



SIXTH SIX-MONTH PROGRESS REPORT FOR PROJECT

Project Summary

<p>Participating UN Organization: FAO – Food and Agriculture Organization of the UN</p>	<p>Cluster: A Agriculture, Food, Security, Environment and Natural Resources Management</p>
<p>Project No. and Project Title: A5 – 04 OSRO/IRQ/404/UDG Assessment, emergency, maintenance and rehabilitation of community irrigation schemes and restoration of water supply in rural areas.</p>	<p>Report Number: 6</p>
<p>Reporting Period: 1 January to 30 June 2007</p>	<p>Project Budget: US\$16 958 942</p>
<p>List Implementing Partners: - Ministry of Water Resources - Ministry of Agriculture - Water User Associations</p>	<p>Project Coverage/Scope: Iraq – Euphrates and Tigris Irrigation and Drainage Systems.</p>
<p>Abbreviations and acronyms: MoA – Ministry of Agriculture MoWR – Ministry of Water Resources WUAs – Water User Associations</p>	<p>Project Duration/Closed Project: 3.5 years</p>



I. Purpose

- 1.1 Provide the main objectives, outcomes, outputs of the programme/project

1.1.1 Development Goal:

Improvement of rural livelihoods through the restoration of adequate levels of water supplies in the Project areas in order to assure an appropriate level of irrigated agricultural and livestock production and to safeguard water-needs for human consumption.

1.1.2 Immediate Objectives:

1. Building up Water Users' Associations (WUA) as well as strengthening selected government institutions responsible for water management in the country. It is necessary to promote fundamental changes in institutional arrangements and regulations that aim at re-orienting the existing public irrigation institutions towards providing services to farmers on an economically sustainable basis and improving their performance in both economic and environmental terms.
2. The repair / restoration / replacement of a number of irrigation infrastructures and equipment making them again operational, based on a priority list established after a need assessment carried out in close collaboration with the local communities and administrative and technical authorities.
3. Replace / repair malfunctioning parts of equipment to enable the safe water treatment and pumping units to operate at their designed operational capacities in order to provide water in deprived communities.
4. Promote the adoption of technological innovations among irrigation farmers with a view to achieving greater efficiency in the use of water and soil resources and increasing agricultural production.
5. Improve the livelihood of the people living in the Project area by creating rural employment opportunities and raising incomes.

1.1.3 Outputs:

Outputs related to Objective 1:

1. An assessment made of the post-conflict capacities and resources available with the central and local authorities, technical institutions, companies earlier in charge of the planning, design, construction,



- equipment, operation, maintenance and management of major irrigation schemes or areas with major irrigation projects.
2. Key institutions for project collaboration identified and assistance provided where required in strengthening their implementation capabilities.
 3. A Water Resources and Irrigation Support Unit (WRISU) established, staffed and operational at both central and regional levels to plan and implement the project together with the local technical institutions and authorities.
 4. Water Users' Associations (WUA) are formally established and their members meet in regular intervals to ensure adequate maintenance and operation of the rehabilitated irrigation schemes, to discuss water issues and to coordinate all water-related activities.
 5. Funding requests prepared by the technical institutions and ready for submission to potential donors for the repair / replacement / restoration of other identified damaged infrastructure-items with a lower rank on the priority-list.

Outputs related to Objective 2:

1. Joint assessments carried out with central and local institutions of the damage to the irrigation infrastructure and equipment, and their effect on the present and future food availability and water supply to the different population groups in the affected areas.
2. Local communities play an active and decisive role in the identification of rehabilitation measures.
3. A prioritised programme prepared for repair / rehabilitation / replacement of irrigation infrastructure and equipment based on the above joint needs assessments.
4. A number of essential infrastructure-items repaired and put again into operation. It is estimated that 70 km of secondary and tertiary canals can be rehabilitated, while some 20,000 ha of gravity irrigation schemes can be put back into production.
5. Conditions created for these irrigation infrastructures to be properly managed and maintained by the users-beneficiaries and/or the concerned local institutions of the Ministries of Agriculture and Water Resources.

Outputs related to Objective 3:

1. Joint assessments carried out with central and local institutions of the damage to the Water treatment/distribution infrastructure and equipment, and their effect on the present and future food



availability and water supply to the different population groups in the affected areas.

2. A prioritised programme prepared for repair / rehabilitation / replacement of water treatment/distribution infrastructure and equipment based on the above joint needs assessments.
3. A number of essential infrastructure-items repaired and put again into operation.
4. Conditions created for these safe water distribution infrastructures to be properly managed and maintained by the local communities.

Outputs related to Objective 4:

1. Extension workers and key farmers are aware of the significant potential for reducing conveyance and on-farm water losses during irrigation.
2. Farmers (male and female), and other community members trained on effective irrigation water management and efficient irrigation water use.
3. Availability of natural resources (land and water) will be increased through its more efficient use.

Outputs related to Objective 5:

1. Improved health of communities due to provision of safe water and drainage.
2. Support to agricultural and livestock production through the provision of inputs.
3. Increased agricultural and livestock production due to increased water availability.
4. Short-term employment opportunities created by the infrastructure rehabilitation component.
5. Long-term Employment opportunities created as consequences of above mentioned outputs.

1.2 Explain how the programme/project is relevant to the following benchmarks:

- UN Assistance Strategy for Iraq,
- UN Millennium Development Goals,
- Joint Needs Assessment ,
- Iraqi National Development Strategy

The project activities are integrated in the overall UN strategy for Iraq, which supports the Iraqi National Development Strategy and contributes to the



Millennium Development Goals, designed to achieve the following outcomes:

- enhanced sustainable long-term food production and natural resource management;
- rehabilitation and reconstruction of infrastructure;
- institutional development;
- enhanced employment and income-generation;
- enhanced environmental restoration and conservation.

1.3 Indicate the main implementing partners, their roles and responsibilities, and their interaction with the Agency.

FAO cooperates closely with the Iraqi MoWR and plans to cooperate more closely with the MoA, once the main infrastructure works have been initiated. The MoWR's role is to select the project sites for rehabilitation and provide, if possible, the basic survey reports and technical dossiers for the works to be done. The project is being operated in close collaboration with the MoWR, and the MoA in relation to farmer training and extension at a later stage of implementation. The Iraqi Ministries are fully involved in the FAO Procurement Process.

II. Resources

Financial Resources:

2.1 Provide total funds provided, disbursed and committed

Total funds provided: US\$ 16,958,941

Disbursed: US\$ 12,644,529

Committed: US\$ 16,451,649

2.2 Highlight any variation(s) in projected versus actual spending for the reporting period indicating the reason for such variation(s).

None

2.3 Explain programme/project expenditures within the 10 budget categories, including security expenditures.

PERSONNEL	\$76,695
CONTRACTS	\$193,413
TRAINING OF COUNTERPART	-\$6,061
TRANSPORT	\$0
SUPPLIES AND COMMODITIES	-\$349
EQUIPMENT +TRANSPORT	\$1,477
TRAVEL	\$67,223



SECURITY	\$1,797
MISCELLANEOUS	\$22,721
INDIRECT SUPPORT COST	\$153,331
TOTAL EXPENDITURES	\$510,245

2.4 Indicate other funding sources, if applicable.

None

2.5 Provide details on any budget revisions approved by the UNDG ITF Steering Committee, if applicable

A budget revision request was submitted in July 2007 for extension up to end of 2007 and change in budget lines. The implementation of this project was subject to fluctuating decisions from MoWR time to time. These governmental decisions, which are outlined below, had their influence on how project expenditure would be incurred during the project phase. The decisions related to:

- Identification of sub-project sites, with occasional amendment to sub-project locations;
- Repeated change of equipment requirement and specifications.

The situation was further compounded by the technical dossiers of the projects prepared by the MoWR being initially incomplete and not up to international standards for technical and contractual information. Besides the above, as site locations were in remote areas, collection of information and placement of key personnel became a major constraint. Due to governmental vagaries in the decision making process, the project scope was also changed consequent up on repeated request received from line Ministry for diverting funds to Mousl drilling rigs. Funds earmarked for Kalar irrigation scheme was diverted to procurement of drilling rigs. As stated earlier the project scope was change to include procurement of drilling rigs. This resulted in changing budget lines to provide for the change in Project Scope.

2.6 Project expenditures for the 1 July to 31 December 2007 period.

????

Human Resources:

2.7 National Staff: Provide details on the number and type (operation/programme)

One resident engineer at the project site



- 2.8 International Staff: Provide details on the number and type (operation/programme)

One project manager, short term technical and other managerial and administrative staff co-shared with other UNDG ITF projects.

III. Methods of Operating

- 3.1 Summarize the implementation mechanisms primarily utilized and how they are adapted to achieve maximum impact given the challenging operating context.

Implementation was undertaken by sub-contracting the excavation works to a local, Iraqi Civil Contractor who is familiar with the local authorities and who can work successfully under the current adverse security situation

- 3.2 Provide details on the procurement procedures utilized and explain variances in standard procedures.

Surveying instrumentation including ten total survey stations, computers and plotters, plus three aquatic weed harvesters (1 of 10 m³ and 2 of 20 m³) were procured under the normal procurement procedures of FAO.

- 3.3 Provide details on the monitoring system(s) that are being used and how you identify and incorporate lessons learned into the ongoing programme/project.

Monitoring of the project was undertaken by the Resident Site Engineer who provided to the CTA, in conjunction with the MoWR, weekly update reports and monthly summary reports.

Report on any assessments, evaluations or studies undertaken.

Monthly reports and works surveys to determine the built quantities according to all parties, which then form the basis for payment to contractors.

IV. Results



- 4.1 Provide a summary of programme/project progress in relation to planned outcomes and outputs; explain any variance in achieved versus planned outputs during the six month reporting period.

Heran rehabilitation works were completed early in 2006. The equipment to be supplied and installed at Mussaib pumping station (Drain 22) has been manufactured and is on site with installation about to begin.

The rehabilitation of Mussaib Irrigation Scheme is well under way since the beginning of June 2006 and currently 95% of drain cleaning, 80% of the canal lining, 80 % of the road and 80% of the culverts have been completed.

Following the replacement of the Al-Thraima project with the supply of grouting equipment for urgent rehabilitation works at Mosul Dam, a purchase order for drilling rigs, spare parts and materials was placed in September 2006 and the rigs were delivered to site May/June 2007.

The Kalar Irrigation Project rehabilitation programme remains indefinitely postponed.

A total of 30 Iraqi engineers have attended and successfully completed lengthy (6 to 8 weeks) training programmes in the Netherlands and Italy.

Three aquatic weed harvesters have been procured from the USA and three Iraqi engineers have been trained, by the manufacturer, in the maintenance and use of these harvesters, which have now been delivered.

Progress in relation to Outputs related to Immediate Objective 1:

The past and current security situation limits the assessments that can be undertaken. A needs assessment was planned as a component of a comprehensive training programme submitted to the MoWR in January 2005, to be undertaken by a national consultancy company. However, the MoWR has placed this component on hold while training components that it requested are being implemented. In line with this, the project has limited capacity development to the MoWR, and to a much lesser extent the MoA, and has largely relied on them assessing their own needs.

Provision of Equipment: The equipment finally being procured is listed below:

- Surveying instrumentation including ten total survey stations, computers and plotters to assist MoWR in project design have been purchased and



were delivered in September 2005, (US\$428 794). Training by the suppliers in the use of the equipment was carried out in Iraq in November 2005.

- Three aquatic weed harvesters (1 of 10 m³ and 2 of 20 m³) were procured and delivered in October 2006 (US\$1 503 956). This equipment will be used to strengthen the weed control capabilities of the MoWR in rivers, canals and reservoirs, and training of operators was given in the USA in late June-early July 2006.

An extensive capacity development programme was drawn up and submitted to the MoWR and the MoA in January 2005. The training courses to strengthen technical institutions has been completed with four major courses arranged at four different institutions. One of these was funded under OSRO/IRQ/402/UDG and was completed in December 2005 and the other three were funded under this project, OSRO/IRQ/404/UDG. The latter are listed below:

- Alterra-ILRI Wageningen the Netherlands: Ten Iraqi engineers have attended this 6 week course in “Soil, Drainage and Land Reclamation” from 09 January to the 17 February 2006.
- UNESCO the Netherlands: Ten Iraqi engineers have attended this 6 week course in “Agro-Hydrology” from 06 March 2006 to the 15 April 2006.
- BARI, Italy: Ten Iraqi engineers have attended this 8 week course in “Planning and Design of Modern Irrigation Systems” at CIHEAM from 06 March 2006 to the 30 April 2006.

Favourable reports from the trainees and FAO's independent assessor have been received for all four courses.

Due to the adverse security situation, a Water Resources and Irrigation Support Unit (WRISU) could not be established as originally planned with staffing, including three expatriate WRI specialists, based in Iraq. However, a WRISU has been established in Amman with expatriate specialists and national specialists established in the vicinity of the project locations in Iraq to facilitate project implementation.

No Water User's Associations have yet been created and activities to create these are again being initiated. It should be noted that the creation of WUA's was an important component of the original training programme, which was put on hold by the MoWR.

Progress in relation to Outputs related to Immediate Objective 2:



Due to the adverse security situation, it was not possible to carry out a joint needs assessment. However, the MoWR carried out its own needs assessment and presented a list of projects to FAO for consideration, which included information on number of beneficiaries, irrigation command area, estimated costs, etc.

In addition, due to the security situation in the country, FAO has not been in a position to significantly influence the achievement of having the local communities play an active and decisive role in the identification of rehabilitation measures and is reliant on MoWR's procedures in this area. A rehabilitation programme of the infrastructure projects to be executed by FAO has been prepared. Following lengthy discussions the final list of five sub-projects amounting to an estimated US\$6.2 million were submitted to FAO by MoWR on 29 November 2004.

The technical dossiers sent by MoWR for the first few sub-projects were not up to international standard and it was necessary to sub-contract the preparation of the technical dossiers out to a consulting company with offices in Iraq. A draft contract for this was drawn up, tendered and finally awarded on 01 March 2005 to an Amman based consultancy company.

Four of the five potential project sites identified with the MoWR in November 2004 were originally selected for rehabilitation, however, following receipt of the bids, which were substantially higher than estimated, only three of the five potential project sites could have been rehabilitated. These cover an irrigated area of around 23,145 ha benefiting around 12,680 farming families at a cost of \$5.91 million. This figure represents a US\$600 000 reduction over earlier estimates, due to the competitiveness of bids received. Details of the irrigation schemes are listed below:

Heran (Gov. of Erbil);

Area = 145 ha; Number of farming families = 180; Value US\$216 000;
Contract was completed by end of January 2006

Mussaib (Gov. of Babil);

Area = 3,000 ha; Number of farming families = 2,500; Cost US\$2.9 million;
Contract awarded March 2006 for civil works; and the contract for the Mussaib pumping station (Drain 22) was signed July 2006.

Al-Thraima (Gov. of Qadisiya);

Area = 20,000 ha; Number of farming families = 10,000; Cost = US\$2 800 000;



Contract signature planned for June 2006 but, following a request by the MoWR, this project has been replaced by the urgent procurement of grouting machines for Mosul Dam. MoWR will complete the works at Al Thraima using their own resources and funds.

The MoWR and MoA have been involved in the design of the schemes from the start to ensure that the schemes can be properly managed on completion of rehabilitation. Activities related to the conditions for these irrigation infrastructures to be properly managed and maintained by the users-beneficiaries will start in January 2006.

Procurement of Grouting Machines for Mosul Dam:

MoWR requested FAO replace the Al Thraima project with the procurement of urgently required grouting machines for Mosul Dam. Foundation conditions at this large dam require continual grouting to maintain the dam's stability. The current machinery is old and unreliable and cannot keep pace with erosion under the dam and control the subsequent seepage. The funds earmarked for Al Thraima were thus identified by MoWR as being required to procure new machinery for the dam. The request for change from Al Thraima to this procurement was formally received by FAO in June 2006 and the funds were sufficient to procure 6 of the 10 grouting machines requested. The purchase order was issued in October 2006 with delivery being completed in May/June 2007.

Progress in relation to Outputs related to Immediate Objective 3:

One pumping station has been selected to be included under this project, a pumping station for drainage water associated with the Mussaieb irrigation scheme, known as Drain 22. A full condition assessment of this pumping station has been completed. The funds for the rehabilitation of this pumping station and training of operators are included under the rehabilitation of the whole irrigation scheme. Delays experienced are attributable to errors in the initial technical information provided by the MoWR and the subsequent need to change the technical specifications of the new pumps. This delayed the countersignature of the contract by the pump manufacturer until 14 July 2006. However, the equipment has now been manufactured and delivered to site, with installation scheduled to commence imminently.

Progress in relation to Outputs related to Immediate Objective 4:

Under the training programme being run for the MoWR engineers, irrigation management including effective irrigation water management and efficient



irrigation water use has been an important component of the courses. The training of farmers and community members through the training of trainers formed an important part of the original training programme prepared by FAO and this has been put on hold by the MoWR. Proposals to begin this training are now being reviewed.

Progress in relation to Outputs related to Immediate Objective 5:

Under this project, as agreed by both the MoA and the MoWR, improved seeds and fertilizers valued at US\$ 5.3 million were procured in 2004 and issued to the MoA in early 2005.

Employment is currently being generated on the Heran irrigation scheme and will soon to be generated on the remaining project sites. Long-term employment will be created on completion of each sub-project, both within the farming communities and the various industries servicing them.

- 4.2 Report on progress made toward the achievement of specific medium-term outcomes of the programme/project as a result of the achieved short-term outputs during this reporting period.

Although a Water Resources and Irrigation Support Unit (WRISU) could not be set up in the originally planned structure, one has been set up with International Specialists based in Amman and National Specialists based in Iraq at the various Project locations to facilitate project implementation.

A consultancy firm with offices in Iraq has been recruited to improve on the preparation of the technical dossiers initially presented by MoWR which are required for tendering civil works contracts. These include the following; general situation map, project description, justification of envisaged works, pre-feasibility and feasibility studies, BoQ and cost estimates.

Rehabilitation works for the following irrigation schemes have now been contracted:

Heran Irrigation Scheme (Gov. of Erbil);

Area = 145 ha; Number of farming families = 180; Value US\$216 000; The Technical dossier was prepared by FAO Erbil. Contract signed on 25 June 2005, with completion date planned for 25 February 2006. This project is situated in the North of Iraq and was completed by end of January 2006. The supervision team for this contract was coordinated by the FAO-Erbil.



Mussaib (Gov. of Babil);

Area = 3,000 ha; Number of farming families = 2,500; Cost US\$703 750 (civil works) and US\$2.2million (pumping station);
Technical dossier received from Consolidated Consultants on 29 August 2005. Contract divided into the rehabilitation of the Pumping Station, (tender closing date 09 November 2005 and contract provisionally awarded on 29 December 2005, but was delayed due to technical revisions of the specifications of the equipment. They were finalised and a contract was signed in July 2006, and currently the equipment has been manufactured and delivered to site.

For the Rehabilitation of the Irrigation Scheme, (tender closing date 14 December 2005 and contract awarded March 2006). The Supervision Contract for the latter was awarded and the Resident Site Supervisor appointed with effect from 01 June 2006 when the contractor commenced work. Currently 95% of drain cleaning, 80% of the canal lining, 80 % of the road and 80% of the culverts have been completed

Procurement of Grouting Machines for Mosul Dam (three northern governorates);

Stabilising the foundation of the dam will allow water storage to return to the design maximum. This will allow an additional 4 billion m³ to become available for power generation, irrigation and water supply. The additional area estimated (by the Mosul Dam authorities) that this will permit to be irrigated is 254,000ha. Also, the generation of an estimated minimum of 750 mW (and up to 1050 mW) will be assured. A purchase order was issued for 6 of the 10 machines requested and these were procured and delivered May/June 2007

An FAO team prepared the technical dossier for the Heran Irrigation Scheme and a consultancy company prepared those for the Mussaieb and Al Thraima Irrigation Schemes. All were based on data collected by MoWR, but included in-field spot checks to verify the designs and plans presented.

The consultancy company also prepared a technical dossier for the Kalar Irrigation Scheme (Gov. of Sulaymaniyah). However, there were serious doubts that the construction of the Kalar irrigation project as designed and planned by the previous authority would be sustainable. Both MoWR and AGLW requested major changes to the technical dossier that would have required further detailed field studies, which were not practical under the



current adverse security situation. There were also inadequate funds in the budget to take implementation any further.

A substantial amount of work was undertaken in the procurement of equipment to strengthen the MoWR's capacity in surveying and in the weeding of canals. The specifications of the weed harvesting equipment being procured for the MoWR was changed twice by them, necessitating re-tendering. The equipment eventually procured and associated training is described in the previous section.

An extensive capacity development programme was drawn up and submitted to the MoWR and the MoA in January 2005. The programme was approved by the MoA on 24 January 2005 and partially approved by the MoWR on 20 February 2005, but with a requested reduction in budget from US\$1.1 million to US\$300 000. The latter request was later modified to a phased introduction of the programme and this was largely accepted by MoWR but with specific training courses outlined and the phasing changed and this was finalised on 29 June 2005. This programme to strengthen technical institutions is now completed. Details of the courses are given in the previous section.

- 4.3 Report on the key outputs achieved in the six month period including # and nature of the activities (inputs), % of completion and beneficiaries.

Heran Irrigation scheme	100% complete
Al-Musseib Irrigation scheme	90% complete
Drain 22 Pump Station	50% complete
Mosul Dam	100% complete
Training	100% complete
Procurement of seeds and fertilizers	100% complete
Procurement of weed harvesters	100% complete

- 4.4 Explain, if relevant, delays in programme/project implementation, the nature of the constraints, lessons learned in the process and actions taken to mitigate future delays.

The Project approach was designed to be community driven, with the communities closely involved in identifying and participating in rehabilitation activities and in being trained to become partly responsible for some of the water management activities. This is difficult to implement in a situation where community organizations concerned with irrigation development, such as Water Users' Associations (WUA,) are practically non-existent and the project period (as well as the security situation), does not permit a thorough



sensitization/mobilization campaign. It should also be noted that the creation of WUA was an important component of the original training programme, and that this was put on hold by the MoWR.

The original technical dossiers for the projects prepared by the MoWR were incomplete and not up to international standards for technical and contractual formulation. A substantial amount of time was required to upgrade the dossiers in order to meet the appropriate standards for international tendering. Due to the adverse security situation, it was not possible to send FAO staff to collect the data and a private consultancy firm, with offices in Iraq, was employed to complete the technical dossiers. However, even this firm faced severe difficulties in travelling and visiting the sites.

Delays were also encountered in implementation through the late identification of potential sub-project sites by the MoWR and by the latter's repeated changing of equipment requirements and specifications. This was partly because no focal point was initially appointed by the MoWR to coordinate inputs with FAO, which seriously delayed the collection of information. In addition, communication between Amman/Jordan, Baghdad and the governorates where the projects are being implemented is difficult, resulting in delays in sending information to and from the field. To mitigate the problem, it was agreed to install communication facilities in Baghdad and the governorate.

Increased insecurity, with its associated costs, and the rising costs of fuel, building material, labour etc have significantly increased the installation and implementing cost of the various projects.

- 4.5 List the key partnerships and collaborations, and explain how such relationships impact on the achievement of results.

The key partner for FAO within Iraq in this project has been the MoWR with only a marginal involvement of the MoA to date, although the latter will increase in the future.

Approaches were made through the Amman office to collaborate with the World Bank as they were also looking to rehabilitate community level irrigation systems in collaboration with MoWR through their Emergency Community Infrastructure Rehabilitation Project.

Approaches were also made to UNESCO to coordinate the training programmes being given by FAO and UNESCO with MoWR; however they



informed FAO that the training that they were organising was at a higher management and planning level.

- 4.6 Summarize achievements against planned results for cross cutting issues: security, gender, human rights, employment (including # of short and/or long-term jobs created), and environment.

Environmental considerations are an important element of this project with a reduction of water logging and salinisation of agricultural lands in the region being an important objective. Improving the drainage networks, in this case Drain 22 in Mussieb, will avoid saline water charged with residues from upstream agricultural areas overflowing and contaminating downstream lands, and discharging into the rivers and water supply canals, causing environmental and health risks for the population.

Regarding participation of the public, all contracts have been opened up to private companies and have specifically not been limited to parastatal organizations. Heran scheme rehabilitation was entirely undertaken by the farmers themselves, employed by the FAO appointed contractor and supervised by the FAO North offices in the Kurdistan region and based in Erbil.

Both women and men have been selected by MoWR for attendance on the training courses. Through the training programme, attempts were also made to address policy issues in Human Resource Capacity Development in Iraq, however, these components have been put on hold by the MoWR until the straightforward training courses have been run.

V. Future Work Plan

- 5.1 Summarize the projected activities up to the end of December 2007.
- Finalise the award of a supervision contract for the installation works at Drain 22 Pumping Station.
 - Monitor the installation of the mechanical and electrical equipment at Drain22 pumping station.
 - Monitor the implementation of the Musseib Irrigation scheme rehabilitation contract and ensure works are completed as scheduled and as planned.

