate and maintain the Plant. This project contributed towards sustainability by addressing appropriate operational measures; including comprehensive Operation and Maintenance (O&M) training to build capacity skills required for more efficient and effective procedures by governmental officials.

- b. List programme/project outcomes and associated outputs as per the approved Project Document.

Key Immediate Objectives:

1. Increase access to potable water to the local impoverished population by decreasing the port's commercial water demand and making it available at reasonable prices to the community.
2. Public health risks from solid and organic waste build-up reduced.
3. Contribute to the socio-economic development of Umm Qasr City through (i) employment creation and (ii) alleviating the financial burdens on inhabitants by providing water to the port, thereby decreasing the demand on the expensive vendor supplied water for the population.
4. Assess the short and medium term needs and requirements of the water and sanitation sector in Umm Qasr.

Outputs:

1. An autonomous source of potable water will be made available to and operated by Umm Qasr Port.
2. RO units Operation and Maintenance training for local staff will ensure sustainability of provided assets.

3. 420 tons of solid waste (i.e. 10 trips per day x 8 cubic meters x 0.75 ton per cubic meter x 7 days) will be collected per collection cycle (week) from the streets of Umm Qasr City, making use of the collection equipment provided.
 4. Short- and long-term employment opportunities focusing on unskilled labourers will be created, while the price of clean water will be decreased.
 5. Short, medium and long term water supply, wastewater systems and solid waste management requirements will be assessed by a local consultant firm working in close collaboration with all relevant Local Authorities.
- c. List the UN Assistance Strategy Outcomes, MDGs, Iraq NDS Priorities, ICI benchmarks relevant to the programme/ project

UN Assistance Strategy for Iraq: UN Cluster 3 Water and Sanitation:

There is an articulated need to address the challenge of access to safe drinking water within the Strategy which will require a 50 per cent reduction of people without access to safe drinking water and sanitation to meet the MDG Goal 7.

UN Millennium Development Goals (MDG): MDG Goal 7 Target 3:

This project directly relates to Goal 7 Target 3 to reduce the percentage of people without access to safe drinking water and sanitation by 50 per cent by 2015.

Iraqi National Development Strategy (2005):

Pillar 3 1:

“To increase access to potable water by 10 per cent and access to improved sanitation by 5 per cent by the end of 2007.”

The International Compact with Iraq (ICI):

Section 4.4 on Human Development and Human Security; of specific reference in section 4.4.1 Delivering Basic Services: Working towards the Millennium Development Goals.

“The Government will work towards achieving its interim 2011 Millennium Development goals in an efficient and sustainable way. To this end it will work to...improve access to safe drinking water and sanitation by one third.”

- d. List primary implementing partners and stakeholders including key beneficiaries.
- Umm Qasr Town Council (Umm Qasr TC)
 - Basrah Governorate (BG)
 - Ministry of Municipalities and Public Works (MMPW)
 - Population of Umm Qasr town

II. ASSESSMENT OF PROGRAMME/ PROJECT RESULTS

- a. Report on the key outputs achieved and explain any variance in achieved versus planned results. Who have been the primary beneficiaries and how they were engaged in the programme/ project implementation?

IP Output 1.1: An autonomous source of potable water will be made available and operated by Umm Qasr Port.

- 50 cum/hr RO plant , spare parts and consumables have been procured, supplied and handed over to Basrah Governorate/Umm Qasr Town Council;
- Erection and installation works completed together with all related implementation activities on 21 April 2009;
- Final testing and commissioning completed on 28 April 2009;
- Issuance of the Certificate of Substantial Completion on 28 April 2009.

IP Output 1.2: RO Units Operation and Maintenance (O&M) training for local staff will ensure sustainability of provided assets.

- Training on operation and maintenance completed during the third week of April 2009 to strengthen the capacity of technicians and staff of Umm Qasr Treatment Plant in O&M to ensure the sustainability of the project.

IP Output 2.1: 420 tons of solid waste (i.e. 10 trips per dayx8 cubic meters x 0.75 ton per cubic meter x 7 days) will be collected per collection cycle (week) from the streets of Umm Qasr City, thanks to the collection equipment provided.

- One (1) Solid Waste Skip Loader supplied and handed-over to Basrah Governorate/Umm Qasr Town Council;
- One hundred (100) Solid Waste Containers supplied and handed-over to Basrah Governorate/Umm Qasr Town Council.

IP Output 3.1: Short and long term employment opportunities focusing on unskilled labor jobs will be created. The price of clean water will be reduced.

- Um Qasr project created 15,000 workdays; staff and technicians at Umm Qasr Treatment Plant as well as the national contractors and local consultant;
- Short term employment opportunities were created for unskilled labour during the cleaning of storm water drainage networks, repair and replacement of 15Km water distribution networks in addition to the construction of 4 septic tanks; all of which have been implemented by Umm Qasr Town Council and other UN Agencies.
- Project implementation indirectly resulted in i) generating commercial activity and employment opportunities for local consultant and national contractors through the services and works contracts entered into, and ii) capacity building of the relevant Umm Qasr staff and technicians will result in improving their employment terms, conditions and future opportunities.

IP Output 4.1: Water supply, wastewater systems and solid waste management needs, which will facilitate impact assessment studies, shall be accessed through a consultancy services assignment by a local consultant firm working in close collaboration with all relevant local authorities keyed to assessing the short, medium and long term requirements.

- Consultancy Services were awarded and the contract was signed by both parties, UNDP and the Project Consultant, early 2007.

- The final consultancy assignment deliverables have been submitted including the part relevant for the bidding documents.
- Consultancy services, to provide construction supervision, awarded and contract signed early January 2008.
- Completed construction supervision activities on 21 April 2009.
- Completed final testing and commissioning on 28 April 2009.
- Issuance of the Certificate of Substantial Completion on 28 April 2009.
- Evaluation Report was submitted by the Project Consultant early June 2009.

Direct Beneficiaries: Approximately 54,000 inhabitants residing in Umm Qasr City directly benefited from the sustainable potable water and access to improved sanitation conditions.

Indirect Beneficiaries: Those employed through the 15,000 workdays; staff and technicians at Umm Qasr Treatment Plant as well as the national contractors and local consultant.

- 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.

IP Outcome 1: Increase access to potable water to the local impoverished population by decreasing the Port commercial water demand, thus availing such at reasonable prices to the community.

Fully Achieved. The project has contributed to the rapid improvement of the water supply in Umm Qasr Town through the provision of sustainable potable water and access to improved sanitation to 54,000 inhabitants in Umm Qasr Town through the provision of a 50 cum/hr RO plant.

The project also contributed towards sustainability by addressing appropriate operational and maintenance trainings for staff and technicians at Umm Qasr Water Treatment Plant to ensure sustainability of the provided assets.

IP Outcome 2: Public health risks from solid wastes and organic waste build up will be reduced

Fully Achieved. The project has contributed to the rapid improvement of the wastewater conditions and access to improved sanitation to 54,000 inhabitants in Umm Qasr Town through the supply of one (1) solid waste skip loader and one hundred (100) solid waste containers; through which tons of solid waste have been collected from the streets of Umm Qasr Town.

IP Outcome 3: Contribute to the socio-economic development of Umm Qasr Town through (i) employment creation and (ii) alleviating the financial burdens on inhabitants by providing water to the Port and hence decreasing demand on the expensive vendor supplied water.

Fully Achieved. This project has addressed the deteriorated health, socio-economic and living conditions for a wide spectrum of the town inhabitants.

Short term employment opportunities have been created for unskilled labor during the cleaning of storm water drainage networks, repair and replacement of 15Km water distribution networks in addition to the construction of 4 septic tanks; all of which have been implemented by other UN Agencies together with the support of Umm Qasr Town Council.

IP Outcome 4: Assess the short and medium term needs and requirements of the water and sanitation sector in Um Qasr.

Fully Achieved. A comprehensive water and sanitation assessment “35 Days Assessment” was conducted which identified gaps needs and opportunities covering several southern cities including: Umm Qasr, Safwan, Shuaiba, Khur Al-Zubair, Zubair, Abu – Al-Khaseeb and Basrah City. The Pre-Evaluation/Assessment was carried out in June 2006 by UNDP’s Consultant, Al-Ula Engineering Co, under the supervision and instructions of the UNDP WatSan Project Manager. Consequently, UNDP identified Umm Qasr Town as suffering immense shortage in potable water supply services and other basic social services.

All the consultancy detail design deliverables have been completed.

The works contract was awarded to Messrs. “Al Burkan Company for General Contracts” for implementing the required scope of works; the installation and erection activities have been completed.

The construction supervision services have been awarded to Messrs. “Al-Ula Engineering”; implementation works have been completed.

Certificate of Substantial Completion (CSC) was signed by all parties on 28 April 2009 and Um Qasr Treatment Plant was handed over to the counterparts of Umm Qasr Town Council/Basrah Governorate signaling the operational closure of the project in 2nd Quarter 2009.

c. Explain the overall contribution of the programme/ project/ to the ICI, NDS, MDGs and Iraq UN Assistance Strategy.

UN Assistance Strategy for Iraq

UN Cluster 3 Water and Sanitation

There is an articulated need to address the challenge of access to safe drinking water within the Strategy which will require a 50 per cent reduction to meet the MDG Goal 7. Within the Strategy there is a link made between water, the national infant mortality rate and improvement of nutrition. Umm Qasr Project directly provided sustainable potable water and access to improved sanitation to 54,000 inhabitants.

UN Millennium Development Goals (MDG):

Umm Qasr Project directly relates to MDG Goal 7 Target 3: To reduce the percentage of people without access to safe drinking water and sanitation by 50 per cent by 2015 (MDG/ICSD). Additionally this project positively impacts on infant mortality rate and nutrition within the MDG. The project possibly promotes gender equality and empowers women, as it assists in reducing the workload of women in respect to responsibilities and tending to sick family members contributing to MDG Goal 3.

Iraqi National Development Strategy:

Umm Qasr Project contributes to Pillar 3 1 that prioritizes improving access to clean water and sanitation. It was elaborated that according to the Iraq Living Conditions Survey (ILCS) only 54 per cent of households in Iraq have access to safe and stable water supply and in Basrah 76% of the households have unsafe drinking water.

The International Compact with Iraq (ICI):

Umm Qasr Project is directly linked to Section 4.4 on Human Development and Human Security. Of specific reference is 4.4.1 Delivering Basic Services: Working towards the Millennium Development Goals.

*“Goal: The Government will work towards achieving its interim 2011 Millennium Development Goals in an efficient and sustainable way. To this end it will work to:
...Improve access to safe drinking water and sanitation by one third.”*

- d. Explain the contribution of key partnerships including national, international, inter-UN agency, CSO or others towards achievement of programme/ project results.

UNDP’s counterparts were Umm Qasr Town Council and Basrah Governorate.

In order to promote national ownership and ensure active counterparts’ participation in all project activities, UNDP entered into a Letter of Agreement (LoA) with Basrah Governorate for the Reverse Osmosis Plant installation works in August 2007 in a NEX modality. Overtime it became apparent that Basrah Governorate was reluctant to issue the bids. This was confirmed upon receipt of a letter from Basrah Governorate Officials on 26 May 2008 requesting UNDP to implement the required scope of work according to standard approaches within a DEX modality. This resulted in a delay of 9 months due to modality of implementation and Basrah Governorate. Upon receipt of the said letter, UNDP started the competitive bidding process.

Furthermore, all Project related arrangements including preparation of Pre-Qualification (P/Q) documents and Requests for Proposals (RfP) for consultants, appointment of the consultant and contractor, among others have been carried out in close collaboration with UNDP counterparts.

At Project outset, a Steering Committee (SC) was established including representation of Umm Qasr Town Council/Basrah Governorate and the Umm Qasr Water Treatment Plant Manager. The Steering Committee was responsible for making critical decisions on all project implementation matters and reviewed all project technical studies, documents, invoices, quality test results, monitored work quality, and oversaw the substantial completion and final completion processes.

The counterparts during all Project development phases from initial conceptualisation through final handing over were involved. The counterparts reviewed all technical materials (scopes of work, drawings, Bills of Quantities...etc.). In addition, counterparts had an active role during the construction activities by being part of the designated site decision making mechanism; payments were processed after the receipt of the certificate of payment issued by the Engineer, approving each invoice amount.

Payment of the final invoice was effected by UNDP after issuance of the Certificate of Substantial Completion upon the agreement of the counterparts via official written letters of acceptance.

In addition, UNDP will release the Contractor's performance bond upon issuance of the Certificate of Final Completion by Umm Qasr Town Council/Basrah Governorate.

e. Highlight the contribution of the programme/ project on cross-cutting issues:

The project is not designed to create employment opportunities under the labour intensive implementation modality. However, project implementation resulted in:

- Creating and sustaining numerous employment opportunities for the National Consultant.
- Creating and sustaining numerous employment opportunities for the National Contractor; 25 people of different skills have been directly employed by the contractor to implement the works.
- Indirectly created and sustained numerous employment opportunities for all project related contractors, suppliers, vendors...etc.
- Creating and sustaining employment opportunities for Umm Qasr Town Council.
- Capacity building of the Umm Qasr Water Treatment Plant technicians, Water Directorate at Umm Qasr Town Council, has resulted in enhancing the employment terms, conditions and future opportunities.
- Creation of short term employment opportunities for unskilled labor during the cleaning of storm water drainage networks, repair and replacement of 15Km water distribution networks in addition to the construction of 4 septic tanks.

In addition, the project contributed to:

- Lifting part of the burden off the shoulders of women and young girls through reducing waterborne diseases and care-giving.
- The project also contributed to strengthening girls' education by freeing part of their time originally dedicated to managing sub-optimal water supplies.
- Health and Sanitation issues were addressed through having more in-house water.
- Environmental issues through i) converting wastewater systems to a water-borne system and, thus, eliminating on-site sanitation facilities' that customarily resulted in ponding of sewage on streets and contamination of groundwater and ii) removal of solid waste from streets and public areas.
- Capacity Building/Development
- MDGs

f. Provide an assessment of the programme/ project based on performance indicators as per approved project document using the template in Section IV

This Project has focused on the improvement of the water supply and wastewater conditions through the provision of sustainable potable water and access to improved sanitation to 54,000 inhabitants in Umm Qasr Town through the provision of a 50 cum/hr RO plant in addition to the supply of one (1) solid waste skip loader and one hundred (100) solid waste containers.

The Project additionally built capacity for local structures to operate and maintain the Plant and contributed towards sustainability by addressing appropriate operational measures; as such governmental officials received comprehensive Operation and Maintenance (O&M) training to build capacity skills required for more efficient and effective procedures.

Refer to Section IV for a detailed indicator based performance assessment.

III. EVALUATION & LESSONS LEARNED

- a. Report on any assessments, evaluations or studies undertaken relating to the programme/project 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/project have been done yet?
- Prior to initiating the Project, a comprehensive water and sanitation assessment “35 Days Assessment” was conducted which identified gaps needs and opportunities covering several southern cities including: Umm Qasr, Safwan, Shuaiba, Khur Al-Zubair, Zubair, Abu – Al-Khaseeb and Basrah City. The Assessment was carried out in June 2006 by UNDP’s Consultant, Al-Ula Engineering Co, under the supervision and instructions of the UNDP WatSan Project Manager. Consequently, UNDP identified Umm Qasr Town as suffering immense shortage in potable water supply services and other basic social services.

The project was formulated based on this assessment.
 - The rehabilitation works were evaluated through final testing, inspection and evaluation conducted on 21 April 2009. No issues were identified. The Certificate of Substantial Completion was issued on 28 April 2009.
 - The Certificate of Final Completion is anticipated to be issued upon the conclusion of the defects liability period in April 2010.
- b. Indicate key constraints including delays (if any) during programme/ project implementation.
- Security situation impacted on:
 - Completing the consultancy assignment and thus completing the waterworks designs, drawings, etc.
 - A major security incident significantly impacted activities, which resulted in a decision to pursue implementation through engagement with Basrah Governorate in a Letter of Agreement context.
 - Conducting meetings with counterparts, carrying out site visits and verification activities due to limited movement;
 - Delay estimated at 5 months.
 - The assessment study and situation analysis outputs:
 - Concluded that rehabilitating the existing RO units was unfeasible and that procurement of a new RO unit would maximize the project net economic benefits.
 - Entailed having to pursue a bidding process and construction work instead of rehabilitation works only; as reflected by the consultancy assignment assessment report.
 - Umm Qasr Town Council submitted a formal letter to UNDP requesting the revision of project design to address the urgent need for complementing the existing Umm Qasr waterworks production capacity by providing a new RO plant rather than rehabilitating the

existing unit(s). This entailed having to pursue a completely different venue from the original project design. This request was received after completing a significant part of the project consultancy assignment.

- Delay estimated at 10 months.
 - Organizational – Institutional Capacity: insufficient procurement capacity, lack of adequate human resources in all aspects including numbers and technical capacity:
 - Basrah Governorate (BG) was reluctant to issue the bids in NEX modality as confirmed upon the receipt of a Basrah Governorate letter on 26 May 2008 requesting UNDP to implement the required scope of work in a DEX modality.
 - Delay estimated at 9 months
 - Organizational – institutional arrangement:
 - Following site handover to the awarded contractor, Basra Governorate informed all that an Iraqi Ports Company (IPC) clearance would have to be obtained.
 - Delay estimated at 2 months
- c. Report key lessons learned that would facilitate future programme design and implementation.
- The assessment study and situation analysis should be concluded directly before the commencement of the project in order to prevent further deterioration of conditions; this makes the assessment more reliable and reflects more accurately the actual situation on-the-ground.
 - Increase the contingency amount in future contracts to be able to cover additional works that may be revealed only later in the course of implementation.
 - Detailed project scope development should be fully identified at early stages to prevent difficulties such as budget limitations and variation orders.
 - Avoid National Execution as long as ground presence is sub-optimal as several mechanisms are not in place at national and governorate levels such as procurement.
 - Maintain a consistent and continuous reporting system to counterparts to avoid loss of formal communications.
 - Teleconferencing, VC...etc for communications in the remote management situation is a very helpful set of tools to build partnerships, skills and monitor the situation.
 - Maintain close relations with counterparts to be on top of issues as they emerge.
 - Maintain close contacts with local business associates to forecast and predict forthcoming events and changes.

IV. INDICATOR BASED PERFORMANCE ASSESSMENT

	Performance Indicators	Indicator Baselines	Planned Indicator Targets	Achieved Indicator Targets	Means of Verification	Comments (if any)
IP Outcome 1: Increase access to potable water to the local impoverished population by decreasing the port commercial water demand, thus availing such at reasonable prices to the community.						
IP Output 1.1 An autonomous source of potable water will be made available and operated by Umm Qasr Port.	Indicator 1.1.1 Procurement and implementation of equipment, supplies, works and services to rehabilitate the RO units (including consumables), drill groundwater wells and install storage tank in Umm Qasr Port.	Existing RO plant operating in a sub-optimal manner and produced water with inferior quality Basrah Governorate lowest access rate to safe drinking water in Iraq (ILCS Analytical Report 2004) Health and water sanitation infrastructure neglected for decades 80% unemployment	New RO unit introduced to the existing RO Plant with production quality up to WHO standards	Completion of the constructing installing and erecting works	Visual verification weekly and monthly reports from the project consultant Site visits when the security situation allows Quality of water available tested by 3 rd party Quantity of potable water available	

<p>IP Output 1.2 RO Units Operation and Maintenance training for local staff will ensure sustainability of provided assets.</p>	<p>Indicator 1.2.1 Delivery of training services shall be acquired for provision of Operation and Maintenance training for local staff for RO units</p>	<p>Sub-optimal Operation and Maintenance technical staff skills</p>	<p>Operation and maintenance training provided to 5 technicians of Umm Qasr Water Treatment Plant staff</p>		<p>Operation and maintenance logbooks Training records/ reports</p>	
<p>IP Outcome 2: Public health risks from solid wastes and organic waste build up will be reduced</p>						
<p>IP Output 2.1 420 tons of solid waste (i.e. 10 trips per dayx8 cubic meters x 0.75 ton per cubic meter x 7 days) will be collected per collection cycle (week) from the streets of Umm Qasr City, thanks to the collection equipment provided.</p>	<p>Indicator 2.1.1 Procurement of solid waste bins for Umm Qasr City</p>	<p>Not available</p>	<p>Procure solid waste containers</p>	<p>Supply and handover of 100 solid waste containers</p>	<p>Project consultant reports Handover certificates to counterparts Visual verification</p>	
	<p>Indicator 2.1.2 Procurement of garbage removal truck (ie. Skip loader) for Umm Qasr City</p>	<p>Not available</p>	<p>Procure solid waste skip loader for garbage removal</p>	<p>Supply and handover of one Solid Waste Skip Loader</p>	<p>Project Consultant reports Handover certificates to counterparts Visual verification</p>	

IP Outcome 3: Contribute to the socio-economic development of Umm Qasr Town through (i) employment creation and (ii) alleviating the financial burdens on inhabitants by providing water to the port and hence decreasing demand on the expensive vendor supplied water.						
IP Output 3.1 Short and long term employment opportunities focusing on unskilled labor jobs will be created. The price of clean water will be reduced.	3.1.1 Cleaning of storm water drainage network, repair and replacement of 15 km urgently required water distribution network works and construction of 4 septic tanks, RO operation through LoU with Um Qasr Town Council, creating temporary and longer term employment	Basra Governorate one of highest unstable sewage connections 69% (ILCS Analytical Report 2004) Total overhaul of respective system required Health and water sanitation infrastructure neglected for decades			Town Council Records Contractor/works records	Has been implemented by Umm Qasr Town Council with partner agencies
IP Outcome 4: Assess the short and medium term needs and requirements of the water and sanitation sector in Umm Qasr.						
IP Output 4.1 Water supply, wastewater systems and solid waste management needs, which will facilitate impact assessment studies, shall be accessed	4.1.1 Procurement of consultancy services for the detailed situation analysis of the water and sanitation systems in	Relevant studies and plans unavailable	Consultant appointed to prepare the required studies and plans	Contract Award to Consultancy Services	Assignment deliverables	

<p>through a consultancy services assignment by a local consultant firm working in close collaboration with all relevant local authorities keyed to assessing the short, medium and long term requirements.</p>	<p>Umm Qasr and formulation of the emergency requirements for alleviating the associated burdens. Safwan, Shuaiba, and Khor Zubair will be covered if time and funds allow.</p>					
---	---	--	--	--	--	--