

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

Participating UN Organization(s)	Sector(s)/Area(s)/Theme(s)
UNITED NATIONS OFFICE FOR PROJECT SERVICES –(UNOPS)	WATSAN

Programme/Project Title	Programme/Project Number
Rehabilitation of Takiya Water Distribution System	E3 - 12b UNDG ITF ATLAS Project Number: 66878 UNDG ITF ATLAS Award Number: 54787

Programme/Project Budget	Programme/Project Location																
<table border="0"> <tr> <td>UNDG ITF:</td> <td>USD 2,006,340</td> </tr> <tr> <td>Govt. Contribution:</td> <td>Nil</td> </tr> <tr> <td>Agency Core:</td> <td>Nil</td> </tr> <tr> <td>Other:</td> <td>Nil</td> </tr> <tr> <td>TOTAL:</td> <td>USD 2,006,340</td> </tr> </table>	UNDG ITF:	USD 2,006,340	Govt. Contribution:	Nil	Agency Core:	Nil	Other:	Nil	TOTAL:	USD 2,006,340	<table border="0"> <tr> <td>Region (s):</td> <td>Takiya Sub-District Town</td> </tr> <tr> <td>Governorate(s):</td> <td>Sulaymaniyah</td> </tr> <tr> <td>District(s)</td> <td>Chamchamal</td> </tr> </table>	Region (s):	Takiya Sub-District Town	Governorate(s):	Sulaymaniyah	District(s)	Chamchamal
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Final Programme/ Project Evaluation	Programme/Project Timeline/Duration
<p>(Evaluation Done) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Evaluation Report Attached <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Evaluation report attached as Annex B</p>	<p>Overall Duration Starting Date: April 2007 Completion Date : March 2009</p> <p>Original Duration Starting Date: 08/03/2007 Ending date:08/12/2007</p> <p>Programme/ Project Extensions The first extension was approved on 18/03/2008 till 08/06/2008. The second extension was approved on 16/06/2008 till 31/12/2008. The third extension was approved on 11/11/2008 till 31/03/2009.</p>

I. PURPOSE

a. Introduction

The Takiya Town water supply system, which dates back to the 1970s, had deteriorated considerably due to negligence of maintenance and no development of the system had been done to improve the supply conditions. In addition, the increase in population during the past five years due to an influx of internally displaced persons choosing to resettle in this relatively safe area increased the stress on the existing system. This resulted in the failure of the existing water network to meet the quantitative needs of the current population. This necessitated the implementation of this project to enhance the quantity of water by drilling deep wells and rehabilitating/extending new mains to cover the entire town.

b. Programme/Project outcomes and associated outputs as per the approved Project document:

Key Immediate Objective/s:

1. To significantly augment the quality and quantity of water supplied to 25,000 consumers in Takiya by constructing a replacement reservoir and rehabilitating and extending the existing transmission mains utilising improved pipe materials and jointing techniques to reduce maintenance costs for the life of the new pipe system.
2. To provide a comprehensive purpose-developed training course in water supply network design and management to at least 30 technical staff of the Directorate of Water and Sanitation so as to improve quality and efficiency throughout the whole management cycle (planning, execution, monitoring) for service provision.

Outputs

- 1.1 25,000 consumers will have improved quantity and quality of water available brought about through reduced contamination and a reduction in losses in the pipe distribution system.
- 1.2 Short-term employment creation for over 120 construction workers for a period of 9 months.
- 2.1 Thirty 30 government employees are able to pass on their knowledge to others and to plan, implement, monitor and manage water supply projects in the urban areas demonstrated by improved on-the-job monitoring of operational sustainability issues to support service delivery and policymaking functions

c. List of UN Assistance Strategy Outcomes, MDGS, Iraq NDS Priorities, ICI benchmarks relevant to the programme/project:

The development goal of the project is to contribute towards improving the public health of the inhabitants by increasing the availability of safe drinking water in an effort to achieving the Millennium Development Goals set by the UN.

The project directly contributes towards achieving MDG Goal 7: “Ensure environmental sustainability” by reducing the proportion of people without access to safe drinking water and improved sanitation.

The project contributes to some extent towards the attainment of MDG’s 4: Reduce child mortality; and to Goal 6: Combat HIV/AIDS, malaria and other diseases. Child mortality is improved and the incidence of malaria and other diseases is reduced through improved access to safe and adequate supplies of drinking water.

The project is in line with the International Compact With Iraq (ICI) under section 4.4.1.5 and 4.4.2 Environment, Water & Sanitation, Housing.

By significantly augmenting the quality and quantity of water, the project contributed to the achievement of the UN Assistance Strategy for Iraq, Water and Sanitation Sector Outcome 1: “Increased sustainable access to safe water for urban and rural populations in 10 governorates especially the vulnerable.”

d. Primary implementing partners and stakeholders including key beneficiaries:

MMPW – Ministry of Municipalities and Public Works are implementing partners and stakeholders. The Takiya town populations are the key beneficiaries.

II. ASSESSMENT OF PROGRAMME/ PROJECT RESULTS

a. Key outputs achieved:

The key out puts achieved are as follows:

1. 25,000 consumers received improved quantity and quality of water through reduced contamination and a reduction in losses in the pipe distribution system. This has been achieved by drilling two deep wells with all the accessories to pump the water, rehabilitation of 28 km of pipeline and constructing 750 cum water tank.
2. Created short-term employment for over 120 construction workers for a period of 9 months.
3. Trained ten 10 government employees on planning, implementation, operation and maintenance of the water supply system in the urban areas. This is demonstrated by the improved on-the-job monitoring of operational sustainability issues to support service delivery and policymaking functions.

Initially, it was planned to train 30 personnel but due to delay in implementation the cost of the training component went up considerably, and as a result only 10 personnel were trained from the Water Authority.

The training was conducted from the 30th August to the 6th September 2008 for 10 representatives from Water Authority of Sulaimaniya Governorate.

The Training was conducted in Amman- Jordan by the highly experienced training centre (ENGICON) on design concepts of new networks or expansion of networks, use of new materials and techniques to develop, rehabilitate, operate and maintain the water distribution networks, as well as the need to understand the concept of ‘unaccounted for water’ and methods of reducing unaccounted for water UFW, leakage detection and repairs. An intensive programme directed towards the engineers/supervisory management staff was also conducted.

The project progressed well in collaboration with the local water authority officials. The people of Takiya were the main beneficiaries and they were also involved in the implementation of this project through their participation in the construction activities.

The selected contractor was flexible and had the required capacity to implement the work under challenging circumstances such as change of layouts, change of deep well locations before drilling, etc. The Contractor succeeded in completing the laying of networks in the town despite the difficult situation. In the process, employment was generated for over 120 labourers and 5 Engineers & Technicians.

b. How achieved outputs have contributed to the achievement of the outcomes:

The outcome of the project based on outputs are summarized as follows:

- Network losses were reduced.
- Attainment of the project outcomes associated with the reduction in the incidence of water borne diseases will take some time to become evident
- Physical works on the water supply mains for the population of the town was guaranteed for the foreseeable future through training and capacity building activities provided for 10 engineers from the Water Authority of Sulaimaniya Governorate.

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

By significantly augmenting the quality and quantity of water supplied to 25,000 consumers in Takiya town, the project contributed to the UN Assistance Strategy for Iraq, Water and Sanitation Sector Outcome 1: “Increased sustainable access to safe water for urban and rural populations in 10 governorates especially the vulnerable.”

The implementation of the project contributed towards improving the public health of the inhabitants by installing a system able to deliver safe drinking water thereby addressing the Millennium Development Goals set by the UN.

The project directly contributes towards achieving MDG Goal 7: “Ensure environmental sustainability” by reducing the proportion of people without access to safe drinking water and improved sanitation.

The project contributes to some extent towards the attainment of MGD's 4: Reduce child mortality; and to Goal 6: Combat HIV/AIDS, malaria and other diseases. Child mortality is improved and the incidence of malaria and other diseases is reduced through improved access to safe and adequate supplies of drinking water.

The project is inline with the International Compact With Iraq (ICI) under section 4.4.1.5 and 4.4.2 Environment, Water & Sanitation, Housing.

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

The project was designed in full cooperation with the Ministry of Municipalities and Public Works (MMPW) and the Directorate of Water and Sanitation. The Government instrumentalities have shown particular interest and provided continuous assistance in making available all details and personnel to assess the requirements as well as handing over the studies previously done by other governmental ministries, consultants and contractors in order to facilitate the work of UNOPS on the ground.

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

Improved access to water benefited both men and women equally. Women and children are usually tasked with responsibility for collecting water for the household. Improvements in the water supply system are expected to directly benefit some members of this group of consumers.

Interestingly, during implementation, it has been noted that female heads of households are cooking food to sell to construction workers on site. It is expected that such an important development contributes to employment creation and thus income generation in these areas and might also become an option for a number of women that reside along the pipeline routes while pipes are being laid. Men are benefited from construction works during the implementation as daily labourers.

There was no negative environmental effect in and around the project area cause to implementation of this project,

There was no specific security related incidents happened during the project implementation.

More than 120 labourers and 5 engineers from the local area were employed on the project during the project implementation period.

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

As seen in the attached template in Section IV, the quantity of water supplied per day per beneficiary is 70 lpd as planned in the beginning of the project. This was achieved by drilling two deep wells and connecting them to the service reservoir.

It was estimated that 25,000 beneficiaries would receive the improved quality and quantity of water, which was achieved by rehabilitating 28 km of pipeline and constructing 750 cum water tank.

During the construction period, employment was generated for 120 construction workers as

planned.

The only component which could not be achieved as planned was the training of 30 personnel from the water authorities. This was due to an increase in the cost of the training and related expenses for the training. The achievement was only 33% of the planned target.

Refer the template in Section IV for details.

III. EVALUATION & LESSONS LEARNED

a. 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?

The project was designed with full cooperation from the Ministry of Municipalities and Public Works (MMPW) and the Directorate of Water and Sanitation.

The Government authorities were interested in the project and provided continuous assistance to the project assessment by making available all necessary details and personnel to assess requirements. They have also handed over studies done previously by other governmental ministries, consultants and contractors which facilitated the work of UNOPS on ground.

Following the successful model established for other projects, a similar mechanism was recently implemented in Iraq by UNOPS, representatives of the Ministry of Municipalities and Public Works and the Directorate of Water and Sanitation were invited to form part of a committee that provided oversight to project execution and ultimately sign off a project acceptance. UNOPS national project staff supported and facilitated meetings of this committee.

An evaluation of the project was done during the month of March 2010. The key findings are:

1. The project is delivering the expected output i.e. improving the supply of water to the people of Takiya.
2. A feasibility study should have been done for the project before considering its implementation.
3. Missing data on whether or not the project actually contributed to the improvement of water quality and contributed towards improving public health conditions in Takiya.

The evaluation report is attached with this report for ready reference.

b. Key constraints including delays (if any) during programme/ project implementation

UNOPS worked hand in hand with Chamchamal District and Takiya Water Authorities for implementation of the project. This helped UNOPS carry out a smooth hand over of the project site to the contractor for implementation and final handing over of site to beneficiaries. However, due to their daily work in maintaining and keeping the services functioning for the public, the local authorities were not always in a position to extend their attention to solve particular problems arising during project implementation which at times

caused some delays to activities. This needs to be considered during the project proposal preparation to avoid extension of projects.

This project was foreseen to complete on the 30th of June, 2008. However, its implementation was delayed for the following reasons:

- The Water Authorities were supposed to provide 125mm pipes, but failed to supply these for a very long period. The project then used the available 90 mm PE pipes to complete the laying of pipelines.
- The Water Authorities had to shift the location of a water tank due to a dispute over the ownership of the land with locals. This delayed the construction of the water tank for a long time. Due to this change in location, the design and distribution was changed to maintain the required hydraulic levels in the system for better supply of water. This necessitated the laying of an additional length of 1 km of ductile pipe.
- The Water Authority failed to finalise the layout for the laying of distribution mains, which delayed the implementation.
- The local Water Authorities took considerable time to locate the well locations for the drilling of new deep wells. This again delayed the implementation of activities.

c. Key lessons learned that would facilitate future programme design and implementation

Following are the lessons learned during the project implementation:

1. Water Authorities are fully occupied with their daily activities of water supply operation and maintenance to manage the supply of water to the public. Therefore, it is required to identify a separate person from the authority deal with the day to day implementation difficulties.
2. Laying and jointing of PE pipes using butt/electro fusion would help to complete the project considerably in less time compare to other material such as CI, DI pipes.
3. Conduct an independent assessment prior to project design, from both the technical and community perspectives.

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)
IP Outcome 1							
To significantly augment the quality and quantity of water supplied to 25,000 consumers in Takiya							
IP Output 1.1 25,000 consumers will have improved quantity and quality of water available	Indicator 1.1.1 Quantity of water supplied per day per beneficiary	NA	70 litres/day	70 litres/day		1. On ground UNOPS site engineers' reports 2. Erbil water directorate records	Achieved as planned
	Indicator 1.1.2 No. of beneficiaries served by improved quantity and quality of water	NA	25,000	25,000	-	1. On ground UNOPS site engineers' reports 2. Erbil water directorate records	Achieved as planned
IP Output 1.2 Short-term	Indicator 1.2.1 Person –days	NA	32,400 days	32,400 + days		1. On ground UNOPS site	Achieved as planned

employment creation for over 120 construction workers for a period of 9 months	of employment generated					engineers' reports 2. Erbil water directorate records	
IP Outcome 2							
To provide a comprehensive purpose-developed training course in water supply network design and management to at least 30 technical staff of the Directorate of Water and Sanitation							
IP Output 2.1 Thirty 30 government employees are able to pass on their knowledge to others and to plan, implement, monitor and manage water supply projects in the urban areas	Indicator 2.1.1 Training person-days	NA	100 days	33 days	Increase in prices was the reason to reduce the number of participants	Takiya Water Authority	Achieved only 33% of the planned capacity building.