

Innovation as an Engine for Regional Development: Strengthening and Expanding the Abraham Accords in the Fields of Water, Food and Healthcare

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The Abraham Accords signing ceremony at the White House

credit: noamgalai



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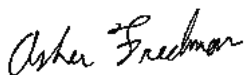
Opening Letter from the Misgav Institute for National Security and the Konrad Adenauer Foundation Israel

The Abraham Accords opened the door to groundbreaking cooperation between Israel and its neighbors in fields fundamental to sustainable development and human well-being across the Middle East and around the world. Three areas which are both particularly important and which represent particularly high-potential for Abraham Accords cooperation are health, water and food security. In the years following the signing of the Abraham Accords in 2020, numerous joint ventures in these fields were announced. Nevertheless, most of these ventures remain in the early stages of development, and the potential for strengthening and expanding such efforts is vast.

The European Union and Germany are deeply committed to the UN Sustainable Development Goals (SDGs), as part of the 2030 Agenda for Sustainable Development, including those related to Good Health and Well-Being, Clean Water and Sanitation, Zero Hunger, Responsible Consumption and Climate Action. The EU and Germany are also committed to advancing regional integration, and a lasting and viable Middle East peace. These two objectives are mutually reinforcing. Indeed, when the EU, in November 2023, released its Action Document for regional EU-Israel cooperation in support of the Abraham Accords, it noted that the plan would address a number of the SDGs including by “contributing to stronger public and political support for regional cooperation, stability, Arab-Israeli peace and reconciliation, and by addressing a number of common regional challenges including adaptation to climate change...water management or food security.”

In light of these shared priorities, the Misgav Institute for National Security and the Konrad Adenauer Foundation Israel Office are pleased to present this joint research paper, which explores the opportunities for enhanced innovation partnerships between Israel and both current and potential Abraham Accords countries in the areas of health, water, and food systems. The study examines existing achievements, identifies obstacles and gaps, and outlines measures and policies required to unlock the full promise of such collaboration. It also offers concrete recommendations for how Germany and the EU can play an active role in facilitating and supporting shared initiatives for mutual benefit, despite the fact that the current conflict has created significant challenges to regional cooperation.

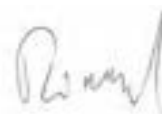
We trust that this paper will be valuable to policymakers, entrepreneurs, researchers, civil society leaders, and others seeking to promote practical regional cooperation in these essential sectors. While the heightened geopolitical tensions since Hamas' October 7, 2023 attack have complicated progress, the imperative of advancing stability, peace, and prosperity is greater than ever. By fostering partnerships in areas that directly affect the daily lives of all the peoples of the region, we can help lay the foundations for a future built on dialogue, shared innovation, and a warm and lasting peace.



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Highlights

The fields of water, food and healthcare offer a strategic opportunity for regional collaborations between Israel and countries that signed the Abraham Accords (the UAE, Bahrain, Morocco and Sudan) and with potential candidates, including Saudi Arabia. In addition to the top-priority defense and security needs, countries in the region are attributing increasing importance to addressing acute challenges relating to water scarcity, food insecurity and improving public healthcare systems – as an integral part of their national development plans:

- In relation to **water**, countries in the region are contending with overexploitation of freshwater sources, a shortage of recycling and partial access to clean water. Israel offers proven solutions for desalination, wastewater recycling, smart water management and data-based forecasting technologies.
- In relation to **food**, there is high dependence on imports, coupled with a desire to strengthen sustainable local production. Israel offers unique know-how in desert agriculture, precision irrigation, advanced cultivation technologies and food-tech solutions.
- In relation to **healthcare**, relatively high morbidity rates, disparities in access to medicine in outlying regions and a growing need for personalized healthcare solutions create numerous opportunities for Israel, which is an innovation leader in fields such as digital medicine, telemedicine, genetic data analyses and bioinformatics.

Goal-oriented collaborations in these fields, harmonized with the target countries' needs and national vision, could enable Israel to establish an ongoing regional presence and deepen partnerships based on the values of stability, sustainability and innovation. Considering the inherent potential, this document recommends a policy based on four key guiding principles:

- **Adapting Israeli solutions to local needs:** Adapting innovative Israeli technologies and services to government plans and SDGs in Abraham Accords countries, by creating partnerships with local governmental and private entities.
- **Promoting integration into national ventures using a public-private partnership model (PPP):** Encouraging Israeli companies to participate in wide-scale national projects in the Middle East, led by sovereign funds, by establishing local branches in order to reduce legal and regulatory obstacles.
- **Establishing a dedicated financial support mechanism:** Devising a system of state guarantees and risk insurance for Israeli business activities in Abraham Accords countries, focusing on markets such as Saudi Arabia and the United Arab Emirates, to contend with project financing difficulties.

- **Formulating of a multi-year strategic plan for international development:** Adding a humanitarian layer to Israel's commercial approach through joint ventures between Israel and Abraham Accords countries in developing countries, for the purposes of promoting regional stability and humanitarian influence and establishing Israel's standing as a responsible partner.

Germany, the leading European country in advancing the UN's Sustainable Development Goals and a strong supporter of regional integration in the Middle East, can play a key role in supporting and building this process, in conjunction with the European Union, which has already formed a strategic partnership with the Gulf states. A trilateral partnership between Israel, the Gulf states and Germany/the EU can become a significant engine for promoting stability, innovation and sustainable development in the region.



Drip irrigation system

credit: Orest lyzhechka

Introduction

Since the signing of the Abraham Accords in August 2020, relations between Israel and the signatory countries have deepened in a spectrum of fields. The cooperation is reflected in groundbreaking forums and summits, such as the Negev Forum, high-echelon diplomatic visits and joint initiatives that brought together investors, experts and academics from all over the region.¹ Economic ties have reached new heights, with total annual trade between the countries steadily increasing from USD 633 million in 2020 to about USD 4 billion in 2023.²

The Abraham Accords have remained stable, notwithstanding the geopolitical tensions caused by the Hamas terrorist attack on October 7 and the fighting in the Gaza Strip. In fact, while Israel's general trade in the fourth quarter of 2023 dropped by 18% compared to the previous year, trade with Abraham Accords signatory countries declined far more moderately – by about 4%.³ The trend of recovery continued in 2024, with stronger economic collaborations and expansions of ties in many fields. According to an analysis by the Abraham Accords Institute, trade between Israel and the United Arab Emirates reached USD 3.24 billion in 2024 – a 10% increase compared to 2023; trade with Bahrain skyrocketed by 843% and reached USD 108.5 million, while trade with Morocco rose by 40% and reached USD 109.9 million.⁴

Sectoral segmentation of Israeli exports shows that the defense sector accounts for the vast majority of economic engagements with Abraham Accords countries, particularly exports of missiles, UAVs and air defense systems. In 2024, defense exports to Abraham Accords countries totalled about USD 1.8 billion, about 12% of Israel's total defense exports in 2024.⁵ For the sake of comparison, the volume of civilian goods exports in 2024 totalled about USD 600 million (not including services).⁶ Thus, it is evident that defense exports are a major economic engine in the various regional agreements, while civilian sectors are in a secondary position in terms of size and depth of activities.

1 Grossman, M. (September 11, 2024). *As the Israel-Hamas war continues, the Abraham Accords quietly turns four*. Atlantic Council. <https://www.atlanticcouncil.org/blogs/menasource/abraham-accords-anniversary-gaza>

2 Abraham Accords Peace Institute. (2024). *Annual Report 2023: Executive Summary*. <https://www.aapeaceinstitute.org/assets/uploads/docs/Annual-Report-2023-Executive-Summary.pdf>

3 Ibid.

4 Abraham Accords Peace Institute [@Peace_Accords]. (March 26, 2024). [Tweet]. X. https://x.com/Peace_Accords/status/1896595363936526509

5 Greenberg, T. (June 5, 2025). *Israel announces defense export record: \$15 billion in 2024*. Defense News. <https://www.defensenews.com/global/mideast-africa/2025/06/05/israel-announces-defense-export-record-15-billion-in-2024/>

6 Israel's Central Bureau of Statistics: *Table D1. – Trade Countries – Imports and Exports*: https://www.cbs.gov.il/he/mediarelease/DocLib/2025/156/16_25_156t1.pdf

The preference for defense industries over civilian goods and services is understandable, in light of the immediate strategic value that advanced defense technologies have to offer to the Gulf states, especially considering the Iranian threat. However, in addition to the importance of security cooperation with countries in the region, it appears that Israel is still far from realizing its potential in crucial civilian fields, including water, food and healthcare. Israeli innovation in these fields offers practical and effective solutions, based on Israel's amassed experience as a country with a Mediterranean climate and demographic challenges, and whose economy has come a long way from a resource-based economy to a knowledge-based economy. Therefore, Israel should consider increasing investments and encouraging civilian exports to countries in the region that focus on responding to water shortages, improving food security and expanding access to advanced healthcare services.

Moreover, investments in civilian fields can serve as a significant bridge to deep and broad normalization with the public and with the business sector in the Gulf states, as opposed to defense exports, which are largely transacted behind the scenes. Civilian investments and exports can also stimulate penetration into markets of other countries in the region, including countries that still have no official relations with Israel, while reaping reputational and diplomatic gains.

This report presents a comprehensive review of the needs and challenges facing Abraham Accords countries and Saudi Arabia in the fields of water, food and healthcare. This review also includes key policy measures and government programs in light of Abraham Accords countries' national visions and strategy, and an analysis of their performance based on selected indicators taken from the United Nations' Sustainable Development Goals (SDGs). Based on this analysis, this article aims to assess the inherent potential of Israeli innovation in these fields, and to ascertain how Israel can leverage it in order to deepen collaborations – both bilaterally and within the framework of multilateral initiatives – in order to strengthen and expand the Abraham Accords.

It should be noted that many projects and collaborations have been suspended since October 7, 2023 – mainly at the government level (G2G) but also at the business level – due to concerns about overt cooperation with Israelis. In light of this, these recommendations are intended to be implemented, first and foremost, after the political tensions in the wake of October 7 and the outbreak of the subsequent multi-front war have subsided. Nevertheless, some of the recommendations are already relevant during this period of high tensions, which focus on creating professional, institutional and strategic infrastructure enabling rapid responses and maximizing of the opportunities to arise after a possible change in the political arena.

United Arab Emirates

Water

Needs and challenges

The UAE is one of the most arid countries in the world; it suffers from a shortage of natural water resources and from average annual precipitation of only about 100 mm.⁷ Demands for water are constantly rising, inter alia, due to population growth – which has doubled since 2007⁸ – and due to the expansion of economic and agricultural activities. According to a report published by the World Resources Institute in August 2023, the UAE is classified as an extremely high water-stressed country.⁹

Groundwater is one of Abu Dhabi's main natural resources. It accounts for about 60% of the UAE's total water consumption and is mainly used to irrigate agricultural crops, as well as forests and parks.¹⁰ Due to the scarcity of groundwater, the UAE is dependent upon other water sources, such as desalinated seawater and rainfall generated by cloud seeding.¹¹ Most of the UAE's freshwater (about 40% of the total demand) comes from 70 desalination plants, which account for about 14% of the global production of desalinated water.¹²



Power and desalination plant in Dubai

credit: Aleksandra Tokarz

7 The Official Portal of the UAE Government. *Clean water and sanitation*. <https://u.ae/en/about-the-uae/leaving-no-one-behind/6cleanwaterandsanitation>

8 Worldometer. (n.d.). *United Arab Emirates population*. <https://www.worldometers.info/world-population/united-arab-emirates-population>

9 This classification is given when countries consume more than 80% of their renewable resources for irrigation, animal husbandry, industry and household uses: <https://www.wri.org/insights/highest-water-stressed-countries>

10 Emirates News Agency – WAM. (February 22, 2023). *Environment Agency – Abu Dhabi issues general policy for managing, protecting groundwater*. <https://www.wam.ae/en/details/1395303131654>

11 The Official Portal of the UAE Government. *Clean water and sanitation*. <https://u.ae/en/about-the-uae/leaving-no-one-behind/6cleanwaterandsanitation>

12 The Official Portal of the UAE Government. *Water Security Strategy 2036*. <https://u.ae/en/information-and-services/environment-and-energy/water-and-energy/water->

Performance compared to “Clean Water and Sanitation” goals as defined in SDG 6:¹³

Goal	Performance	Status
Percentage of the population that uses (at least) basic water services	100 [2022]	✓ This goal has been achieved, and the trend remains sustained
Percentage of the population that uses (at least) basic sanitation services	99.1 [2022]	✓ This goal has been achieved; no change
Percentage of freshwater consumed out of the total available renewable water	1,533.3 [2021]	☒ Difficulties achieving this goal; no change
Percentage of man-made wastewater that undergoes treatment	92.1 [2020]	✓ This goal has been achieved; no information available regarding progress
Scarce water consumption embodied in imports (m ³ H ₂ O eq/capita)	5,513.8 [2024]	☒ Difficulties achieving this goal; trend of improvement

Policy

In September 2017, the UAE Ministry of Energy announced the “Water Security Strategy for 2036,” which aims to ensure sustainable access to water, under both normal and emergency conditions, in conformity with the World Health Organization's standards and the UAE's vision for prosperity and sustainability.¹⁴ The strategy's objectives include reducing the total demand for water resources by 21%, raising the water productivity index, improving the country's water storage capacity and increasing water reuse to 95%. According to officials, its implementation is expected to save AED 74 billion and reduce carbon dioxide emissions (a by-product of desalination processes) by 100 million tons.¹⁵

In addition to efforts to increase rainfall, the UAE is investing heavily in projects to store rainwater and channel it to underground water reservoirs.¹⁶ To this end, the country has built more than 130 dams with an aggregate storage capacity of 120 million cubic meters of water.¹⁷ Dams contribute to flood protection and improve the quality and quantity of water in the aquifer by increasing groundwater flow rates.

13 Sachs, J.D., Lafortune, G., Fuller, G. (2024). *SDG Dashboards and Trends: United Arab Emirates*. <https://dashboards.sdgindex.org/static/profiles/pdfs/SDR-2025-united-arab-emirates.pdf>

14 Emirates News Agency – WAM. (September 27, 2017). *Ministry of Energy unveils UAE Water Security Strategy 2036*. <https://www.wam.ae/en/details/1395302634953>

15 Ibid.

16 The Official Portal of the UAE Government. *Clean water and sanitation*. <https://u.ae/en/about-the-uae/leaving-no-one-behind/6cleanwaterandsanitation>

17 Ibid.

The UAE supports the global efforts to provide freshwater through collaborations with developing countries in a variety of fields, such as desalination, efficient water technologies and recycling. The "Mohamed bin Zayed Water Initiative" is taking action to address water scarcity by raising public awareness of the issue, by increasing international collaborations and by technological innovation.¹⁸ The Suqia Water Aid Foundation has also promoted more than 1,000 projects to improve access to clean water in dozens of countries, including the construction of water purification plants and distribution networks to rural regions, the construction of wells, installations of water cooling and heating systems and infrastructure improvements.¹⁹

Food

Needs and challenges

Shrinking freshwater sources, rising temperatures and land desertification are some of the main natural threats to food security in the UAE, which is needed in order to feed a population which, to date, totals about 11 million people.²⁰ As of 2022, only about 0.7% of the country's land area is arable,²¹ and the arid desert climate, characterized by high temperatures and limited water resources, poses considerable difficulties in cultivating a wide variety of fruits, vegetables and various grains.

In addition, the UAE imports about 90% of its food, and the country is particularly vulnerable to supply chain disruptions.²² At the beginning of 2022, the conflict between Russia and Ukraine, which together produce about 30% of the global wheat exports and 19% of the corn exports, caused a nearly 60% spike in wheat prices.²³ Although prices later moderated, these circumstances underscored the country's need to diversify its sources of imports and to develop food reserves.

18 The Mohamed bin Zayed Water Initiative: <https://www.mohamedbinzayedwi.ae>

19 UAE Water Aid: <https://www.suqia.ae/our-solutions>

20 The Official Portal of the UAE Government. *Food Security*. <https://u.ae/en/information-and-services/environment-and-energy/food-security>

21 The Global Economy. (2022). *United Arab Emirates: Arable land, percent of land area*. https://www.theglobaleconomy.com/United-Arab-Emirates/arable_land_percent

22 Fathallah, H. (August 22, 2024). *Ensuring the UAE's food security in an unstable region*. Atlantic Council. <https://www.atlanticcouncil.org/blogs/menasource/uae-food-security>

23 Ibid.

Performance compared to selected “Zero Hunger” goals as defined in SDG 2:²⁴

Goal	Performance	Status
Incidence of malnutrition (%)	2.5 [2021]	✓ This goal has been achieved, and the trend remains sustained
Level of stability of the food system and supply cycles (best = 2, worst = 3)	2.2 [2021]	☒ This goal has been partially achieved; trend of moderate improvement
Grain yield (tons harvested per dunam of land)	23.6 [2022]	✓ This goal has been achieved, and the trend remains sustained

Policy

The UAE has launched the “National Food Security Strategy 2051” to address food security challenges. This strategy includes 38 short-term and long-term initiatives designed to facilitate global food trade, diversify sources of imports and identify alternative supply plans for key food categories.²⁵

Partnerships with the private sector play a key role in implementing Abu Dhabi’s food security policy.²⁶ For example, in line with the national strategy for diversifying food sources and reducing dependence on imports, the agricultural company, Al-Dahra, is investing in agricultural land abroad and focuses on essential products, such as rice, flour and animal feed. Another prominent Emirati company is Elite Agro, which is taking action to increase local production of fruits and vegetables through the use of advanced farming techniques, including hydroponics and vertical farming.²⁷

Furthermore, the world’s largest vertical farming facility was opened in July 2022, adjacent to the Al Maktoum Airport in Dubai. Emirates Flight Catering (EKFC) led this project, in collaboration with Crop One Holdings from the United States, in which they co-invested USD 40 million.²⁸ This farm is capable of producing more than 900 tons of leafy vegetables per annum, using 95% less water than traditional farming, making it ideal for the country’s desert conditions.²⁹

24 Sachs, J.D., Lafortune, G., Fuller, G. (2024). *SDG Dashboards and Trends: United Arab Emirates*. <https://dashboards.sdgindex.org/static/profiles/pdfs/SDR-2025-united-arab-emirates.pdf>

25 The Official Portal of the UAE Government. *National Food Security Strategy 2051*. <https://u.ae/en/about-the-uae/strategies-initiatives-and-awards/strategies-plans-and-vision/environment-and-energy/national-food-security-strategy-2051>

26 UAE Ministry of Industry and Advanced Technology (May 9, 2024). *UAE’s industrial success key to robust national food security, Minister of Industry and Advanced Technology hears*. <https://moiat.gov.ae/en/media-center/news/2022/05/18/visit-al-dhahara-rice-factory>

27 Mansoor, Z. (July 20, 2020). *UAE’s Elite Agro, Khalifa Fund partner to enhance food security*. Gulf Business. <https://gulfbusiness.com/uacs-elite-agro-khalifa-fund-partner-to-enhance-food-security>

28 Emirates News Agency – WAM. (June 26, 2018). *Emirates Flight Catering builds world’s largest vertical farming facility in Dubai*. <https://www.wam.ae/en/article/hszr76s7-emirates-flight-catering-builds-world%E2%80%99s-largest>

29 World Economic Forum. (May 13, 2022). *Dubai has the ‘world’s largest’ vertical farm – is this the future of agriculture?* <https://www.weforum.org/stories/2022/05/vertical-farming-future-of-agriculture>

The UAE has also taken significant measures to promote food security in the global arena. In 2021, within the framework of the United Nations' Climate Change Conference (COP26), Abu Dhabi, in collaboration with the United States, launched the "Agricultural Innovation Mission for Climate" (AIM for Climate). This joint initiative is dedicated to recruiting global entities to increase investments and innovation in climate-smart agriculture and in food systems, in order to provide an optimal response to climate change and global hunger.³⁰

Abu Dhabi has also established the "Regional Center of Excellence for Transforming Food Systems" in collaboration with the Ministry of Climate Change and Environment (MoCCAE) and the United Nations' Food and Agriculture Organization (FAO).³¹ The Center's mission is to drive innovation in regional food systems and promote sustainable agriculture.

Healthcare

Needs and challenges

The UAE has developed a stable healthcare system, but is contending with challenges due to manpower shortages and a high dependence on foreign employees. According to estimates, the country has 181 doctors per 100,000 residents, and the shortage of nurses and midwives is particularly acute, at 31 per 100,000 residents.³² For the sake of comparison, the UK has 88 nurses and midwives per 100,000 residents.³³ This shortage of medical personnel constitutes a material obstacle to the UAE realizing its vision of improving the quality of healthcare services.

30 AIM for Climate: <https://www.aimforclimate.org>

31 Emirates News Agency – WAM. (October 21, 2024). *UAE plays pivotal role in enhancing food security, sustainability: FAO*. <https://www.wam.ae/article/b5smmr2-uae-plays-pivotal-role-enhancing-food-security>

32 Alshamsi A. I. (2024). A review of the United Arab Emirates healthcare systems on medical tourism and accreditation. *Frontiers in health services*, 4, 1329252. <https://doi.org/10.3389/frhs.2024.1329252>

33 Ibid.

Performance compared to selected “Good Health and Well-Being” goals as defined in SDG 3.³⁴

Goal	Performance	Status
Maternal mortality rate (per 100,000 live births)	9.3 [2020]	✓ This goal has been achieved, and the trend remains sustained
Neonatal mortality rate (per 1,000 live births)	2.6 [2022]	✓ This goal has been achieved, and the trend remains sustained
Incidence of tuberculosis (per 100,000 residents)	0.8 [2022]	✓ This goal has been achieved, and the trend remains sustained
Age-standardized mortality rate from cardiovascular disease, cancer, diabetes, or chronic respiratory disease at ages 30-70 (%)	18.5 [2019]	☒ This goal has been partially achieved; trend of improvement
Age-standardized mortality rate deriving from indoor and outdoor air pollution (per 100,000 residents)	70 [2019]	☒ This goal has been partially achieved; no information available regarding progress
Life expectancy at birth (in years)	78.7 [2021]	☒ This goal has been partially achieved; no change

Policy

The Ministry of Health and Prevention's (MOHAP) healthcare and innovation strategy aims to advance healthcare by developing innovative systems, strengthening medical infrastructure and increasing the use of advanced technologies. In order to improve citizens' well-being and enhance excellence in healthcare, the MOHAP is focusing on six main strategic objectives: to introduce advanced medical services, such as robotic surgery and telemedicine; to develop the pharmaceutical and biotechnology industries; to advance medical research on treatments for prevalent diseases, such as diabetes and obesity; to create advanced technological systems for healthcare system management; to encourage healthy lifestyles through the use of smart technology for preventive purposes; and to design facilities in innovative ways that encourage physical activity and movement.³⁵

Within the framework of the government's “Centennial 2071 Project,” which aims to position the UAE as the best country in the world by 2071, the UAE is striving to ensure that the population has access to the most advanced medical services. Abu Dhabi is exerting efforts to develop a healthcare system that provides high-quality care at international standards, to reduce indicators associated with unhealthy lifestyles by 3%-6% and to improve access to healthcare services through smart technologies.³⁶

34 Sachs, J.D., Lafortune, G., Fuller, G. (2024). *SDG Dashboards and Trends: United Arab Emirates*. <https://dashboards.sdgindex.org/static/profiles/pdfs/SDR-2025-united-arab-emirates.pdf>

35 UAE Ministry of Health and Prevention. *Innovation health strategy*. <https://strategy-health-innovation/references/en/ae.gov.mohap/>

36 Government of UAE (December 4, 2022). *The National Policy for Promoting Healthy Lifestyles*. <https://u.ae/en/about-the-uae/strategies-initiatives-and-awards/policies/health/national-policy-to-promote-healthy-lifestyles-in-the-united-arab-emirates-2022>

In the global arena, the UAE is gradually becoming a leading destination for medical tourism. According to the Medical Tourism Index, Abu Dhabi ranks eighth (out of 46) in the list of the world's top destinations for medical tourism, and ninth in terms of the quality of medical services and facilities.³⁷

37 Medical Tourism Association. *Destinations: Abu Dhabi*. <https://www.medicaltourism.com/destinations/abu-dhabi>

Morocco

Water

Needs and challenges

Morocco is contending with a severe water crisis due to irregular rainfall, frequent droughts and a decrease in precipitation induced by climate changes.³⁸ Factors such as population growth, higher population migration to urban areas and higher water demands for agriculture are also putting a strain on existing resources.³⁹ According to a report published by the World Resources Institute in 2023, Morocco is classified as a highly water-stressed country.⁴⁰

In regions where the water supply relies solely on local sources, successive years of drought have led to persistent water shortages. In the summer of 2022, Morocco experienced its worst drought in decades, forcing the authorities to ration water, after reservoir levels dropped to a low of 28%, compared to 46% (of maximum capacity) in 2021.⁴¹

There is a critical need for modern infrastructure and advanced water distribution control and monitoring systems in order to contend with the water shortage in many regions of Morocco. According to Mohamed Farhaoui, head of the development department in the National Office of Electricity and Drinking Water (ONEE), Morocco's production capacity has been dropping drastically in recent years, from pumping 30-35 liters of groundwater per second to drilling, which produces only about 20 liters per second.⁴²

38 Taheripour, F., Tyner, W. E., Haqiqi, I., & Sajedinia, E. (2020). *Water scarcity in Morocco: Analysis of key water challenges*. World Bank Group. <https://documents1.worldbank.org/curated/en/642681580455542456/pdf>

39 Ibid.

40 This classification is given when countries consume between 40% and 80% of their renewable resources for needs such as irrigation, animal husbandry, industry and household uses: <https://www.wri.org/insights/highest-water-stressed-countries>

41 Rahhou, J. (August 8, 2022). Morocco rations water amid worst drought in three decades. Morocco World News. <https://www.moroccoworldnews.com/2022/08/42877/morocco-rations-water-amid-worst-drought-in-three-decades>

42 Charrier Rachidi, D. (December 7, 2023). *A pipeline to better lives*. European Investment Bank. <https://www.eib.org/en/stories/morocco-water-scarcity>

Performance compared to the “Clean Water and Sanitation” goals as defined in SDG 6.⁴³

Goal	Performance	Status
Percentage of the population that uses (at least) basic water services	87 [2022]	☒ Difficulties achieving this goal; trend of moderate improvement
Percentage of the population that uses (at least) basic sanitation services	87.5 [2022]	☒ This goal has been partially achieved; trend of moderate improvement
Percentage of freshwater consumed out of the total available renewable water	50.8 [2021]	☒ Difficulties achieving this goal; no change
Percentage of man-made wastewater that undergoes treatment	5.4 [2020]	☒ Difficulties achieving this goal; no information available regarding progress
Scarce water consumption embodied in imports (m ³ of water per capita)	730.5 [2024]	✓ This goal has been achieved; no change

Policy

The Moroccan government is promoting wide-scale investment plans in the field of water to address water challenges. In January 2020, the government adopted the “National Plan for Potable Water Supply and Irrigation” (PNAEPI) for the years 2020-2027, which is the first phase of the draft National Plan for the Water Sector (PNE).⁴⁴ Within the framework of the plan, efforts are being exerted to promote solutions for increasing the supply of water, focusing on investments to increase utilization of water sources by about an additional 3 billion m³ per annum by 2027.⁴⁵

Last year, Morocco's Minister of Water, Nizar Baraka, advised the Moroccan parliament that, despite water stress, the country succeeded in increasing its reservoir levels to almost 30% in 2024, an increase of about 5% compared to the previous year.⁴⁶ Within this context, Baraka stated that the government is taking action to improve the efficiency of the water network by 80% by 2030, inter alia, by five new dams that are currently being filled.⁴⁷

In addition, Morocco is investing heavily in desalination technology, particularly in coastal areas where traditional water sources are insufficient. Morocco has already established 16 desalination facilities, and five more are under construction. In his January 2024 statement,

43 Sachs, J.D., Lafortune, G., Fuller, G. (2024). SDG Dashboards and Trends: Morocco. <https://dashboards.sdgindex.org/static/profiles/pdfs/SDR-2025-morocco.pdf>

44 The World Bank. (June 5, 2023). *Morocco Water Security and Resilience Program (P179192)*. <https://documents1.worldbank.org/curated/en/642681580455542456/pdf>

45 Ibid.

46 Atalayar. (December 26, 2024). *Morocco seeks to desalinate 1.7 billion cubic metres of water by 2030*. <https://www.atalayar.com/en/articulo/society/morocco-seeks-to-desalinate-17-billion-cubic-metres-of-water-by-2030/20241226112004208893.html>

47 Ibid.

the minister set a target whereby 50% of Morocco's potable water supply (1.4 billion m³ of water) will come from desalination facilities by 2030,⁴⁸ and, by the end of the year, he revised the target to 1.7 billion m³ of desalinated water by 2030.⁴⁹

Morocco is also working in collaboration with international entities, such as the European Investment Bank (EIB), to address water shortages. Within the framework of a project completed in 2021 that was funded by the bank, the National Office of Electricity and Drinking Water extended a water pipeline from the city of Meknès to a nearby town in northern Morocco to ensure continuous water supply to the region's residents.⁵⁰

Food

Needs and challenges

Morocco's agriculture sector, which consumes about 80% of the water resources and employs about 36% of the workforce (67% of the jobs are in rural areas), has been hit hard by water shortages.⁵¹ The agricultural sector is facing considerable hardships due to consecutive years of drought, which have led to sharp drops in production, particularly of grains, which depend on rainfall. The dire situation in 2023 caused a 60% drop in grain production, resulting in heightened reliance on imports. At the same time, water-intensive crops, such as avocados and watermelons, reached record high production volumes, which exacerbated the water crisis.⁵² Due to the low availability of water for irrigation purposes, the prices of olive oil, a key component of Morocco's agricultural economy, have also surged.⁵³

48 Novo, C. (March 26, 2024). *Desalination in Morocco: Meeting water demands in a water-scarce region*. Smart Water Magazine. <https://smartwatermagazine.com/news/smart-water-magazine/desalination-morocco-meeting-water-demands-a-water-scarce-region>

49 Naim, F. (December 10, 2024). *Facing water crisis, Morocco targets 1.7 billion m³ of desalinated water by 2030*. Morocco World News. <https://www.moroccoworldnews.com/2024/12/167385/facing-water-crisis-morocco-targets-1-7-billion-m-sup3-of-desalinated-water-by-2030>

50 Charrier Rachidi, D. (December 7, 2023). *A pipeline to better lives*. European Investment Bank. <https://www.eib.org/en/stories/morocco-water-scarcity>

51 World Bank. (December 19, 2024). *New program will boost climate resilience of agriculture and quality of food production in Morocco* [Press release]. <https://www.worldbank.org/en/news/press-release/2024/12/19/new-program-will-boost-climate-resilience-of-agriculture-and-quality-of-food-production-in-morocco>

52 Webb, S. (April 23, 2023). *Morocco's water-intensive crops industry faces questions amid water shortages*. Morocco World News. <https://www.moroccoworldnews.com/2023/04/34170/moroccos-water-intensive-crops-industry-faces-questions-amid-water-shortages>

53 Tridge. (November 19, 2024). *Morocco: A surge in olive oil prices that worries consumers and authorities*. <https://www.tridge.com/news/olive-oil-a-surge-in-prices-that-worries-con-nytayl>

Performance compared to selected “Zero Hunger” goals as defined in SDG 2:⁵⁴

Goal	Performance	Status
Incidence of malnutrition (%)	6.3 [2021]	✓ This goal has been achieved; no change
Level of stability of the food system and supply cycles (best = 2, worst = 3)	2.2 [2021]	✓ This goal has been achieved; no change
Grain yield (tons harvested per dunam of land)	0.9 [2022]	☒ Difficulties achieving this goal; downtrend

Healthcare

Needs and challenges

The Moroccan healthcare system is contending with significant challenges, mainly wide disparities in resource allocations, which prioritize urban regions over rural ones, a shortage of funding, which adversely affects the supply of medicines and healthcare infrastructures, and a shortage of medical personnel, particularly doctors and nurses.⁵⁵ Since the outbreak of the Covid-19 pandemic, Morocco has received an aid budget totalling more than USD 4 billion from domestic and international sources to strengthen its healthcare infrastructures and curb the spread of the virus.⁵⁶

In addition, non-communicable diseases (NCDs) are responsible for more than 80% of mortalities, with a rise in risk factors, such as smoking and unhealthy nutrition. Morocco's healthcare system is also struggling to manage healthcare data, which constrains its ability to carry out quality control on the healthcare services being provided and to effectively plan healthcare strategies.⁵⁷

54 Sachs, J.D., Lafortune, G., Fuller, G. (2024). *SDG Dashboards and Trends: Morocco*. <https://dashboards.sdgindex.org/static/profiles/pdfs/SDR-2025-morocco.pdf>

55 Mahdaoui, M. & Kissani, N. (2023). *Morocco's Healthcare System: Achievements, Challenges, and Perspectives*. *Cureus*, 15(6), e41143. <https://doi.org/10.7759/cureus.41143>

56 International Trade Administration. (January 1, 2024). *Morocco - Healthcare*. <https://www.trade.gov/country-commercial-guides/morocco-healthcare>

57 Mahdaoui, M. & Kissani, N. (2023). *Morocco's Healthcare System: Achievements, Challenges, and Perspectives*. *Cureus*, 15(6), e41143. <https://doi.org/10.7759/cureus.41143>

Performance compared to selected “Good Health and Well-Being” goals as defined in SDG 3.⁵⁸

Goal	Performance	Status
Maternal mortality rate (per 100,000 live births)	71.9 [2020]	☒ This goal has been partially achieved; trend of improvement
Neonatal mortality rate (per 1,000 live births)	10.6 [2022]	✓ This goal has been achieved, and the trend remains sustained
Incidence of tuberculosis (per 100,000 residents)	93 [2022]	☒ Difficulties achieving this goal; no change
Age-standardized mortality rate from cardiovascular disease, cancer, diabetes, or chronic respiratory disease at ages 30-70 (%)	24.1 [2019]	☒ Difficulties achieving this goal; no change
Age-standardized mortality rate deriving from indoor and outdoor air pollution (per 100,000 residents)	67 [2019]	☒ This goal has been partially achieved; no information available regarding progress
Life expectancy at birth (in years)	74 [2021]	☒ Difficulties achieving this goal; no change

Policy

In May 2018, the Moroccan Ministry of Health launched the “National Health Plan 2025,” with a total budget of about USD 2.5 billion: USD 1.5 billion to improve hospital capacities and USD 1 billion to strengthen national healthcare programs and combat diseases.⁵⁹

In order to accelerate diverse reforms in the healthcare sector, the Moroccan government allocated USD 2.8 billion to the healthcare system in 2023.⁶⁰ The government also began implementing the “Health Map” project in 2023, which focuses on reorganizing treatment tracks, reducing the burden on healthcare institutions, shortening waiting times and ensuring the provision of equitable services among various regions.⁶¹ The university hospitals in Morocco are supporting the project as leading research and training institutions, and serve as centers to which the other hospitals in the region are linked.⁶² Efforts are also being exerted to create partnerships with the public and private sectors in order to enable the use of high-quality manpower and advanced technologies for the benefit of the general public.

58 Sachs, J.D., Lafortune, G., Fuller, G. (2024). SDG Dashboards and Trends: Morocco. <https://dashboards.sdgindex.org/static/profiles/pdfs/SDR-2025-morocco.pdf>

59 International Trade Administration. (January 1, 2024). *Morocco - Healthcare*. <https://www.trade.gov/country-commercial-guides/morocco-healthcare>

60 Ibid.

61 Mahdaoui, M. & Kissani, N. (2023). Morocco’s Healthcare System: Achievements, Challenges, and Perspectives. *Cureus*, 15(6), e41143. <https://doi.org/10.7759/cureus.41143>

62 Ibid.

In November 2024, the Minister of Health, Amine Tahraoui, presented his ministry's work plan for 2025, which includes the establishment of new hospitals, the renovation of existing healthcare centers to reduce disparities in accessibility, particularly in rural regions, the creation of a unified database, and programs for early diagnostic screenings and recommended vaccines to lower the neonatal and maternal mortality rates.⁶³

Morocco is leveraging collaborations with international entities to implement its healthcare priorities. In April 2023, during a festive ceremony commemorating the 75th anniversary of the formation of the World Health Organization (WHO), the WHO's representatives in the country, together with the Moroccan Ministry of Health and Welfare, signed a cooperation strategy for 2023-2027.⁶⁴ This strategy focuses on increasing the resilience of Morocco's national healthcare system, promoting equality and strengthening the national efforts to achieve universal healthcare coverage.

63 Naim, F. (November 6, 2024). *Morocco's 2025 healthcare priorities: Expanding infrastructure and workforce*. Morocco World News. <https://www.moroccoworldnews.com/2024/11/12800/moroccos-2025-healthcare-priorities-expanding-infrastructure-and-workforce>

64 World Health Organization. (April 25, 2023). *Launch of the Morocco–WHO cooperation strategy 2023–2027 on World Health Day and the 75th anniversary of WHO*. <https://www.emro.who.int/media/news/launch-of-the-moroccowho-cooperation-strategy-20232027-on-world-health-day-and-the-75th-anniversary-of-who.html>

Bahrain

Water

Needs and challenges

Bahrain is an island country with only about 780 square kilometers of land. With the exception of the northern and northwestern coasts of the island of Bahrain, which is characterized by fertile and agricultural land, the country is located in a tropical region with a dry climate and annual precipitation of only 80 mm.⁶⁵

As a result, the kingdom is dependent on the Dammam Aquifer, which is suffering from severe deterioration in quality and quantity due to over-pumping and seawater infiltration. In order to meet the demands for water in agricultural and urban regions, Bahrain also uses desalinated water and purified wastewater.⁶⁶ According to a report published by the World Resources Institute in 2023, Bahrain is classified as an extremely high water-stressed country.⁶⁷

According to official sources, as of 2020, most of Bahrain's water consumption is directed to household use (about 76.5%), followed by commercial needs (about 21%), while the industrial sector consumes the smallest quantity (about 2.5%).⁶⁸ Furthermore, although the agricultural sector accounts for only a small portion of Bahrain's GDP, it consumes a significant portion of the groundwater and surface water.⁶⁹

65 UN Food and Agriculture Organization. (February 2023). *Bahrain – Sustainable water use*. https://www.unwater.org/sites/default/files/2023-03/sdg6_acceleration_snapshot_642_bahrain_feb_2023.pdf

66 Ibid.

67 This classification is given when countries consume more than 80% of their renewable resources for irrigation, animal husbandry, industry and household uses: <https://www.wri.org/insights/highest-water-stressed-countries>

68 AgroBH. (February 2025). *Water consumption by sector in the Kingdom of Bahrain (2009–2020)*. <https://www.agro.bh/water/water-statistics/water-consumption>

69 UN Food and Agriculture Organization. (February 2023). *Bahrain – Sustainable water use*. https://www.unwater.org/sites/default/files/2023-03/sdg6_acceleration_snapshot_642_bahrain_feb_2023.pdf

Performance compared to the “Clean Water and Sanitation” goals as defined in SDG 6:⁷⁰

Goal	Performance	Status
Percentage of the population that uses (at least) basic water services	99.9 [2022]	✓ This goal has been achieved; no change
Percentage of the population that uses (at least) basic sanitation services	100 [2022]	✓ This goal has been achieved; trend of improvement
Percentage of freshwater consumed out of the total available renewable water	133.7 [2021]	☒ Difficulties achieving this goal; downtrend
Percentage of man-made wastewater that undergoes treatment	88 [2020]	✓ This goal has been achieved; no information available regarding progress
Scarce water consumption embodied in imports (m ³ H ₂ O eq/capita)	6450.3 [2024]	☒ Difficulties achieving this goal; trend of improvement

Policy

As part of implementing “Vision 2030,” the government of Bahrain has taken measures to ensure efficient and sustainable management of Bahrain’s water and electricity resources. These measures include promoting renewable energy and improving energy efficiency, establishing a system to reduce water waste and switching to advanced digital services to monitor water and electricity bills.⁷¹

Bahrain’s national water strategy focuses on expanding desalination and water storage capabilities through projects such as the Al Dur Phase 2 power and desalination plant, which is capable of producing 227,000 m³ of desalinated water per day. The kingdom is also taking action to improve coordination between government agencies responsible for implementing the strategy, and to raise public awareness of the importance of water conservation.⁷²

⁷⁰ Sachs, J.D., Lafortune, G., Fuller, G. (2024). *SDG Dashboards and Trends: Bahrain*. <https://dashboards.sdgindex.org/static/profiles/pdfs/SDR-2025-bahrain.pdf>

⁷¹ Kingdom of Bahrain Portal for Sustainable Development Goals. *Goal Six: Ensure availability and sustainable management of water and sanitation for all*. SDGs Bahrain. <https://www.sdgs.gov.bh/Goal/?ID=SAg/9rL2rwS19iITVAf7nw==>

⁷² Ibid.

Food

Needs and challenges

Bahrain has a rich agricultural tradition and was once known as the “Land of a Million Palm Trees.” Today, Bahrain’s agriculture sector focuses mainly on growing fresh vegetables offering high economic value. The fishing industry, which used to be a key component of the country’s economy, has shrunk considerably due to severe water pollution in the Persian Gulf.⁷³ The kingdom imports about 90% of its grain consumption, including rice and wheat, and domestically produces dairy products, eggs, dates, particular vegetables, and has limited poultry farming.⁷⁴

Performance compared to selected “Zero Hunger” goals as defined in SDG 2:⁷⁵

Goal	Performance	Status
Incidence of malnutrition (%)	2.5 [2021]	✓ This goal has been achieved; no information available regarding progress
Level of stability of the food system and supply cycles (best = 2, worst = 3)	2.3 [2021]	☒ Difficulties achieving this goal; no information available regarding progress
Grain yield (tons harvested per dunam of land)	No information is available	• No information is available

Policy

As part of a national strategy to boost domestic production and reduce dependence on food imports, the Kingdom of Bahrain grants extensive subsidies to the agriculture and fishing sectors and is taking action to develop alternative agricultural methods, such as hydroponic farming and aquaponics (a method that combines aquaculture and the cultivation of hydroponic plants in a single system), which are becoming increasingly popular in the kingdom.⁷⁶

In 2010, Bahrain launched the “National Initiative for Agricultural Development” (NIAD). One of the main objectives of this initiative is to coordinate the efforts and investments of the public and private sectors towards sustainable agricultural development. To this end, the government provides agricultural training and awareness-raising programs, and has developed the Agro BH agricultural database, all designed to centralize data, encourage

73 UN Economic and Social Commission for Western Asia. (2021). *Arab food security monitoring framework: Country reviews – Bahrain*. <https://www.unescwa.org/sites/default/files/inline-files/arab-food-security-country-reviews-bahrain-english.pdf>

74 Ibid.

75 Sachs, J.D., Lafortune, G., Fuller, G. (2024). *SDG Dashboards and Trends: Bahrain*. <https://dashboards.sdgindex.org/static/profiles/pdfs/SDR-2025-bahrain.pdf>

76 Kingdom of Bahrain’s National Portal. *Food Safety and Security*. <https://www.bahrain.bh/wps/portal/en/BNP/ExploreBahrain/FoodSafetyAndSecurity>

investments and support research and development in the sector.⁷⁷ Within the framework of this initiative, the kingdom also launched the "Bahrain International Garden Show," which serves as a platform for presenting innovative ideas in the fields of agriculture, horticulture, food security and sustainability.⁷⁸

The Kingdom of Bahrain is also taking action to improve food security through collaborations with neighboring countries. For example, in March 2024, Edamah, Bahrain's national real estate investment company, announced a strategic partnership with Badia Farms, a food producer from the United Arab Emirates, in which millions of dollars will be invested in a new and sustainable agricultural facility in Bahrain. According to the agreement, Badia Farms will lease an area of 50,000 m² from Edamah for the cultivation of a wide variety of fresh fruits and vegetables using hydroponic farming techniques, which include recycling of water and consumables, and use of solar panels to generate clean energy.⁷⁹

77 Al Mubarak, W. (February 14, 2025). *The GCC imports 85% of its food – here's how it is increasing food security through innovation*. World Economic Forum. <https://www.weforum.org/stories/2025/02/gulf-food-security-innovation>

78 AgroBH. *Bahrain International Garden Show*. The National Initiative for Agricultural Development. <https://bigs.com.bh/>

79 CW Staff. (March 26, 2024). *Bahrain: Edamah, UAE's Badia Farms invest 'millions' in hydroponic farm*. Construction Week Online. <https://www.constructionweekonline.com/news/bahrain-edamah-badia-farms>

Healthcare

Needs and challenges

Bahrain's healthcare system is contending with major challenges deriving from population growth, a demographic structure characterized by a large ratio of young people on the one hand and, on the other hand, an uptrend in the ratio of the elderly, as well as an increase in non-communicable chronic diseases (NCDs).⁸⁰ Upgrades to medical infrastructure and higher availability of medical personnel are also needed. There are growing demands for general nurses and specialized nurses, such as ICU nurses and midwives, along with higher demands for general practitioners to focus on consulting roles or on the administration of anesthesia.⁸¹

Performance compared to selected "Good Health and Well-Being" goals as defined in SDG 3.⁸²

Goal	Performance	Status
Maternal mortality rate (per 100,000 live births)	15.9 [2020]	✓ This goal has been achieved; no change
Neonatal mortality rate (per 1,000 live births)	2.8 [2022]	✓ This goal has been achieved, and the trend remains sustained
Incidence of tuberculosis (per 100,000 residents)	15 [2022]	☒ This goal has been partially achieved; no change
Age-standardized mortality rate from cardiovascular disease, cancer, diabetes, or chronic respiratory disease at ages 30-70 (%)	16.1 [2019]	☒ This goal has been partially achieved; trend of moderate improvement
Age-standardized mortality rate deriving from indoor and outdoor air pollution (per 100,000 residents)	68 [2019]	☒ This goal has been partially achieved; no information available regarding progress
Life expectancy at birth (in years)	78.8 [2021]	☒ This goal has been partially achieved; no change

80 Kingdom of Bahrain, Ministry of Health. (2002). *Bahrain health strategy: Framework for action 2002–2010*. https://extranet.who.int/countryplanningcycles/sites/default/files/planning_cycle_repository/bahrain/x_102201314332.pdf

81 Tamkeen (Bahrain's labor fund). *Health Sector Skills Report 2024*. <https://www.tamkeen.bh/wp-content/uploads/2024/09/Healthcare-Report-English.pdf>, p. 4.

82 Sachs, J.D., Lafortune, G., Fuller, G. (2024). *SDG Dashboards and Trends: Bahrain*. <https://dashboards.sdgindex.org/static/profiles/pdfs/SDR-2025-bahrain.pdf>

Policy

In 2020, Bahrain's National Healthcare Regulatory Authority (NHRA) published an updated strategy for the healthcare sector, which included three main objectives: to regulate the healthcare sector by meeting the requisite certification standards for all healthcare facilities, professionals, medicines and medical devices; to ensure safe and validated healthcare services through ongoing evaluations of the quality of the medical services being provided; and to protect the healthcare rights and safety of all users of healthcare facilities.⁸³

In the spirit of Bahrain's "Vision 2030," the Ministry of Health is promoting a series of initiatives designed to improve the quality of life, increase competitiveness and strengthen the principles of sustainability and fairness in the healthcare system. Among the key measures: the establishment of a national center for genetic analyses as part of the National Genome Project; the operation of smart statistical platforms to support decision-making processes; investments in preventive healthcare programs; and strengthening of partnerships with the private sector and encouraging innovative investments in the field of healthcare.⁸⁴

Another noteworthy initiative is the "National Health Information System" (I-SEHA Program), which aims to provide effective, comprehensive and accessible healthcare services to all citizens according to Bahrain's National Health Strategy. The program contributes to improving and accelerating the provision of services to patients and to increasing efficiency through advanced information and communications technology infrastructure linked to financial and human resource management systems.⁸⁵

83 National Health Regulatory Authority (NHRA). *Strategic plan 2021–2025*. <https://www.nhra.bh/About/Strategy/>, p.10.

84 Ministry of Health. *MoH initiatives related to 2030 vision*. <https://www.moh.gov.bh/Ministry/MOH2030vision?lang=en>

85 Kingdom of Bahrain's National Portal. *National Health Information System (I-SEHA program)*. <https://bahrain.bh/wps/portal/en/BNP/HomeNationalPortal>

Sudan

Civil war has been raging in Sudan since April 2023 between the Sudanese Armed Forces (SAF) and the paramilitary organization, the Rapid Support Forces (RSF).⁸⁶ The war has significantly exacerbated the severe humanitarian crisis that already prevailed in the country. As a result of the war, the number of people in need of humanitarian assistance has skyrocketed from about 16 million to about 30 million people – more than half of the population. In addition, the number of displaced persons has risen to more than 12 million people.⁸⁷

The war has plunged the country into total chaos, allowing ongoing abuse of residents and severe human rights violations. Sudan's healthcare system has collapsed, famine is widespread and many communities are being denied life-saving aid. In August 2024, it was reported that food security experts had officially confirmed that Sudan's North Darfur province is suffering from acute famine – a determination that means that people, including children, have already started dying of starvation and associated conditions, such as malnutrition and infections.⁸⁸ This type of determination had been made only twice more in the twenty years preceding it.⁸⁹

Even in normal times, Sudanese citizens live under harsh conditions and suffer especially from a lack of clean water and poor levels of hygiene and sanitation. These conditions pose a significant risk to communities and increase the mortality risk for children under the age of five. Furthermore, as of 2022, more than 10.5 million people were left with no alternative but to relieve themselves outdoors.⁹⁰

Water access in Sudan is extremely limited, with agriculture – employing 80% of the population – consuming 97% of available resources.⁹¹ Sudan shares much of the groundwater – such as in the Nile Basin – with neighboring countries, such as Egypt and Ethiopia, and groundwater use is neither regulated nor maintained by the government.⁹²

As for food resources, the main source of income for Sudanese is farms, largely rural,

86 Center for Preventive Action. (April 15, 2025). *Civil war in Sudan*. Council on Foreign Relations. <https://www.cfr.org/global-conflict-tracker/conflict/power-struggle-sudan>

87 International Rescue Committee. (April 17, 2023). *Crisis in Sudan: What is happening and how to help*. <https://www.rescue.org/article/crisis-sudan-what-happening-and-how-help>

88 World Food Programme. (August 1, 2024). *Famine confirmed in Sudan's North Darfur, confirming UN agencies worst fears*. <https://www.wfp.org/news/famine-confirmed-sudans-north-darfur-confirming-un-agencies-worst-fears>

89 Ibid.

90 UNICEF. *Water, sanitation and hygiene*. <https://www.unicef.org/sudan/water-sanitation-and-hygiene>

91 Barton, A. *Water in crisis - Sudan*. The Water Project. <https://thewaterproject.org/water-crisis/water-in-crisis-sudan>

92 Ibid.

which are based on rainwater and are cultivated using mechanized farming. However, irrigation and land tillage methods have reduced the amount of fertile land and accelerated desertification processes.⁹³ The dire economic situation, coupled with escalations of the internal conflicts, have further exacerbated the country's food crisis. According to the IPC index, which is used to ascertain the food security situation in countries and geographical regions, the year preceding the civil war was characterized by severe food insecurity, and the estimates were at that time (June 2022) that the local grain harvest in the 2021/22 season could be expected to provide food for only about 67% of the annual demand, leaving many dependent upon humanitarian aid and expensive grain imports.⁹⁴ Sudan, which depends on wheat imports from the Black Sea region, has been hit hard by the surge in grain prices caused by the war in Ukraine.

Performance compared to the "Clean Water and Sanitation" goals as defined in SDG 6.⁹⁵

Goal	Performance	Status
Percentage of the population that uses (at least) basic water services	64.9 [2022]	☒ Difficulties achieving this goal; no change
Percentage of the population that uses (at least) basic sanitation services	36.9 [2020]	☒ Difficulties achieving this goal; no information available regarding progress
Percentage of freshwater consumed out of the total available renewable water	118.7 [2021]	☒ Difficulties achieving this goal; no change
Percentage of man-made wastewater that undergoes treatment	0 [2020]	☒ Difficulties achieving this goal; no information available regarding progress
Scarce water consumption embodied in imports (m ³ H ₂ O eq/capita)	154.1 [2024]	✓ This goal has been achieved, and the trend remains sustained

93 Ali, A. H. (April 2024). *Sudan's puzzle: Confronting climate change in a war-torn state*. Middle East Council on Global Affairs. <https://mecouncil.org/publication/sudans-puzzle-confronting-climate-change-in-a-war-torn-state>

94 IPC-Integrated Food Security Phase Classification. (June 20, 2022). *Sudan - IPC acute food insecurity analysis April 2022 - February 2023*. https://fscluster.org/sites/default/files/documents/ipc_sudan_acutefoodinsecurity_2022apr2023feb_reportv2.pdf

95 Sachs, J.D., Lafortune, G., Fuller, G. (2024). *SDG Dashboards and Trends: Sudan*. <https://dashboards.sdgindex.org/static/profiles/pdfs/SDR-2025-sudan.pdf>

Performance compared to selected “Zero Hunger” goals as defined in SDG 2:⁹⁶

Goal	Performance	Status
Incidence of malnutrition (%)	11.9 [2021]	☒ Difficulties achieving this goal; downtrend
Level of stability of the food system and supply cycles (best = 2, worst = 3)	2.4 [2021]	☒ Difficulties achieving this goal; no information available regarding progress
Grain yield (tons harvested per dunam of land)	0.8 [2022]	☒ Difficulties achieving this goal; no change

Performance compared to selected “Good Health and Well-Being” goals as defined in SDG 3:⁹⁷

Goal	Performance	Status
Maternal mortality rate (per 100,000 live births)	270.4 [2020]	☒ Difficulties achieving this goal; no change
Neonatal mortality rate (per 1,000 live births)	25.7 [2022]	☒ Difficulties achieving this goal; no change
Incidence of tuberculosis (per 100,000 residents)	54 [2022]	☒ Difficulties achieving this goal; trend of moderate improvement
Age-standardized mortality rate from cardiovascular disease, cancer, diabetes, or chronic respiratory disease at ages 30-70 (%)	22.8 [2019]	☒ Difficulties achieving this goal; no change
Age-standardized mortality rate deriving from indoor and outdoor air pollution (per 100,000 residents)	145 [2019]	☒ Difficulties achieving this goal; no information available regarding progress
Life expectancy at birth (in years)	65.3 [2021]	☒ Difficulties achieving this goal; no change

⁹⁶ Ibid.

⁹⁷ Ibid.

Saudi Arabia

Water

Needs and challenges

Like for many countries in the Middle East, water scarcity is a significant challenge for Saudi Arabia, which is characterized by an arid desert environment, no natural water sources, such as lakes and rivers, and infrequent rainfall. With a population of about 36 million people, which is expected (according to assessments) to reach 40 million by 2030,⁹⁸ Saudi Arabia is among the ten most water-starved countries in the world.⁹⁹ According to a report published by the World Resources Institute in August 2023, Saudi Arabia is classified as an extremely high water-stressed country.¹⁰⁰ Overutilization of underground water resources and inefficient irrigation methods also make it difficult to meet demands. Saudi Arabia desalinates huge quantities of water (about 70% of the consumption) and thus causes severe environmental pollution – clashing with the crown prince's vision of achieving net-zero carbon emissions by 2060.¹⁰¹

98 O'Neill, A. (May 15, 2025). *Saudi Arabia: Total population from 2020 to 2030*. Statista. <https://www.statista.com/statistics/262467/total-population-of-saudi-arabia>

99 Kuzma, S., Saccoccia, L., & Chertock, M. (August 16, 2023). *25 countries, housing one-quarter of the population, face extremely high water stress*. World Resources Institute. <https://www.wri.org/insights/highest-water-stressed-countries>

100 Ibid. This classification is given when countries consume more than 80% of their renewable resources for irrigation, animal husbandry, industry and household uses.

101 Agence France-Presse. (September 17, 2023). *Water-starved Saudi confronts desalination's heavy toll*. Voice of America. <https://www.voanews.com/a/water-starved-saudi-confronts-desalination-s-heavy-toll/7271844.html>

Performance compared to the “Clean Water and Sanitation” goals as defined in SDG 6:¹⁰²

Goal	Performance	Status
Percentage of the population that uses (at least) basic water services	98.7 [2022]	✓ This goal has been achieved; no change
Percentage of the population that uses (at least) basic sanitation services	95.3 [2022]	✓ This goal has been achieved, and the trend remains sustained
Percentage of freshwater consumed out of the total available renewable water	974.2 [2021]	☒ Difficulties achieving this goal; downtrend
Percentage of man-made wastewater that undergoes treatment	37.7 [2020]	☒ This goal has been partially achieved; no information available regarding progress
Scarce water consumption embodied in imports (m ³ H ₂ O eq/capita)	2849.9 [2024]	☒ Difficulties achieving this goal; trend of moderate improvement

Policy

“Vision 2030,” the kingdom’s flagship program led by Crown Prince Mohammed bin Salman, focuses on sustainability and resource management, including improving access to water through private and foreign investments and the development of advanced technologies. The Ministry of Environment, Water and Agriculture (MEWA) is leading the implementation of the “National Water Strategy 2030,” which is striving to ensure continuous access to safe and clean water, improve water demand management in all sectors and provide high-quality water and sanitation services at affordable prices.¹⁰³

In 2016, it was reported that Riyadh had allocated about USD 80 billion to desalination activities in order to increase desalination capacity to 8.5 million m³ per day by 2025.¹⁰⁴ According to the target set by the MEWA, 90% of the water demand will be supplied by desalination by 2030 (compared to about 70% today), while the remaining 10% will be supplied from underground and surface water. Furthermore, as part of the wastewater treatment program, more than 130 wastewater treatment facilities have been established and sewage networks are being significantly expanded, which currently treat about 50% of the country’s wastewater.¹⁰⁵

¹⁰² Sachs, J.D., Lafortune, G., Fuller, G. (2024). *SDG Dashboards and Trends: Saudi Arabia*. <https://dashboards.sdginde.org/static/profiles/pdfs/SDR-2025-saudi-arabia.pdf>

¹⁰³ Ministry of Environment, Water, and Agriculture. (February 24, 2024). *National Water Strategy*. <https://www.mewa.gov.sa/en/Ministry/Agencies/TheWaterAgency/Topics/Pages/Strategy.aspx>

¹⁰⁴ Asaba, B. (January 12, 2016). *KSA to invest \$80bn in water desalination by 2025*. Utilities Middle East. <https://www.utilities-me.com/news/article-4015-ksa-to-invest-80bn-in-water-desalination-by-2025>

¹⁰⁵ International Trade Administration. (January 3, 2024). *Saudi Arabia - Water*. U.S. Department of Commerce. <https://www.trade.gov/country-commercial-guides/saudi-arabia-water>

In September 2023, the establishment of the Global Water Organization in Riyadh was announced, whose objectives are to promote innovative water projects and attract investments and know-how.¹⁰⁶ In addition to the center's expected contribution to the efforts to find solutions for the water crisis inside the kingdom, the center is part of a Saudi strategy of contributing to the global water sustainability efforts. Together with the Saudi Development Fund (SDF), which has funded nearly 150 water projects in developing countries since 1975, these two organizations promote access to clean water and sanitation and implement sustainable solutions for water conservation and wastewater treatment in conformity with the United Nations' Sustainable Development Goals.¹⁰⁷

Food

Needs and challenges

90% of Saudi Arabia's land is unfit for agriculture. In addition to its high dependence on desalinated water, the country struggles to adequately develop a local food production industry, particularly of fruits and vegetables that cannot be cultivated under extreme weather conditions. Additional challenges include inefficient subsidies for food consumption and a relatively high rate of food waste in the country.¹⁰⁸

Today, about 80% of food consumption in Saudi Arabia originates from imports.¹⁰⁹ Due to rapid population growth, total food imports to the kingdom must increase accordingly. However, extreme weather events elsewhere that caused damage to crops, and additional factors, prompted major food producers, such as India, to impose bans on exports of basic food products, such as wheat and rice, which exacerbated the food shortages in many countries in the Middle East, including Saudi Arabia.¹¹⁰ As a result, Saudi Arabia began analyzing how it could diversify its food supply sources and increase local production.

106 Gardazi, S. S. (September 4, 2023). *Saudi Arabia to establish global water organization to address supply challenges*. Forbes Middle East. <https://www.forbesmiddleeast.com/lifestyle/environment/saudi-arabia-establishes-global-water-organization-to-address-global-water-supply-challenges>

107 Saudi Fund for Development. (October 7, 2024). *Saudi Fund for Development (SFD) signs a memorandum of cooperation with the Global Water Organization to support water projects worldwide*. <https://www.sfd.gov.sa/en/n815>

108 Food and Agriculture Organization of the United Nations. (n.d.). *Saudi Arabia and FAO*. <https://openknowledge.fao.org/bitstreams/5db5a2a1-5ed5-40ab-9707-f3d39963ce08/download>

109 Mousa, H. (June 27, 2023). *Retail foods (Saudi Arabia)*. United States Department of Agriculture (USDA). https://apps.fas.usda.gov/newgainapi/api/Report/DownloadReportByFileName?fileName=Retail%20Foods_Riyadh_Saudi%20Arabia_SA2023-0006.pdf

110 Al-Tamimi, J., & Kumar, S. (July 31, 2023). *How serious an impact will reduced rice supplies have on the Arab world following India's export ban?* Arab News. <https://www.arabnews.com/node/2347476/middle-east>

Performance compared to selected "Zero Hunger" goals as defined in SDG 2:¹¹¹

Goal	Performance	Status
Incidence of malnutrition (%)	3.8 [2021]	✓ This goal has been achieved; trend to sustain it
Level of stability of the food system and supply cycles (best = 2, worst = 3)	2.3 [2021]	☒ This goal has been partially achieved; trend of moderate improvement
Grain yield (tons harvested per dunam of land)	5 [2022]	✓ This goal has been achieved; no change

Policy

From 1970 to the 2000s, the government granted government subsidies to the agricultural sector with the aims of developing local agricultural industries and maintaining wheat reserves as a food security strategy. As a result, Saudi Arabia became the fifth largest wheat producer in the world by the 1980s. However, this strategy proved costly, since it dried up critical groundwater reservoirs and incurred heavy government expenditures. In 2008, the government announced its decision to phase out subsidies to wheat producers, which led to closures of about 40% of the agricultural companies.¹¹²

Following the 2007-2008 food price crisis and the termination of the wheat subsidy program, the former King Abdullah bin Abdulaziz Al Saud launched the "Saudi Agricultural Overseas Investment Initiative." The main idea was to encourage purchases of agricultural land in the United States, Asia and Africa. However, upon the Russian invasion of Ukraine and the war's impact on wheat exports, the kingdom was forced to revise its domestic production policy to ensure food security. Since the wheat program, important lessons have been learned, advocating technological progress in order to make local food production sustainable without depleting non-renewable water reservoirs.

Accordingly, over the past decade, Saudi Arabia has invested billions of dollars in next-generation agricultural technologies, including vertical farming, hydroponics (growing plants without soil) and artificial intelligence.¹¹³ For example, the Saudi startup, Mishkat Agritech Farms, which was established in 2017, developed the first vertical hydroponic farm in Jeddah and forecasts expansion to other cities throughout the kingdom.¹¹⁴ The farm cultivates its produce under controlled conditions without using pesticides or contaminants, and the use of hydroponic technology enables a 90% reduction in water consumption compared to traditional agriculture.¹¹⁵

111 Sachs, J.D., Lafortune, G., Fuller, G. (2024). *SDG Dashboards and Trends: Saudi Arabia*. <https://dashboards.sdgindex.org/static/profiles/pdfs/SDR-2025-saudi-arabia.pdf>

112 van den Bosch, M. (May 13, 2024). *Saudi Arabia's 60-year battle for food security*. Arab Gulf States Institute. <https://agsi.org/analysis/saudi-arabias-60-year-battle-for-food-security>

113 Ibid.

114 Buzin, K. (August 28, 2023). *Saudi Arabia: "Greenhouse and vertical farming can undoubtedly be profitable here"*. Vertical Farm Daily. <https://www.verticalfarmdaily.com/article/9554437/saudi-arabia-greenhouse-and-vertical-farming-can-undoubtedly-be-profitable-here>

115 Mishkat Agritech Farms. *About us*. <https://mishkat.com/about-us>

Saudi Arabia is also calling for awareness-raising and enhanced international cooperation in this regard. During the G20 Agriculture ministers' meeting in Brazil, the Saudi Minister of Environment, Water and Agriculture, Eng. Abdulrahman al-Fadley, stressed the pressing need "to adopt long-term change in food security" and the importance of joint efforts to address issues relating to food supply chains.¹¹⁶ In his speech, he also referred to the "King Salman Humanitarian Aid and Relief Center," which was established in 2015, and said that the center has since implemented more than 900 food projects in 78 countries.¹¹⁷ At the "World Without Hunger" conference held in Addis Ababa, the Deputy Minister of the Environment stated that while striving to achieve food security, the kingdom "seeks to expand agricultural investments in countries with competitive advantages, abundant natural resources and growing markets, to leverage integrated agricultural capabilities and create additional job opportunities"¹¹⁸

Healthcare

Needs and challenges

Saudi Arabia's healthcare system is contending with a variety of challenges, one of the most notable being the extremely high rate of non-communicable diseases (NCDs), such as diabetes and obesity.¹¹⁹ The treatment of these diseases is expensive and imposes a heavy burden on the healthcare system. Another challenge is the fact that residents of rural and remote regions have limited access to high-quality healthcare services, since healthcare centers are predominantly concentrated in urban regions.¹²⁰ The country also suffers from a shortage of qualified specialists and medical staff, and is highly dependent upon foreign healthcare employees.¹²¹

116 Ministry of Environment, Water and Agriculture. (September 13, 2024). *Saudi Arabia urges global cooperation for sustainable food security*. <https://www.mewa.gov.sa/en/MediaCenter/News/Pages/News10312020.aspx>

117 Ibid.

118 Arab News. (November 8, 2024). *Saudi Arabia advocates for global cooperation to end hunger, ensure food security*. <https://arab.news/jfc28>

119 Saeed A, Bin Saeed A, AlAhmri F A (April 19, 2023). *Saudi Arabia Health Systems: Challenging and Future Transformations with Artificial Intelligence*. Cureus 15(4): <https://pubmed.ncbi.nlm.nih.gov/37214025/>

120 Ibid.

121 Albejaidi, F., & Nair, K. (2019). *Building the health workforce: Saudi Arabia's challenges in achieving Vision 2030*. International Journal of Health Planning and Management, 34(4), e1405–e1419. <https://doi.org/10.1002/hpm.2861>

Performance compared to selected “Good Health and Well-Being” goals as defined in SDG 3.¹²²

Goal	Performance	Status
Maternal mortality rate (per 100,000 live births)	16.2 [2020]	✓ This goal has been achieved; no change
Neonatal mortality rate (per 1,000 live births)	3.1 [2022]	✓ This goal has been achieved, and the trend remains sustained
Incidence of tuberculosis (per 100,000 residents)	8.2 [2022]	✓ This goal has been achieved, and the trend remains sustained
Age-standardized mortality rate from cardiovascular disease, cancer, diabetes, or chronic respiratory disease at ages 30-70 (%)	20.9 [2019]	☒ Difficulties achieving this goal; trend of moderate improvement
Age-standardized mortality rate deriving from indoor and outdoor air pollution (per 100,000 residents)	91 [2019]	☒ Difficulties achieving this goal; no information available regarding progress
Life expectancy at birth (in years)	76.9 [2021]	☒ This goal has been partially achieved; no change

Policy

In September 2021, Saudi Arabia launched the “Healthcare Sector Transformation Program” for streamlining healthcare services in the kingdom in cooperation with public and private sector entities, and in line with the national strategic goals defined in “Vision 2030.” The program focuses on improving preventive healthcare, smart management of healthcare resources, the implementation of advanced technologies and cooperation with the private sector.¹²³ The program’s achievements include the establishment of the world’s largest virtual hospital (SEHA), which links more than 170 hospitals throughout the kingdom, doubling of the number of citizens working in the nursing profession, and a significant increase in the percentage of the population receiving basic healthcare services, including in peripheral regions.¹²⁴

As part of this ambitious transformation, the Saudi healthcare system has begun a process of modernization that includes upgrading of medical technologies and the development of capabilities to provide telemedicine services. Accordingly, the Saudi Data and Artificial Intelligence Authority (SDAIA) has been established to adopt artificial intelligence and

¹²² Sachs, J.D., Lafortune, G., Fuller, G. (2024). *SDG Dashboards and Trends: Saudi Arabia*. <https://dashboards.sdgindex.org/static/profiles/pdfs/SDR-2025-saudi-arabia.pdf>

¹²³ Saudi Arabia’s Ministry of Health. (September 5, 2021). *Health Sector Transformation Program delivery plan 2020–2021*. https://www.vision2030.gov.sa/media/0wop2tds/hstp_eng.pdf

¹²⁴ Saudi Arabia’s Ministry of Health. *Health Sector Transformation Program achievement report 2023*. <https://www.vision2030.gov.sa/media/xznnx3vz/hstp-annual-report-2023-en.pdf>, pp. 16, 22.

use data strategically, and 10 teleradiology initiatives have been established.¹²⁵ The initiative also includes investments in healthcare infrastructure and in certified healthcare personnel, and the addition of tens of thousands of hospital beds to support the uptrend in population growth.¹²⁶

The healthcare policy places considerable emphasis on research and innovation through collaborations with global pharmaceutical companies and the conducting of clinical trials, such as the joint project of the Abdul Latif Jameel Clinic at MIT and the King Faisal Hospital dedicated to early detection of breast cancer.¹²⁷ The policy also promotes regulatory innovation, through the National Biotechnology Strategy and the Saudi FDA's track for innovative medical devices.

In the global arena, Saudi Arabia has been among the WHO's 20 largest contributors since 2018, with investments exceeding USD 385 million in global health initiatives and emergency-related operations in various countries. Moreover, in 2024, the kingdom committed to contribute USD 500 million over five years to support the work of the "Global Polio Eradication Initiative" (GPEI). Its activities in this regard in regional forums, such as the Organization of Islamic Cooperation (OIC), contributed to the fact that 55 of the organization's 57 member states have become polio-free countries.¹²⁸



A specialized medical center in Riyadh

credit: VD Image Lab

125 Global Health Exhibition. *How Saudi's Vision 2030 is going to transform the healthcare industry*. https://www.globalhealthsaudi.com/en/news/healthcare-insights/how_saudis_vision_2030_is_going_to_transform_the_healthcare.html

126 Ibid.

127 Ibid.

128 World Health Organization. (August 13, 2024). *The strategic partnership with the Kingdom of Saudi Arabia*. <https://www.who.int/about/funding/contributors/kingdom-of-saudi-arabia>

Germany: Leading partner in sustainable development and in promoting regional integration in the fields of water, food and healthcare

Germany excels in its performance towards achieving the SDGs, ranking 4th (out of 167) with a score of 83.4, which represents the progress seen towards achieving all 17 SDGs defined in the 2030 Agenda for Sustainable Development.¹²⁹ Beyond the successful implementation of development policies within its borders, Germany is at the forefront of the global efforts to advance the agenda's goals, particularly in the fields of water, food and healthcare, in partnership with member states, as can be seen, inter alia, from a report published by the German government in 2021, which reviews implementation of the agenda.¹³⁰

Berlin is also one of the leading players in the international arena in promoting regional integration, and works closely with the European Union to promote regional stability, sustainability and innovation. Based on shared values and proven experience executing wide-scale projects, Israel and Germany will be able to collaborate on future regional initiatives in the fields of water, healthcare and agriculture.

Water

Germany is leading the global efforts to achieve sustainable development of water systems and improve the availability and accessibility of high-quality water through a variety of means, from financing humanitarian projects and sharing know-how and expertise in regional and international forums, to providing logistics support. Germany is the world's second-largest bilateral contributor to water development collaborations. Between 2013-2017, Germany allocated more than EUR 3.3 billion under the OECD's "Official Development Assistance" (ODA) for this purpose.¹³¹

Germany also hosts the headquarters of UN Habitat's "Global Water Operator Partnership Alliance" (GWOPA), and is taking part in the establishment of a global system for water quality monitoring and water resource management. In addition, as part of its work at the "United Nations Environment Programme" (UNEP), Germany is responsible for the management and development of a global database of water quality data.¹³²

129 Sachs, J.D., Lafortune, G., Fuller, G. (2024). *SDG Dashboards and Trends: Germany*. <https://dashboards.sdindex.org/profiles/germany>

130 The German Federal Government. (June 2021). *Report on the implementation of the 2030 Agenda for sustainable development: German Voluntary National Review to the HLPF 2021*. https://sustainabledevelopment.un.org/content/documents/279522021_VNR_Report_Germany.pdf

131 Ibid, p. 60.

132 Ibid.

In November 2022, Germany, in collaboration with the "United Nations Children's Emergency Fund" (UNICEF), launched a project to provide safe and clean drinking water to more than 250,000 people in the al Najaf governorate in southern Iraq.¹³³ In addition, in March 2023, Germany, in partnership with the Netherlands, launched the first global initiative to raise public and private investments for the development of climate-resilient urban water infrastructure in the countries of the Global South.¹³⁴ The initiative's purpose is to support water supply services and sewage treatment and improve their infrastructures independently and with ongoing funding.

Food

Germany is the world's second-largest bilateral contributor to humanitarian projects focusing on food security. In 2022, Germany invested about EUR 5 billion in contending with the repercussions of the war in Ukraine on global food security.¹³⁵ One of the flagship programs that Germany has been supporting since 2014 is the "One World – No Hunger" initiative, to which it contributes more than EUR 2 billion per annum (second only to the United States).¹³⁶ In addition, Germany works closely with the Food and Agriculture Organization (FAO), and works in partnership with other UN agencies and initiatives to ensure adequate nutrition throughout the world.¹³⁷

Germany is also very active in all matters pertaining to innovative international research in the field of agriculture, and takes action to make the findings accessible to the general public. In 2018, the German government initiated the establishment of a unique venture with the participation of dozens of entities from the private sector, civil society and the political arena, which is dedicated to improving the living conditions of farmers and creating cost-effective and sustainable supply chains.¹³⁸

133 UNICEF. (November 27, 2022). *UNICEF, funded by Germany, ensures access to safe drinking water to more than 250,000 people in Al Najaf Governorate*. <https://www.unicef.org/iraq/press-releases/unicef-funded-germany-ensures-access-safe-drinking-water-more-250000-people-al-najaf>

134 UN Department of Economic and Social Development. *Urban Water Catalyst Initiative (UWCI)*. <https://sdgs.un.org/partnerships/urban-water-catalyst-initiative-uwci>

135 UN Department of Economic and Social Development. *National Commitment to SDG Transformation: 2024 Update*. https://sdgs.un.org/sites/default/files/webform/sdg_national_commitments_form/21885/annual-update-germany-shape-german-2024.pdf

136 The German Federal Government. (June 2021). *Report on the implementation of the 2030 Agenda for sustainable development: German Voluntary National Review to the HLPF 2021*. https://sustainabledevelopment.un.org/content/documents/279522021_VNR_Report_Germany.pdf, p. 38

137 Ibid.

138 Ibid.

Healthcare

Germany is a partner in a variety of multinational health organizations, including the World Health Organization (WHO), the Vaccine Alliance (GAVI), the Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM) and others.¹³⁹ As part of the "One Health" approach adopted by the United Nations,¹⁴⁰ which aims to balance and sustainably optimize the health of humans, animals and ecosystems, Berlin initiated the establishment of a High Level Expert Panel to advise and promote collaborations among the diverse UN agencies working in the field of healthcare.

Global Health Hub Germany was founded in 2019, which brings together stakeholder groups and sectors relevant to global health so that they can coordinate and collaborate on global issues more effectively.¹⁴¹ Germany also launched the "Global Action Plan for Healthy Lives and Well-being for All" (GAP) in 2019, in collaboration with Norway and Ghana, and it was adopted by the World Health Organization and 12 other multinational organizations.¹⁴² In addition, former German Chancellor, Olaf Scholtz, announced at the World Health Conference in Berlin in October 2024, that the country is committing to allocate about USD 400 million to the organization for the next four years.¹⁴³

Germany and the European Union: Vision for renewed regional integration

In recent years, the European Union has prioritized strengthening ties with the six member states of the Gulf Cooperation Council: Bahrain, Kuwait, Saudi Arabia, Oman, Qatar and the United Arab Emirates. Accordingly, in May 2022, the European Commission and the High Representative of the Union for Foreign Affairs and Security Policy issued a joint announcement of the launch of a strategic partnership with the Gulf states.¹⁴⁴

A comprehensive policy paper was published in conjunction with the resolution, which constitutes an operative roadmap for promoting strategic partnerships in the defined priority areas, including trade and investments, energy, climate, global health and regional peace. In the field of health, the EU considers the Gulf states important partners in the collective efforts to contend with the effects of the Covid-19 pandemic and to ensure a stable global framework that will strengthen countries' ability to respond to future health

¹³⁹ Ibid, p. 43.

¹⁴⁰ World Health Organization. *One Health*. https://www.who.int/health-topics/one-health#tab=tab_1

¹⁴¹ Global Health Hub. *Advancing Global Health Together*. <https://www.globalhealthhub.de/en/about-us/idea>

¹⁴² Germany's Federal Ministry of Health. *Global Action Plan (GAP)*. <https://www.bundesgesundheitsministerium.de/en/international/shaping-global-health-policy/agenda-2030/global-action-plan-gap.html>

¹⁴³ World Health Organization. (October 14, 2024). *US\$ 1 billion in new and reaffirmed funding commitments announced for WHO's ongoing Investment Round*. <https://www.who.int/news/item/14-10-2024-usd-1-billion-in-new-and-reaffirmed-funding-commitments-announced-for-who-s-ongoing-investment-round>

¹⁴⁴ European Parliament (May 18, 2022). *Joint Communication on the Partnership with the Gulf*. <https://www.europarl.europa.eu/legislative-train/carriage/partnership-with-the-gulf/report?sid=8901>

crises.¹⁴⁵ In the fields of environment and water, issues of common interest include the conservation and sustainable use of marine resources, water system management, and tackling marine pollution, especially in densely populated urban regions.¹⁴⁶ In the field of food, the EU is partnering with the Gulf states to build healthy and environmentally friendly food systems, in line with the EU's "Farm to Fork" strategy, in order to strengthen global food security, and considering the food crisis caused as a result of the Russia-Ukraine war.¹⁴⁷

Significant progress has been made in the relations between the parties since the launch of the EU's strategy for the Gulf. For example, in May 2023, a special EU envoy to the Gulf states was appointed, and subsequently, meetings were held at the level of foreign ministers that addressed regional security in Riyadh, Luxembourg, Brussels, etc.¹⁴⁸ These and other initiatives have given renewed impetus to the EU's relations with the Gulf states, and are designed to continue deepening collaborations in a spectrum of fields.

The EU considers Israel an important partner in the process and assigns it a significant role in promoting regional integration. In August 2020, the EU welcomed the announcement of the normalization of relations between Israel and the UAE¹⁴⁹ and subsequently with other countries. In 2023, the EU increased its involvement in promoting the Abraham Accords, led by the former EU Commissioner for Neighbourhood Policy, Oliver Varhelyi. In February 2023, Israel took part, for the first time, in a trilateral workshop with Morocco and the European Union in Rabat.¹⁵⁰ The workshop, which was funded by the European Union, was established with the objective of promoting energy and water projects, including plans for the construction of desalination and wastewater management facilities. Varhelyi also allocated EUR 10 million to expansions of similar activities, and a steering committee was formed at the EU Embassy in Tel Aviv with the objective of initiating new projects with Bahrain, the United Arab Emirates, the Palestinians, Jordan and Egypt.¹⁵¹

In June 2023, during an event commemorating Israel's 75th anniversary, the President of the European Parliament announced the launch of the "Abraham Accords Network" – a bipartisan parliamentary alliance dedicated to mobilizing EU support for the

145 European Commission (May 18, 2022). *Joint Communication to the European Parliament and the Council*. <https://www.eeas.europa.eu/sites/default/files/documents/Joint%20Communication%20to%20the%20European%20Parliament%20and%20the%20Council%20-%20A%20Strategic%20Partnership%20with%20the%20Gulf.pdf>, p. 3.

146 Ibid, pp. 7-8.

147 Ibid.

148 Sons, S. (October 29, 2024). *The EU-GCC summit: Late, but not too late*. Brussels International Center. <https://www.bic-rhr.com/research/eu-gcc-summit-late-not-too-late>

149 Council of the EU. (August 15, 2020). *Declaration by the High Representative on behalf of European Union on the announcement of a normalisation of relations between Israel and the UAE*. <https://www.consilium.europa.eu/en/press/press-releases>

150 Lempkiewicz, Y. (March 14, 2023). *Europe slowly understands the importance of the Abraham Accords*. European Jewish Press. <https://ejpress.org/europe-slowly-understands-the-importance-of-the-abraham-accords>

151 Ibid.

Abraham Accords between Israel and neighboring countries.¹⁵² Out of its commitment to strengthening regional stability, the commission allocated EUR 18 million to support the agreements, and stressed the importance of continuing cooperation, particularly in light of the events of 7 October.¹⁵³

In addition, in November 2023, the European Commission published an action plan for regional cooperation between the EU and Israel, focusing on three main topics: supporting the Abraham Accords by promoting regional stability and economic cooperation among member states, combating antisemitism and fostering Jewish community life.¹⁵⁴ The document is part of a broader program under the “European Neighbourhood Policy” (ENP) launched by the EU in 2004 to strengthen relations with neighbouring regions to the south and east of the European Union.¹⁵⁵

152 O'Reilly, T. (June 3, 2023). *EU: Abraham Accords initiative launched in Parliament*. The European Conservative. <https://europeanconservative.com/articles/news/eu-abraham-accords-initiative-launched-in-parliament>

153 European Parliament. (April 4, 2024). *Supporting the Abraham Accords as a stepping stone towards regional peace* (E-9-2024-001011_EN). https://www.europarl.europa.eu/doceo/document/E-9-2024-001011_EN.html

154 European Commission. *Action document for “Regional EU-Israel cooperation in support of the Abraham Accords, and fight against antisemitism and fostering Jewish life.”* https://enlargement.ec.europa.eu/document/download/f28b2aa1-2bf7-4316-9e8c-715dc1f76717_en?file-name=C_2023_8324_F1_ANNEX_EN_V2_P1_3131129.PDF

155 European External Action Service. (July 29, 2021). *European Neighbourhood Policy*. https://www.eeas.europa.eu/eeas/european-neighbourhood-policy_en

Conclusions and recommendations

Based on this review of the needs, challenges and national vision of the Abraham Accords member states and Saudi Arabia in the fields of water, healthcare and food, it is recommended that Israeli decision-makers adopt a policy based on four main guidelines, elaborated below. It is emphasized that full implementation of the recommendations depends on easing geopolitical tensions. Nevertheless, some recommendations can be implemented even amid heightened tensions, focusing on developing professional, institutional, and strategic infrastructure to enable rapid responses and to maximize opportunities that may emerge when the political reality shifts.

- **Aligning Israeli innovation with local needs and the Sustainable Development Goals (SDGs):** Israel should focus its efforts on products and services in which it enjoys a relative advantage, while customizing advanced technologies to the unique needs of each country, to the SDGs and the broader national vision. Germany could be involved as both a regulatory partner (through the German organization for international cooperation, GIZ, and its experience in project management) and, in appropriate instances, as a financing body for projects of global value. Furthermore, the European Union has already begun developing collaborative platforms with countries in the region through its “Farm to Fork” strategy and its investments in the fields of water and healthcare. Israel’s integration into these structures could serve as a model for trilateral cooperation (Israel - the Gulf states - Europe), which could contribute to the international legitimacy of Israeli projects and help lower political barriers.
- **Promoting integration into national ventures based on a PPP model:** Israel should encourage Israeli companies to participate in strategic projects in Abraham Accords countries using the Public-Private Partnership (PPP) model, which enables access to high-profile ventures, a long-term operational horizon and the ability to establish a presence in key markets. In order to lower regulatory, legal and financial barriers and intelligently contend with the associated risks, it is recommended that companies prepare in advance to establish legal and operational branches in the target countries and to forge relationships with local partners. Israeli companies interested in participating in PPP tenders in the Gulf are advised to consider collaborations with German entities, such as GIZ (technical and regulatory assistance) and the German development bank, KfW (considering its experience financing and managing infrastructure projects and PPPs). Their involvement can provide important added value – from professional know-how transfers and assistance in complying with international standards, to strengthening credibility and legitimacy vis-à-vis local authorities and sovereign funds.

- Establishing a financial support mechanism for business activities in Middle Eastern markets:** It is necessary to establish a dedicated financial framework for the provision of state guarantees and risk insurance to Israeli companies operating in Abraham Accords countries. The mechanism could provide solutions for legal, regulatory and financial risks, while prioritizing high-potential markets, such as Saudi Arabia and the United Arab Emirates. In the business sector, it is recommended that Israeli companies examine collaborations with European and German entities, such as the European Investment Bank (EIB) and the German Investment and Development Company (DEG). Although they do not provide direct funding to foreign companies in the Gulf, their involvement in projects involving European companies or in ventures of global value in the fields of water, healthcare and green energy could provide international legitimacy, strengthen venture credibility and facilitate the recruitment of local investors.
- Formulating a multi-year strategic plan for investing in international development:** It is recommended that Israel examine the possibility of expanding its collaborations with the Abraham Accords countries to include a humanitarian dimension, in addition to the commercial one. Through an informed selection of target countries based on a combination of political, economic and humanitarian benefits, this strategy could contribute to both strengthening political ties and to positioning Israel as a positive contributor in the regional arena. To this end, it is worthwhile considering the establishment of a dedicated agency to assist Israeli companies with their activities in developing countries – through financial support and professional know-how transfers. Germany, as a country that ranks high in the implementation of the SDGs and a world leader in international development, could become involved in this process, inter alia, through the KfW, which has extensive experience financing development and infrastructure projects in developing countries. The European Union is already promoting development plans with the Gulf states, and Israel's integration into them could strengthen the humanitarian dimension and provide a broad multilateral framework for activities.

Beyond the practical aspects, it is also necessary to obtain significant insights about cultural codes underlying business relations with the Gulf states. Israeli entrepreneurs sometimes tend to confuse between the warmth and cordiality characteristic of Arab hospitality with their codes of business conduct. In the Gulf, the personal and business spheres are quite distinct, and professional relations are conducted in a business-like, direct and meticulous manner. Moreover, countries such as Saudi Arabia and the United Arab Emirates consider themselves responsible for the “neighborhood” and leaders of an agenda of stability for the region's social and economic development and prosperity. Therefore, collaborations that seek to deepen and expand over time must conform to this vision as much as possible, and not be perceived as focusing solely on narrow profit interests. Consequently, sensitivity to local cultural norms and familiarity with the broader strategic vision is not only a matter of politeness, but also a precondition to sustainable business success.

Aligning Israeli innovation with local needs and the SDGs

Water

Countries in the region are contending with significant water challenges, primarily the high rate of freshwater depletion – a figure that attests to increasing stress on water sources, especially when depletion crosses the 25% mark. Disparities also exist in relation to wastewater recycling. Morocco and Sudan are also struggling to provide access to water and sanitation.

Israel, a global leader in seawater desalination and agricultural wastewater recycling, also offers expertise in smart water management through artificial intelligence and Big Data-based systems, consumption management, leak detection and demand forecasting. These capabilities enable Israel to become involved as a technology provider or as a partner in water infrastructure pilot projects, particularly in Morocco and Sudan. In doing so, Israel could help address the critical need to develop modern infrastructure and advanced systems for monitoring and controlling water distribution.

A breakthrough occurred in March 2021, when Mekorot, Israel's national water company, signed a development contract in the Kingdom of Bahrain within the framework of the Abraham Accords. This represents a significant milestone, with an Israeli government entity taking part for the first time in infrastructure projects in the Gulf. The project was apparently frozen after October 7, and it is reasonable to assume that the continued advancement of such projects depends upon understandings being reached between Israel and the relevant countries, and on a process of political warming that induces the right conditions for long-term open collaborations.

At the same time, it is recommended that Israel expand existing ventures in the business sector that have already received “stamps of approval” from government entities in the target countries. An example of such a venture is the strategic partnership signed in November 2020 between the Israeli company, Watergen, and the Al Dahra Corporation, half of which is controlled by Baynunah, which is directly linked to the Abu Dhabi government. Within the framework of this agreement, a permanent center was established in Abu Dhabi for the manufacture and distribution of water production machinery for potable water and irrigation water in the region.¹⁵⁶

Whenever bilateral cooperation is not possible, global activities of such and similar partnerships can be expanded or converted by establishing a business branch in a neutral third country that maintains good relations with Israel and the Gulf states, such as the United States. This course of action could help diversify geopolitical risks, enable operational flexibility vis-à-vis local partners and strengthen the activities' international legitimacy.

¹⁵⁶ Reuters. (November 26, 2020). *UAE's Al Dahra, Israel's Watergen sign strategic partnership on water security*. <https://www.reuters.com/article/uk-emirates-israel-water/uaes-al-dahra-israels-watergen-sign-strategic-partnership-on-water-security-wam-idUSKBN286163>

Israel's integration as a country promoting projects as part of the Global Water Organization, which was established at the initiative of Saudi Arabia, should also be considered. At the signing ceremony of the organization's charter in Riyadh in May 2025, the foreign minister, Prince Faisal bin Farhan, stressed that the event is an open invitation to all countries and private entities to join the GWO and take part in shaping the future of global water resources.¹⁵⁷ Furthermore, Israel's integration into regional projects supported by Germany and the European Union (such as initiatives to improve water and sewage systems) will enable the advancement of integrated projects with stable financing and international support.

Food

While malnutrition is not prevalent in the gulf states or in Morocco, there is a recurring problem of instability in food systems and supply chains. Imports are still the primary solution, and it appears that these countries do not intend to abandon it. However, they do have a concurrent strategic desire to strengthen local production in order to increase resilience in times of crisis. Morocco is also contending with grain production problems, which attests to its difficulty producing basic foods locally.

Israel can contribute to advanced desert agriculture, including drip technologies, precision agriculture and solutions for crop cultivation in extreme climates. Germany, through its "One World – No Hunger" initiative, and the European Union, with its "Farm to Fork" strategy, can serve as anchors for promoting advanced desert agriculture and Israeli innovation in the region. Trilateral collaborations could contribute to improving the efficiency of agricultural production and to increasing the resilience of the regional supply system.

Israel also offers innovation in the fields of food-tech and agri-tech – alternative proteins, vertical growing, agricultural sensors and automation. Israel joined the initiative as a government partner in November 2021, and the Israeli company, Aleph Farms, was selected in 2022 as an Innovation Sprint Partner, with the objectives of accelerating research and development in the field of cellular agriculture.¹⁵⁸ Innovation Sprints are accelerated initiatives to promote innovative climate-agricultural solutions based on private investments that are carried out within the framework of international collaborations. Considering the Israel Innovation Authority's expertise in encouraging entrepreneurship, in cultivating a technological ecosystem and in operating mechanisms such as incubators, accelerators and grants, it can serve as a main engine for increasing Israeli companies' involvement and providing orderly assistance in becoming integrated into this and other spheres of activity being carried out on behalf of the global "AIM for Climate" initiative.

157 Alshammari, H. (May 28, 2025). *Founding nations sign Global Water Organization charter in Riyadh*. Arab News. <https://www.arabnews.com/node/2602535/saudi-arabia>

158 Kiernan-Stone, L. (August 30, 2022). *Aleph Farms is newest AIM for Climate Innovation Sprint partner; Brings \$40M in investment*. Global AgInvesting Media. <https://globalaginvesting.com/aleph-farms-newest-aim-climate-innovation-sprint-partner-brings-40m-investment/#:~:text=As%20part%20of%20this%20innovation,and%20advisory%20firm%20Christensen%20Global>

Collaborations between Israeli companies with proven experience in the field and corresponding companies in countries in the region should also be encouraged, whether within the framework of standard commercial collaborations (B2B) or through the establishment of a joint venture (JV), depending upon the nature of the project and the timeframe required to implement it. A company such as Netafim, a global leader in drip irrigation and smart control systems, could serve as a partner in regional projects by establishing demonstration and training centers, smart agricultural greenhouses and by leading pilots for designated crops. It should be noted that, in the current geopolitical climate, and given the incentives that exist in the Gulf markets, it appears that the best way to engage in business initiatives is to establish a company with a local legal identity, with behind-the-scenes responsible management.¹⁵⁹

Healthcare

Countries in the region are contending with significant healthcare challenges, including a relatively high incidence of cardiovascular diseases and chronic morbidity, as well as morbidity associated with indoor and outdoor air pollution and a relatively low life expectancy – primarily in Morocco and Sudan. These countries are also contending with relatively high rates of maternal and neonatal mortality and a rather high incidence of tuberculosis.

Israel boasts about 1,600 life science companies with expertise in artificial intelligence and digital medicine, and one of the world's leading academic and medical infrastructures. This combination positions Israel as a global hub for the development of innovative health technologies, especially solutions for complex chronic diseases, such as diabetes, cardiovascular disease and lung diseases.¹⁶⁰ Furthermore, the high interconnectivity between medical centers, HMOs and the Ministry of Health, positions Israel as a global leader in the field of medical data analyses – as was especially demonstrated during the Covid-19 pandemic. This expertise is an asset that Israel can share with other countries.

It is recommended that Israel leverage its existing research initiatives with the UAE as a basis for expanding bilateral collaborations in the field of healthcare. For example, the collaboration between the Maccabi Healthcare Services' KSM Research and Innovation Institute and the UAE's government hospital chain, SEHA, presents a successful model for research collaboration in a variety of fields – including epidemiology, digital healthcare, genomics and clinical trials.¹⁶¹ This initiative includes know-how and medical data exchanges and joint research workshops, and constitutes excellent infrastructure for deepening collaborations with other institutions in the region. At the regional level, it is

159 A recommendation based on an interview with Michael Rutman, CEO of Baynunah Watergeneration Technologies.

160 Israel Innovation Authority. (December 1, 2020). *Israel is spearheading a "BioConvergence" revolution*. Israel Innovation Authority. <https://innovationisrael.org.il/en/israel-is-spearheading-a-bio-convergence-revolution>

161 Gulf Business. (July 13, 2022). *SEHA and Israel's leading HMO announce collaboration in research and digital health development*. <https://gulfbusiness.com/seha-and-israels-leading-hmo-announce-collaboration-in-research-and-digital-health-development>

worthwhile considering the establishment of medical training centers that will include telemedicine and exercises in medical simulations, with the participation of representatives of hospitals, healthcare companies and academic institutions from countries in the region.

It is also worthwhile upgrading academic collaborations to include training programs for local medical personnel, particularly in remote or underserved regions, in order to reduce geographic disparities in access to medical services. Focusing the training programs on digital medicine and telemedicine – fields in which Israel has a proven advantage – could enable the provision of high-quality medical services even to those who have difficulty travelling to clinics, such as people with disabilities, the elderly or residents of rural regions.

In addition, when it comes to genomics and the development of pharmaceuticals, there is a growing demand for genetically customized solutions for Middle Eastern populations, since most of the existing genomic models were developed on the basis of European and North American populations.

The genomics market in the Middle East and Africa is expected to reach revenues at the volume of about USD 1.17 billion by 2030, at an average annual growth rate of 8.2%.¹⁶² Israel and the UAE have complementary capabilities that offer significant potential for collaboration in this field. In recent years, the UAE has invested in the establishment of genomics institutes, in acquiring advanced DNA sequencing systems and in the collection of wide-scale medical data. Israel, on its part, is a leader in genetic data analyses and in the development of bioinformatic and artificial intelligence tools. Collaboration could enable the UAE to leverage Israel's analytical capabilities to derive insights from the data and advance personalized medicine in the UAE, while Israel could enjoy access to advanced infrastructure and multi-source genetic databases. Germany and the European Union, which offer global financing and knowledge networks, could also be integrated on this basis, and thus, enable the establishment of regional centers of excellence and the advancement of joint projects in personalized medicine.

Promoting participation in national projects based on a PPP model

Most water, food and healthcare projects in the Gulf states are managed by their governments, usually through sovereign wealth funds or their subsidiaries, with a common model for collaborations with these funds being the Public-Private Partnership (PPP) model. This is a long-term engagement model in which a government entity collaborates with a private entity for the purposes of financing, planning, establishing, operating and sometimes also maintaining a public project, while integrating the private sector's advantages of efficiency and innovation to advance public objectives. With a PPP model, the private entrepreneur assumes a material portion of the risk and the financing, and sometimes benefits from

¹⁶² Horizon: Grand View Research. *Middle East & Africa genomics market size & outlook*. <https://www.grandviewresearch.com/horizon/outlook/genomics-market/mea>

operating the service or infrastructure over time, in consideration of operating rights or fixed payments from the state.

In recent years, there have been many collaborations between sovereign funds in the Gulf states and foreign companies within the framework of PPP-model projects in the fields of water, food and healthcare. Following are selected examples:

- The Saudi Water Partnership Company (SWPC), which is wholly owned by the Ministry of Finance, currently manages a series of about 50 projects planned by 2031 (including desalination, wastewater treatment and infrastructure) at a total volume of about USD 30 billion, in collaboration with international private companies.¹⁶³
- Dubai recently launched the "Dubai Strategic Sewerage Tunnels" project, a flagship wastewater treatment project involving leading foreign companies from Asia and Europe.¹⁶⁴
- A desalination facility is operating in Morocco under the management of the Spanish Abengoa consortium, with a capacity of 275,000 m³ per day (with the possibility of increasing it to up to 400,000 m³), based on a 30-year PPP contract.¹⁶⁵ To date, it is the largest desalination plant in Africa engaging in commercial operations.
- Bahrain's "Food Park" is being established using a PPP model that includes the planning, construction and development of infrastructure by government entities, particularly Bahrain's sovereign wealth fund, Mumtalakat, and its real estate arm, Edamah, together with private partners in the kingdom and abroad.¹⁶⁶

Even in PPP projects that include foreign companies, the partnerships are usually formed between a local company and a foreign company working together with the government to implement the project.¹⁶⁷ The private sectors in these countries strive for such collaborations, out of their desire to acquire professional know-how and increase their chances of winning tenders.

Within this context, it is worth mentioning the UAE's "In-Country Value" (ICV) program, which prioritizes companies that generate value inside the country, as part of the strategic

163 Tempest, O. (September 11, 2024). *SWPC pioneers PPP frameworks, attracting \$12 bn in private sector investments for water projects*. Smart Water Magazine. <https://smartwatermagazine.com/news/saudi-water-partnership-company/swpc-pioneers-ppp-frameworks-attracting-12bn-private-sector#:~:text=Premium%20content->

164 Smart Water Magazine. (April 7, 2025). *Dubai Municipality launches tender for \$22 billion sewerage project*. <https://smartwatermagazine.com/news/smart-water-magazine/dubai-municipality-launches-tender-22-billion-sewerage-project>

165 Novo, C. (March 26, 2024). *Desalination in Morocco: Meeting water demands in a water-scarce region*. <https://smartwatermagazine.com/news/smart-water-magazine/desalination-morocco-meeting-water-demands-a-water-scarce-region>

166 ZAWYA Staff Writer. (June 9, 2025). *Food park project plans announced in Bahrain*. ZAWYA. <https://www.zawya.com/en/projects/industry/food-park-project-plans-announced-in-bahrain-edp7e412>

167 Based on an in-depth interview with Elinor Behar, a strategic consultant on Israel-Gulf business development and VP of Business Development at Blue Laurel.

efforts to strengthen the local economy.¹⁶⁸ The ICV program evaluates tender candidates according to criteria-based scores, such as the local procurement rate, the employment of Emirati citizens, investment in local assets, etc. Companies with a high ICV score receive a competitive advantage during government tenders, such that even if their price quote is relatively high, they might win the tender due to the local economic contribution that they generate. Therefore, it is recommended that companies seeking to operate in the UAE – particularly with entities such as the Abu Dhabi National Oil Company (ADNOC) and other government companies – obtain an ICV certificate demonstrating a high score.

The PPP model can give Israeli entities access to high-profile ventures involving strategic national resources. From a political perspective, inclusion in national projects signifies a high level of trust that can be used as a means of anchoring stable collaborations over time through contracts that could continue for several decades.

However, Israeli companies should take into account that local authorities often expect foreign companies to present a subsidized or discount-rate pilot in order to demonstrate seriousness and reduce public risk. This also reflects the local business culture: a tendency to avoid high government risk in new projects, a desire to see tangible results on the ground before committing, and competition among a wide variety of foreign suppliers seeking to penetrate the market.

Furthermore, notwithstanding the ongoing reforms in the Gulf, regulatory and financial obstacles pose a significant challenge to foreign companies looking to enter the PPP market.¹⁶⁹ In many instances, governments do not provide direct sovereign guarantees, and therefore, foreign entrepreneurs are exposed to high risk – both vis-à-vis the banks and in the event of a policy change or an operational failure.¹⁷⁰

To reduce regulatory obstacles and mitigate financing risks, it is recommended that Israeli companies ensure they have clear contractual protections (such as compensation or risk-insurance mechanisms) and collaborate with local partners capable of bridging operational and regulatory gaps. In certain countries (such as Saudi Arabia), and in specific sectors, establishing a local legal entity is a prerequisite for participating in tenders exceeding a defined monetary threshold.

168 UAE Ministry of Industry and Advanced Technology. *The National InCountry Value Program (ICV)*. <https://moiat.gov.ae/en/programs/icv>

169 Sidley. (March 5, 2025). *Comparative Gulf bankruptcy guide: What you need to know about the UAE, Saudi Arabia, and Bahrain*. <https://www.sidley.com/en/insights/newsupdates/2025/02/comparative-gulf-bankruptcy-guide-what-you-need-to-know-about-the-uae-saudi-and-bahrain>

170 Dentons. (2018). *Middle East & Africa PPP guide*. <https://www.dentons.com/-/media/pdfs/guides-reports-and-whitepapers/middle-east-and-africa-ppp-guide.ashx?la=zh-cn>

Establishing a financial framework to support business operations in Middle Eastern markets

To the extent that the State of Israel defines strengthening economic ties with Abraham Accords countries a primary political objective, a state mechanism is required to minimize the level of risk involved for Israeli exporters and industrialists. Today, Israel provides a key mechanism to Israeli companies operating in the international arena for providing guarantees and financial assistance: Ashra (the Israeli Foreign Trade Risk Insurance Company). Other financing solutions are provided by the private market, including banks, insurance companies, private investors and funds.

The purpose of these mechanisms is to make it easier for companies to integrate into economic projects in developing countries or in high-risk markets, while protecting against political and commercial risks. Use of these guarantees and insurance policies is contingent upon the existence of a direct and significant connection to Israeli exports, the company's proven ability to fulfill its obligations, and economic or national justification for the project. However, Israeli companies are reporting difficulties obtaining local Israeli financing, mainly due to a shortage of sources, associated preconditions to receiving financing, unwillingness on the part of banks and development entities to provide financing and, in some instances, also due to their own lack of familiarity with financing possibilities.¹⁷¹

Considering the obstacles to business activities in Abraham Accords countries, and the high level of risk, it is recommended that Israel's Accountant-General, in conjunction with the Prime Minister's Office and the Ministry of Foreign Affairs, launch a program for providing state guarantees for Israeli exports and for economic activities in these countries, including Saudi Arabia, Indonesia and other potential candidates.¹⁷² When deciding on the target countries that will participate in the program, countries with high credit ratings, such as Saudi Arabia and the United Arab Emirates, should be taken into account, so that the guarantee will respond to a market failure deriving from political or historical complexities – rather than substantive economic risk.

It is also recommended that the Israeli government consider providing state financing or loans for marketing activities in these countries, especially considering the key challenge of lengthy sales processes with local governments.¹⁷³ Today, only companies with substantial resources manage to operate in these markets, due to the high costs of marketing and sales processes, which tend to progress more slowly than in other parts of the world.

171 For elaboration, see Ron Eifer, Tal Eshkol, Anat Carmel and Yiftah Someh – members of the interministerial committee. *Strategy for International Development: Interim Report 2020* [Translated from Hebrew].

172 This proposal is based on an in-depth interview conducted with Zafir Asaf, an expert in emerging markets finance and chairman of SID-Israel.

173 This proposal is based on an in-depth interview conducted with Elinor Behar, a strategic consultant on Israel-Gulf business development and VP of Business Development at Blue Laurel.

Formulating a multi-year strategic plan for investing in international development

An alternative approach to leveraging the Abraham Accords suggests that Israel prioritize building collaborative frameworks grounded in shared values and the pursuit of the common good, both with current member states and with potential future partners.¹⁷⁴ In contrast to models based on immediate profitability, this approach emphasizes building an enduring humanitarian vision, out of the understanding that promoting common goals on core issues, such as water, healthcare and food security, could yield significant long-term profits – even if there is no immediate return on investment in the short term.

Israeli governments have recognized the importance of strengthening Israel's ties with markets and target countries where it has not fully tapped its trade potential, and have focused on taking measures to seize opportunities inherent in the field of international development. Accordingly, several government resolutions have been passed¹⁷⁵ beginning back in 2014 that strive to improve Israel's political standing and expand its contribution in the international arena, while strengthening the economy.

The need arises, inter alia, from the limitations of existing multilateral frameworks such as I2U2. Establishing an additional channel of engagement – through international development initiatives – could enable Israel and its partners to advance cross-border projects that carry diplomatic, economic, and humanitarian value alike. The rationale behind this approach is clear in light of current geopolitical challenges, which call for creative thinking and the exploration of indirect avenues to strengthen cooperation, even under sensitive conditions.

It should be emphasized that the development initiatives will not be implemented in the signatory countries of the Abraham Accords (with the exception of Sudan), but will instead focus on other developing countries. This collaboration, which is based on equal partnership and joint regional efforts, could not only strengthen the ties between the countries but also position Israel as a responsible actor in the international arena. Israel could, for example, be integrated into regional initiatives in areas where it offers unique added value, such as addressing climate change, enhancing water supply in drought-affected regions, or providing assistance during emergencies and natural disasters.

An orderly process is required in order to implement such a policy. Initially, a multi-year plan should be formulated that will map the target countries for initial integration and ascertain the economic and political-strategic potential of each of them. Subsequently, a set of tools should be assembled for developing projects in these countries, while addressing regulatory and operational challenges. For example, since many countries have difficulties

174 For elaboration, see Zafir Asaf and Lior Dabush (August 13, 2024). International Development as a New Arena for Cooperation between Saudi Arabia, the United Arab Emirates and Israel. [Translated from Hebrew]. *Reichman University: Institute of Diplomacy and Foreign Relations*. <https://www.arenajournal.org.il/single-post/asaf-dabush-israel-ksa-uae>

175 Government Decision No. 4021 (July 23, 2018). https://www.gov.il/he/pages/dec4021_2018

operating sustainable public services (such as collecting payments for water), business models and accompanying financing methods also need to be formulated.

Many countries maintain dedicated international development agencies that encourage private entrepreneurs to propose projects in developing countries. Israel could adopt a similar model, enabling Israeli entrepreneurs to submit project proposals supported by business plans to a designated financing fund and apply for loans or state-backed guarantees. Following the example of development finance institutions (DFIs) in Europe, consideration should be given to establishing an Israeli institution for international development finance, in partnership with the government and the private sector. Such an institution could assist companies by providing financing and critical expertise relevant to operations in developing countries, thereby facilitating their access to foreign capital in subsequent stages. The establishment of this mechanism would require interministerial coordination, led by the Ministry of Finance. Importantly, a significant budgetary allocation would not be necessary at the outset – the process could begin with a limited budget directed toward specific projects with clear and measurable objectives, aligned with the United Nations Sustainable Development Goals (SDGs).

In conclusion, notwithstanding the current geopolitical challenges, there is room for cautious optimism about resuming and deepening collaborations between Israel and countries in the region, particularly on critical challenges, such as water, healthcare and food security. Israel has clear advantages in these fields and, under the right conditions, it can once again serve as a reliable partner in realizing regional development visions. Germany, the leading European country in advancing the SDGs and a strong supporter of regional integration in the Middle East – whether through bilateral initiatives or multinational platforms – can play a key role in supporting and building this process. A trilateral partnership between Israel, the Gulf states and Germany can become a significant engine for promoting stability, innovation and sustainable development in the region, and serve as a model for activities even in times of political tensions.



The headquarters of the KfW Development Bank in Frankfurt, Germany

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