



**2009 Annual (Tenth) Progress Report on Activities Implemented
Under the United Nations Development Group Iraq Trust Fund
(UNDG ITF) of the International Reconstruction Fund Facility for
Iraq (IRFFI)**

Water and Sanitation Sector Report

Multi-Donor Trust Fund Office
Bureau of Management
United Nations Development Programme
mdtf.undp.org

1.1 Water and Sanitation

1.1.1 Sector Outcomes and Outputs

Water and Sanitation	
Outcome 1	<i>Sustainable access to safe water for urban and rural populations increased</i>
Output 1.1	Targeted populations have improved access to water supplies
Output 1.2	Institutional capacities enhanced to control and monitor water quality
Outcome 2	<i>Sustainable access to improved sanitation for urban and rural populations increased</i>
Output 2.1	Targeted populations are provided with improved sewerage treatment facilities
Output 2.2	Targeted populations are provided with improved garbage collection and disposal facilities
Output 2.3	Communities in targeted areas are better informed on hygiene related issues
Outcome 3	<i>Government of Iraq is able to manage water and sanitation sector in an effective manner</i>
Output 3.1	National policies, national laws and master plans for water and sanitation sector reviewed, updated or developed in line with Human Rights Based Approach (HRBA)
Output 3.2	Capacities at national and governorate level for planning, implementation, monitoring and evaluation enhanced
Output 3.3	Cost sharing mechanism for rehabilitation of water and sanitation infrastructure activated
Outcome 4	<i>Availability of safe water, personal hygiene and a sanitary environment to the most vulnerable population ensured</i>
Output 4.1	Targeted population groups are provided with improved access to safe drinking water and sanitation services
Output 4.2	Vulnerable population groups are better aware of personal hygiene practices in targeted areas
Output 4.3	Capacity to immediately respond to the needs of internally displaced persons (IDP) and vulnerable population groups maintained
Output 4.4	Improved local capacity to undertake early recovery initiatives

1.1.2 Operating Context During Reporting Period

During the reporting period, the security situation in Iraq remained relatively calm; the number of casualties has declined significantly, although civilian casualties continue to be disproportionately high. There were almost no security incidents reported in the autonomous Kurdistan region, but other governorates continued to exhibit relatively high security-incident levels. Almost 2,000 persons died in conflict-related violence during the first seven months of 2009. These figures do not capture suffering or indirect loss of life resulting from the impact of conflict, particularly related to the collapse of basic services.¹ On the other hand, there was no humanitarian crisis recognized by the UN in Iraq during 2009, although humanitarian needs remained unmet in numerous pockets of vulnerability located in geographically defined areas.

¹ Norwegian Refugee Council (NRC), 'Research to Improve the Effectiveness of INGO Activities and Future Humanitarian Coordination in Iraq,' Oslo, August 2009

The depletion of the 2009 fiscal budget due to the drop in oil prices had a negative impact on the social welfare of the population and on the Iraqi labor market. Consequently, opportunities for job creation were limited. The public sector provided almost 60 percent of all full-time employment along with relatively high salaries; as a result, the public sector consumed over one-third of planned government expenditures for 2009.²

Due to a recent decrease in transboundary waters from neighbouring countries, Iraq is becoming a vulnerable downstream water-stress country with threatened security of its water and food. Statistics from the Ministry of Water Resources (MoWR) indicate that surface water resources are expected to further decline in the coming years. Iraq's primary water sources, the Tigris and Euphrates rivers, have fallen by more than two-thirds in the summer months. This drastic decline will impose additional strain on ground water storage—already widely overused and mismanaged after the acute drought that swept Iraq during 2008 and 2009.

As a result, threats to health and displacement among vulnerable communities have increased. This is in addition to the loss of livelihoods due to scarcity of drinking water in all governorates and salinity in the southern governorates, particularly in Basrah, where 98 percent of the population relies on reverse osmosis units. The deterioration in water quality in general has caused a significant loss of important habitats for many species, jeopardizing biodiversity, especially in the Marshland areas in southern Iraq.

Other underlying issues are the absence of integrated water resource management, lack of institutional governance, and data gaps at all levels in the water and sanitation sector. According to the Central Organization for Statistics and Information Technology (COSIT), significant disparities exist between urban and rural regions in the availability of safe drinking water, with a rate of 97 percent delivered to cities and urban areas while rural areas get only 51 percent.³

From a water quality perspective, the average rates of water samples contaminated by coliform bacteria fell to a range of 14–16 percent in all governorates associated with a high number of diarrhea cases especially in under-served and rural areas. Typhoid fever, hepatitis A, and kala-azar (leishmaniasis) have been reported at high prevalence rates during the first seven months of 2009, although cholera remained under control.⁴

In contrast, sanitation services have witnessed some improvement during 2009. This is due to the efforts of the Directorates of Sewerage in many governorates to improve sewerage systems by investing approximately 255 billion ID (equivalent to US\$218 million) of the annual budget in new sanitation projects.

Baghdad Mayorality is facing a major problem in dealing with more than 1.2 million cubic meters of raw sewerage dumped into the Tigris River. The Mayorality has so far started three large-scale projects that will reduce the disposal of untreated sewerage by 90 percent within two years.⁵

² UN Inter-Agency Information and Analysis Unit (IAU), 'Iraq Labour Force Analysis 2003–2008,' January 2009

³ World Bank/COSIT, 'Iraq Household Socio-Economic Survey (IHSES),' 2007

⁴ World Health Organization (WHO)/Ministry of Health Iraq, 'Daily Situation Report,' Sitrep No.111, October 2008

⁵ UN Children's Fund (UNICEF), Weekly Local Media Report

In November 2009, over 3,000 persons (500 families) across ten locations in Erbil and Dohuk governorates were affected by flash flooding following heavy rains and winds. UN agencies and nongovernmental organizations (NGOs) responded promptly to assess and provide the required urgent support to the most affected areas in addition to the response from the governorate authorities. However, there are still some outstanding needs to be responded to, including major repairs to water networks, treatment plants and household latrines.⁶

In June 2009, the Government of Iraq and UN Agencies concluded a workshop that reviewed the UN's contribution to national priorities. They initially agreed on the alignment of future UN programming to Iraq's National Development Plan (NDP) for 2010–2014. The Water and Sanitation Sector Outcome Team (SOT) reviewed the NDP and recommended the following to be included in it: public awareness on water conservation and efficient use of water for drinking, irrigation and domestic purposes; capacity building; and cross-cutting issues (gender, human rights and environment).

The UN Assistance Mission for Iraq (UNAMI) and UN Country Team (UNCT) held two familiarization UN Development Assistance Framework (UNDAF) workshops in Baghdad and Amman in June 2009 with key government counterparts. In line with the national development priorities stipulated in the Iraq NDP, five development priority areas were identified based on the Millennium Development Goals (MDGs) and the key development issues identified by the Common Country Assessment (CCA) for Iraq.

1.1.3 Implementation Constraints and Challenges

Budget reductions and lack of infrastructure and maintenance

The Ministry of Municipalities and Public Works (MoMPW) declared that 2009 budget reductions in the water and sanitation sector had a severe impact on the Ministry's plans to complete ongoing and new projects. Also, inadequate maintenance of many water and sanitation facilities has reduced operational capacity, resulting in intermittent municipal services. This has required considerable investment from the annual budget to revive the situation.

Many villages in rural areas rely on tankered water and need to be connected to the water supply system. Additionally, the Water and Sanitation SOT decided to limit water trucking interventions during 2009 to emergency needs only while looking for sustainable solutions to secure long-term access to safe water for vulnerable communities. Similarly, there is an urgent need to connect households to wastewater networks. In some governorates approximately 60 percent of households are served by septic tanks, rising to over 85 percent in others including Anbar, Diala and Kirkuk.⁷

Garbage collection remained a municipal hazard, with only 45 percent of solid waste collected, and 60 percent of collected waste dumped into open land or rivers. Only 30 percent of households in nine central and southern governorates receive garbage collection services.

Increased urbanization, partly as a result of conflict and population displacement, has put additional stress on water and sanitation services.

⁶ UN Office for the Coordination of Humanitarian Affairs (OCHA) Iraq, 'Flooding Situation Report,' November 2009

⁷ Common Country Assessment/UN Development Assistance Framework (CCA/UNDAF), Pre-analysis background papers, June 2009

Lack of integrated water management strategy combined with drought

The absence of water-sharing agreements with riparian countries and the absence of an integrated water resources management strategy in Iraq have an enduring adverse impact on overall water availability. Although Iraq experienced economic development and sustained population growth in 2009, total renewable water resources per capita fell by nearly 8 percent, a number that will no doubt accelerate in upcoming years. Operation of water intake stations has been affected by declining levels in rivers and tributaries due to low precipitation and successive drought cycles.

There is an imperative need for water demand management by means of water leakage control, distribution of household metering, and applying the water tariff system.

Contamination and hygiene practices

Frequent shortages in the power supply hamper proper functioning of water and sewerage facilities, resulting in contamination of drinking water and contributing to an increase in waterborne diseases. Access to water and sanitation services alone will not reduce incidence of diarrhoea, however, unless proper hygiene practices are promoted simultaneously. Inappropriate disposal of solid waste poses grave public health risks and environmental concerns, especially through contamination of the water table, vector-borne diseases, odor nuisance, and the spread of flies and insects.

1.1.4 Coverage/Counterparts

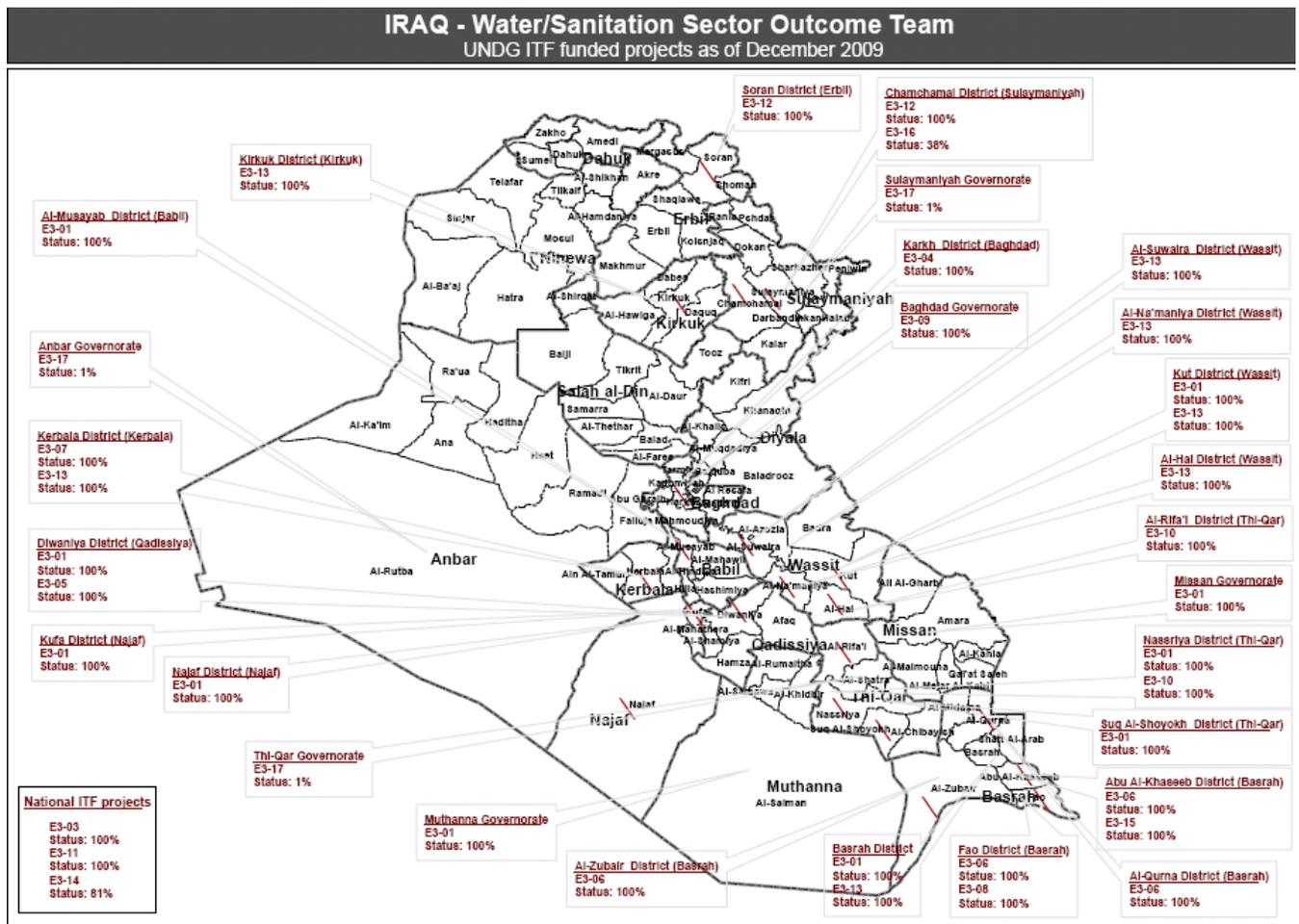
Key partners and recipients of support in the water and sanitation sector include the MoMPW, Mayoralty of Baghdad and the Ministry of Municipality (Kurdistan Regional Government) with their relevant departments (Directorates of Water, Directorates of Sewerage, Department of Solid Waste Management under the Municipalities, and quality control laboratories including the central laboratory of the Ministry of Environment).

Other key partners/recipients are the communities in the project area, including internally displaced persons (IDPs), and vulnerable groups suffering from lack of safe water, especially those living in remote villages and others with acute shortages in municipal services. Local contractors are represented as implementing partners; local skilled and unskilled laborers benefited from employment opportunities through the sector projects.

Ten water and sanitation projects were implemented during the reporting period of which seven have been completed: three in Basrah; one each in Erbil, Sulaymaniyah and Karbala governorates; and one nationwide.

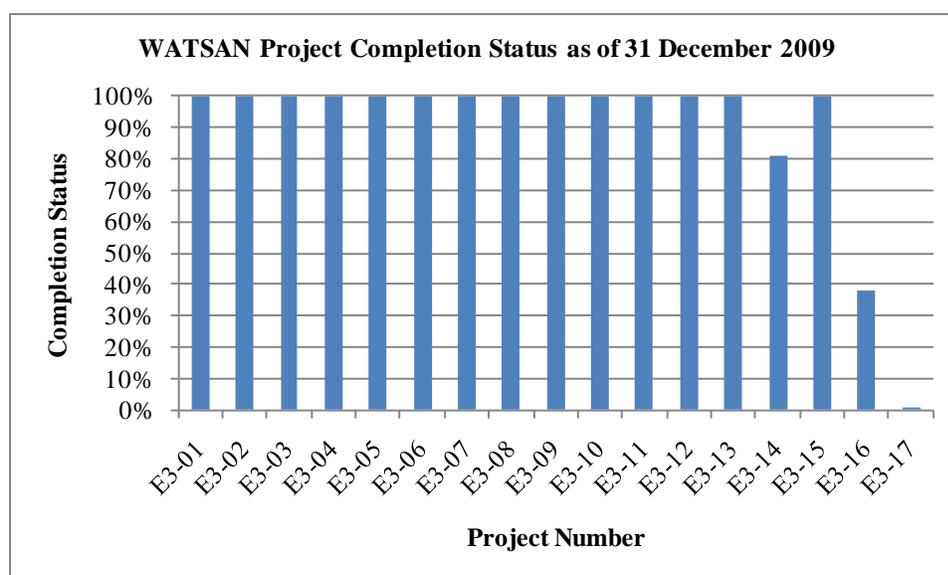
The WatSan SOT has three ongoing projects: one nationwide and two covering Anbar, Thi-Qar and Sulaymaniyah governorates. One project started in December 2009 and hence has a low implementation rate.

Figure Error! No text of specified style in document.–1 District Level Map for Water and Sanitation Sector



1.1.5 Results

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1.1.6 Narrative Explanatory Summary of Results

Seven projects out of ten (E3-08, E3-11, E3-12a, E3-12b, E3-13a, E3-13c, and E3-15) were completed during the reporting period, two others progressed moderately and a new project started in December 2009. Eight projects had requested extensions.

In general, the completed activities of all projects can be summarized as follows:

- Provided and installed two 50 M3/hr reverse osmosis (RO) plants with consumables, spare parts and chemicals, to Umm Qaser and Abu Al- Khaseeb cities in Basrah governorate benefiting 84,000 inhabitants (UNDP).
- Supplied one skip loader for garbage collection and 100 containers to Um Qaser (UNDP).
- Supplied two water delivery trucks and one sewerage tanker with spare parts to Abu al-Khaseeb (UNDP).
- Cleaned storm water drainage network and replaced 15 km water distribution network for Umm Qaser City (UNDP).
- Provided consultancy services for a detailed analysis of the water and sanitation systems for Umm Qaser City (UNDP).
- Developed and established software for the LIMS at 41 central and governorate laboratories for MoMPW, MoB and Ministry of the Environment (MoEnv).
- Constructed a laboratory for the General Directorate of Sewerage in Baghdad (UNICEF).
- Produced two consulting reports on a solid waste management master plan, regulations, policies and laws (UN-HABITAT).
- Created a draft plan on capacity development and institutional strengthening for MoMPW (UN-HABITAT).
- Constructed a repair and maintenance workshop for solid waste collection vehicles in Basrah (UN-HABITAT).

- Developed a draft solid waste management master plan for Basrah governorate (UNICEF).
- Performed a survey and soil investigation for the landfill site in Basrah (UNICEF).
- Laid 11 km and 5 km of pipelines in Sidakan and Rawanduz towns, respectively, and built a compound wall around Sidakan water source to protect it from possible pollution, benefiting over 30,000 inhabitants (UNOPS).
- Laid 30 km of pipelines from the reservoir in Takiya town in Sulaimaniya, benefiting 25,000 inhabitants (UNOPS).
- Rehabilitated sewerage system in Basrah City, benefiting approximately 35,000 inhabitants (UNICEF).
- Rehabilitated sewer networks to increase collection and disposal of sewerage for 50,000 inhabitants in Karbala City (UNICEF).

The following training activities were conducted during the reporting period:

- On-site training of staff and local workers in Umm Qaser and Abu Al Khaseeb on RO operation and maintenance.
- Training of 80 technical staff from MoMPW, MoEnv and MoB on LIMS.
- MoMPW staff from 15 governorates attended two training courses in Egypt on integrated solid waste management and hazardous waste management.
- Five training courses, including one training of trainers (ToT), were conducted in Erbil on solid waste management including.
- More than 30 government staff were trained in water quality monitoring and surveillance.
- A five-day ToT course on chlorination techniques was conducted by the World Health Organization for 12 technicians from the DoWS in Sulaimaniya.
- 15 government staff from MoMPW participated in international conferences and development of master plans.
- 14 government technical staff were trained on planning and design of water and sewerage networks using WaterCAD and SewerCAD software.
- 27 technical staff from Marshland districts (Thi-Qar, Missan and Basrah) received training on operation and maintenance of water networks and water treatment units.
- 97 government staff from MoMPW, MoB, Ministry of Municipalities (KRG) and MoEnv participated in technical meetings and training programmes in management, planning, design and evaluation of solid waste management, dumpsite closure and landfill operations, waste MIS, drought and hygiene education.
- Training on MIS/GIS was held for 23 participants from Thi-Qar governorate.

1.1.7 Other SOT Major Activities and Implementing Partners

The sector objectives in general remained the same—to respond to prevailing needs on the ground, which are directly influencing environmental and health conditions and the welfare of the populations.

Emergency water and sanitation interventions by UNICEF in 2009 provided around 477,000 people across 15 governorates of Iraq with increased access to safe water and improved sanitation services through the following activities, which collectively contributed to Outcomes 1, 2 and 4:

- 140,000 people in five residential areas and five hospitals in Baghdad city, as well as 2,500 IDPs in Anbar governorate, were served with about 127.4 million liters of potable water by trucking.

- Water network repair/extension projects were implemented in Anbar (24,500 beneficiaries) and Qadissiyah (31,370 beneficiaries) governorates; repairs and extension of rural water networks benefited 48,346 villagers in Erbil, Kirkuk and Karbala governorates.
- Water treatment plants were rehabilitated in cholera-prone areas in Babil (63,000 people), Wassit (18,500 people) and Karbala (44,000 people) governorates.
- Humanitarian assistance was provided to 80,000 inhabitants in cholera-prone areas: distribution of family water kits, hygiene supplies, water purification tablets and community/household water tanks.
- Sewerage networks were rehabilitated in Anbar governorate (5,000 beneficiaries).
- Garbage collection services were improved in Anbar (4,200 beneficiaries), Babil (25,000 beneficiaries) and Missan (4,000 beneficiaries).
- Rehabilitation of water and sewerage systems in schools combined with hygiene awareness campaigns in Baghdad, Babil and Anbar benefited 2,842 students and 23,000 community members.
- Hygiene awareness campaigns on prevention of water-borne diseases were conducted in Suleimaniyah, Karbala, Basrah, Muthanna, Babil, Qadissiyah and Thi-Qar (37,550 beneficiaries).
- Cholera prevention and control measures were intensified by strengthening surveillance and monitoring systems across the country and enhancing the capacity of Water Quality Control Laboratories to undertake wide-range bacteriological analysis.
- Support was given to MoMPW in assessing impact of drought in northern and central Iraq.

Water and sanitation activities took place in all governorates including the installation or rehabilitation of 41 water treatment units (compact and reverse osmosis), repair and extension of 54 networks of various lengths, rehabilitation or construction of 15 pumping stations associated with drilling of wells, installation of 44 community storage tanks, cleaning and repair of sewerage lines, facilitating garbage collection and disposal, and repair of latrines in schools. These activities were implemented by international NGOs (International Medical Corps, Mercy Corps, Relief International, INTERSOS, Peace Wing Japan, Qandil, Norwegian Church Aid, Premier Urgence, and Agency for Technical Cooperation and Development [ACTED]) in partnership with UNICEF, International Organization for Migration (IOM), UN Office for the Coordination of Humanitarian Affairs (OCHA), and Office of the UN High Commissioner for Refugees (UNHCR).

Several local NGOs have participated in the implementation of water projects under the Extended Response Fund (ERF) managed by OCHA.

Other emergency response activities included distribution of ceramic filters, household RO units, storage tanks of 500 liter capacity, and household pumps and hygiene kits, in addition to trucking water to villages in 15 governorates.

