



# UNITED NATIONS JOINT PROGRAMME DOCUMENT

## Response to Basra water crisis-Iraq

Country: Iraq

Programme Title: Providing safe drinking water to Basra’s population-Iraq

Joint Programme Outcome: By 2024, as many as 960,000 Basra residents have improved and sustainable access to safe water

UNSDCF - Strategic Priority #4: Promoting Natural Resource and Disaster Risk Management, and Climate Change Resilience\_

Programme Duration: 30 months

Total estimated budget: \$6,741,574

Anticipated start/end dates:

Nov 2020 - Nov 2023

Fund Management Options(s):

Pass-through

Managing or Administrative Agent: UNICEF

Sources of funded budget:

- Donor: Netherlands

### Names and signatures of (sub) national counterparts and participating UN organizations

UN organizations	National coordinating bodies
<p>Hamida Ramadhani Signature </p> <p>Name of Organization: UNICEF </p> <p>Date &amp; Seal</p>	<p>Yilmaz Al Najjar Signature</p> <p>Authority: Ministry of Construction, Housing and Public Municipalities</p> <p>Date &amp; Seal</p>
<p>Zena Ali Ahmad Signature </p> <p>Name of Organization: UNDP</p> <p>Date &amp; Seal</p>	

# UNITED NATIONS JOINT PROGRAMME DOCUMENT

## Response to Basra water Crisis-Iraq

Table of Contents	
Title	Page
Table of Contents	1
1. Executive Summary	1
2. Situation analysis	2
2.1 Water Scarcity in Basra	3
2.2 Responses to water scarcity in Basra	4
3. Strategies including lessons learned and the proposed joint programme	5
3.1 Project objective	5
3.2 Interventions Details	6
4. Results framework	9
5. Management and coordination arrangements	10
5.1 Joint Programme coordination	10
5.1.1 Joint Steering Committee	10
5.2 Joint Programme Management at Component Level	11
5.3 Technical Coordination and Convening Agent	12
5.4 Capability and capacity of partners	12
6. Fund Management	14
7. Monitoring, Evaluation and Reporting	15
7.1 Reporting	16
8. Legal context or basis of relationship	17
9. Work plan	18
10. Budget	19
Appendixes:	24
List of Table	
Title	Page
Table 1: Results framework	9
Table 2: Basis of relationship	17
Table 3: Work plan	18
Table 4: Budget	19

# UNITED NATIONS JOINT PROGRAMME DOCUMENT

## Response to Basra water Crisis-Iraq

### 1. Executive Summary

As Iraq is the lowest riparian country in the Tigris-Euphrates river basin and located in an arid region, it is considered one of the most vulnerable countries in the Arab region in relation to climate change.

The impacts of changing weather patterns have already made themselves felt in recent years and contributed to alarming water scarcity as well as severe droughts in 1998–2000, and again in 2007–2009. As a result of low rainfall and higher temperatures, levels of surface water in Iraq's reservoirs, lakes and rivers are diminished to critical levels, and poor management of groundwater has impacted the level and quality of groundwater supplies.

Almost all of Iraq's water revenues are trans boundary rivers. These rivers are stretched at the upper streams by extensive developments in Turkey, Iran and Syria. In Turkey alone, the Great Anatolia project might cause disruptive utilization of the Tigris river causing significant cuts in the water share for Iraq. On the other hand, Iran is utilizing the small river tributaries without coordination with Iraq and controlling pollutants which are being washed down into the urban centers of Southern Iraq. Hence storage projects in Turkey, Syria and Iran have resulted in the fall of discharge in the Tigris and Euphrates rivers, Iraq's primary sources of surface water, to less than a third of normal capacity and are expected to drop further in coming years. The two rivers have been unable to push back against the Arabian Gulf's sea water intrusion that is happening through the Shatt Al Arab waterway.

For decades, Iraq's water sector and infrastructure have not received the attention they deserve. Repairs have not kept pace with the demands of a growing population. Years of inappropriate farming practices and mismanagement of water resources have exacerbated the effects of an already dry climate and contributed to increasing rates of desertification and environmental degradation of farmland. Declining fertility, high soil salinity, erosion and the extension of sand dunes are pervasive problems.

The combination of its harsh geophysical conditions, water scarcity, increasing temperatures, and extreme weather events puts pressure on basic services, undermines livelihood security and triggers forced migration and internal displacement. Failure to monitor and manage these climate-related risks may increase the threats of extremist groups gaining support in the resource-constrained communities.

Conditions in southern Iraq are particularly acute. Drinking water shortages, agro-industrial pollution and high salinity in water sources have had devastating socio-economic impacts in health, sanitation, agriculture sectors.

The exacerbation of already diminishing discharge rates in the perennial rivers of Iraq is an alarming trend. The southern governorates including Basra witness regressing Marshlands and high salinization of the Shatt al-Arab and groundwater. Visible indicators of drought include a reduction in surface water flow within the Tigris and Euphrates rivers, lowering of groundwater levels, drying-up of open shallow surface wells, increasing water salinity and soil salinization, progressing desertification, decrease in agricultural production, growing frequency of dust storm conditions, and an associated increase in respiratory infections.

At least 12 of Iraq's 18 governorates experience periodic droughts, yet many lack satisfactory response plans, mitigation measures or adaptive strategies. A significant number of rural populations who rely on agriculture and livestock for income, have been forced to relocate to urban areas for livelihood opportunities and accessible water. In the southern governorates of Iraq, most of the small rivers and irrigation canals dried up in the 2018 summer. The country therefore has revised its agriculture production forecasts to 55% of the previous year. Moreover, because of the limited freshwater volume, the Ministry of Water Resources reduced the amount of water released from the key reservoirs of the country as a water conservation measurement.

# UNITED NATIONS JOINT PROGRAMME DOCUMENT

## Response to Basra water Crisis-Iraq

### 2. Situation Analysis

As a result of the water-saving strategy, the governments of southern governorates have lost the capacity to deliver safe freshwater to the population in those governorates. Basra province has been tagged as the most affected province in Iraq due to the water crisis.

Not only is there a shortage of water, but its quality remains problematic too, with massive mineralization, high concentrations of suspended solids, and high salinity. Minerals in the water often include carbonates, sulphate, chlorides, and in some location's nitrates. Much of Iraq's groundwater is brackish or saline. Salinity levels in recent years go beyond the capacity of existing desalinization systems to manage. As of 2019, a quarter of Iraqi water for industrial use and human consumption needs to be desalinated. In the last five years, the salinity of Iraq's water resources has steadily increased, reaching 7,000 to 10,000 parts per million milligrams per liter.

In addition to salinization, several governorates, including Basra, face high concentrations of total dissolved solids in the water. In some cases, levels far exceed the WHO acceptable range of 1,000 milligrams total dissolved solids per liter for drinking water.

90% of Basra's population has lost access to safe freshwater during the summer of 2018 because of Basra's geographical location within Iraq, as it is considered as the last point in the country reached by the Euphrates and Tigris rivers. During the period August and October 2018, 100,000 cases of water-related disease have been recorded in Basra.

Further exacerbating the situation is a lack of proper sanitation and hygiene facilities. According to WHO, 5.3 per cent of Iraqis lack access to sanitation. Health care facilities and schools often lack clean water, sanitation, and soap for handwashing, leading to infections. For instance, diarrhea is the second largest cause of death for Iraqi children under five years old. Increasing simple hygiene practices such as handwashing with soap could decrease the diarrheal incidence by almost half.

One of the reasons behind Iraq's weak water infrastructure is its complicated water management structure. The Ministry of Water Resources is responsible for the division of water resources between different governorates, based on their population and their industrial and agricultural needs. The existence of three parallel management systems operating under different standards complicates the water management:

- The Mayoralty of Baghdad is the service provider for Baghdad governorate.
- The Kurdistan Region Ministry of Municipalities & Tourism is the service provider for the three Kurdistan Region governorates.
- The Ministry of Housing & Construction is the service provider for the remaining 14 governorates and Baghdad Outskirts.

The Ministry of Health and Environment monitors the quality of services in all governorates. Meanwhile, the Ministry of Housing & Construction and the KR Ministry of Municipalities & Tourism are responsible for the operation of all water and sanitation facilities, solid waste collection and bill collection at governorate level through their respective directorates.

Unfortunately, the coordination between these actors is suboptimal or non-existent, the management system suffers from a lack of strategic direction and organizational inconsistencies. The absence of an overarching Water Law prevents legal guidance or formal coordination between different entities. The statutory regulations of the sector face obstacles such as unclear mandates, overlapping/lacking competencies, a lack of control mechanisms, vague legal formulation of responsibilities, and inadequate control and enforcement mechanisms.

# UNITED NATIONS JOINT PROGRAMME DOCUMENT

## Response to Basra water Crisis-Iraq

### 2.1 Water Scarcity in Basra

In Basra governorate, water facilities are in ill-repair. A significant part of Basra's water network was installed in the 1960s and 1970s and is not well-maintained. The water supply system has degraded to the extent that the rate of water leakage is estimated at 50 per cent. Illegal connections drain even more water from existing resources. As a result, the nine main water projects and 337 compact units present in the governorate fall short of covering the governorate's needs. In total, Basra receives approximately 550,000 m<sup>3</sup>/day for its population of 4.8 million people (half of which live in Basra city).

The water supply is also unreliable, as 80 per cent of Basra households only have access to water 10 hrs./day. And water is of poor quality, the 2018 Multiple Indicator Cluster Survey (MICS) highlighted that only 10.7 per cent of Basra Governorate's population had an improved drinking water source located on premises, free of E.coli and available when needed. As a result, 95% of households in Basra are dissatisfied with the water quality.

As Basra is located at the tail of Tigris and Euphrates rivers, it is the furthest governorate downstream to receive water from upstream riparian states. Basra Governorate receives its water from two primary water sources: the Shatt Al-Arab River and the Al-Bada'a canal, which originates in Thi Qar governorate. These sources provide water to 90 per cent of the public water treatment plants for Basra Governorate. However, the quantity and quality of Basra's water supply has steadily deteriorated in the last decades.

In the 1980s, raw water quality in the Shatt Al-Arab started deteriorating, and by 1997 water became unfit for human consumption. Hence, it was decided to construct the Al-Bada'a canal from the Al-Gharaph river in Thi Qar governorate to provide water to Basra, where the R-Zero water supply station was constructed.

Meanwhile, the construction of dams and projects inside Turkey, Iran and Syria impacted the water level of the Tigris and Euphrates rivers. For instance, the Euphrates, which used to bring in 16 billion m<sup>3</sup> to the marshlands and the Shatt Al-Arab, has dried up. Now, only the Tigris serves the Shatt Al-Arab.

To complicate matters further, these low water levels have contributed to increased salinity in the Shatt Al-Arab waterway, reducing freshwater availability. The flow rate at the border with Missan (the upstream governorate) should be more than 270,000 m<sup>3</sup>/h to push the saline water to the Gulf. This is not the case anymore. Saline water from the Arabian Gulf has replaced freshwater along 70 per cent of the Shatt Al-Arab River. Samples from the Shatt Al-Arab in Basra have presented a salinity of between 2,500 to 6,000 parts per million. In August 2018, the Directorate of Water even reported a salinity of 18,000 parts per million in north Basra. Up to October 2018, around 90% of Basra's population collected saline water instead of freshwater.

As a result of the lack of freshwater and the significant increase in salinity and pollution, nine water projects on the Shatt Al-Arab malfunctioned, and R-Zero is now the only functioning source of freshwater.

In September 2018, civil unrest in Basra over electricity curtailments and lack of drinkable water sparked weeks of violent demonstrations. The widespread unemployment experienced by the Basra residents was also an underlying factor, which got triggered by the water and electricity shortages. The water crisis forced rural populations to relocate to urban areas so that they could find livelihood opportunities in place of income earned from agriculture and livestock. In July 2019, 5,300 families had become internally displaced in southern governorates because of lack of access to safe water.

## UNITED NATIONS JOINT PROGRAMME DOCUMENT Response to Basra water Crisis-Iraq

The challenges in Southern Iraq including Basra, multiplied due to cuts in development funding by the federal government between 2014-2017, and diversion of resources to the fight against Islamic State of Iraq and Levant (ISIL). This led to halting of all development projects by the Basra governorate including in water and electricity sectors. The lack of funds led to problems in maintenance of the water infrastructure, as well as in other sectors. The Basra Governor's office estimated that due to closure of development projects in public sector between 200,000-300,000 people turned unemployed.

Federal funding for southern governorates was partially restored in the aftermath of 2018 violent protests in which dozens of youth were killed and injured. Although some development works have resumed since then, however, the governorate and its departments find it hard to meet the needs of wear and tear, and development of new infrastructure including in the water sector.

### 2.2 Responses to water scarcity in Basra

In July 2019, Directorate of Water Basra identified 42 priority projects in the water sector, which include rehabilitation of water plants, water supply network and or extension of the network to new localities. The Directorate of Water Basra is working on rehabilitation of these priority projects, however, due to lack of sufficient federal funding it is unable to carry on works on all projects.

In this context, different bilateral and multi-lateral partners have offered support to the Basra Water Directorate specifically and the governorate in general. United States (USAID), UK, and Japan (JICA) are the key players in the field so far.

Basra Water Supply Improvement Project II (JICA): The Project will provide water supply facilities, including a water treatment plant and a network to Basra and Al-Hartha. Please see annex for details. This project has no direct connection with R-Zero plant. Upon completion, the Project will cover approx. 65% of current demand of the Central Basra, so, the water resource allocation from R-Zero plant would be able to cover more quantity to the southern Basra.

Sea Water Desalination Plant: With loan from the UK government, a desalination plant on the sea in Faw district is being constructed. In the long term this project is expected to provide durable solution to water supply. This project is being implemented by a private company Bi-Water.

USAID has provided USD 5 million to rehabilitate seven water treatment plants in different parts of Basra governorate. The Project is being implemented by UNDP.

As is obvious from the review of ongoing interventions, the support by Japan and UK is focused on long-term solutions, including through water desalination. These interventions will take years to materialize. In the meanwhile, citizens of Basra governorate are facing regular water shortages due to the lack of maintenance of existing infrastructure and distribution network. Routine water shortage, coupled with other factors has triggered violent protests in the recent past, and it has the potential to pose similar threats in future. In this context, the support by United States and Netherlands is crucial to help restore capacities of the existing water supply network and extend it to especially most vulnerable communities. The support by Dutch government would contribute to address the priority projects identified by the Directorate of Water Basra in 2019.

# UNITED NATIONS JOINT PROGRAMME DOCUMENT

## Response to Basra water Crisis-Iraq

### 3. Strategies including lessons learned and the proposed joint programme

#### 3.1 Project objective

UNICEF and UNDP are already working with the Basra Directorates of Water Resources, Education, and Health & Environment, as well as relevant ministries, to improve the capacity of water facilities to provide safe and sustainable drinking water to deprived populations in Basra governorate.

The proposed project will contribute to the following goals, commitments and plans:

- Under the fourth pillar of the National Development Plan (NDP): “Reducing Multidimensional Poverty in the Provinces.”, it will address the following objectives of the NDP for water supply, environmental sustainability and poverty alleviation:
  - Provide drinking water according to international standards (Sectoral and Spatial Development: Water Resources).
  - Improve the quality of potable water (Sectoral and Spatial Development: Water Resources).
  - Ensure availability and sustainable management of water and sanitation services (Chapter 10: Environmental Sustainability).
  - Enhance the health situation (Objective 2: Chapter Poverty, Alleviation).
- Sustainable Development Goals indicator 1.4: “Ensure that by 2030 all men and women, particularly the poor and the vulnerable, have equal rights to economic resources, natural resources, as well as access to basic services”.
- Sustainable Development Goals indicator 6.1: “Achieve by 2030 universal and equitable access to safe and affordable drinking water for all”.
- United Nations Sustainable Development Cooperation Framework strategic priority 3: “Promoting Effective, Inclusive and Efficient Institutions and Services”.
- United Nations Sustainable Development Cooperation Framework strategic priority 4: “Promoting Natural Resource and Disaster Risk Management, and Climate Change Resilience”.
- UNICEF Strategy plan (2018-2021) and UNICEF Iraq Country Programme Document (2020-2024) WASH Outcome 2: “By 2024, more children and their families have improved access to sustainable, equitable and safely managed water, sanitation and hygiene services including in most vulnerable communities”

The project objective is to improve water and health security in Basra. The output is to ensure that by 2024, as many as 960,000 Basra residents have improved and sustainable access to safe water.

In order to accomplish this, the following interventions will take place:

1. Improve access to safe drinking water in 100 schools in deprived areas in south Basra by installing small-scale water desalination and disinfection units beside new water tanks and piping systems, benefiting 100,000 children (UNICEF).
2. Improve access to safe water by increasing the power supply for, and automating the operation of, the R-Zero project, benefiting 960,000 individuals (UNICEF).
3. Improve access to safe drinking water by rehabilitating existing non-functional plants and adding more plants to the water network, benefiting 50,000 individuals (UNDP).
4. Improve access to safe drinking water through the provision of specialized unaccounted-for-water equipment which will be used to reduce water leakage, benefiting 75,000 individuals (UNICEF).

# UNITED NATIONS JOINT PROGRAMME DOCUMENT

## Response to Basra water Crisis-Iraq

### 3.2 Interventions Details

**1. Improve access to safe drinking water in 100 schools in deprived areas in south Basra by installing small-scale water desalination and disinfection units beside new water tanks and piping systems, benefiting 100,000 children (UNICEF).**

In 2018, a survey conducted by the Ministry of Education and the Central Statistical Organisation demonstrated that of the 1068 primary schools in Basra, only 682 (64 per cent) had Water, Sanitation and Hygiene facilities, out of which 494 (72 per cent) were connected to the public sewage network and 396 (58 per cent) had access to public water, which is mostly not drinkable.

UNICEF will target communities in areas severely affected by water challenges. Through this intervention, 100 primary schools (with two or three shifts of 500 pupils each, leading to a conservative estimate of 100,000 pupils) in Abu Al Khaseeb, Shatt Al-Arab, Al Fao, Al Zubair districts will have improved access to safe water. Municipal water is available through the public network, but is not drinkable. The project will therefore include installation of saline water desalination units (with the capacity of 250 litres per hour) in each school alongside new pipes, storage tanks, bottle-filling taps and basins.

**2. Improve access to safe water by increasing the power supply for, and automating the operation of, the R-Zero project, benefiting 960,000 individuals (UNICEF).**

Due to the decline of freshwater revenues coming from the Tigris, R-Zero is perceived as the most significant water project operating in Basra. It is fed with fresh water through the Al-Bada'a canal. The R-Zero project has a 30,000 m<sup>3</sup>/h capacity (pumping 22,000 m<sup>3</sup>/h of raw water with low salinity to inner-city treatment plants and 8000 m<sup>3</sup>/h of treated water to Basra city and other districts). While the Government owns all water facilities, the Directorate of Water Basra is the service provider and is responsible for R-Zero's operation and maintenance.

At the time of the water crisis and subsequent demonstrations in 2018, R-Zero was in poor condition. Old pumps only worked at fifty per cent efficiency, and significant leakage occurred. R-Zero used to receive only 16,200 m<sup>3</sup>/h from Al-Bada'a, despite the latter's designed capacity of 75,600 m<sup>3</sup>/h. During the first weeks of the crisis, UNICEF installed six pumps and helped to rehabilitate broken mechanical parts. Other UN agencies, the private sector, and civil society organisations such as the Sistani Charity foundation helped to install new pumps and rehabilitate water treatment components as well. However, as a result of R-Zero's degraded power supply, it experienced multiple shutdowns during the summer of 2019, limiting Basra's water supply.

Currently, the Government and its partners focus all efforts on restoring R-Zero's capacity. The head of the treatment plant has set priorities and is coordinating with all interested actors to avoid any duplication. In line with these priorities, UNICEF has already established an action plan to rehabilitate water treatment plants inside the R-Zero project, carried out through other donations, providing an additional output of 2,400 m<sup>3</sup>/h. Despite these ongoing interventions, more work is needed. The proposed interventions in this plan will therefore complement these works by improving R-Zero's control technology.

The control technology of R-Zero presents a continued source of the challenges facing the project. It was already of poor quality at the time of its construction in 1997, and impedes the optimization of the process operation.

## UNITED NATIONS JOINT PROGRAMME DOCUMENT

### Response to Basra water Crisis-Iraq

Due to the lack of flow meters, overproduction beyond design capacity occurs frequently. To sustain the optimum operation of R-Zero and reduce the risk of a shutdown, UNICEF will implement the following:

- Rehabilitation of the 11 kilo-volt-ampere power transformer station, replacing damaged sectors/panels.
- Design and installation of a new supervisory control and data acquisition system, including a full set of flow and pressure meters, control room, and computers, including training on operation for site staff. This will facilitate monitoring, reducing the number of operators needed.

### **3. Improve access to safe drinking water in Basra by rehabilitating existing non-functional plants and adding more plants to the water network, benefiting 50,000 individuals (UNDP).**

To provide safe drinking water to residents, the Directorate of Water Basra maintains a relatively large network of water treatment plants with varying capacities. However, due to Basra's vast geographic spread, the population size and the lack of resources, the Directorate is not able to extend the network to all areas in need. Vulnerable, poor and minority communities frequently appear down the priority list of the Government for water supply. For instance, in Basra City, an estimated 338,400 residents live in informal housing excluded from formal water and sanitation networks. During the 2018 water crisis, the high cost of water hit poor residents the hardest, forcing them to consume unsafe tap water.

The chronic neglect of poor and marginalised communities in service provision, coupled with widespread unemployment, serves as a reason behind social unrest. Al-Zubair is one such district which experiences significant drinking water scarcity. It is also home to the minority African-Iraqi community.

To expand access to water in neglected communities in Basra, UNDP will rehabilitate existing non-functional water treatment plants in Al-Zubair. Furthermore, UNDP will install new plants in vulnerable communities that are not covered by the existing water supply network. A list of projects has been identified for implementation in Al-Zubair's sub districts of Al-Sha'abiyah, Khor Al-Zubair and Safwan, in coordination with the Water Directorate. The intervention will benefit an estimated population of 50,000 individuals, and consists of several components:

#### **a) Rehabilitation of Khor Al-Zubair Water Complex**

The plant receives its water from two sources: R-Zero and Mahella station in Abo Al Khaseeb. It feeds water to the residents of areas Um Qasr, Safwan and Khor Al-Zubair.

Required works:

- Rehabilitation of the water treatment plant (800 m<sup>3</sup>/h) with provision of maintenance works for the raw water distribution plants with different capacities (800 m<sup>3</sup>/h, 600 m<sup>3</sup>/h, and 1000 m<sup>3</sup>/h) including injectors, alum unit, and sedimentation tanks.
- Rehabilitation of the pumping system with a capacity of 800 m<sup>3</sup>/h.
- Construction of a laboratory building, including the supply of equipment and chemicals.
- Construction of a workshop building with all required tools.

#### **b) Rehabilitation of Safwan Water Complex and instalment of water networks in Safwan**

The plant takes water from Khor Al-Zubair station and feeds water to the residents of Safwan district.

## UNITED NATIONS JOINT PROGRAMME DOCUMENT

### Response to Basra water Crisis-Iraq

Required works:

- Rehabilitation of the pumping system with a capacity of 300 m<sup>3</sup>/h, and a concrete basin with a capacity of 400 m<sup>3</sup>/h.
- Supplying and installing new pumps.
- Maintenance of the basin and cleaning of the sedimentation tank.
- Construction of new piping network and rehabilitation of network parts that suffer from a lack of access to water.

#### **c) Rehabilitation of Al-Sha'abiyah Central Water Complex, Division 1**

This water complex supplies water to the residents of Al Zubair district. It consists of several components with a total capacity of 2000 m<sup>3</sup>/h, vertical complex system, and 5 compact units of 400 m<sup>3</sup>/h each.

Required works:

- Maintenance works for pumps, sedimentation tanks, and filters.
- Supply and install equipment and rehabilitate the Alum Unit (Holding tanks and Mixers)
- Supply and Install Equipment and rehabilitate the Chlorine Unit System (Injector pumps)

#### **d) Rehabilitation of Al-Sha'abiyah Central Water Complex, Division 2**

The water complex consists of several stations, 4 horizontal stations (pressure sand filter) of 200 m<sup>3</sup>/h each. Total delivery 800 m<sup>3</sup>/hr

Required works:

- Maintenance of filters and sedimentation tanks.
- Supplying and repairing the Main water Pumping unit.
- Supplying and repairing alum and chlorine injection systems.

#### **4. Improve access to safe drinking water through the provision of specialized unaccounted-for-water equipment which will be used to reduce water leakage, benefiting 75,000 individuals (UNICEF).**

This activity aims to reduce illegal connections, water loss and water contamination in two selected areas within Abo Al-Khaseeb and Al-Zubair district.

The intervention will include the provision of specialized equipment, software/GIS systems and the following: Digital, smart water meters for households installed and operationalised in 1500 households in two selected localities in Abo Al-khaseeb and Al-Zubair.

- Digital, smart water meters installed in 150 institutions, including governmental institutions, malls, hospitals, schools, provincial health centres, universities.
- Flow meters installed on main pipeline connections (15 tenfor two per districts).
- Leak detection equipment supplied.
- Household water conservation tools installed in 1500 households.
- 10 unaccounted-for-water campaigns (five per district).
- Training of 100 technical staff.

# UNITED NATIONS JOINT PROGRAMME DOCUMENT

## Response to Basra water Crisis-Iraq

### 4. Results framework

*Table 1: Results Framework*

UNDAF (or other relevant framework) Outcome										
Joint Programme Outcome (if different from UNDAF Outcome) , including corresponding indicators and baselines,										
JP Outputs (Give corresponding indicators and baselines)	Participating UN organization- specific Outputs	Participating UN	Participating UN organization	Implementing Partner	Indicative activities for each Output	Resource allocation and indicative time				
						Y1	Y2	Y3	N/A	Total
<p><b>JP OUTPUT 1</b></p> <p>Improve access to safe drinking water in 100 schools in deprived areas in south Basra by installing small-scale water desalination and disinfection units beside new water tanks and piping systems, benefiting 100,000 children</p> <p><b>Baseline</b></p> <p>Zero schools have access to safe drinking water in deprived</p>	<p>1) 100 schools with access to basic water</p> <p>2) 100,000 children accessing appropriate WASH facilities and hygiene in learning facilities</p>	UNICEF		Directorate of Education and UNICEF Private contractors		X	X	X		

<sup>1</sup> . Please refer to the year wise breakdown provided in the Project Proposal.

# UNITED NATIONS JOINT PROGRAMME DOCUMENT

## Response to Basra water Crisis-Iraq

<p>areas in south Basra</p> <p><b>Indicators</b>                  # No. of schools with access to safe drinking water in deprived areas of south Basra                  # No. of children benefiting from the safe drinking water supply in schools</p> <p><b>JP OUTPUT 2</b>                  Improve access to safe water by increasing the power supply for, and automating the operation of, the R-Zero project, benefiting 960,000 individuals.</p> <p><b>Baseline</b>                  # R-Zero in Basra plant is not automated and not operating at full capacity due to low power supply</p> <p><b>Indicators</b>                  # No. of individuals who would benefit from improved water supply due to enhanced power supply and automation of the R-zero plant</p> <p><b>JP OUTPUT 3</b>                  Improve access to safe drinking water in Basra by rehabilitating existing non-functional plants and adding more plants to the water network, benefiting 50,000 individuals</p> <p><b>Baseline</b>                  The residents in target communities don't have access to safe drinking water via the public network of water supply</p>	<p>960,000 additional people have access to safe and sustainable water services and living in water climate resilient communities</p>	<p>UNICEF</p>		<p>Directorate of water and UNICEF Private contractors</p>		<p>X</p>	<p>X</p>	<p>X</p>						
<p><b>Indicators</b>                  # No. of beneficiaries who will get access to safe drinking water via the public network of water supply</p> <p><b>JP OUTPUT 4</b></p>	<p>75,000 additional people have access to safe and sustainable water services and living in water climate resilient communities</p>	<p>UNDP</p>		<p>Basra water directorate - private contractors</p>		<p>X</p>	<p>X</p>							

# UNITED NATIONS JOINT PROGRAMME DOCUMENT

## Response to Basra water Crisis-Iraq

<p>Improve access to safe drinking water through the provision of specialized unaccounted-for-water equipment which will be used to reduce water leakage, benefiting 75,000 individuals</p> <p><b>Baseline</b> # no specialized equipment available to reduce water leakage</p> <p><b>Indicators</b> # No. of individuals who would benefit from the reduced water leakage.</p>	<p>50,000 additional people have access to safe and sustainable water services and living in water climate resilient communities</p>	<p>UNICEF</p>		<p>Directorate of water and UNICEF Private contractors</p>		<p>X</p>	<p>X</p>	<p>x</p>						
<p>UN organization 1: <b>UNICEF</b></p>	<p>Programme Cost: 3,402,737</p>													
	<p>Indirect Support Cost : 238,192</p>													
<p>UN organization 2 : <b>UNDP</b></p>	<p>Programme Cost: USD 2,807,954</p>													
	<p>Indirect Support Cost : 196,557</p>													
<p>Administrative Agent Recovery (1 % of the total share of the AA's budget)</p>	<p>34,027</p>													

## UNITED NATIONS JOINT PROGRAMME DOCUMENT

### Response to Basra water Crisis-Iraq

Iraq Trust Fund Recovery (1%)	62,107					
<b>Total</b>	<b>Programme Cost: 6,210,691</b>					
	<b>Indirect Support Cost: 530,883</b>					
<b>GRAND TOTAL</b>	<b>6,741,574</b>					

\* Resource allocation may be agreed at either output or indicative activity level.

# UNITED NATIONS JOINT PROGRAMME DOCUMENT

## Response to Basra water Crisis-Iraq

### 5. Management and coordination arrangements

The management and coordination arrangements of the joint programme will follow the [UNDG's Guidance Note on Joint Programmes](#).

The Joint Programme will be supported by a coherent governance structure, with clear lines of accountability and decision-making to deliver agency-specific projects and joint programmes adhering to principles of 'Delivering as One'. A brief description of each entity of the governance structure is provided below, with detailed Terms of Reference are contained in the **Annexes**.

The Joint Programme will be jointly managed and implemented by UNICEF and UNDP (thereinafter referred as "Participating UN Organizations" or PUNOs) and the UNICEF as Administrative Agent. The pass-through funding modality will be used with the Multi-Partner Trust Fund Office (MPTF Office) Of the UNICEF serving as the Administrative Agent (AA) for the Joint Programme. The AA's functions are fully described in the Fund Management Arrangement Section below.

The coordination mechanisms ensure the implementation of the Joint Programme under the principles of "Delivering as One". This will increase the efficiency of delivery of humanitarian response.

#### 5.1 Joint Programme coordination

##### 5.1.1 Joint Steering Committee

The Humanitarian Country Team, chaired by the Humanitarian/Resident Coordinator was established as a centerpiece of the humanitarian coordination architecture and will collaborate with the Steering Committee of the Joint Programme. The Steering Committee is composed of the representatives of all signatories to the Joint Programme document with similar level of decision-making authority, including representatives of the Participating UN Organizations and the national coordinating authority. The objective of the Steering Committee under the leadership of the Humanitarian/Resident Coordinator is to:

- Ensure that the activities of the organizations are coordinated, and that humanitarian action in Iraq is principled, timely, effectively and efficiently, and contribute to longer-term recovery.
- Overall management and coordination of the Joint Programme.
- Provide oversight, supervision and management of the joint programme.
- Ensure that the Joint Programme is in line with the global humanitarian response by the Government of Iraq and the humanitarian partners.

The Steering Committee is the decision-making authority, the highest body for strategic guidance ensuring fiduciary and management oversight and coordination.

The Steering Committee facilitates the collaboration between participating UN organizations and the GoI for the implementation of the Joint Programme. It reviews and approves the Joint Programme Document and work plans, provides strategic direction and oversight, reviews the implementation progress and addresses problems. The SC reviews and approves progress reports budget revisions, and evaluation reports, notes audit reports (published in accordance with each PUNOs' disclosure policy), and initiates investigations (if needed).

# UNITED NATIONS JOINT PROGRAMME DOCUMENT

## Response to Basra water Crisis-Iraq

The Steering Committee will meet at least annually, and on a more frequent basis including on an ad hoc basis in keeping with the agreement by the Steering Committee, to ensure close monitoring throughout the implementation period of the Joint Programme.

### 5.2 Joint Programme Management at Component Level

The main management principle is that the 'implementation' of the Joint Programme components will be carried out by individual Participating UN organizations.

Therefore, internal coordination on each of the component outcomes will be ensured by each participating UN organization, and monitoring based on individual outputs will also be conducted by the UN organizations. Output-level internal coordination between the Participating UN organizations and their implementing partners will take place according to each UN organization's policies.

The following entities will also be involved, in various forms described below, in implementation of the Joint Programme.

**The Humanitarian Coordinator/Resident Coordinator** guides the strategic implementation of the JP. For all UN related issues and activities or agency specific events that have broader UN relevance, the UN system in Iraq will strive to speak with 'one voice' through the UN Resident Coordinator or through an UN participating Organizations' head on behalf of the HCT.

**Heads of Participating UN Organizations** will interact with the line ministries for the purposes of implementation of the interventions, monitoring and evaluation, advocacy and representation.

#### **Participating UN Organizations**

The participation of UN Organization is differentiated by their contribution and/or role that they may play. Participating UN Organization may play one or more of several roles as mutually agreed with the UN Resident Coordinator and the PUNOs: as a substantive financial contributor, as the implementing authority of defined agency-specific projects and/or joint programmes, as an implementing partner or party providing technical advice or other specified inputs and services, as an occasional or ad hoc technical / policy advisor on normative issues, or as an advocate on a particular UN issue or convention. Some participating agencies will play a substantive leadership role in the JP outcome areas.

#### **The Office of the Resident Coordinator**

The Office of the UN Resident Coordinator is responsible for support to the strategic leadership role of the RC/HC on the JP. It provides support for all the designated tasks for the RC/HC.

#### **Administrative Agent**

UNICEF functions as the JP's Administrative Agent, and as such is responsible for financial administration of this JP: that is, managing contributions from the donor, disbursements, accounting, maintaining supporting systems, and audit. In addition, compiles financial and narrative reports from participating agencies and submits reports to the Resident Coordinator for dissemination to partners.

# UNITED NATIONS JOINT PROGRAMME DOCUMENT

## Response to Basra water Crisis-Iraq

### 5.3 Technical Coordination and Convening Agent

Joint Programme Coordination will be organized between UN agency focal points for each component, under the leadership of the Heads of the respective Agencies. The Resident Coordinator's Office will support this process at technical level and report to the SC if and where required. If required the UN Disaster Risk Management Team will provide technical support. The Resident Coordinator's Office will ensure that the Administrative Agent – and therefore subsequently the donor – will be provided with the necessary reporting and monitoring material. UNICEF in the form of the RCO will ensure these roles, through its function as a convening agent.

The UNICEF Country Office/RCO, as the Convening Agent, is responsible for operational and programmatic coordination: It coordinates all the Joint Programme partners, coordinates and compiles annual work plans and narrative reports, coordinates monitoring of annual targets, calls and reports on Steering Committee meetings, facilitates audits and evaluation, and reports back to the Steering Committee.

The Convening Agent is involved in day-to-day coordination, but does not hold any financial or programmatic accountability beyond the implementation of the coordination component.

The Joint Programme Coordination Team will be established with participation of the designated Programme Officers of the Participating UN Agencies (not funded additionally through this Joint Programme) with a responsibility to coordinate the planning and implementation for the Joint Programme, assuring the quality of the implementation and reporting vis-à-vis the Steering Committee, as well as ensuring the joint approach to the crosscutting themes, such as visibility. The Team consisting of the senior focal points per agency will meet once a month, chaired by the RC or her delegate to review the progress, work-plans and ensure the coordinated implementation.

### 5.4 Capability and capacity of partners

#### UNICEF

UNICEF Iraq's vision is to accelerate progress for child survival, development and protection through innovative strategies and integrated approaches, decentralization and strategic partnerships as part of a coordinated United Nations (UN) efforts to help Iraq achieve the 2030 Sustainable Development Goals (SDGs). UNICEF will continue with a humanitarian and development response plans ensuring protection, service delivery and timely action, while at the same time investing in longer-term social service investments. Partnerships with Government, NGOs, civil society and the private sector will be leveraged to greater effect, and innovation and social mobilization are to be harnessed strategically for exponential change. UNICEF's contribution will be operationalized through an approach that connects policies at the federal level with efforts to build capacities of systems and services (construction of schools, health centers and child friendly spaces, etc.) where they are lacking at sub-national levels and simultaneously generate demand for services through sustained community engagement and social mobilization. Sector specific niche as below.

UNICEF is the leading agency in the WASH sector and is recognized as a strong partner in Iraq both by the Government and partners. UNICEF's ability to work both upstream (with the federal, regional and local governments) and downstream (with communities, civil society, Local non-governmental organizations etc.) differentiates it from other development organizations. UNICEF works alongside other UN agencies including WHO, UN-HCR, OCHA, IOM, and UN-HABITAT. Key partnerships with the Government of Iraq include: Ministry of Planning, Ministry of Construction, Housing and Public Municipalities, Ministry of Municipalities and Tourism (KR-I), Mayoral-ty of Baghdad, Mayors of affected Governorates, Ministry of Water Resources and various Directorates of Water, Sewerage, Groundwater, and Municipalities, Government Emergency Cells, and Ministry of Health and Environment. UNICEF Iraq is well positioned to

## UNITED NATIONS JOINT PROGRAMME DOCUMENT

### Response to Basra water Crisis-Iraq

directly influence all major decisions made on policy, planning, and budgeting within the social sectors. UNICEF Iraq's ability to influence at the policy level is directly linked to our presence on the ground, particularly in areas where the most vulnerable children live. Due to its impact across multiple sectors, WASH is a highly cost-effective undertaking. Based on global data, every dollar investment in the sector yields, on average, four dollars in benefits. Given the specificities around Iraq and the sub-optimal performance of the public health sector, the cost effectiveness may reach 6 dollars. This analysis underlines the centrality of WASH to the development agenda and the fundamental linkage to UNICEF's focus on supporting the most vulnerable children. When we provide a child with access to water and sanitation, we prevent disease. We improve her nutrition and well-being. We reduce the chance child will be stunted. We increase the likelihood the child will attend school, and "learn and earn" more in the future, and thus contribute to the well-being of children, families and society. UNICEF also works with adolescent and young influencers, including those on social media, to promote awareness and deliver social and behavioral change interventions. UNICEF is also building the capacity to raise awareness and promote healthy practices of key influencers, including community groups, women and youth groups, health workers, organizations of people with disabilities, and community volunteers. UNICEF will focus not only on technical factors, but also social, institutional, environmental factors and encourage a greater role for the private sector in achieving sustainable services at scale. Private sector water and sanitation firms have played a significant role in developing WASH infrastructure in supporting the improvement of WASH facilities and apply new technologies rehabilitation efforts in affected governorates, as well as across the country. Under the 2020-2024 Country Programme signed with the Government of Iraq, UNICEF will prioritize support for accelerating access to quality WASH services that help to reduce newborn, infant and child mortality among the most vulnerable populations and in the least-served areas through improved access to safe water supply; improved access to quality sanitation services and facilities of appropriate quality, proper management of sewage and drainage. WASH programme is in line with UNICEF Strategic Plan, 2018–2021 (Goal 4 to ensure safe and clean environment) and contribute to achieve UNSDCF five country specific outcomes, that is; Achieving Social Cohesion, Protection and Inclusion; Growing the Economy for All; Promoting Sustainable Climate Action and Strengthening National Institutions and Services. The human rights to water and sanitation are at the core of the UNICEF mandate for children. Not only are poor hygiene, and lack of access to safe water and sanitation systems leading causes of child mortality and morbidity, they contribute to undernutrition and stunting, and they act as barriers to education for girls and to economic opportunity for the poor. WASH is essential in health care facilities, schools and early childhood development centers, but equally, these institutions offer platforms for engaging children in actions that promote behavior change related to hygiene, sanitation and water.

#### **UNDP**

Present in Iraq since 1976, UNDP is committed to supporting the Government and people of Iraq during their transition towards reconciliation, reform and stability. Our support ranges from promoting emergency livelihoods and community dialogue in districts impacted by the humanitarian crisis, to helping stabilize newly liberated areas, to providing technical assistance in support of governance reforms and decentralization.

UNDP supports four interlinked, inclusive and holistic development pathways. Underpinned by a resilience-based strategy that addresses the needs of the most vulnerable communities, those pathways are: Strengthened stabilization; Diversified pro-poor economic growth for sustainable livelihoods; Improved governance with accountable institutions that protect the rights of vulnerable groups and pave the way for citizen-state trust; and Decreased fragility to climate change.

UNDP has been operating in Basra for sometime and has an office in Basra. Increasing water supply and livelihoods have been the two main areas of support of UNDP to the Government of Basra. UNDP has helped to prepare a strategy on Management of Water<sup>5</sup> Crisis in Basra in 2016, and Promoting Sustainable

## UNITED NATIONS JOINT PROGRAMME DOCUMENT

### Response to Basra water Crisis-Iraq

Water Supply and Sanitation Services in Shatt el-Arab Basra in 2016. UNDP is providing third party monitoring services to the JICA funded water projects in Basra. Since 2019 UNDP has been implementing rehabilitation of seven water treatment plants in different parts of Basra Governorate targeting about 125,000 beneficiaries in most vulnerable communities. In 2019 UNDP also supported over 450 men and women in Basra with income generation schemes through Small and Micro Enterprises grants, training and job placement in the private sector. Before the implementation of this intervention a Conflict-based Development Analysis in Basra was conducted in order to identify potential risks and how Project interventions could have a positive effect on reducing conflict and promoting peace and stability. UNDP also provides support to financial management capacity development of the Basra government.

## 6. Fund Management

The programme will be using a pass-through fund management modality where UNICEF Office will act as the Administrative Agent (AA) under which the funds will be channeled for the programme through the AA. UNDP, the participating UN organization receiving funds through the pass-through will sign a standardized Memorandum of Understanding with the AA.

The Administrative Agent will:

- Establish a separate ledger account under its financial regulations and rules for the receipt and administration of the funds received from the donor(s) pursuant to the Administrative Arrangement. This Joint Programme Account will be administered by the Administrative Agent in accordance with the regulations, rules, directives and procedures applicable to it, including those relating to interest;
- Make disbursements to Participating UN Organizations from the Joint Programme Account based on instructions from the Steering Committee, in line with the budget set forth in the Joint Programme Document.

The Participating UN Organizations will:

- Assume full programmatic and financial responsibility and accountability for the funds disbursed by the AA.
- Establish a separate ledger account for the receipt and administration of the funds disbursed to it by the Administrative Agent.
- Each UN organization is entitled to deduct their indirect costs on contributions received according to their own regulation and rules, considering the size and complexity of the programme. Each UN organization will deduct 7% as overhead costs of the total allocation received for the agency.

The MPTF Office as the Convening will charge fee of one per cent (1%) of the total contributions made to the Joint Programme for the Iraq Recovery Trust Fund.

UNICEF Country Office, as 'lead agency' will consolidate narrative reports provided by the Participating United Nations Organizations. As per the MoU:

- Annual narrative progress report and the final narrative report, to be provided no later than three months (31 March) after the end of the calendar year.

The MPTF Office will:

- Prepare consolidated narrative and financial progress reports, based on the narrative consolidated report prepared by the UNDP Country Office and the financial statements/ reports submitted by each of the Participating UN Organizations in accordance with the timetable established in the MoU;

## UNITED NATIONS JOINT PROGRAMME DOCUMENT

### Response to Basra water Crisis-Iraq

- Provide those consolidated reports to each donor that has contributed to the Joint Programme Account, as well as the Steering Committee, in accordance with the timetable established in the Administrative Arrangement.
- Provide the donors, Steering Committee and Participating Organizations with:
  - Certified annual financial statement (“Source and Use of Funds” as defined by UNDG guidelines) to be provided no later than five months (31 May) after the end of the calendar year;
  - Certified final financial statement (“Source and Use of Funds”) to be provided no later than seven months (31 July) of the year following the financial closing of the Joint Programme.

**Budget Preparation** - The Programme Coordinator will prepare an aggregated/consolidated budget, showing the budget components of each participating UN organization.

**Accounting** - Each UN organization will account for the income received to fund its programme components in accordance with its financial regulations and rules.

#### **Admin Fees and Indirect Costs**

- **Administrative Agent:** The AA (UNICEF) shall be entitled to allocate one percent (1%) of the amount contributed by the donor, for its costs of performing the AA’s functions.
- **Participating UN Organizations:** Each UN organization participating in the joint programme will recover indirect costs in accordance with its financial regulations and rules and as documented in the Memorandum of Understanding signed with the AA.

**Interest on funds** - Interest will be administered in accordance with the financial regulations and rules of each UN organization and as documented in the Standard Administrative Arrangement signed with the donor.

## 7. Monitoring, Evaluation and Reporting

UN agencies implement stringent monitoring and evaluation processes for all programmes. For this project, field office staff will meet regularly with partners and the Government to monitor its implementation. Implementing partners will provide regular reports as stipulated in the partnership agreement. Data collection is done through the Activity Info Database on a monthly basis.

UNICEF and UNDP, along with the Directorates of Water, Education, and Health & Environment and other partners, will organize joint monitoring visits to all project sites, in addition to regular programme monitoring and spot-checks. Besides these visits, UN Partners will monitor and verify data with beneficiaries on a continuous basis.

In terms of financial management, UN agencies have comprehensive financial rules and regulations to ensure that appropriate internal control mechanisms are in place to establish cash-management and resource-transaction processes in the field. All elements of financial management and internal control are addressed, including management accountability, receipt, custody, and disposal of funds, risk management, and conformity to budget guidelines. All offices are regularly audited to ensure compliance. Strict policies and procedures are imposed relating to the monitoring of cash transfers to implementing partners. Among other things, UN staff must seek assurance on the financial management capacity of the partner. For this project, the two involved UN agencies will monitor the commercial utilization of the project via the VISION financial and programme management software, and in line with budgets agreed with the Government of the Netherlands.

The involved agencies will document all project assessment reports, meeting minutes, meeting outcomes,

## **UNITED NATIONS JOINT PROGRAMME DOCUMENT**

### **Response to Basra water Crisis-Iraq**

and public relations activities. Throughout the lifespan of the project, the two UN agencies will collaboratively share relevant information with the Government of the Netherlands' monitoring agents to ensure implementation of activities as per the Cooperation Agreement.

## UNITED NATIONS JOINT PROGRAMME DOCUMENT Response to Basra water Crisis-Iraq

*Table 2: Joint Programme Monitoring Framework (JPMF)*

Expected Results (Outcomes & outputs)	Indicators (with baselines & indicative timeframe)	Means of verification	Collection methods (with indicative time frame & frequency)	Responsibilities	Risks & assumptions
From Results Framework (Table 1)	From Results Framework (Table 1) Baselines are a measure of the indicator at the start of the joint programme	From identified data and information sources	How is it to be obtained?	Specific responsibilities of participating UN organizations (including in case of shared results)	Summary of assumptions and risks for each result
<b>JP OUTPUT 1</b> Improve access to safe drinking water in 100 schools in deprived areas in south Basra by installing small-scale water desalination and disinfection units beside new water tanks and piping systems, benefiting 100,000 children	<b>Baseline</b> Zero schools have access to safe drinking water in deprived areas in south Basra  <b>Indicators</b> # No. of schools with access to safe drinking water in deprived areas of south Basra # No. of children benefiting from the safe drinking water supply in schools	DoE reports DoH reports Activity Info  Programmatic visits and Digital monitoring	Request reports from relevant partners. Conduct field visits.	UNICEF	Limited coordination between Governor Basrah and Basra Water Council  Lack of a well-resourced water sector plan by federal or provincial governments can threaten sustainability of the project results.  Lack of governmental buy-in can adversely affect the implementation and sustainability of the project

## UNITED NATIONS JOINT PROGRAMME DOCUMENT Response to Basra water Crisis-Iraq

<p><b>JP OUTPUT 2</b> Improve access to safe water by increasing the power supply for, and automating the operation of, the R-Zero project, benefiting 960,000 individuals.</p>	<p><b>Baseline</b> # R-Zero in Basra plant is not automated and not operating at full capacity due to low power supply</p> <p><b>Indicators</b> # No. of individuals who would benefit from improved water supply due to enhanced power supply and automation of the R-zero plant</p>	<p>UNCIEF environmental survey DoW report Activity Info Programmatic visits and Digital monitoring</p>	<p>Conduct survey Request information reports from partners Conduct field visits</p>	<p>UNICEF</p>	<p>Lack of governmental buy-in can adversely affect the implementation and sustainability of the project</p> <p>COVID-19 related restrictions on movement and social distancing can adversely affect Project implementation.</p> <p>Corruption within local businesses and governmental institutions may adversely affect the achievement of targets. Poor performance by contractor, including low quality of supplied goods, works and service.</p>
<p><b>JP OUTPUT 3</b> Improve access to safe drinking water in Basra by rehabilitating existing non-functional plants and adding more plants to the water network, benefiting 50,000 individuals</p>	<p><b>Baseline</b> The residents in target communities don't have access to safe drinking water via the public network of water supply</p> <p><b>Indicators</b> # No. of beneficiaries who will get access to safe drinking water via the public network of water supply</p>	<p>DoW report Programmatic visits and Digital monitoring</p>	<p>Request information reports from partners Conduct field visits</p>	<p>UNDP</p>	<p>Risk of overlaps with other projects in water sector.<sup>2</sup></p> <p>Corruption within local businesses and governmental institutions may adversely affect the achievement of targets.</p> <p>COVID-19 related restrictions on movement and social distancing can adversely affect Project implementation.</p> <p>Delay in hand-over of sites to the vendor by the local authorities.</p> <p>Poor performance by contractor, including low quality of supplied goods, works and service.</p>

<sup>2</sup> JICA (2018). *Press Release*: [https://www.jica.go.jp/english/news/press/2018/180507\\_01.html](https://www.jica.go.jp/english/news/press/2018/180507_01.html)  
<https://www.jica.go.jp/iraq/english/office/topics/c8h0vm00008n84ix-att/press180503en.pdf>

## UNITED NATIONS JOINT PROGRAMME DOCUMENT Response to Basra water Crisis-Iraq

<p><b>JP OUTPUT 4</b> Improve access to safe drinking water through the provision of specialized unaccounted-for-water equipment which will be used to reduce water leakage, benefiting 75,000 individuals</p>	<p><b>Baseline</b> # no specialized equipment available to reduce water leakage</p> <p><b>Indicators</b> # No. of individuals who would benefit from the reduced water leakage.</p>	<p>UNCIEF environmental survey DoW report Activity Info Programmatic visits and Digital monitoring</p>	<p>Conduct survey  Request information reports from partners  Conduct field visits</p>	<p>UNICEF</p>	<p>Ongoing anti-government protests lead to political and social instability and the resulting crisis hampers project implementation</p> <p>COVID-19 related restrictions on movement and social distancing can adversely affect Project implementation.</p>
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# UNITED NATIONS JOINT PROGRAMME DOCUMENT

## Response to Basra water Crisis-Iraq

### 7.1 Reporting

1. The Administrative Agent will provide the Donor and the Steering Committee with the following statements and reports, based on submissions provided to the Administrative Agent by each Participating UN Organization and the Convening Agent prepared in accordance with the accounting and reporting procedures applicable to it, as set forth in the Joint Programme Document:
  - (b) Annual consolidated narrative progress reports, to be provided no later than five months (31 May) after the end of the calendar year;
  - (c) Based on the information provided for the end of the calendar year narrative progress report, the convening agent will provide the donor with a mid-term report due in mid-February (14 February).
  - (d) Annual consolidated financial reports, as of 31 December with respect to the funds disbursed from the Programme Account, to be provided no later than five months (31 May) after the end of the calendar year;
  - (e) Based on the information provided for the end of the calendar year financial reports progress report, the convening agent will provide the donor with a mid-term report due in mid-February (14 February).
  - (f) Final consolidated narrative report, after the completion of the activities in the Joint Programme Document, including the final year of the activities in the Joint Programme Document, to be provided no later than six months (30 June) after the end of the calendar year in which the operational closure of the Programme occurs;
  - (g) The Participating UN Organisations submit their preliminary final financial and narrative report to the convening agent, not later than 90 days after the completion of the joint programme. The convening agent will provide the donor with a provisional final consolidated narrative and financial report 120 days after the completion of the joint programme.
  - (h) Final consolidated financial report, based on certified final financial statements and final financial reports received from Participating UN Organizations after the completion of the activities in the approved programmatic document/Joint Programme Document, including the final year of the activities in the approved programmatic document/Joint Programme Document, to be provided no later than five months (31 May) after the end of the calendar year in which the financial closing of the Programme occurs.
2. Annual and final reporting will be results-oriented and evidence based. Annual and final narrative reports will compare actual results with expected results at the output and outcome level, and explain the reasons for over or underachievement. The final narrative report will also contain an analysis of how the outputs and outcomes have contributed to the overall impact of the Programme. The financial reports will provide information on the use of financial resources against the outputs and outcomes in the agreed upon results framework.

## UNITED NATIONS JOINT PROGRAMME DOCUMENT Response to Basra water Crisis-Iraq

3. The Administrative Agent will provide the Donor, Steering Committee and Participating UN Organizations with the following reports on its activities as Administrative Agent:

- (a) Certified annual financial statement (“Source and Use of Funds” as defined by UNDG guidelines) to be provided no later than five months (31 May) after the end of the calendar year; and
- (b) Certified final financial statement (“Source and Use of Funds”) to be provided no later than five months (31 May) after the end of the calendar year in which the financial closing of the Programme occurs.

### 8. Legal context or basis of relationship

Table 3 below provides illustrative examples on various UN organizations’ cooperation arrangements.

Table 3: Basis of relationship

Participating UN Organization	Agreement
UNICEF	This Joint Programme Document is in line with the endorsed UNICEF’s Iraq 2020-2024 Country Programme Document and as instrument referred to endorsed UN Cooperation Framework between the Government of Iraq and the United Nations based on the term of reference of both the UNSDCF Joint Steering Committee and UNSDCF Priority Working Groups
UNDP	This Joint Programme Document is in line with UNDP Iraq’s approved Country Programme Document (CPD) for 2020-2024, which is also supported by the Standard Basic Assistance Agreement between the Government of Iraq and UNDP in 1976. The CPD 2020-2024 is also aligned with the UN Cooperation Framework 2020-2024 between the Government of Iraq and the United Nations based on the term of reference of both the UNSDCF Joint Steering Committee and UNSDCF Priority Working Groups

## 9. Work plan

Table 4: Work plan

Outputs	Activities	Timeframe												
		2020	2021				2022				2023			
		Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1. Improve access to safe drinking water in 100 schools in deprived areas in south Basra by installing small-scale water desalination and disinfection units beside new water tanks and piping systems.	• Installing saline water desalination units													
	• Training of 100 operators													
2. Improve access to safe water by increasing the power supply for, and automating the operation of, the R-Zero project.	• Rehabilitation of 11 KVA power transformer station by replacing damaged sectors and panels													
	• Design and installation of a new supervisory control and data acquisition system													
	• Training of 50 technical staff													
3. Improve access to safe drinking water in Basra by rehabilitating existing non-functional plants and adding more plants to the water network, benefiting 50,000 individuals	• Rehabilitation of Khour Al-Zubair Water Complex													
	• Rehabilitation of Safwan Water Complex and instalment of water networks in Safwan													
	• Rehabilitation of Al-Sha'abiyah Central Water Complex, Division1													
	• Rehabilitation of Al-Sha'abiyah Central Water Complex, Division2													
4. Improve access to safe drinking water through the provision of specialized unaccounted-for-water equipment which will be used to reduce water leakage.	• Digital, smart water meters for households installed and operationalized in two selected localities in Basra city and Al-Zubair district													
	• Flow meters installed on main pipeline connections													
	• Leak detection equipment supplied													
	• Household water conservation tools													
	• UFW campaigns													
	• Training of 60 technical staff													

## 10. Budget

Table 5: Budget

Programme Outcome/ Output/Activities		Estimated cost in (USD)						
		Total cost		Year 1		Year 2		Year 3
		UNICEF	UNDP	UNICEF	UNDP	UNICEF	UNDP	UNICEF
1. Improve access to safe drinking water in 100 schools in deprived areas in south Basrah by installing small-scale water desalination and disinfection units beside new water tanks and piping systems, benefiting 100,000 children (UNICEF).	Installing saline water desalination unit, new piping system, storing tanks, bottle filling taps and basin.	1,506,500		250,000	756,500		500,000	
	Quantity = 100							
	Per unit = \$13,000							
	Total cost = \$1,300,000							
	Training of 100 operators							
	Quantity = 5							
	Per unit = \$2000							
	Total cost = \$10,000							
	Monitoring and Technical Support= \$65,500							
	Cross sectoral Cost = \$131,000							
2. Improve access to safe water by increasing the power supply for, and automating the operation of, the R-Zero project, benefiting 960,000 individuals (UNICEF).	Rehabilitation of 11 KVA power transformer station by replacing damaged sectors and panels:	1,391,500		250,000	750,000		391,500	
	• Three incomers of 1250 Amp							
	• Twelve feeders of 630 Amp							

	<ul style="list-style-type: none"> <li>Two bus sections of 1250 Amp</li> <li>Two bus risers of 1250 Amp</li> </ul>							
	Supplying feeders, e-house, charger and batteries[1]							
	Quantity = 1							
	Total BOQs cost= \$900,000							
	Design and installation of a new supervisory control and data acquisition system							
	Quantity = 1							
	Per unit = \$300,000							
	Total cost = \$300,000							
	Training of 50 technical staff							
	Quantity = 2							
	Per unit = \$5,000							
	Total cost = \$10,000							
	Monitoring and Technical Support=\$60,500							
	Cross sectoral Cost = \$121,000							
3. Improve access to safe drinking water in Basrah by rehabilitating existing non-functional plants and adding more plants to the water network, benefiting 50,000 individuals (UNDP).	Cost of rehabilitation of water complexes:		2,807,954		1,707,954		1,100,000	

	<p><b>1. <u><a href="#">Khor Al-Zubair Water Complex (Please see Excel Sheets for Detailed Breakdown of Costs of equipment supplies and works)</a></u></b></p> <ul style="list-style-type: none"> <li>○ Rehabilitation of the water treatment plant (800 m<sup>3</sup>/h) with provision of maintenance works for the raw water distribution plants with different capacities (800 m<sup>3</sup>/h, 600 m<sup>3</sup>/h, and 1000 m<sup>3</sup>/h) including injectors, alum unit, and sedimentation tanks.</li> <li>○ Rehabilitation of the pumping system with a capacity of 800 m<sup>3</sup>/h</li> <li>○ Construction of a laboratory building, including the supply of equipment and chemicals.</li> <li>○ Construction of a workshop building with all required tools.</li> </ul> <p><i>Cost of equipment, supplies and works: 799,336.5</i></p> <p><i>Monitoring, technical and management support: 201,120</i></p> <p><b>Total cost = \$1,000,456.50</b></p> <p><b>2. <u><a href="#">Safwan Water Complex (Please see Excel Sheets for Detailed Breakdown of Costs of equipment, supplies and works)</a></u></b></p>							
	<ul style="list-style-type: none"> <li>○ Rehabilitation of the pumping system with a capacity of 300 m<sup>3</sup>/h, and a concrete basin with a capacity of 400 m<sup>3</sup>/h.</li> </ul>							
	<ul style="list-style-type: none"> <li>○ Supplying and installing new pumps.</li> </ul>							
	<ul style="list-style-type: none"> <li>○ Maintenance of the basin and cleaning of the sedimentation tank.</li> </ul>							
	<ul style="list-style-type: none"> <li>○ Construction of new piping network and rehabilitation of network parts that suffer from a lack of access to water.</li> </ul>							

	<i>Cost of equipment, supplies and works; 320,983</i>						
	<i>Monitoring, technical and management support: 201,120</i>						
	<b>Total cost = \$522,103</b>						
	<b>3. Al-Sha'abiya<sup>[1]2</sup> Water Complex Division 1-Central Pumping Station consist of 5 compact units, (Capacity 400 m3/hr for each) (Please see Excel Sheets for Detailed Breakdown of Costs of equipment, supplies and works)</b>						
	Total delivery 2000 m3/hr						
	o Maintenance works for pumps, sedimentation tanks, and filters.						
	o Supply and install equipment and rehabilitate the Alum Unit ( Holding tanks and Mixers)						
	o Supply and Install Equipment and rehabilitate the Chlorine Unit System (Injector pumps)						
	<i>Cost of equipment, supplies and works: 380,024</i>						
	<i>Monitoring, technical and management support: 201,120</i>						
	<b>Total cost =\$581,144</b>						
	<b>4. Al-Sha'abiyah Central Water Complex Division 2 (Please see Excel Sheets for Detailed Breakdown of Costs of equipment, supplies and works)</b>						
	Consists of horizontal water complexes/ 5 compact units with capacity of 200 m3/hr for each,						
	Total delivery 800 m3/hr						
	o Maintenance of filters and sedimentation tanks.						
	o Supplying and repairing the Main water Pumping unit.						
	o Supplying and repairing alum and chlorine injection systems.						
	<i>Cost of equipment, supplies and works: 503,130</i>						

	<i>Monitoring, technical and management support:</i> 201,120							
	<b>Total cost = \$704,250</b>							
4. Improve access to safe drinking water through the provision of specialized unaccounted-for-water equipment which will be used to reduce water leakage, benefiting 75,000 individuals (UNICEF).	Digital, smart water meters for households installed and operationalised in two selected localities in Basrah city and Al-Zubair district							
	Quantity = 1500							
	Per unit = \$200							
	Total cost = \$300,000							
	Digital, smart water meters installed and operationalised for institutions (including governmental institutions, malls, hospitals, schools, provincial health centres, universities)							
	Quantity = 150	504,737				300,000		204,737
	Per unit = \$300							
	Total cost = \$45,000							
	Flow meters installed on main pipeline connections							
	Quantity = 15							
	Per unit = \$800							
	Total cost = \$12000							
Leak detection equipment supplied								
Quantity = 3Per unit = \$3,300								
Total cost = \$9900								

Household water conservation tools							
Quantity = 1500							
Per unit = \$300							
Total cost = \$45000							
UFW campaigns							
Quantity = 10							
Per unit = \$1500							
Total cost = \$15,000							
Training of 60 technical staff							
Quantity = 3							
Per unit = \$4000							
Total cost = \$12000							
Monitoring and Technical Support=\$21947							
Cross sectoral Cost = \$43890							
<b>Total Direct Programme Costs in USD</b>	<b>3,402,737</b>	<b>2,807,954</b>	<b>500,000</b>	<b>1,707,954</b>	<b>1,806,500</b>	<b>1,100,000</b>	<b>1,096,237</b>
<b>Partenr UN Org. recovery cost (7%) in USD</b>	<b>238,192</b>	<b>196,557</b>	<b>35,000</b>	<b>119,557</b>	<b>126,455</b>	<b>77,000</b>	<b>76,737</b>
<b>Administrative agency recovery cost ( 1%) in USD</b>	<b>34,027</b>		<b>5,000</b>		<b>18,065</b>		<b>10,962</b>

Iraq Recovery Trust Fund cost ( 1%) in USD	34,027	28,080	5,000	17,080	18,065	11,000	10,962
Total Programme Cost IN USD	3,708,983	3,032,591	545,000	1,844,590	1,969,085	1,188,001	1,194,898
Total Programme Cost IN USD	6,741,574		2,389,590		3,157,085		1,194,898

**UNITED NATIONS JOINT PROGRAMME DOCUMENT**  
**Response to Basra water crisis-Iraq**

Appendixes:

Annex 1: Basra water project- UNICEF-UNDP proposal

Annex-2-FN19 - Water Crisis in Basra Iraq.

Annex-3- Basra is Thirsty

Annex 4,5,6,7, &8: Bills of quantities for the rehabilitations of the five water projects in Basra