

**UNDG IRAQ TRUST FUND E3-16  
FINAL PROGRAMME<sup>1</sup> NARRATIVE REPORT**

**Programme Title & Project Number**

- Programme Title: Water security and Safety for the vulnerable communities in Sulaymaniyah city
- Programme Number : E3-16
- MDTF Office Atlas Number: 66882

**Country, Locality(s), Thematic Area(s)<sup>2</sup>**

*Country/Region: Iraq, Sulaymaniyah*

*Thematic/Priority Area: Essential services-Water and Sanitation*

**Participating Organization(s)**

*UNICEF, WHO*

**Implementing Partners**

- Ministry of Municipalities and Tourism, General Directorate for Water and Sewerage and Sulaymaniyah Water Directorate – Kurdistan Regional Government
- Collaborating Ministries: Health and Environment

**Programme/Project Cost (US\$)**

MPTF/JP Fund Contribution:	\$4,719,558
• <i>by Agency (if applicable)</i>	
	UNICEF \$3,858,919
	WHO \$ 860,638
Agency Contribution	
Government Contribution	US\$1,060,000
	US\$ 1,300,00
Other Contributions (donors) <i>(if applicable)</i>	
<b>TOTAL:</b>	<b>US\$ 7,079,558</b>

**Programme Duration (months)**

	15 Oct. 2008 – 31 Jul. 2011 (33 months)
Overall Duration ( <i>months</i> )	
Start Date <sup>3</sup> ( <i>dd.mm.yyyy</i> )	15 Oc. 2008
End Date	15 Oct. 2010
Revised End Date	31 Jul. 2011
Operational Closure Date <sup>4</sup>	31 Jul 2011
Expected Financial Closure Date	31 Jul 2012

**Final Programme/ Project Evaluation**

- Evaluation Completed  
 Yes  No Date: \_\_\_\_\_
- Evaluation Report - Attached  
 Yes  No

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

## **I. PURPOSE**

Sarchinar W/P is the oldest and most important source of water to the residents of Sulaymaniyah city providing water to nearly half the city during summer (the other half is provided by the Dokan Water Supply project) and is adequate for the needs of the whole city during winter. The Ministry of Municipalities (MoM)/ KRG submitted a proposal in June 2007 to UNICEF to enhance the efficiency of the Sarchinar W/P, which was producing just over one third of its capacity, leaving a number of areas under its command with less than two hours supply over 72 hours. Further, the areas served by the Sarchinar W/P suffer from considerable water losses due to age-old and dilapidated water distribution networks. The onset of diarrhoeal episodes and some cases of cholera, especially in the areas served by Sarchinar W/P in August/September 2007, point to the grave public health risks and the urgent need for rehabilitation work accompanied by hygiene awareness campaigns and improvements in water quality monitoring and surveillance. Similarly the peripheral areas where higher incidence of diarrheal/cholera cases have been reported between 2003-2007 are at an increased risk due to their reliance on unsafe water from shallow wells/ springs

### **The main outcomes of the projects are:**

1. Outcome-1: 400,000 inhabitants of Sulaymaniyah city have improved access to safe water.
2. Outcome-2: Residents in peripheral/ high risk areas Sulaymaniyah city are safeguarded against water borne disease out-breaks.
3. Outcome-3: Over 60 Government Authority staff have strengthened skills for improved operation and management of water facilities.

### **The targeted outputs are:**

1. Output 1.1: 400,000 inhabitants of Sulaymaniyah city have access to increased quantity and improved quality of water.
2. Output 1.2: Water quality laboratory established within the Sarchinar water project and operational.
3. Output 2.1: Water networks in the high risk areas rehabilitated/ replaced.
4. Output 2.2: Awareness campaigns on hygiene and water handling practices conducted.
5. Output 3.1: Over 30 government staff trained on implementation, operation and management of water facilities.
6. Output 3.2: Over 30 government staff trained in water quality monitoring and surveillance.

*The Programme relates to the Strategic (UN) Planning Framework as the following*

The project is in line with the 2008-2010 UN Assistance Strategy for Iraq contributing to the overall targets of reducing morbidity and mortality. Specifically the project addresses Sector Outcomes 1, 2 and 3 of the Watsan Sector Outcome Team and conforms to Goal 4.4.1.5 of the International Compact with Iraq<sup>5</sup>. It responds to the attainment of the Iraqi National Development Strategy (NDS) goals and target 7C of the MDG 7 – “to halve by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation”. The project indirectly

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<sup>5</sup> The International Compact with Iraq (ICI) is an initiative of the Government of Iraq for a new partnership with the International Community. Its main objective is to establish a framework for Iraq to realize its National Vision around the government’s political and economic program and to restore the Iraqi people’s trust in the state and its ability to protect them and meet their basic needs.

contributes to the realization of MDG goals 1, 2, 3, 4, and 5 related to poverty reduction, universal primary education, gender equality and women empowerment, child mortality and maternal mortality respectively. By improving access to safe water, the project addresses the rights of women and children as enshrined in CEDAW and CRC.

The program also contributes to the Iraqi National Development Plan (2010-2014) and addresses improved access to safe water in Sulaymaniyah city and Sarchinar district.

*The primary implementing partners and stakeholders including key beneficiaries*

Main partners in this program include the Ministry of Municipalities and Tourism (MMT/KRG, GDWS and SWD in addition to MoE and DoE were the main partners in this program.

## II. ASSESSMENT OF PROGRAMME/ PROJECT RESULTS

- a. The key outputs achieved and how variance in achieved versus planned results.

Output 1.1.1: Sarchinar water source protected based on sanitary survey.

The sanitary inspection for Sarchinar water facility is 100% completed and helped identify gaps within the water facility, and based on the inspection outcome, the chlorination system has been improved in terms of storage, operation and maintenance. In addition to that, the water is tested four times daily before being pumped to the end users to ensure its compliance with Iraqi Drinking Water Standards, which was not happening before the intervention.

Output 1.1.2: Sarchinar Water Project upgraded through priority civil, mechanical and electrical repairs including provision of equipment.

The construction of a chlorine hall was finalized; this work contributed to the increased access to improved water quality to 400,000 people in Sulaymaniyah city and Sarchinar district.



Construction of Chlorine hall



Construction of Chlorine hall

The physical rehabilitation of electro-mechanical work and upgrading the mechanical and electrical installations of Sarchinar water project were finalized based on the international pumping expert's recommendations. Necessary spare parts were procured and delivered to SWD.



Installation of variable speed pumps in Sarchinar water project



Construction of valve chamber for Sarchinar trunk pipes

Output 1.2: A water quality laboratory established within the Sarchinar water project and is operational.

100% of essential water quality laboratory equipment, laboratory supplies and laboratory reagents were procured and delivered to both SWD and Directorate of Health water quality laboratories. The equipment facilitated water quality testing for Sarchinar water facility before pumping it to consumers, and it will enhance the water quality monitoring at consumers level.

Output 2.1: Water networks in priority high risk areas rehabilitated/ replaced.

Rehabilitation/extension of the Bakhtiary quarter water network benefiting 40,000 people, and rehabilitation/extension of Sarchinar quarter water network benefiting 20,000 people were completed and contributed to the improved access to safe water.



Rehabilitation/Extension of Sarchinar quarter water network

Output 2.2: Awareness campaigns on hygiene and water handling practices conducted.

Four hygiene awareness campaigns were implemented in Sarchinar sub-district and targeted housewives, school children and community leaders> Around 15,000 people benefitted from the campaigns; the awareness tools include posters, leaflets, T-shirts, caps and hygiene kits.



School children distributing awareness material



School children receiving awareness information

Output 3.1: 29 Government authority staff trained in implementation, operation and management of water facilities.

29 Government engineers/technical staff from (Sulaymaniyah, Erbil and Dohuk) water directorates were trained on the operation and maintenance of diesel generators (July-August 2010). The training aimed to build the capacity of the technical staff on generator operation procedures and maintenance routines to ensure sustainability of power supply to the water project including Sarchinar Water treatment Plant (WTP). To improve technical staff capacity in planning and design of water and sewage networks and ensure the effective operation of the network. To improve the capacity of water and sewerage authorities to properly design water and sewerage network, 20 water and sewerage engineers were trained on the operation of WaterCAD and Sewage CAD softwares.

Output 3.2: Over 30 Government authority staff trained in water quality monitoring and surveillance.

During the reporting period, a five-day training of trainers course was conducted by WHO on chlorination techniques for 12 technicians from the SWD. The 12 trainers have previously conducted training for more than 500 operators and chlorine technicians in the three northern governorates (Sulaymaniyah, Erbil and Dohuk).



ToT for water quality laboratory technicians/ Sulaymaniyah

***b. Achieved outputs contributing to the achievement of the outcomes***

**UNICEF**

Although the project witnessed some delays in the overall implementation timeframe, it is anticipated that upon full completion all planned outcomes and outputs will be met through the joint funding by the KRG; while all UNICEF and WHO activities were completed; the rehabilitation work of Sarchinar water project implemented by SWD is under awarding process.

Rehabilitation/extension work of the Bakhtiary quarter water network and rehabilitation/extension work of Sarchinar quarter water network were completed. This work has contributed to increased access to improved water quality and quantity to around 60,000 people and reducing the risk of outbreak of water borne diseases. Construction of a chlorine hall in Sarchinar water project has contributed to reduction of the risk of outbreak of water borne diseases through the improvement of water quality in addition to reduction of chlorine gas leakages that pose hazard to residents living close to Sarchinar water project. While the rehabilitation of Sarchinar water project contributed to increased access to improved water quality and quantity upon the finalization of SWD implementation of phase two of the rehabilitation work.

## **WHO**

The sanitary inspection for Sarchinar water facility helped in identifying the gaps within the water facility, and based on the inspection outcome, the chlorination system has improved in terms of storage, operation and maintenance; in addition to that, the water is tested four times daily before pumped to the end users to ensure its compliance with Iraqi Drinking Water Standards; which never happened before the intervention.

In order to enhance the water quality monitoring and ensure the proper disinfection for drinking water through chlorination, WHO in coordination with SWD established a water quality control laboratory at Sarchinar Water Facilities, the laboratory supplied with essential water quality testing equipment, and the laboratory technicians have been trained on water quality monitoring and analysis. The establishment of the water quality laboratory assessed the SWD to test the water quality before supplying to the end users; also it will help SWD in ensuring that the water quality is in compliance with Iraqi Drinking Water Standards and WHO Guidelines.

In terms of capacity building, the TOT which was conducted for 12 laboratory technicians from SWD had positive impact on the performance of the staff by exposing them to the up-to-date technology and procedures in water quality testing and monitoring. The trained technicians were able to conduct 20 on job trainings for 500 water technicians.

The awareness campaigns helped in enhancement the knowledge of Sarchinar community particularly the housewives and school children through the distribution of posters, leaflets, T-shirts, caps and hygiene kits on the importance of water, water conservation and hygiene awareness; which consequently will have impact on the health of the community through the decrease of the incidence of water borne diseases.

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

Through increasing access to adequate quantity and improved quality of drinking for 400,000 people (half of them are children) of Sulaymaniyah city; the project is addressing target 7C of the MDG-7 – “to halve by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation”. Additionally, the project is in line with the 2008-2010 UN Assistance Strategy for Iraq contributing to the overall targets of reducing morbidity and mortality. Specifically the project addresses Sector Outcomes 1, 2 and 3 of the Watsan Sector Outcome Team and conforms to Goal 4.4.1.5 of the International Compact with Iraq. It also responds to the attainment of NDS goals. The program is also contributes to the Iraqi National Development Plan (2010-2014) and addresses improved access to safe water in Sulaymaniyah city and Sarchinar district.

The project indirectly contributes to the realization of MDG goals -1, 2, 3, 4, and 5 related to poverty reduction, universal primary education, gender equality and women empowerment, child mortality and maternal mortality respectively. By improving access to safe water, the project

addresses the rights of women and children as enshrined in CEDAW and CRC.

- d. The contribution of key partnerships and collaborations, and how such relationships had an impact on the achievement of results.

MMT/KRG, GDWS and SWD in addition to MoE and DoE were the main partners in this program; the governmental counterpart worked closely with UNICEF and WHO to ensure smooth implementation of project activities. Also the financial contribution of MMT/KRG to this project contributed to reduction of risk of outbreak of water-borne diseases in the targeted areas. Additionally, continuous sharing of information ensures streamlining of activities and conformity with the program outcomes.

The historical and well-built partnership between UNICEF and Iraqi water authorities' contributed to the achievement of project results.

- e. The primary beneficiaries and their engagement in the programme/ project implementation.

The primary beneficiaries are residents of Sulaymaniyah city. Around 400,000 people benefitted the rehabilitation of Sarchinar water project and the construction of a chlorine hall. Of these beneficiaries 60,000 directly benefitted from the rehabilitation of the Bakhtyary (40,000 people) and Sarchinar (20,000 people) quarters water network.

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

In general, the project impacts many cross-cutting issues. In terms of the environment, the project is targeting the protection of Sarchinar water resource from pollution through sanitary inspection and source protection. As a result, it has a positive impact on the environment and conservation efforts through sustainable water systems. In terms of gender, the project benefiting all water consumers (men, women and children) by ensuring greater access to water resources for all community members thereby countering discriminative practices against women and children for access to water. With regards to capacity building there was a conscious gender balance and the training conducted by WHO/UNICEF included around 40% female participants. In relation to human rights, one of the primary goals of WHO and its Member States is that "all people, whatever their stage of development and their social and economic conditions, have the right to have access to an adequate supply of safe drinking water". In terms of employment creation, the rehabilitation works and local procurement and transport of goods create job opportunities. In terms of public participation, the hygiene campaign was based purely on public participation and targeted school children, housewives and community leaders.

- g. MPTF Funding and other resources.

This project succeeded to involve Kurdistan Government in the co-funding process. At the beginning of the project GDWS allocated US\$1.06 million in the rehabilitation of the water network. Additionally, during the course of implementation Kurdistan Government allocated an additional US\$1.2 million for the optimization of Sarchinar water project. This is the first governmental co-funding experience with UNICEF and it proved that collective resources and expertise of UN and the government have added value towards better life for children and women.

### **III. EVALUATION & LESSONS LEARNED**

To ensure the operation of Sarchinar water project to its full capacity, UNICEF supported Sulaymaniyah water directorate to recruit an international pumping expert. The expert conducted a

detailed assessment of the project and provided designs and Bill of Quantities to rehabilitate Sarchinar water project and recommended equipment and an essential spare parts list. Based on the recommendation of the international pumping expert, UNICEF implemented the rehabilitation work of Sarchinar water project and procured the spare parts. Additionally, KRG will implement the remaining rehabilitation work of Sarchinar water project based on the international pumping expert recommendation.

WHO has supported both WSD and Ministry of Environment in conducting a sanitary inspection survey for Sarchinar Water Facilities and an Environmental Health Survey for Schools at Sulaymaniyah City. The sanitary inspection survey assessed in detail the existing situation of the components of Sarchinar Water Facilities and identify the gaps for the improvement, based on the recommendations all the gaps identified have been implemented.

### Challenges of Implementation

Lack of data for Sarchinar water networks delayed the project implementation and the absence of original drawings, flow meters and pressure metres resulted in delays in identification of the scope of work for the international pumping expert. This further delayed the implementation of a chlorine hall where a trunk pipe was found in the location identified for construction of the chlorine hall leading to a complete redesign of the hall.

Upon obtaining necessary information, UNICEF issued request for proposals for the International Pumping Expert, however, only one company responded to the tender. According to UNICEF internal rules and regulations, a contract could not be awarded based on the single offer. UNICEF did not carry out a second bidding and envisaged difficulties in identifying a suitable expert due to a lack of local expertise and unwillingness of international companies/experts to work in Iraq due to security conditions. Accordingly, it was agreed that the General Directorate for Water and Sewerage and Sulaymaniyah Water Directorate will carry out tendering according to their rules and regulations. Sulaymaniyah Water Directorate issued a request for proposals and four companies responded. The bidding documents were reviewed by UNICEF and mutually agreed with the General Directorate for Water and Sewerage and Sulaymaniyah Water Directorate on the selected bidder according to the pre-determined selection criteria. The expert commenced the data collection, assessment and analysis work on 1 May 2010 and provided the first draft of the recommended rehabilitation work based on amended design of the project and recommended spare parts list by end July 2010.

Commencement of rehabilitation of Sarchinar water project was delayed due to further clarification required by the contractor on specifications of spare parts. Since rehabilitation of Sarchinar water project includes provision and installation of motors and valves, additional delays in implementing the rehabilitation of Sarchinar water project took place due to the non-availability of valves in the manufacturer stock; three months was required to manufacture the valves.

### Lessons Learned

Involvement of the government counterpart in the project from the planning stage will increase national level ownership. This has resulted in using ITF funds as seed funding to leverage equal resources from the KRG. Additionally, involving the governmental counterparts in the monitoring, at the general directorate level and at the implementation level, support fast decision making and facilitated the implementation of the project.

#### 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>Outcome 1: 400,000 inhabitants of Sulaymaniyah city have improved access to safe water.</b>							
<b>Output 1.1:</b> 400,000 inhabitants of Sulaymaniyah city have access to increased quantity and improved quality of water.	Indicator 1.1.1	# of sanitary inspection conducted B: 0	# of sanitary inspection conducted T: 1	1	0	Sanitary inspection Survey report	Actions for improvement were implemented based on survey recommendations
	Indicator 1.1.2	Current operational capacity is 78,000 m3/day	Operational capacity upgraded to 216,000 m3/day capacity  Spare parts provided to sarchinar water project	0	The targeted indicator will be achieved upon completion of SWD phase two of the rehabilitation work of Sarchinar water project  Necessary spare parts provided to Sarchinar water project		Phase two of the rehabilitation work of Sarchinar water project is currently under awarding process by SWD
<b>Output 1.2:</b> Water quality laboratory established within the Sarchinar water project and operational.	Indicator 1.2.1	No any equipment for water quality	Essential equipment available for water quality testing	Yes	No variance	Receiving reports from SWD and WHO monitoring report.	Equipment are in use for water quality testing
	Indicator 1.2.2	B: 0	T: 1	Yes	No variance	SWD & WHO Reports	Water quality control laboratory established well equipped and function.
<b>Outcome 2: Residents in peripheral/ high risk areas Sulaymaniyah city are safeguarded against water borne disease out-breaks.</b>							
<b>Output 2.1:</b> Water networks in the high risk areas rehabilitated/ replaced.	Indicator 2.1.1	N/A	Water networks in two priority high risk areas	Two water networks in two areas were implemented	No variances	UNICEF field progress assessment/ monitoring reports;	

	<b>Performance Indicators</b>	<b>Indicator Baselines</b>	<b>Planned Indicator Targets</b>	<b>Achieved Indicator Targets</b>	<b>Reasons for Variance (if any)</b>	<b>Source of Verification</b>	<b>Comments (if any)</b>
			rehabilitated/ replaced.			BoQ/ Contract for civil works; Government records; Water project records	
<b>Output 2.2:</b> Awareness campaigns on hygiene and water handling practices conducted.	Indicator 2.2.1	B: 0	T: 4	4 hygiene awareness implemented	No variance	DOEnv & WHO Progress Reports	
	Indicator 2.2.2	B: 0	T: 3000 Families	3500 families	Expanded the awareness capmaigns	DOEnv & WHO Progress Reports	
<b>Outcome 3: Over 60 Government Authority staff have strengthened skills for improved operation and management of water facilities.</b>							
<b>Output 3.1:</b> Over 30 government staff trained on implementation, operation and management of water facilities.	Indicator 3.1.1	0	30	49 staff trained		Progress reports Attendance of Training	29 staff trained on O&M of Generators a second training and 20 engineers trained on WaterCAD & SewerCAD
<b>Output 3.2:</b> Over 30 government staff trained in water quality monitoring and surveillance	Indicator 3.2.1	B: 0	T: 30	512 technicians trained	WHO put more resources for training additional chlorine operators based on the need and request from Ministry of Municipalities	SWD & WHO Technical and progress reports.	