International Labour Organization

Republic of Iraq

The Employment, Environment, Climate Nexus Factsheet

August 2025

Introduction

The **Employment, Environment, Climate Nexus Factsheets** are a series produced for countries and territories in the Arab States region.[i] This Factsheet provides data on labour market and environmental sustainability performance in the Republic of Iraq (henceforth referred to as 'Iraq'), as well as on vulnerability to climate change and the potential for green job creation.

- **Labour market**: Iraq's labour market is marked by exceptionally low labour force participation rates for women (10.8 per cent) and high unemployment rates (16.2 per cent), especially among women and youth. Informal employment is prevalent, affecting nearly 7 in 10 workers, driven by conflict, displacement, and weak educational outcomes.
- **Environmental challenges**: Iraq performs poorly in global environmental rankings, placing 172nd out of 180 in the 2022 Environmental Performance Index. The country has limited protected terrestrial areas (0.3 per cent of land area), though it includes significant sites such as the Ahwar Marshes.
- **Climate vulnerability**: Iraq is among the Arab States most vulnerable to climate change, with high exposure to desertification, drought, and extreme heat. Its ND-GAIN index score reflects low readiness for adaptation, especially in terms of governance and economic structures.
- **Decarbonization**: Iraq submitted updated NDCs in 2021, targeting a 15% emissions reduction by 2030 (conditional on international support). Current initiatives include reducing gas flaring, shifting to natural gas, and expanding solar energy capacity toward a 25 per cent renewables share in electricity generation.
- **Data sources**: This brief draws on data from national statistics (CSO, KRSO, ILO), the World Bank, Climate Watch, EPI (Yale), ND-GAIN, EM-DAT, and IRENA Renewable Energy Statistics 2025.

Country overview

Iraq is a country of around 434,128 km^2 located in the Arab States (Figure 1).ii With Gross National Income (GNI) of US$ 5,490 per capita in 2022, Iraq is categorized as upper middle income according to the World Bank income group classification.iii Gross Domestic Product (GDP) is estimated to have grown 0.1 per cent in 2024 and forecast at 4.1 per cent in 2025.iv This compares to 1.7 per annum over the decade prior (2014-2024).

Figure 1. Location of Iraq

Disclaimer: The boundaries shown on this map do not imply endorsement or acceptance by the ILO

The population was estimated at 44.6 million in 2023, representing annual average population growth of 2.6 per cent per annum over the last decade – roughly the same as the regional average (Figure 2).[v] In 2022, a total of 71.4 per cent of the population lived in urban areas.[vi]

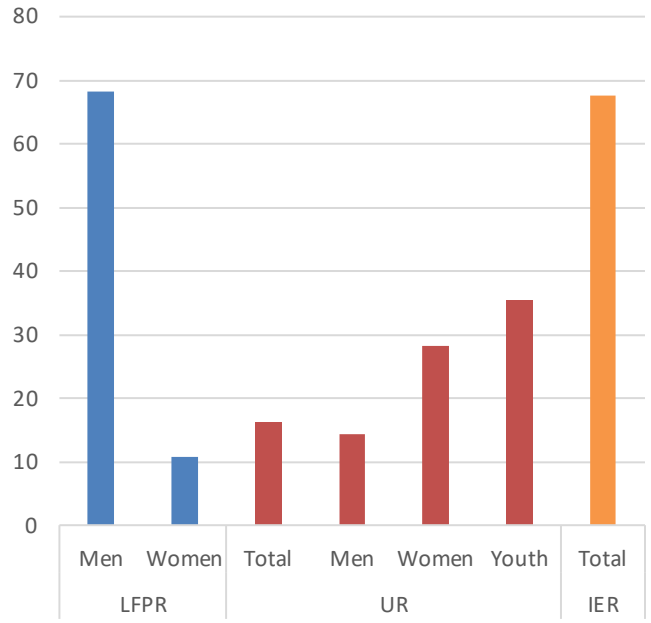
Figure 2. Population growth, Iraq and Arab States (Index 2000 = 100)

Source: United Nations Population Division's World Population Prospects: 2024 Revision.

Labour market

Iraq's labour market is characterised by low rates of labour force participation, at 39.7 per cent in 2021, caused by exceptionally low participation for women at 10.8 per cent (Figure 3). The unemployment rate was also elevated at 16.2 per cent in 2021, of which the rate was 28.3 per cent for women and 35.4 per cent for youth. Such high unemployment rates signal a lack of productive opportunities. For youth, this is reflected in NEET (not in employment, education or training) rates, which accounted for nearly 37 per cent of the youth population in 2021, and more than half of the female youth population.[vii]

Figure 3. Selected labour market variables, modelled estimates, 2021 (percentages)



Source: CSO, KRSO, ILO, 2022. Iraq Labour Force Survey 2021. LFPR = Labour force participation rate. UR = Unemployment rate. IER = Informal employment rate

Conflict, displacement, economic disruption and associated lack of progress in education and labour productivity have all contributed to a labour market that is characterised by decent work deficits. For those in employment, the last labour force survey (2021) found that nearly 7 in 10 were in informal employment (Figure 3).

▶ Environment and climate

Nature and protected areas

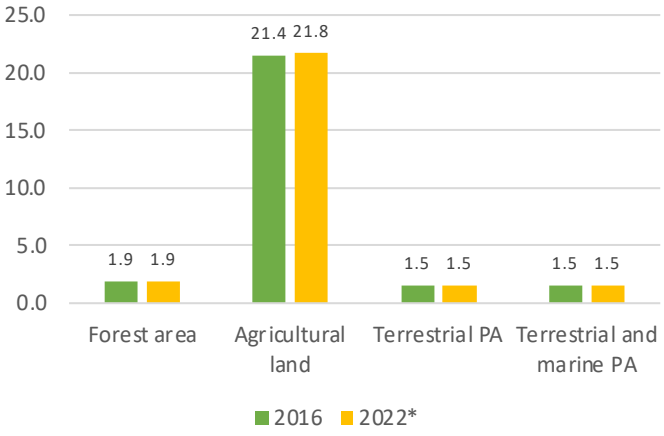
Protected areas are a crucial means of environmental preservation and conservation. In Iraq, 1.5 per cent of total land area were protected areas in 2022 (Figure 5), compared to 1.5 per cent in 2016.[viii] Terrestrial protected areas in this context are totally or partially protected areas of at least 1,000 hectares that are designated by national authorities as scientific reserves with limited public access, national parks, natural monuments, nature reserves or wildlife sanctuaries, protected landscapes, and areas managed mainly for sustainable use.

Iraq is home to at least 13 threatened species of mammal and 17 birds, with very varied desert, marshland, mountain and coastal terrain[ix]. It has designate a number of protected areas, but together these only cover 0.3 per cent of Iraq's land area[x]. One of Iraq's largest conservation areas is the 'Ahwar' Marshes of Southern Iraq, one of the world's largest inland delta systems[xi].

Once marine protected areas are incorporated, 1.5 per cent of total territorial area were territorial or marine protected areas (a lower value due to the denominator).[xii] Marine protected areas in this context refer to areas of intertidal or subtidal terrain--and overlying water and associated flora and fauna and historical and cultural features--that have been reserved by law or other effective means to protect part or all of the enclosed environment.

Of Iraq's total land area, 21.8 per cent is agricultural land (compared to 19.4 per cent in 2001). Agricultural land in this context refers to the share of land area that is arable, under permanent crops, and under permanent pastures.[xiii]

Figure 4. Forest area, agricultural land, terrestrial and marine protection areas, Iraq, 2016 and 2022 (percentage)



*Note: PA = protected area. Terrestrial protected areas (% of total land area); Terrestrial and marine protected areas (% of total territorial area); Forest area (% of land area); Agricultural land (% of land area). *2018-2022 latest available datapoint. Source: World Database on Protected Areas (WDPA) accessed via World Development Indicators.*

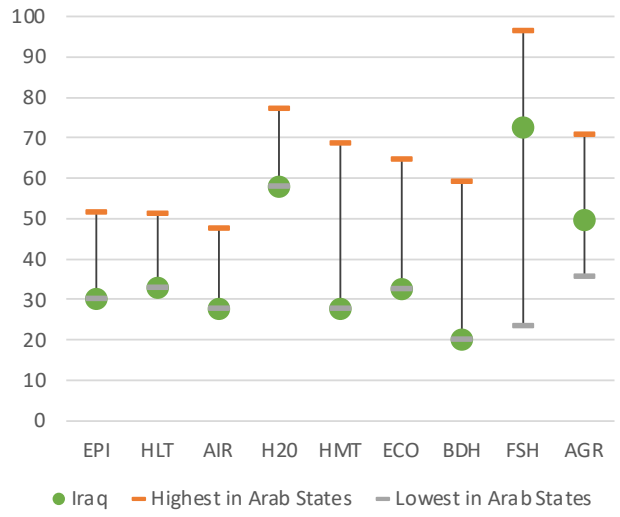
Environmental performance

Iraq ranks 172nd of 180 countries in the latest Environmental Performance Index (EPI), 2022 – where top ranking means the best environmental performance.[xiv] The EPI assesses countries on 40 different performance indicators and ranks them according to their national efforts towards environmental health, ecosystem vitality and climate change mitigation.

According to the assessment criteria, Iraq scores 30.3 points on a scale of 0-100 (where 0 is worst and 100 best performing). For reference, the highest-ranking countries globally were in Europe, and included Estonia, Luxembourg, Finland and Germany, with scores of over 70. At the lower end it included Viet Nam, Pakistan, Lao PDR and Myanmar, with scores of below 30. For the nine Arab States with available data, the highest rank was for United Arab Emirates with a score of 51.6 and lowest in Iraq with a score of 30.3.

Figure 5 shows a selection of indicators for Iraq and how it compares to the highest and lowest scores for the Arab States, thereby allowing a gauge of where the country performs better or worse in relative terms.

▶ Figure 5. Environmental performance index and selected indicators, Iraq and Arab States, 2022

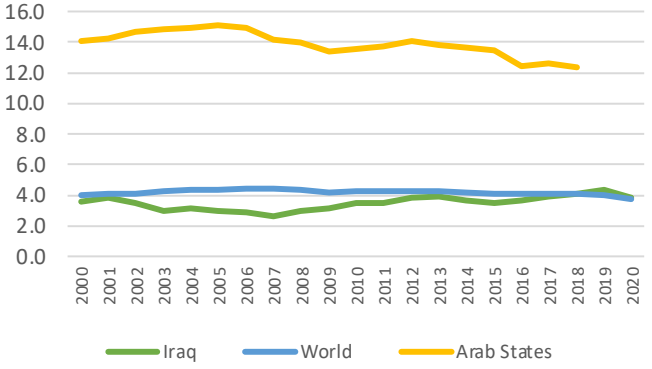


Note: EPI = Environmental Protection Index; HLT = Environmental health; AIR = Air quality; H20 = Sanitation and drinking water; HMT = Heavy metals; ECO = Ecosystem vitality; BDH = Biodiversity and habitat; FSH = Fisheries; AGR = Agriculture. Score 0 (worst) – 100 (best). Values of zero reflect absent data and are not included in the highs and lows. Source: EPI Score 2022. Available at: https://epi.yale.edu/downloads [20 March 2025]

CO2 emissions and decarbonization

The carbon dioxide (CO2) emission levels for Iraq were estimated at 163,512 kt in 2020.[xv] This marks a significant increase from 87,631 kt in 2002, representing annual average growth in CO2 emissions of 3.3 per cent from 2000-2022. While total CO2 emissions are largely related to the size of the economy, a per-capita metric serves as a relative measure for comparing countries (Figure 6). In 2020, the unweighted average across countries in the Arab States region was estimated at 12.4 metric tonnes per capita. In Iraq it was estimated at 3.8 metric tonnes per capita for the same year, more than twice the regional average.

▶ Figure 6. CO2 emissions, 2000-2020, Iraq, Arab States and World, (metric tonnes per capita)

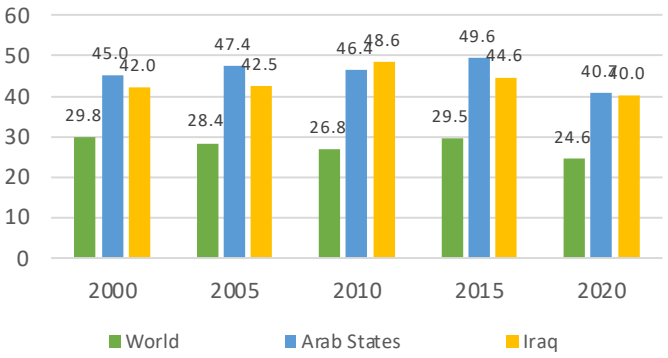


Note: Arab States and World are unweighted averages. Source: Climate Watch. 2024. GHG Emissions. Washington, DC: World Resources Institute [20 March 2025].

Air quality

The level of PM2.5 (atmospheric particulate matter with a diameter of less than 2.5 micrometres) emissions for Iraq is estimated at 40.0 (micrograms per cubic metre) in 2020, compared to 42.0 in 2000 (Figure 7).[xvi] It is more than double an unweighted average across countries in the Arab States of 40.7 in 2020. Notably, the World Health Organization's Air Quality Guideline threshold level emission is stated at 10 micrograms per cubic metre. The percentage of the population exposed to ambient concentrations of PM2.5 that exceed the WHO guideline (the lower end of the range of concentrations over which adverse health effects due to PM2.5 exposure have been observed) has been estimated at 100 per cent for Iraq for all years with available data since 2000.

▶ Figure 7. Air quality PM 2.5 emissions, 2000-2019, Iraq, Arab States and World (micrograms per cubic metre)

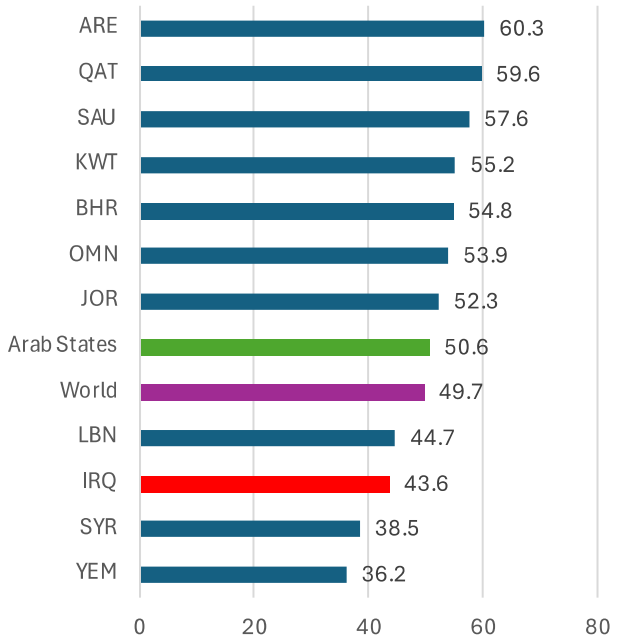


Note: Regional averages are unweighted averages. Source: Global Burden of Disease Collaborative Network. 2021. Global Burden Study 2019.) Air Pollution Exposure Estimates 1990-2019 [20 March 2025].

▶ Vulnerability to climate change

The Notre Dame Global Adaptation Index (ND GAIN) considers vulnerability to climate change and related global challenges as well as resiliency and preparedness.[xvii] As shown in Figure 8, Iraq ranks amongst the worst in the Arab States, which means it has amongst the highest risk to climate change of the Arab States.

▶ **Figure 8. ND GAIN Index, Iraq, Arab States and World, 2022**

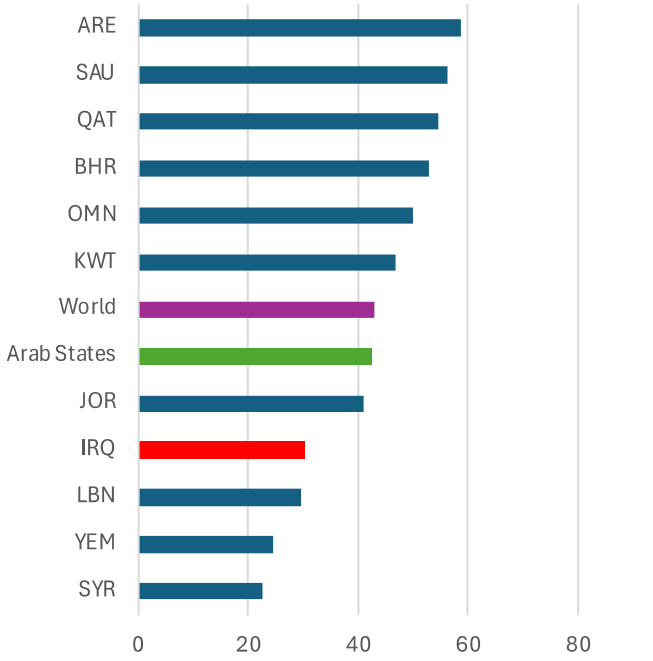


Note: Arab States and World are unweighted averages. Source: ND-GAIN Country Index. No data available for PSE. Available at: https://gain.nd.edu [20 March 2025]

The risk score (where 100 denotes lower risk, and 0 highest risk) is higher only in Syria and Yemen (for where data is available) than the United Arab Emirates. With a score of 43.6, it scores worse than the Arab States and global average. The score represents a mix of vulnerability to climate change and readiness to adapt.

The ND GAIN index evaluates the readiness and the vulnerability of countries. The **readiness** factor of the ND GAIN index (see Figure 9), which refers to the 'ability to leverage investments and convert them to adaptation actions' is assessed in terms of economic readiness, governance readiness and social readiness and their ability to enhance the application and mobility of investment to promote adaptation. Economic readiness captures the ability of a country's business environment to accept investment that could be applied to adaptation that reduces vulnerability (reduces sensitivity and improves adaptive capacity). Governance readiness reflects the institutional factors that enhance the application of adaptation investments. Social readiness indicates the social factors that enhance the mobility of investment and promote adaptation actions. In this regard, Iraq ranks amongst the lowest, worse only in Lebanon, Yemen and Syria (Figure 9). Suggesting a lack of economic, governance, and social readiness factors in place to facilitate climate change mitigation.

▶ **Figure 9. ND GAIN Readiness Index, Iraq, Arab States and World, 2022**



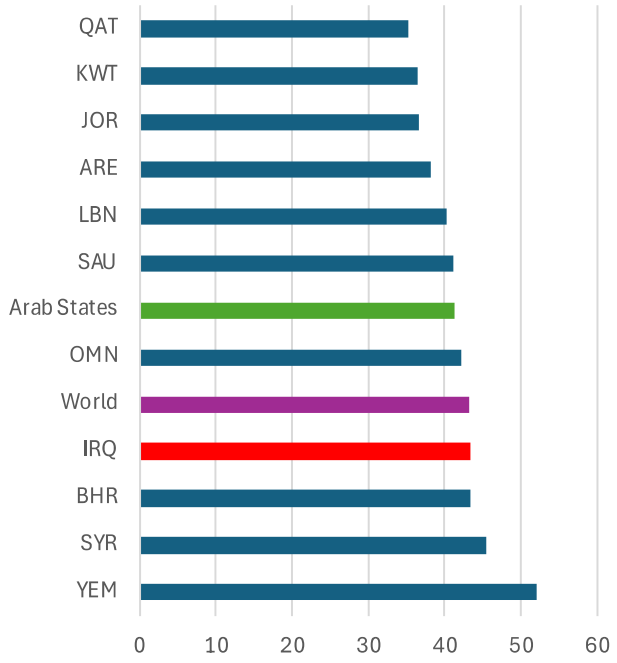
Note: Arab States and World are unweighted averages. Source: ND-GAIN Country Index. No data available for PSE. Available at: https://gain.nd.edu [20 March 2025]

The relative high readiness score reflects the country's high-income status and relatively high GDP. Other factors including the provision of basic services are widely available, reducing the impact even on vulnerable populations. Almost all of the population had access to at least basic sanitation services in 2022, basic drinking water services, access to electricity and access to clean fuels and technologies for cooking.[xviii]

The **vulnerability** components of the ND GAIN index looks at 'exposure, sensitivity and capacity to adapt to the negative effects of climate change' (see Figure 10). Accordingly, this is analyzed based on three dimensions: i) Exposure - the degree to which a system is exposed to significant climate change from a biophysical perspective, capturing the physical factors external to the system that contribute to vulnerability; ii) Sensitivity - the extent to which a sector is affected by climate-related hazards; and iii) Adaptive Capacity - the ability of

a sector to cope with or adapt to the impacts of climate change.

▶ **Figure 10. ND GAIN Vulnerability Index, Iraq, Arab States and World, 2022**



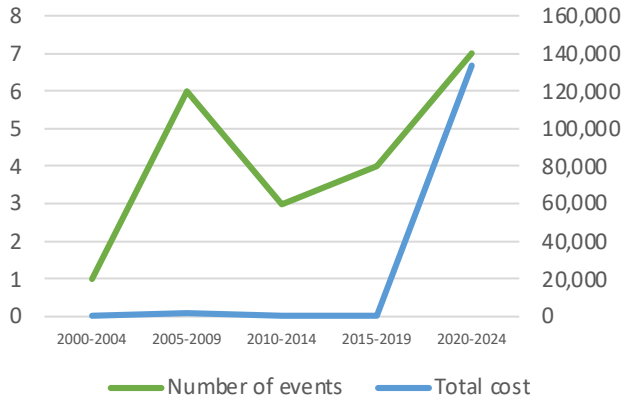
Note: Arab States and World are unweighted averages. Source: ND-GAIN Country Index. No data available for PSE. Available at: https://gain.nd.edu [20 March 2025]

In terms of vulnerability, Iraq ranks relatively low (i.e. higher vulnerability relative to other Arab States), lower only in Bahrain, Syria and Yemen (Figure 10). Over the 2020-2024 period, there were around seven climate-change related natural disasters in Iraq (Figure 11).

As with its neighbouring countries, Iraq is very vulnerable to the effects of climate change, including from extreme heat events, droughts, sandstorms and desertification. 15 per cent of Iraq's land area is already thought to be in a state of extreme desertification.[xix] In a bid to tackle desertification realities in much of the country, Iraq also announced in 2024 plans to plant 10 million trees.

Though Iraq sometimes opts to grant exceptional holidays to workers in times of very extreme heat and though it has some occupational health guidelines, it lacks targeted legislation to protect the large proportion of its workforce that work outside in sectors such as agriculture and construction.[xx]

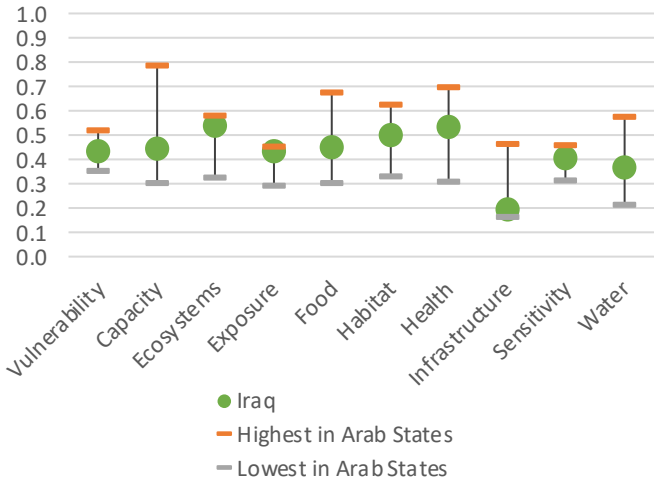
▶ **Figure 11. Number of natural disasters (LHS) and total cost of natural disasters (RHS – US$ thousand) per 5-year period, Iraq, 2000-2024**



Source: ILO compilation using EM-DAT. Available at: https://www.emdat.be [25 March 2025]

Figure 12 provides other comparisons of how the country fares relative to other countries and territories in the Arab States region with respect to different composite indicators of the vulnerability component of the index. For instance, it shows that for ecosystems – i.e. that which provides the natural capital upon which human society builds its economy and social system and include natural resources that are at the foundation of all almost all product value chains – Iraq has a score of 0.54, relative to highs (least vulnerable) in the region of 0.58 and lows of 0.32. Shifting geoclimes due to changed temperature and precipitation cause stress within ecosystems unable to respond as quickly as these shifts require.[xxi]

▶ **Figure 12. Notre Dame Global Adaptation Index, Vulnerability and composite indicators, 2023, Iraq and Arab States (index score)**



Note: Arab States is an unweighted average. Source: ND-GAIN Country Index. Available at: https://gain.nd.edu [20 March 2025]

▶ Climate policies and plans

Iraq updated its Nationally Determined Contributions (NDC) to the UNFCCC in 2021, with a 15 per cent emissions reduction target compared to baseline by 2030[xxii], conditional on sufficient international financial support.[xxiii] A large amount of the focus to achieve emissions reductions is on improvements in its hydrocarbon sector, including reduced flaring, leak detection and fuel switching to natural gas[xxiv]. Iraq also has plans to include expansions in the use of renewables and in the rollout of more sustainable public transportation.

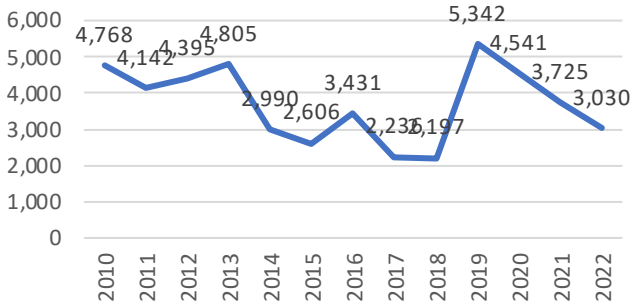
Iraq has announced a plan to reach 25 per cent of its electricity generation through renewables by 2030[xxv], mostly focusing on solar investments. Iraq's National Renewable Energy Team already is in the process of procuring several more plants; two 20MW solar power plants have already been approved in Rusafa and Karkhf [xxvi]. Beyond this, many domestic and internationally-funded projects support local solar generation, for example for schools and hospitals that is supported by UNICEF[xxvii].

▶ Jobs in renewable energy

Iraq is sometimes described as one the world's 'most oil dependent' countries in the world; over the past decade, oil revenues have made up 99 per cent of export values and 42 per cent of GDP[xxviii], and total government revenues are highly dependent on global oil prices.

Renewable energy accounted for around 2.6 per cent of total energy generation in 2022. There has been some oscillation in renewable energy generation over the last decade, but total renewable energy generation was estimated at 3,030 GWh in 2022, compared to 4,395 in 2012 (Figure 13).

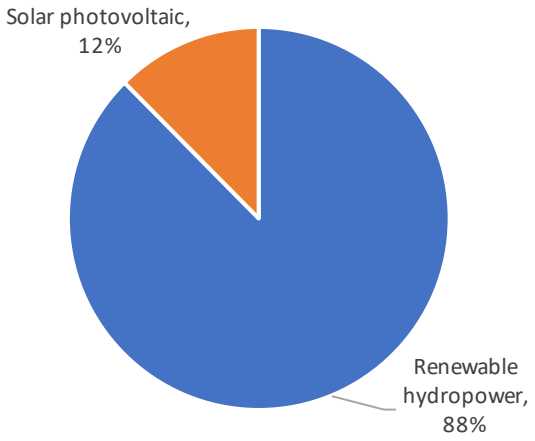
▶ Figure 13. Total renewable energy generation (GWh), 2001-2022



Source: ILO compilation using IRENA Renewable Energy Statistics 2025. Available at: https://www.irena.org/Data [20 March 2025]

The main source of renewable energy generation is renewable hydropower which accounts of 88 per cent of total renewable energy generation, followed by solar photovoltaic, at 12 per cent. There are no jobs estimates for those in the renewable energy sector.

▶ Figure 14. Renewable energy generation (GWh) by technology, 2022



Source: ILO compilation using IRENA Renewable Energy Statistics 2025. Available at: https://www.irena.org/Data [20 March 2025]

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▶ References and technical information

[i] Arab States in this context refer to the countries and territories covered by the ILO Regional Office of the Arab States: Bahrain, Iraq, Jordan, Kuwait, Lebanon, the Occupied Palestinian Territory, Oman, Qatar, Saudi Arabia, the Syrian Arab Republic, the United Arab Emirates, and Yemen.
[ii] Source: Food and Agriculture Organization, electronic files and web site. Accessed via World Development Indicators [20.03.25]
[iii] World Bank national accounts data, and OECD National Accounts data files. Accessed via World Development Indicators [20.03.25]
[iv] International Monetary Fund, World Economic Outlook, October 2024.
[v] Source: (1) United Nations Population Division. World Population Prospects: 2019 Revision. (2) Census reports and other statistical publications from national statistical offices, (3) Eurostat: Demographic Statistics, (4) United Nations Statistical Division. Population and Vital Statistics Report (various years), (5) U.S. Census Bureau: International Database, and (6) Secretariat of the Pacific Community: Statistics and Demography Programme. Accessed via World Development Indicators [20.03.25]
[vi] United Nations Population Division. World Urbanization Prospects: 2024 Revision [20.03.25]
[vii] CSO, KRSO, ILO. 2022. Labour Force Survey 2021.
[viii] Source: World Database on Protected Areas (WDPA) where the compilation and management is carried out by United Nations Environment World Conservation Monitoring Centre (UNEP-WCMC) in collaboration with governments, non-governmental organizations, academia and industry. The data is available online through the Protected Planet website. Accessed via World Development Indicators [20.03.25].
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[x]Ibid,
[xi] UNESCO World Heritage Centre. "The Ahwar of Southern Iraq: Refuge of Biodiversity and the Relict Landscape of the Mesopotamian Cities." Accessed March 2025. https://whc.unesco.org/en/list/1481/
[xii] Source: World Database on Protected Areas (WDPA) where the compilation and management is carried out by United Nations Environment World Conservation Monitoring Centre (UNEP-WCMC) in collaboration with governments, non-governmental organizations, academia and industry. The data is available online through the Protected Planet website. Accessed via World Development Indicators [20.03.25].
[xiii] Source: Ibid.
[xiv] The 2022 Environmental Performance Index (EPI) provides a data-driven summary of the state of sustainability around the world. Using 40 performance indicators across 11 issue categories, the EPI ranks 180 countries on climate change performance, environmental health, and ecosystem vitality. These indicators provide a gauge at a national scale of how close countries are to established environmental policy targets. The EPI offers a scorecard that highlights leaders and laggards in environmental performance and provides practical guidance for countries that aspire to move toward a sustainable future. Source: EPI Raw Data, available at: https://epi.yale.edu [20.03.25]
[xv] Source: Climate Watch. 2020. GHG Emissions. Washington, DC: World Resources Institute. Accessed via World Development Indicators [20.03.25].
[xvi] Global Burden of Disease Collaborative Network. 2021. Global Burden of Disease Study 2019 (GBD 2019) Air Pollution Exposure Estimates 1990-2019. Accessed via World Development Indicators [20.03.25].
[xvii] The Notre Dame Global Adaptation Initiative (ND-GAIN) Country Index is a measurement tool that helps governments, businesses and communities examine risks exacerbated by climate change, such as over-crowding, food insecurity, inadequate infrastructure, and civil conflicts. The Country Index uses 20 years of data across 45 indicators to rank over 180 countries annually based on their level of vulnerability, and their readiness to successfully implement adaptation solutions. Available at: https://gain.nd.edu [22 September 2023]
[xviii] Source: WHO UNICEF Joint Monitoring Programme (JMP) for Water Supply, Sanitation and Hygiene (washdata.org). Accessed via World Development Indicators [20.03.25].
[xix] IntelliNews. "Iraq Plans to Plant 10mn Trees to Combat Desertification." September 2, 2024 https://www.intellinews.com/iraq-plans-to-plant-10mn-trees-to-combat-desertification-341366/#:~:text=Iraq%20has%20announced%20a%20plan,deadly%20sandstorms%20in%20recent%20years.
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[xxv] KBR. "Charting the Bright Future for Iraq's Energy Sector." August 10, 2024 https://www.kbr.com/en/insights-news/stories/charting-bright-future-iraqs-energy-sector

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