



Field Report, 18 May 2022

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These Field Reports are prepared by the field staff of UNAMI's Development Support Office (DSO), who are based in Iraq's governorates, where they coordinate with local government officials, NGOs, community groups, and other development actors. They also monitor socio-economic and development trends to improve the UN's understanding of events in Iraq.

1. Basra – Gas Flaring Harms Public Health and Environment



The first thing one sees when visiting Basra is the long row of flares along the horizon. The black smoke blighting the skies is a serious threat to the region’s fragile biodiversity. For the oil companies, it is cheaper to flare off the associated gas than capture and process it, despite the obvious environmental, economic, and social impacts.

Today air pollution has reached a critical and unprecedented level in Basra. According to the World Bank, the five largest oilfields in Basra account for 65 percent of national flared gas.¹

“We should seriously think of reducing these emissions, build clean energy, and make use of the natural gas, which are witnessing a significant price increase affected by the current political crises,” said Dr. Hussain Jawad, an Assistant Professor at Basra University.

According to Alaa Al-Badran, an environmental expert, the uncontrolled practice of burning gas causes acid rain, which has a negative impact on vegetation, and leads to the acidification of soils. The harmful chemical compounds associated with smoke travel over a large area before eventually depositing in the soil. In some areas of Basra, the harvest vegetables are usually stained with black soot.

“Investing companies are committed to think of ways to improve lives while increasing profits,” says Mazin, an orchard owner, who lives close to Zubair oilfield. “Many people here suffer from irritated and infected skin, allergies, and other diseases. Unless serious action is taken by the government, these areas could turn uninhabitable very soon,” he added.

In addition to the social and health effects of flaring, it is also a waste of resources. While most of Iraq’s natural gas is burnt off, Iraq imports every day around 750 million cubic feet of natural gas from Iran to meet the increasing demands for electricity.

Due to pressure from human rights and environmental activists, as well as the affected local communities, the government is finally considering options to curb flaring and urge investors to consider their social responsibilities. But can these wasteful and polluting practices be really stopped and cured?

In 2021, Iraq contracted with the French company Total Energies as a step towards phasing out gas flares and part of a holistic plans for an optimal gas investment.²



Flares from oil fields in Basra © local media



Row of smoke along the horizon in Rumaila oilfield © social media.

¹ World Bank -Global Gas Flaring Data tracker <https://www.worldbank.org/en/programs/gasflaringreduction/global-flaring-data>

² The Ministry of Oil has recently pledged to cut flare gas by 90 percent by 2024, However, the target is likely to face bureaucratic obstacles, technical and political challenges.



2. North-Central Iraq – The Revival of Rail Transport



With increasingly congested roads, rising oil prices, and climate change, there is renewed interest in reviving the once venerable Iraqi Rail Network. Maps from the UN Department of Field Support Cartographic Section show a railroad connection from Kirkuk to Erbil.

Director Zangana of the Kirkuk Department for Public Transport laughs a little when shown the map, because this ‘northern connection’ exists only on international maps, not in reality. Instead, there is a ‘western connection’ that almost connects Kirkuk to the main Mosul-Baghdad line at Bayji in Salah-al-

Din province.

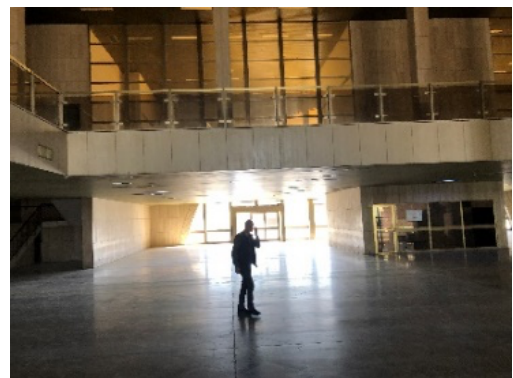
A 118-km long ‘eastern connection’ between Kirkuk and Sulaymaniyah has long been promoted by the Iraq National Investment Commission. Due to the high start-up costs of USD \$3 billion, this proposed railway project has failed to attract any investors so far.

In 2003, the bridge over the Tigris River at Al Futha in Salah-al-Din was destroyed. This severed Kirkuk’s link with the Iraqi Rail Network. If this bridge were to be repaired, Iraqi Railways would be able to move passengers and haul cargo from Kirkuk via Bayji across the ‘southern connection’ to Baghdad and all the way down to the port of Basra.



UN maps show railroads that no longer exist. © UN DFS

Kirkuk has three stations in separate locations: one for passengers, maintenance, and cargo. Looting in 2003 destroyed the maintenance and cargo stations. Fortunately, the passenger station is still in good shape. With some minor refurbishments, Kirkuk Central could return to regular service, selling tickets and transporting travelers.



Kirkuk Train Station only needs a few minor repairs. © UNAMI-DSO

In 2019, the Government’s Reconstruction Fund for Areas Affected by Terrorist Operations (REFAATO) and UNDP’s Funding Facility for Stabilization (FFS), proposed repairs to the station in Hawiga.

However, the Governor of Kirkuk deprioritized this proposal. Without the Al Futha bridge to cross the Tigris River in Salah-al-Din, no train would be able to reach Kirkuk governorate anyway, no matter how beautifully refurbished the new station in Riyad, Hawiga.

Director Zangana reminisced how his grandfather in the 1950s travelled by train from Mosul to all major cities in Europe. In the 1980s, Kirkuk Central was a lively hub of trade, commerce, passengers, and travelers, with shops, a railway hotel, and bus transfer service.



Trains waiting for a connection at Kirkuk Station since 2003. © UNAMI-DSO

Regrettably, all stations along the once venerable Kirkuk-Mosul line sit empty and unused.



Without investment from the Government, the only way forward may be through the Chinese Belt and Road Initiative, which links ports and railways along the former Silk Road.

Iraq's neighbors are already members of this global initiative, which could provide a missing link between Istanbul and Teheran. But before Iraqi Railways can potentially benefit, Iraq would first need to join the Asian Infrastructure and Development Bank.

Membership is seen as a political as well an economic decision. Meanwhile, passengers in Kirkuk and Mosul have been waiting 20 years for the train to arrive.

3. Muthanna – Natural Landmark on the Verge of Disappearing

Lake Sawa, 23 km west of Samawah city, is an unusual endorheic³ oasis in the arid desert of Muthanna. Nearly ten thousand years old, it once spanned over an of area 12.5 km², fed by groundwater originating from the higher western desert.



The lake used to be a popular picnic and tourist destination, but climate change and hundreds of wells have significantly shrank the size and depth of the lake since 2019. Consequently, waterfowl, raptors, and other birds have migrated, and the fish disappeared.

Youssef Sawadi, the Director of Muthanna's Environmental Department, says that in addition to climate change and surrounding wells, earthquakes have also closed the cracks in the bottom of the lake where the groundwater used to flow. "It is a national and international loss of a natural landmark," he laments.

Dr. Haider Al-Manhlawi, an Environmental Professor at Muthanna University, adds that one of the most important reasons that Lake Sawa's water level is dropping is the massive pumping of groundwater from a site located south of the lake to feed the Mamlahat Al-Samawah (salt flats) from where sodium chloride is extracted.

According to Al-Manhlawi, unique groundwater chemistry is an essential element that makes up the lake's water, and it has been proven useful in treating skin conditions.



Mohammed Talib, the Director of Muthanna's Water Department, explains, "This year (2022) is considered the worst and driest year for residents of Muthanna." He adds that the Ministry of Water Resources allocated a water quota to Muthanna from the Euphrates River to operate water purification plants and provide water to the population, and there are no other sources to feed the lake besides groundwater.

According to Mohammed Abdullah, the Director of the Muthanna Water Resources Directorate, Muthanna gets water from two sources during the year: ice melt in Iran, Turkey, which flows into

³ Also spelled endoreic or endorreic basin, is a [drainage basin](#) that normally retains water and allows no outflow to other external bodies of water, such as [rivers](#) or [oceans](#), but drainage converges instead into lakes or swamps, permanent or seasonal, that equilibrate through [evaporation](#).

the Euphrates and Tigris Rivers, and rainfall, which in recent years, have decreased due to drought. In addition, Turkey has built a number of dams on Euphrates River.

The head of the Environmental Protection and Biodiversity NGO, Ahmed Al-Jashami, called for saving Lake Sawa from drought by closing more than a thousand groundwater wells close to the lake, which are used to irrigate farmland.



Sawa Lake After the Drought © Environment DG

He added that “saving the lake from deterioration and neglect will take investment, rebuilding facilities and infrastructure, and intensifying efforts to include it in the UN Environment Program to be under international supervision.” The lake joined the Ramsar Convention for the Protection of Wetlands in 2015. He continued, “If we do not save the lake from drying out, we will lose an ecological and historical landmark forever.”

4. Thi-Qar – Fighting Desertification



Thi-Qar has recently witnessed an expansion of desertification and sandstorms due to erosion of agricultural lands and illegal transformation of farmland to residential areas, especially in the cities and suburbs. Driving from Nassriya (the capital of Thi-Qar Governorate), the effect of desertification and land deterioration are obvious. Dried up irrigation channels reveal changes caused by falling water levels.

Discussions with sedentary farmers and semi-nomadic herdsmen in the northern regions of Thi-Qar confirmed the rapidly declining situation and the difficulty of eking out a living from the land.

In addition, these communities fight with each other over water quotas, as the government's role in stopping such disputes remains limited.

Young people in these communities prefer to migrate to the cities for work and living, but few have succeeded.

Many factors like climate change, drought, changing land use patterns,⁴ obsolete irrigation methods, and deterioration of pastures are linked with the expansion of desertification.

Climate change and global warming have started to exert a noticeable impact on Iraq⁵ and the entire region, attributed to a decrease in water resources, including rainfall and increasing temperatures, humidity, evaporation and sandstorms.



Soil degradation in Thi-Qar @ local media

⁴ Land-use-change patterns are the result of the complex interaction between the human and the physical environment such as erosion of agricultural lands and illegal transformation of agricultural lands to residential areas.

⁵ According to the available data of Ministry of Planning, desert lands form 31% of Iraq's area. Particularly, the fact that 2,531,000 acres are in danger of desertification represents a wakeup call. The desert land area comprised of 46,000 acres in Thi-Qar, and 502,000 acres are areas exposed to desertification.



On 13 January 2022, the Governor of Thi-Qar launched a green belt project to plant trees in a 100 km area to reduce land deterioration and desertification and control sand dunes.

The project will be implemented along the highway linking Thi-Qar with Muthanna and Qadissiya governorates, starting from the Al-Kata`ah area located northwest of Nassriya, extending from Al-Nasr district in the north to the Euphrates River in the south.

The first phase of the project will be completed by the end of 2022. Hundreds of thousands of drought-tolerant and salinity-tolerant seedlings like Eucalyptus, Oleander and Cypress will be planted.

The project also includes digging many artesian wells⁶ and establishing greenhouses for planting different types of trees. It is funded and managed by the Ministry of Agriculture with the support of the General Secretariat of the Council of Ministers.

The project will create approximately 3,000 job opportunities for agricultural college graduates. They will be responsible for managing and maintaining the project.

On 13 April 2022, Mr. Karim Hani, the Director of Thi-Qar's Environment Department, suggested that there is a need to develop strategies with both the government and citizens to cope with desertification.

This includes establishing an integrated government program in view of the repercussions of desertification on human life and diagnosing the causes that lead to desertification in each region separately to find appropriate solutions. For example, in Thi-Qar, desertification is mainly linked to declining water resources in the governorate, but in Babylon, desertification is caused by overgrazing and cutting of trees.



Warning of the worsening phenomenon of desertification@ local media



Green belt project launched in Thi-Qar@ social media

⁶ A well from which water flows under natural pressure without pumping. It is dug or drilled wherever a gently dipping, permeable rock layer (such as sandstone) receives water along its outcrop at a level higher than the level of the surface of the ground at the well site. Artesian wells were named after the former province of Artois in France, where many artesian wells were drilled by Carthusian monks from 1126.

5. New Potato Varieties Ready to Hit the Kurdistan Market in 2022



Two new types of potatoes are about to be introduced to the Iraq market. The two varieties, Yousif and Atra, are named after the children of the Managing Director of Kartopa, a local company and the main sponsor of the research work.

The two varieties proved to be adaptable to the local climate and need about 120 days from planting to harvest. According to Rafail S. Toma, the lead researcher, the varieties are better in terms of early production. In Kurdistan they can be planted in fall as well as in spring.

In addition, they have Vitamin C and excel in chips processing. These factors make them unique and superior to other known varieties.

These tubers were developed by the College of Agriculture Engineering Sciences at the University of the Duhok in partnership with Kartopa and the Netherlands' Independent Breeders Platform (IBP). The varieties are waiting official registration and approval from Iraqi authorities before release.

Both varieties are super qualified in terms of pigments, texture, and taste according to Toma. The hybrid tubers come in different colors: Atra shows yellow and pink, while Yousif is yellow. Both are easy to cook, free from after-cooking discoloration, and have a mealy texture with creamy flesh characteristics.

Toma says that they have already identified and trained local farmers to grow the first batch, adding that the new varieties are hybrid combinations of table and processed potatoes.

Toma noted that there are many potato varieties grown in Kurdistan, and the leading supplier is the Beirut-Erbil Potato Processing Company (BEPP), which imports seed potatoes from well-known global sources. However, Yousif and Atra are Kurdistan's locally made product.

The Dean of Duhok University's agricultural college, Dr. Abid Ali Hasan, explained that the college was established in 1992 with eight scientific departments. The teaching staff is now 230 for 1,170 students.

The university's Department of Horticulture is already working on a new research project to produce a sweet potato in Iraq. Some varieties have been brought from Egypt and propagated in the tissue culture lab.

Another project the department is working on is that of the Paulownia tree, which is very fast-growing and good for producing wood and flowers, especially benefiting bees and leaves used for animals feeding.



Potato varieties 'Yousif' and 'Atra' in college of agriculture lab © 2020, Horticulture college Univ. Duhok

The Paulownia is environmentally friendly, as it does not consume much water and grows in different types of soil. The cost of producing the seedlings is also very cheap, under 1,000 IQD (0.68 USD).

6. Kirkuk – Ramadan Celebrations



Markets filled with shoppers, family visits, a communal game of Seni Zerf: these are unique features of Ramadan celebrations in Kirkuk. The Holy Month is filled with joy and contemplation, fasting, reciting the Quran, reflecting, and after iftar,⁷ fun, feast, and food!

On the first day of Ramadan, there is a change in the atmosphere - people are more friendly, considerate, thoughtful, wear their best clothing, and participate in traditions that Kirkuk has kept for centuries.

Every year, people decorate their houses and shops with colorful signs, stars, crescents, lanterns, and lights. The Suq Al Kabeer (the Big Bazaar) in downtown Kirkuk is filled with shoppers who stock up for the month's festivities.

The daily hunger is broken with a few dried dates. After that, the party starts. "The majority of families are keen to share their signature dish with their neighbors. This tradition strengthens social cohesion," said Sharifa Abdulla, a 65-year-old retiree from Quds Street in Kirkuk.

In Kirkuk, there is a new trend during Ramadan: dining out. Local restaurants are seeing a bonanza. Instead of a traditional meal at an overcrowded house, family members and friends break their fast together at restaurants that offer an open buffet with all-you-can-eat.

Unusually, Kirkuk restaurants now also take reservations for suhoor (early dawn) breakfasts. Unlike iftar meals, which are lavish, meaty affairs, suhoor meals tend to be quite light, consisting of bread, cheese, yogurt, eggs, fruit, and lentil soup.

Ali Kadhem, a 55-year-old teacher, says, "Ramadan nights are the most pleasant time, as I can visit all my friends and relatives." Such calls last from iftar until suhoor, in other words, the whole night. This is easier on weekends, when people do not work.



The big Bazaar in Kirkuk is filled with shoppers on Ramadan night © Anadolu Agency



A group of people from different ethnic groups play a game of Seni Zerf at a café on Ramadan night © kirkuktv.net

⁷ Iftar is a meal taken by Muslims at sunset to break the daily fast during Ramadan.



What makes Ramadan in Kirkuk unique is the game of Seni Zarf. After the Tarawih prayers,⁸ young people gather in a café or teahouse to form two teams.

The game is played on a circular tray, which symbolizes the year, and 11 cups symbolizing each month. The 12th cup is missing, as it represents the month of Ramadan. The first player hides a ring under one of the 11 cups, after which the opposing team has to guess its location.

Ibrahim Nizam, one of the top-ranked players in Kirkuk, explained that winning “depends on intelligence and the ability to make an educated guess of the opponent’s bluff.”



Ramadan games at the UNAMI Compound in Kirkuk. © UNAMI

The game strengthens relations and friendship, and players sing before starting a new game.

Women have their own traditions during Ramadan. Girls wear new dresses the week before Eid. Groups gather in one house to cook traditional klecha or ka’ak (sweets made of sesame and stuffed with date paste). In Kirkuk, all women come together at the citadel during the 26th night of Ramadan (Qadr night) to pray at the Mosque of the Prophet Daniel.

The UN office in Kirkuk also celebrated Ramadan this year. On 27 April 2022, the spirit of Ramadan was tangible inside the UN Compound during a communal iftar. International staff from UNAMI and the UN Agencies in Kirkuk tasted traditional dishes including biryani, qozee (lamb), beans and klecha. After the iftar meal, Muslims and non-Muslims alike engaged in a friendly chat about Ramadan traditions in Kirkuk, played Ramadan games, and had a wonderful time, gaining renewed appreciation for this unique religious and cultural event.

⁸ Tarawih prayer is an optional night prayer performed only during Ramadan.