SAUDI BRITISH
JOINT BUSINESS COUNCIL

Water and Food Security in Saudi Arabia

Infrastructure Investment, the Water-Food Nexus,

and Opportunities for United Kingdom Entities

Saudi British Joint Business Council

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Executive Summary

Saudi Arabia is pursuing food self-sufficiency and water conservation at the same time, and the two policies pull against each other. Agriculture absorbs between 67 and 84% of the Kingdom's freshwater depending on methodology,[1,2] yet roughly 80 to 85% of food consumed still arrives through imports.[3,4] The Ministry of Environment, Water and Agriculture (MEWA) has committed in excess of $80 billion to water infrastructure and the food processing sector alone targets $70 billion of investment by 2030,[4] both programmes accelerated by Vision 2030 and reinforced by the supply chain shocks of the COVID-19 pandemic and the war in Ukraine.

For United Kingdom entities operating across water engineering, desalination advisory, agricultural technology, cold chain logistics, and food science, this is a commercial environment of considerable scale and growing institutional support. Bilateral trade reached £16.6 billion in the four quarters to the third quarter of 2025, with UK exports of £13.2 billion delivering a £9.7 billion trade surplus.[6] The October 2025 UK Export Finance and Public Investment Fund (PIF) Memorandum of Understanding established £4 to 5 billion in risk appetite to support UK supplier participation across PIF-linked project pipelines,[7] and 1,350 British firms now operate in the Kingdom, 50 of which have established regional headquarters there.[8] A UK-Gulf Cooperation Council Free Trade Agreement, described as imminent by the UK Secretary of State for Business and Trade in February 2026 following the eighth round of formal negotiations, would materially reshape the tariff and procurement environment for the sectors examined here.[44,45]

This paper examines the structural pressures shaping Saudi water and food infrastructure, the policy and procurement architecture through which the Kingdom is responding, and the segments of UK capability that align most directly with the current demand. Particular attention is given to several developments that have moved during the first four months of 2026, including SALIC's 27 April acquisition of an 80.01% controlling stake in Olam Agri,[46] advancing UK-GCC trade negotiations,[44] operational delivery of NEOM Topian's first food production facilities,[53] the January 2026 designation of Arizona's Ranegras Plain Basin as an Active Management Area in the ongoing Fondomonte litigation,[51] and the continuing internationalisation of the Saudi desalination procurement pipeline.

1. The Water Infrastructure Challenge

1.1 Desalination: Capacity, Expansion, and Efficiency

Saudi Arabia is the world's largest producer of desalinated water, a status driven by geography rather than choice. Annual rainfall averages around 100 millimetres and the country has no perennial rivers or freshwater lakes. Instead, supply rests on two sources, non-renewable fossil groundwater drawn from deep aquifer systems, and desalinated seawater produced at industrial scale along the Red Sea and Arabian Gulf coasts.[9] The Saline Water Conversion Corporation (SWCC) reached a record total production capacity of 11.5 million cubic metres per day in late 2025 across 30 desalination plants and 139 purification stations,[10] and desalinated water now accounts for around 50% of distributed supply, up from 44%, which means desalinated water is supplying roughly 60% of urban needs.[5,59] The Ministry of Environment Water and Agriculture's (MEWA) stated target of approximately 20 million cubic metres per day by 2030 implies a near-doubling of current output, but in the long run will significantly reduce the demand on non-renewable water sources.[5]

Procurement and operational responsibilities have consolidated around the Saudi Water Authority (SWA), now the principal actor for new-build desalination, brackish water treatment, and modernisation projects. The SWA sits alongside the Saudi Water Partnership Company (SWPC), which structures public-private partnerships, and the National Water Company (NWC), which oversees distribution. UK entities seeking market entry should distinguish between these three bodies, since their procurement remits, contract structures, and bid timelines do differ. A misdirected approach to one for work that properly sits with another is a recurring early mistake for new market entrants.

Energy efficiency has become a procurement criterion in its own right rather than a marketing claim. The Shuaiba-5 system, which entered operation in 2025, achieved a Guinness World Record for the lowest specific energy consumption in seawater RO desalination at 1.7 kilowatt-hours per cubic metre,[11] a figure substantially below the sector average of 3 to 4 kWh/m³ and one that takes on additional significance against the load desalination already places on the Saudi grid, where the process consumes around 9% of total national electricity generation.[1] Across the GCC, there has been a long term downward cost trajectory, as prices have fallen from approximately $5.00 per cubic metre in the 1980s to $0.40 to $0.50 today, driven primarily by the transition from thermal to membrane-based processes.[12]

New capacity continues to be developed or procured at pace, and through a widening pool of international developers. ACWA Power operates ten Saudi desalination plants meeting around 30% of the Kingdom's water demand. In early 2025 it secured the Ras Mohaisen Independent Water Project at SAR 2.57 billion ($685 million) and 300,000 cubic metres per day,[13] and in December 2025 completed refinancing of its Rabigh 3 facility (600,000 cubic metres per day, supplying Mecca), with US private equity firm KKR providing private credit in its first Saudi market entry.[47] The SWA separately secured $650 million from the Asian Infrastructure Investment Bank, the AIIB's first Saudi project, to modernise the Jubail and Khobar plants by converting ageing multi-stage flash systems to RO,[11] and a separate Jubail RO contract went to a Lantania-MGC consortium for $544 million.[14] India's Va Tech Wabag won a 50,000 cubic metres per day brackish water plant in Al Jouf for SWA in January 2026, the first such award to an Indian water firm and a clear signal that SWA is willing to diversify its supplier base beyond traditional GCC and European contractors.[48] All of this sits against the SWPC's parallel target of 100% private sector participation in desalinated water production by 2030.[9]

Climate technology is also beginning to layer onto the core desalination assets, demonstrating the forward thinking and climate concisions aspects of development guided by Vision 2030. The SWA's November 2025 partnership with US water-tech firm Ebb integrates electrochemical carbon-removal systems into the desalination network, with an initial pilot at the SWA's Jubail R&D facility. The pilot converts brine streams into caustic soda, hydrochloric acid, and a low-salinity stream that yields additional freshwater, with claimed potential of up to 85 million tonnes of annual CO2 removal at full national rollout.[49] In the same month, Energy Recovery Inc., the US-listed pressure exchanger manufacturer, announced $32.8 million of new Saudi contracts. Installations are projected to save 1,463 GWh annually and prevent 706,485 tonnes of CO2 emissions.[50] These developments collectively open commercial space for UK firms with low-carbon process expertise, brine valorisation know-how, and energy systems integration capability. This also links in with the UK’s

own domestic green energy and green economy initiatives, providing parallel opportunities in two markets for UK entities looking to diversify their activities.

The competitive landscape, as discussed above, is very much international and diversified. Spanish (Acciona, Lantania), French (Engie, which has identified Saudi Arabia as one of its ten largest growth markets), Indian (Va Tech Wabag), Dutch (Van der Hoeven, in adjacent agritech), and US (Energy Recovery, Ebb, KKR as financier) firms all hold positions across the project pipeline.[47] UK competitive positioning will depend less on raw scale than on differentiation through utility experience, smart network expertise, asset advisory, and academic partnership pathways, themes returned to in Section 5.

1.2 Groundwater Depletion and the Aquifer Crisis

The groundwater problem is severe by any measure, and well documented. The Upper Mega Aquifer System extending across approximately 1.86 million square kilometres of the Arabian Peninsula contains the principal fossil water reserves on which Saudi agriculture has drawn since the 1970s, including the Wasia-Biyadh, Umm Er Radhuma, and Dammam aquifers,[15] and these are non-renewable resources with a natural recharge rate for the entire Kingdom estimated at only 2.8 billion cubic metres per year, a fraction of annual extraction.[2] The Al-Ahsa aquifer, historically among the most productive, has experienced water table declines of 150 metres over 25 years.[16]

The cause of the depletion is well understood. Subsidised wheat production in the 1980s transformed Saudi Arabia into a top-ten global wheat producer at the cost of an estimated 80% of accessible fossil groundwater reserves,[17] and the government has since phased out wheat subsidies (by 2016) and banned domestic alfalfa cultivation (in 2018) in recognition of the unsustainable water cost.[18] The current target articulated in the National Water Strategy 2030 and reinforced by MEWA is a 90% reduction in non-renewable aquifer withdrawals by 2035.[18] Whether that target is reconcilable with the parallel push to increase domestic food production is one of the central unresolved questions in Saudi infrastructure policy.

1.3 Non-Revenue Water and Distribution Network Modernisation

Beyond production, distribution losses present substantial inefficiencies, with non-revenue water (NRW) losses encompassing physical leakage, metering inaccuracies, and unauthorised connections ranging from 25 to 40% of distributed supply depending on region.[3,9] The existing network spans approximately 121,356 kilometres of piping serving 2.26 million domestic connections, supported by 8,000 kilometres of main transmission pipelines and 353 water treatment plants,[19] and the MEWA-led Qatrah programme aims to reduce per capita consumption from the current 265 to 299 litres per day (which is 91% above the international average) to 150 litres per day by 2030.[9]

These figures translate directly into commercial opportunities for UK engineering entites. At current production costs, 30% NRW in a system producing 12 million cubic metres per day means 3.6 million cubic metres of water lost daily, a volume equivalent to the entire output of a major desalination plant. Smart water network technology, covering acoustic leak detection, pressure management, satellite leak imaging, digital twins, and real-time monitoring, is a category in which British firms have established track records under the most demanding regulatory regimes. The newly commissioned Jubail-Buraydah Independent Water Transmission Pipeline, a 587 kilometre, $2.26 billion system

delivering 650,000 cubic metres per day,[20] illustrates the scale of new transmission infrastructure that will require ongoing monitoring and loss reduction. The National Water Company's 16 water and wastewater projects in Qassim, with total investment exceeding $293 million across more than 645 km of sewerage and 579 km of new water pipelines, generate further downstream demand for monitoring, control, and analytics.[59]

1.4 Wastewater Reuse: The Underexploited Resource

Wastewater treatment and reuse has consistently fallen short of its potential. The Kingdom operates 133 wastewater treatment facilities, and its water reuse market is valued at $4.69 billion (the third largest globally),[3] yet the historical reuse rate has hovered around 18% against a National Water Strategy target of 70% by 2030 and a designation of 2.5 billion cubic metres of treated effluent for agrifood applications.[9,21] Public acceptance and perception remains a documented barrier. A 2023 study published in *Sustainability* found willingness to consume food irrigated with treated wastewater considerably lower in Saudi Arabia than in jurisdictions where such reuse is normalised.[22]

2. The Food Security Imperative

2.1 Import Dependency and the Self-Sufficiency Agenda

Saudi food import dependency, consistently placed at 80 to 85% by value across USDA, New Zealand Ministry of Foreign Affairs and Trade, and World Economic Forum assessments,[3,4,23] follows from the constraints of cultivating food in a country where less than 2% of land area is arable and water is finite and diminishing. A February 2026 AGBI analysis captured the resulting paradox through the case of Ha'il province, where farmers continue to scale up potato production in response to government incentives even as the same government pursues a 90% reduction in the aquifer withdrawals on which those farms depend.[18]

Where self-sufficiency has been achieved, the figures do appear to improve. Agricultural GDP rose from SAR 54 billion in 2016 to SAR 118 billion in 2025, a near 119% increase, and the agricultural trade deficit has narrowed from SAR 94 billion to under SAR 84 billion over two years.[55] Updated MEWA data records self-sufficiency at 149% for shrimp, 131% for dairy products, above 100% for table eggs, and over 120% for dates, with tomatoes and eggplants approaching full self-sufficiency.[55] A further SAR 3.5 billion of agricultural investment was announced in early 2026, with foreign direct investment accounting for around 20% and notable new entrants including Aviagen, the global poultry breeding company holding a 68% world market share.[55] The Sustainable Agricultural Rural Development Programme (Reef), backed by SAR 8.5 billion ($2.2 billion), has supported 63,000 agricultural projects across eight value chains and reported total market value of production exceeding SAR 5.6 billion ($1.49 billion) since launch.[56]

These figures do need contextualising, as, for example with Dairy production, led by Almarai (the world's largest vertically integrated dairy company), is itself water-intensive and reliant upon imported animal feed. After the domestic alfalfa ban, Almarai's subsidiary Fondomonte acquired thousands of acres in Arizona to grow alfalfa for export back to Saudi Arabia, a practice that has depleted local aquifers at rates reportedly ten times natural replenishment and prompted a public nuisance action by the State of Arizona in December 2024.[25] The litigation has since advanced materially. On 9 January 2026 the Director of the Arizona Department of Water Resources issued a Findings, Decision and

Order designating the Ranegras Plain Basin as an Active Management Area, tightening regulation on Fondomonte's pumping while the Attorney General's nuisance suit continues in parallel. Governor Hobbs separately terminated four Fondomonte leases in Butler Valley.[51] Self-sufficiency in one product category does not, in practice, guarantee self-sufficiency in the resource inputs needed to produce it, and the Arizona case illustrates the regulatory fragility of overseas alfalfa supply lines on which several Saudi domestic livestock products continue to depend.

2.2 Food Processing, Cold Chain, and Localisation

Saudi food security strategy reaches well beyond primary agricultural production into the processing, storage, and distribution segments of the value chain, with food processing investment projected to reach $70 billion by 2030 (up from $44 billion in 2016)[4] and an 85% localisation target across 11 domestic food clusters, of which the Jeddah Food Cluster launched in 2024 alone targets SAR 20 billion in private investment.[24] Multinational food processors including Mars, Mondelez, Cargill, PepsiCo, and Danone already operate Saudi facilities,[4] with PepsiCo stating its intention to source approximately 100% of ingredients locally,[18] and Arab News has reported a $20 billion food industry investment target by 2035.[26]

Cold chain is a growth area in its own right. The Saudi market is valued at approximately SAR 11.5 billion and expanding under the combined pressure of rising food imports, food processing growth, and stringent food safety regulation enforced by the Saudi Food and Drug Authority (SFDA). National food waste is estimated at 33% and costs SAR 40 billion annually, concentrated in the post-harvest and distribution stages where cold chain gaps are most acute.[24] UK firms with capabilities in temperature-controlled logistics, food safety systems, halal-aligned certification, and supply chain management will find a receptive market here. Halal certification merits particular emphasis as a distinct upstream channel: UK certification bodies accredited under the Halal Food Authority and the Halal Certification Europe framework sit upstream of any food product seeking SFDA clearance, and represent a route to commercial engagement that is often overlooked in trade analysis.

2.3 Controlled Environment Agriculture and the NEOM Ambition

Controlled environment agriculture (CEA), encompassing vertical farms, high-technology greenhouses, and hydroponic and aeroponic systems, has drawn sustained Saudi government backing as a route to producing food with sharply reduced water consumption. The PIF, through its wholly owned Saudi Agricultural and Livestock Investment Company (SALIC), has invested in Green Dunes (claiming 95% water savings over conventional agriculture),[21] and Pure Harvest Smart Farms, a UAE-headquartered CEA operator with $271.6 million in cumulative capital, acquired a six-hectare facility near Riyadh in late 2023 and secured a 40-hectare land bank for expansion, citing yields 15 times higher than conventional farming at one tenth the water use.[27]

NEOM's food production subsidiary, Topian, launched in December 2023 with a target of 600,000 metric tonnes of sustainable food production by 2030,[23,28] and operational delivery has now begun. Topian's first high-technology greenhouse at Oxagon, a four-hectare facility developed in partnership with Dutch horticultural specialist Van der Hoeven, became operational in late 2024 with annual yields of approximately 4,000 tonnes of fruit and vegetables.[53] Topian has since completed an additional greenhouse in Tabuk and vertical farms at Oxagon, and signed a 2026 memorandum of

understanding with Tabuk Agricultural Development Company (Tadco) to establish further hydroponic facilities in northwestern Saudi Arabia.[57] A 100-hectare greenhouse expansion in Tabuk is in planning. Caution remains warranted given NEOM's broader delivery record, but the move from announcement to operational pilot has been decisive. Even partial realisation generates meaningful procurement demand for greenhouse engineering, climate control, crop science, and post-harvest technology, all areas in which British firms are active. UK suppliers should also note the precedent set by Van der Hoeven's role as principal greenhouse partner: technology selection in this segment is being made early, and pre-positioning ahead of the next procurement wave matters.

Alternative protein and novel food technologies are entering the Saudi food security architecture in parallel. The most visible example is the March 2026 announcement by Danish biotechnology firm Unibio of plans to construct what is described as the world's largest single-cell protein facility in Saudi Arabia, beginning at 50,000 tonnes annually and targeting more than 300,000 tonnes at full capacity. The facility uses gas fermentation to convert methane into a high-protein animal feed substitute, removing dependence on land-based feed crops, with construction scheduled to begin in the second half of 2026 and commercialisation in 2028.[54] Beyond Unibio, the wider Saudi alternative protein market including plant-based meat substitutes was valued at $124.56 million in 2024, with projections to $168.56 million by 2030.[54] UK precision fermentation, biotechnology, and food science firms hold direct relevance, and the policy openness signalled by these projects is a meaningful development relative to even twelve months ago.

2.4 SALIC and Overseas Supply Chain Security

While domestic production receives the bulk of public attention, Saudi food security strategy also operates through overseas agricultural investment managed by SALIC, established by Royal Decree in 2009 and wholly owned by PIF. SALIC has deployed billions of dollars across more than ten countries.[30,31] The most material recent development came on 27 April 2026, when SALIC raised its stake in Olam Agri from 35.43% to 80.01% in a SAR 7 billion ($1.88 billion) transaction. The acquisition gave SALIC effective control of an integrated origination, processing, and logistics platform operating in more than 30 countries across Asia, Africa, Australia, and the Americas. It brings SALIC's portfolio to 12 strategic global assets and consolidates a clear pivot from minority co-investment toward majority ownership of overseas supply infrastructure.[46] Alongside Olam Agri, SALIC retains its 75% stake in Canada's G3 Global Grain Group, full ownership of Australia's Meridian Agriculture, and operations in Ukraine, India, and Brazil. A 2025 SALIC-Syngenta agreement on joint agricultural research and digital agriculture, together with a separate MoU between SALIC subsidiary SABIL and ARASCO covering grain and feed logistics, further underscores the emphasis on global supply chain security.[21]

The strategic implication for UK readers is twofold. Saudi food security is increasingly delivered through global commodity, trading, and logistics infrastructure rather than purely through domestic substitution, and that expands the addressable market for UK trade finance, commodity finance, marine insurance, agricultural commodity legal advisory, and supply chain assurance services well beyond the boundaries of the Kingdom itself. With PIF capital now directing majority-controlled global agribusiness platforms, the alignment between PIF investment objectives and UK supplier participation, formalised through the October 2025 UKEF-PIF Memorandum of Understanding, becomes commercially relevant in jurisdictions far beyond Riyadh.

3. The Water-Food Nexus: A Critical Assessment

The preceding sections describe two enormous infrastructure programmes, one devoted to water conservation and efficient supply and the other to food production expansion and localisation, that pull in opposing directions, with agriculture consuming between 67 and 84% of Saudi freshwater depending on source.[1,2] A peer-reviewed study published in Nature's *npj Sustainable Agriculture* found that water requirements for crop cultivation in Saudi Arabia are 2.6 to 3 times the global average owing to extreme evapotranspiration rates,[1] which means any policy increasing domestic food production will increase total agricultural water demand unless it simultaneously reduces per-unit water consumption by a commensurate factor.

Whether technology can close the gap at the scale and pace required is the central question. CEA uses 90 to 95% less water than open-field farming at the individual facility level. At the system level, CEA remains a small fraction of total agricultural output, and even Topian's 600,000 metric tonne target, if fully achieved, would account for roughly 2% of total Saudi food consumption. Vertical farming today is confined to leafy greens, herbs, and some fruits. It does not produce the cereals, animal feed, or bulk commodities (wheat, rice, barley, sugar) that dominate Saudi import bills. The policy ambition to reach 93% self-sufficiency in potatoes and 100% in tomatoes is achievable precisely because these crops suit protected cultivation and drip irrigation,[18] whereas self-sufficiency in wheat or rice would require either massive aquifer withdrawals or a technological transformation in cereal production that does not yet exist at commercial scale. The April 2026 SALIC-Olam Agri transaction is, in effect, an acknowledgement of that constraint: bulk commodity self-sufficiency is being addressed by acquiring control of overseas grain origination and trading capacity rather than by attempting to grow these crops domestically.[46]

Climate change compounds the difficulty. The G20 Climate Risk Atlas produced by the Euro-Mediterranean Center on Climate Change estimates a temperature rise of 2.6°C by 2050 under a high-carbon scenario, agricultural drought frequency increasing by 88%, and water demand rising by up to 34.2%.[32] The Atlantic Council's climate profile projects a temperature rise of up to 5.6°C by the end of the century, wheat yield declines of 20 to 30% by 2050, and a GDP loss of approximately 12.2% under high emissions.[33] These are the operating conditions in which today's infrastructure investments will need to perform across their 25- to 30-year design lives. For SBJBC members, the tension between Saudi water and food strategies is what generates demand for the efficiency, technology, and advisory services in which UK firms specialise. Every cubic metre saved through smart networks, every tonne produced through CEA, every overseas commodity asset secured through SALIC, and every improvement in wastewater reuse partially resolves the tension and creates a procurement requirement.

4. International Benchmarks: Israel and Singapore

Two countries provide useful reference points. Israel, operating in comparable climatic conditions, recycles 87% of its wastewater for agricultural use (the highest rate in the OECD), supplies over 80% of domestic water from five major desalination plants, has reduced agricultural freshwater consumption from 64 to 35% of total use over two decades, and maintains per capita consumption of 138 cubic metres per year against Saudi Arabia's 723 cubic metres,[34] while Singapore's NEWater programme, producing advanced treated recycled water, meets approximately 40% of national

demand from a capacity of 760,000 cubic metres per day with a target of 55% by 2060.[35] The RAND Corporation's FEW (Food-Energy-Water) Index rates Saudi Arabia at 0.51 overall but assigns a score of only 0.02 for water adaptive capability, an extremely low figure that underscores the distance between current performance and the comparator benchmarks.[36]

This matters for UK entities in two ways. British engineering and consultancy firms have been active participants in both the Israeli and Singaporean water sectors, delivering design, advisory, and technology transfer services that apply directly to Saudi requirements. Saudi Arabia is also hosting the 11th World Water Forum in Riyadh from 22 to 28 March 2027, under the theme of Action for a Better Tomorrow, a clear signal of intent to position the Kingdom as a global leader in water security.[5,52] The Forum's preparatory phase, formally launched in Riyadh in April 2025 with more than 600 participants from 60 countries, runs through 2026 and offers UK organisations an early window to engage thematic and regional working groups, propose sessions, and secure pavilion participation well ahead of the principal event.[52] Saudi Arabia's chairmanship of the Riyadh-headquartered Global Water Organization, announced in September 2023, provides a further locus for UK-Saudi engagement on water sector strategy, project finance, and standards.

5. UK's Capabilities and the Bilateral Opportunity

5.1 The Strategic Partnership Framework

The institutional framework supporting UK-Saudi trade in water and food infrastructure is well established and continues to deepen. The May 2024 Strategic Partnership Agreement set a bilateral trade target of £30 billion by 2030.[6] The October 2025 UKEF-PIF Memorandum of Understanding committed £4 to 5 billion in risk appetite to support UK supplier access to PIF project pipelines, including water and food infrastructure.[7] UKEF has an existing Saudi track record that includes $700 million for the Six Flags Qiddiya entertainment complex.[7] Total bilateral trade reached £16.6 billion in the four quarters to Q3 2025, with UK exports of £13.2 billion (up 4.9% year on year) and UK foreign direct investment stock in Saudi Arabia of £6.5 billion.[6]

The September 2025 Joint Statement of the UK-Saudi Strategic Partnership Council, co-chaired by His Royal Highness Prince Mohammed bin Salman and Prime Minister Sir Keir Starmer, confirmed bilateral trade exceeding £16 billion in 2024, reaffirmed the £30 billion target for 2030, and confirmed the completion of eight rounds of negotiation toward the UK-Gulf Cooperation Council Free Trade Agreement.[45] On 5 February 2026 the UK Secretary of State for Business and Trade publicly described the FTA as imminent and negotiations were finished on 20th May. Total UK trade with the six-nation bloc is now valued at approximately £60 billion annually, and UK government modelling estimates the FTA would lift UK economic output by approximately £1.6 billion per year.[44] For SBJBC members in water and food sectors, the FTA is the single most consequential near-term policy variable, and now that negotiations are over, it will be ratified in the coming years. Tariff elimination on processed food, agritech equipment, and water sector machinery, alongside services liberalisation in engineering, advisory, and certification, would directly affect the procurement opportunities described in this paper.

5.2 UK Engineering and Consultancy in Saudi Water

British engineering firms have established deep operational footprints in Saudi water infrastructure. Mott MacDonald operates as city infrastructure engineer for NEOM's THE LINE project, covering water, waste, and energy systems, and runs a standalone Saudi business from an expanded Riyadh headquarters with around 3,000 Middle East employees.[37] AtkinsRéalis (formerly Atkins) holds the National Water Company water distribution privatisation advisory contract, provides sanitation infrastructure advisory covering populations in excess of seven million inhabitants across Jeddah, Dammam, and the Northern Border, and has served as technical adviser for the SWCC Ras al-Khair desalination plant privatisation.[38] WSP is technical adviser on the Jubail 4 and 6 Independent Water Project, a 600,000 cubic metres per day desalination facility.[38]

Several British firms hold strong positions across the smart water technology segment. Scotmas, the Scottish chlorine dioxide water treatment specialist, has identified Saudi Arabia's water sector as a priority market and exhibited at IFAT Saudi Arabia.[39] British Water, the UK trade association, has established partnerships to promote UK water innovation globally, and British Expertise International runs a Water Resilience Working Group covering desalination, wastewater treatment, NRW reduction, and irrigation.[40] The UK Water Partnership, a public-private initiative established in 2015, has developed the UK Water Capabilities Directory in collaboration with the Department for Business and Trade specifically to support export activity in markets including the Gulf.[40]

UK firms should be realistic about the competitive context. Spanish, Indian, French, Dutch, and US firms hold visible positions across desalination, agritech, and water-tech procurement, and in some cases benefit from sovereign export finance arrangements as aggressive as the UK's. Differentiation rather than displacement is the practical strategy. Ofwat-regulated utility experience, the depth of British smart network and digital twin capability, advanced wastewater process design honed under stringent European standards, and the academic-industrial pathways outlined in Section 5.3 are genuine UK comparative advantages, and should be the basis of UK positioning at SWA, SWPC, and NWC procurement engagements.

5.3 UK Agritech and Controlled Environment Agriculture

The United Kingdom's agritech sector received approximately £130 million in investment in 2024, with particular strength in vertical farming, precision agriculture, and crop science.[41] Jones Food Company operates what is described as Europe's largest high-care vertical farm, claiming 95% water savings. LettUs Grow, the Bristol-based aeroponic technology developer that has raised £17.7 million to date, has been featured in Department for International Trade export campaigns targeting Gulf markets, and Fischer Farms is constructing a £25 million facility described as one of the world's largest vertical farms.[41] The University of Plymouth's Controlled Environment Agriculture Research Group has undertaken a direct research collaboration with the University of Jeddah on indoor vertical farming for food crop production in Saudi Arabia, focusing on plant factory systems powered by photovoltaic solar. The work is a useful example of the knowledge transfer pathway from UK academia to Saudi application.[42]

Innovate UK has actively facilitated market entry, with a Global Expert Mission on AgriFood Technologies visiting Riyadh, Jeddah, and Tabuk in 2025 following a March 2024 UK-Saudi MoU that specifically identified food security, water, and clean energy as bilateral priorities,[8] and a separate Global Business Innovation Programme for Agri-Tech in Saudi Arabia has been established to support

UK SMEs exploring the Saudi market.[43] These government-backed programmes reduce the cost and risk of initial market engagement for UK agritech firms with the technical capabilities Saudi Arabia needs but lacking the in-country networks to navigate procurement.

5.4 Infrastructure Resilience and the Security Context

An adequate assessment of Saudi water infrastructure must take account of the security environment within which it operates. Desalination, supplying around half of distributed water and roughly 60% of urban needs, is concentrated at coastal facilities along the Red Sea and the Arabian Gulf. During the 2026 escalation between Iran and the United States, Iranian threats to Gulf desalination plants were reported, raising the salience of single-point-of-failure infrastructure risk for water security planning.[59] Two adjacent commercial pathways open up for UK entities. The first is technical: physical and cyber resilience advisory, redundant systems design, hardened control architecture, and recovery planning are categories in which UK industrial security firms hold capability. The second is financial: as Saudi insurers and reinsurers reassess critical infrastructure exposure, UK specialty insurance and political-risk underwriting capacity in the London market is well placed to participate. SBJBC's parallel work in the defence and resilience stream, including the planned Farnborough Airshow side event in July 2026, offers natural cross-stream linkages for members operating in this space.

6. Conclusion

Saudi Arabia's water and food infrastructure programmes will not resolve the tension between conservation and self-sufficiency in the immediate term. Agricultural water demand cannot be reduced quickly without contracting domestic production, domestic production cannot be expanded without water, and the technologies that mediate between those constraints, including controlled environment agriculture, advanced wastewater reuse, smart distribution networks, energy-efficient desalination, alternative protein, and overseas commodity acquisition, operate at varying stages of commercial readiness and at scales smaller than the underlying demand.

The institutional pathways through which UK entities can engage these opportunities are reasonably well defined. UK Export Finance and PIF have committed £4 to 5 billion of risk capacity to UK supplier participation in PIF-linked project pipelines. Innovate UK runs both a Global Expert Mission and a dedicated Global Business Innovation Programme for Agri-Tech in Saudi Arabia covering the categories examined here. The Department for Business and Trade operates in-country advisory through the British Embassy in Riyadh and the Consulate in Jeddah. The 11th World Water Forum preparatory phase in Riyadh runs through 2026 ahead of the principal event in March 2027, providing a window for thematic and bilateral engagement ahead of formal procurement cycles.[52]

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