

Information about the Republic of Iraq

Borders of the Republic of Iraq:

The Republic of Iraq is in the south-west Asia and north-eastern part of the Arab world, bordered by Turkey from the north and Iran from east, Syria and Jordan from the West, Kuwait and Saudi Arabia from the south.

Area of Iraq : Iraq has an area of 435000 square kilometers.

Water Resources in Iraq: Tigris and the Euphrates rivers, lakes and springs.

Natural Resources in Iraq : Oil and natural gas, phosphate and sulfur.

The Population of Iraq : Iraq has a population of (27) million people, concentrated mainly in large cities (Baghdad, Mosul and Basra).



arabian gulf

Climate in republic of Iraq

Climate :Iraq's climate is divided into two parts: •

1 – **North region of Iraq** is the hot - dry at summer season and a cold rainy in winter season, the rate of temperatures in this the region up rate of -5 to 45 degrees Celsius and average rainfall (200 – 1000) mm annually.

2 - **Central and South of Iraq** is the hot - dry summer season and mild in winter season, and the rate of temperature in this the region between (17 -50) degrees Celsius and rainfall in the region range (50 -200) mm per year.

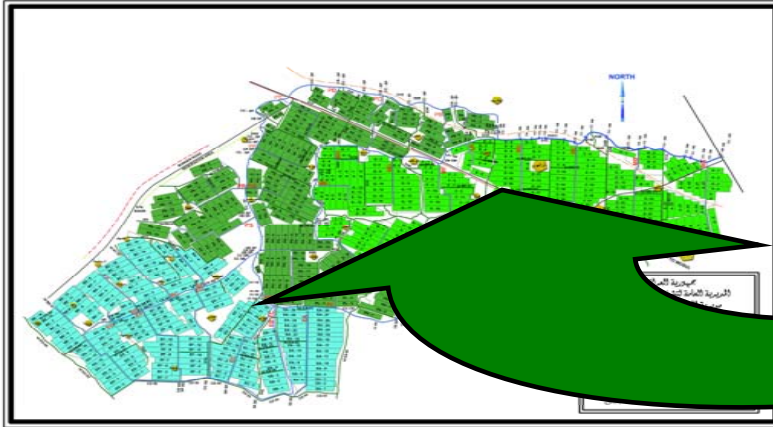
Project Title

Combat aquatic plants in irrigation canals for use in water distribution to all parts of Al-jazeera irrigation project in north of Iraq

Target Area •

Al-jazeera irrigation project in north of Iraq

Location project Irrigation al-jazeera in Iraq



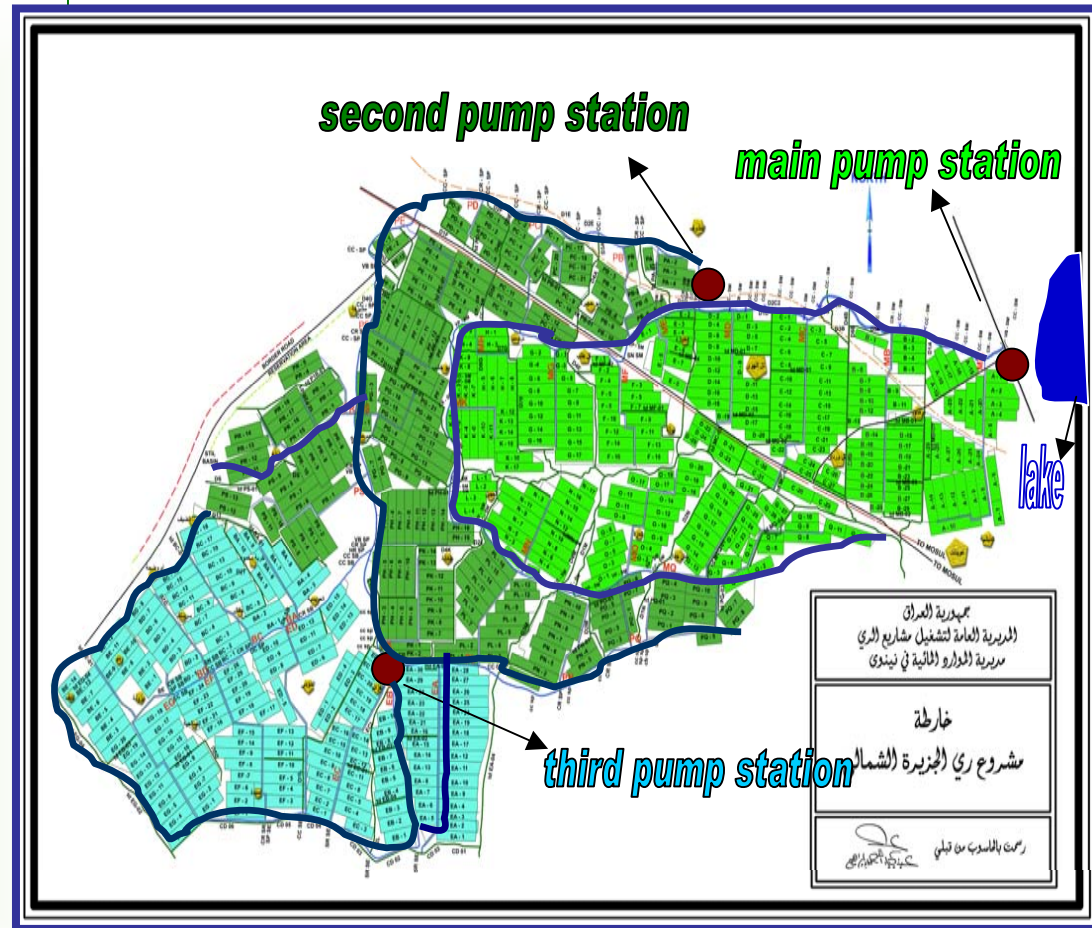
Location aljazeera Irrigation Project in the north - western part of Iraq , the method of irrigation in the region (supplementary irrigation)for adoption of rain water in winter, was to run from 1985 - 1991 consists of three stages (**first stage** - **the second stage** – **third stage**).

-major crops grown in this project are (wheat , barley , potatoes , Tomato and other vegetables) .



Outline the work of the northern al-jazeera Irrigation Project

- 1- Project Irrigation al-jazeera take the Water from Lake Mosul Dam by the main pumping station of the discharge 45 m³/sec and turning it into a main channel for the first stage for the irrigation of 60,000 ha of the total area of the project .
- 2- the second pumping station to withdraw water from the main channel of the first stage into a second stage channel discharge 31m³/sec to irrigate an area 38,000 ha.
- 3 – the third pumping station to withdraw water from the main channel for the second stage and transferred to the third stage channel discharge 12 m³/ sec to irrigate an area of 18,000 ha.



Information about the al-jazeera irrigating project

NO	Title	FIRST STAGE	SECOND STAGE	THIRD STAGE	Total
1-	area (ha)	22000	20000	18000	60000
2-	Length main canals (km)	58	50	20	128
3-	Number of branch canals	16	22	11	49
4-	Length of branch canals (km)	64.25	77.3	49.5	191.05
5-	Number of field canals	135	111	89	335
6-	Length of field canals	210	160	130	500

The problems

- 1 -Lack of rainfall and snow in the past three years have led to a shortage of irrigation water in the Tigris and the Euphrates rivers .
- 2-The establishment of many dams in Turkey in the Tigris River before the arrival of water to Lake Mosul Dam.
- 3-the growth of aquatic plants in irrigation canals.
- 4-Soil salinity in the project due to high temperature in summer season.
- 5-low groundwater levels in most areas the region .

Solutions to long-range goal

Development of agriculture and irrigation in Iraq and increasing agricultural production and overcome the problem of lack of water in the River Tigris and the Euphrates River and development of the north al-jazeera irrigation Project to overcome the problems distribution of water in irrigation canals due to the growth of aquatic plants.

Short Term Goal

To get rid of the problem of aquatic plants growing in irrigation canals in the north al-jazeera Irrigation Project , which hamper the distribution of water to all of the project, Which affect the share of water project .

Expected results of the project

- 1 – address the problems of irrigation water aquatic plants and sediments in the bottom of irrigation channels.**
- 2- Water distribution to all parts of the project fairly.**
- 3- Increased agricultural production in the project.**
- 4- eliminate the shortage of irrigation water in the basin of the Mosul Dam Lake.**
- 5- Get rid of blocking the operation of sprinkler irrigation water withdrawn from the field Channel**

Cost of the project

- 1-harvester to clean Aquatic plants from the main channels bed width (4) meters / number(2) -
= 180000 \$ × 2 =360000 \$.
- 2- Dump cars to get from the jungles of cleaning/number(4)
=36000\$×4 = 144000 \$.
- 3- Cranes jungles / number (2)
= 50000 \$ × 2 = 100000 \$.
- 4- Working hands to clean up the channels of small farm along the 500 km.l , at length meters (2 \$)
= 2 × 500 km.l × 1000 = 1000000 \$.
- 5- Staff salaries (5) months and (10) persons = 50,000 \$.
- 6-The total project cost = 1654000 \$.

Environmental and economic effects led to the creation of this project

- 1- prevent the flow of water in irrigation canals, which affects the distribution of water to all of the project.**
- 2 - absorb a large amount of water through the roots.**
- 3 - preventing the flow of sunlight into the water.**
- 4- Air and water pollution by toxic gases after the death of plants.**

Finally

We thank the Japanese government and Japan International Cooperation Agency (JICA) for this support to take advantage of the training session ,which is useful for irrigation engineer for the development of engineering expertise and a lot of scenes projects Technology high in many parts of Japan .

JICA PARTICIPANT



Republic of Iraq

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THANK YOU FOR YOUR ATTENTION