

# Asia and the Gulf: Building Emerging Industries in an Uncertain World

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## Executive Summary

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Over the past decade, Asia and the Gulf have grown in their interdependence. This interdependence has deepened in the energy sector but goes beyond it.

In their quest to pursue their energy, economic, and security interests, Gulf Cooperation Council (GCC) countries, comprising Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates (UAE), have strengthened their ties with Asian countries, in addition to continuing to advance their connections with the West and other regions. Sovereign wealth funds of Gulf countries, in particular, have the opportunity to channel more investments into the broader Asia-Pacific region, to solidify their relationship with key geo-economic partners, take advantage of the “Asian growth miracle,” and expand their sources of foreign income. These investments have both spurred the growth of Asian economies and attracted reciprocal investments to develop high-growth sectors in the Gulf, in a range of industries in addition to oil and gas.

For large Asian economies, particularly China and India, GCC countries have become strategic partners to grow their economic influence, achieve energy security, and gain new investment sources and destinations. GCC ties with other parts of Asia, including Japan, South Korea, and ASEAN countries, especially in trade, are also strong and expanding.

This briefing delves into the drivers of Asian-Gulf relations, especially in trade, investment, and technology, underscoring the relevance of the growing collaboration and unpacking their implications amid the growing global and regional challenges and uncertainties that are shaping industries, economies, and geopolitics. It discusses the natural synergies between Asia and the GCC in the emerging technology sectors of artificial intelligence (AI), renewable energy, electric vehicles (EV), and agricultural technologies.

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## Introduction

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The confluence of interests between Asian and GCC economies in fostering trade and investment, energy security, and solidarity among Global South economies has provided a solid foundation for deepening economic and political ties. These two regions have had long-standing historical ties, where trade in silk, spices, and other goods flourished long before the discovery of oil in the 1920s. The Gulf had been a crucial hub in the maritime Silk Road, facilitating extensive trade with Asia. Today, initiatives like China's Belt and Road are revitalizing these ancient connections, positioning both regions to influence growth and stability.

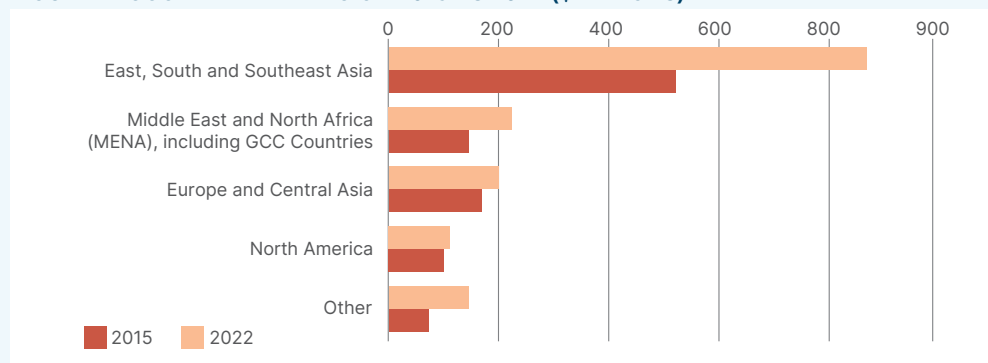
Economic linkages between Asia and the Gulf have expanded significantly, driving economic growth in both regions. The Gulf's economic diversification is a key driver, as is Asia's need for energy security and the Gulf's pursuit of its energy interests. The growing relationship extends beyond trade and investments, incorporating an expanding exchange of expertise, technology, and talent, and partnerships to develop new economic sectors.

The increasingly uncertain geostrategic environment has also provided the impetus for both regions to diversify alliances and cooperate with new partners on the international stage. At the same time, while both regions stand to gain significantly from their growing links, they will also need to carefully navigate the challenges of great power competition, especially between the U.S. and China, particularly trade and technology frictions, which will in turn impact bilateral and multilateral ties with other economies and regions.

## Growing Trade and Investment

Asian-Gulf trade has been sizable and has grown significantly in recent years (see Figure 1). In 2022, the trade value reached \$860 billion, with more than 60 percent of GCC exports going to economies in East, South, and Southeast Asia, and almost half of the region's imports originating from Asia. From 2015 to 2022, GCC imports from Asia grew 18 percent, while exports grew 98 percent. Among GCC economies, Saudi Arabia, the UAE, and Qatar accounted for more than 80 percent of the total Asia-GCC trade value in 2022, while on the Asian side, China and India accounted for 57 percent of the value.

FIGURE 1 - GCC TRADE PER REGION 2015 VS 2022 (\$ BILLIONS)

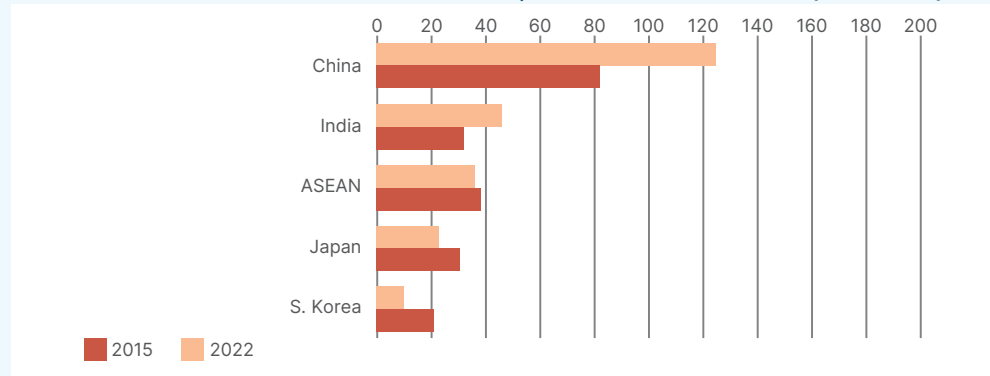


Source: Asia Business Council calculations based on data from GCC Statistical Centre and customs data.

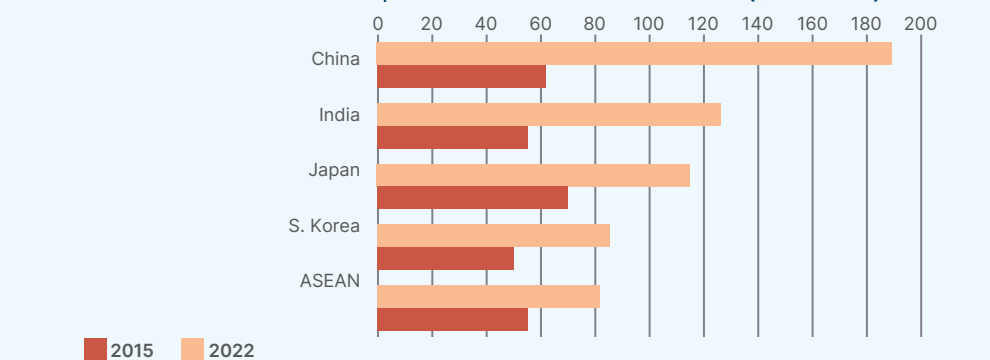
Gulf countries have become increasingly reliant on China, for both imports (22 percent share) and exports (20 percent of its total exports). China's total trade share has increased from 14 percent in 2015 to 20 percent in 2022 (see Figures 2 and 3). In the first half of 2024, China's bilateral trade with the UAE reached a record US\$50 billion. In September 2024, Chinese Premier Li Qiang met with the GCC Secretary General Jassem Mohamed Albudaiwi to fast-track the negotiations of a China-GCC free trade agreement which would further support the expansion of trade links.<sup>1</sup>

Trade with India has also expanded rapidly. India is a major oil consumer, and in 2022, it became the GCC's second-largest trade partner and export destination, with an 11 percent total share of trade, overtaking Japan, South Korea, and the U.S.<sup>2</sup> Future trade between India and countries in the region should get an additional boost from a joint project to establish a trans-continental trade corridor connecting India to Europe via sea and rail routes that go through Saudi Arabia.<sup>3</sup>

**FIGURE 2 - IMPORTS INTO THE GCC FROM ASIA, PER COUNTRY OF ORIGIN (\$ BILLIONS)**



**FIGURE 3 - GCC EXPORTS TO ASIA, PER COUNTRY OF DESTINATION (\$ BILLIONS)**



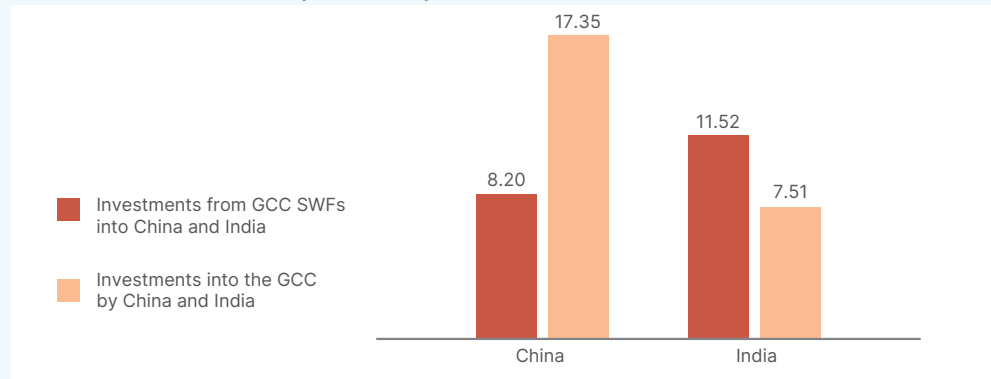
Sources: Asia Business Council calculations based on data from GCC Statistical Centre, World Bank WITS trade database and IE Enterprise.

This rapid trade growth has so far been driven primarily by hydrocarbon exports. In 2023, Asia received 70 percent of GCC crude oil exports, equivalent to a 20 percent volume (as measured by barrels per day) and 29 percent value increase from a decade ago.<sup>4,5</sup> China received 17 percent of GCC crude oil exports (four million barrels per day), more than twice that of a decade ago, while in 2022, more than 41 percent of Chinese crude oil imports originated from the GCC.<sup>6,7</sup> Crude exports to India are also growing. Now the world's second-largest crude oil net importer after China, India is expected to become number one by 2030.<sup>8</sup>

Moreover, Asia is becoming a priority market in non-hydrocarbon sectors. While energy exports continue to play a significant role in the Asia-GCC relationship, accounting for almost 80 percent of the GCC's export value to Asia, flows of non-oil goods and services trade have also increased, supported by Comprehensive Economic Partnership Agreements (CEPAs) and special agreements with China and India to trade in local currencies.<sup>9,10,11</sup> China is now the largest non-oil trade partner of Saudi Arabia and the UAE.<sup>12</sup> The CEPA agreement between India and the UAE, in place since 2022, is expected to achieve \$100 billion in non-oil trade annually by 2030.<sup>13,14</sup>

Reciprocal investments between Asia and the Gulf are also increasing (see Figure 4). Sovereign wealth funds from the Gulf have so far allocated only a small portion – approximately 1-2 percent – of their available investment capital to Asia, but their allocation is increasing.<sup>15</sup> Asia, whose share of global growth is predicted to reach 60 percent in 2024, should remain a significant economic player on account of demographic shifts characterized by a large, relatively young, and skilled workforce and of the continent remaining a global hub for trade and, increasingly, technological innovation.<sup>16,17,18</sup>

**FIGURE 4 - RECIPROCAL INVESTMENTS, CUMULATED FLOWS BETWEEN 2018 AND 2023 (\$ BILLIONS)**



Source: Asia Business Council calculations based on data from Global SWF, Alpen Capital, and ChinaMed

By 2030, India is projected to become the world’s third-largest economy.<sup>19</sup> Gulf investment funds have started leveraging their substantial investment capital – predicted to increase from \$4.1 trillion in 2023 to between \$7.6 trillion and \$10 trillion in 2030 – to tap into that growth.<sup>20,21</sup> India has become the Gulf’s second-largest investment destination after the U.S., with significant investments in areas including energy, defense, petrochemicals, AI, IT, and cybersecurity.<sup>22</sup> The Abu Dhabi Investment Authority (ADIA), the UAE government’s largest sovereign wealth fund, is working on establishing a \$4-5 billion fund in the Gujarat International Finance Tec-City (GIFT City), a Special Economic Zone aimed at attracting foreign companies in fintech, IT, banking, insurance, and technology with tax incentives.<sup>23</sup> In October 2023, the UAE also declared its intention to spend \$75 billion in India, while Saudi Arabia announced a \$100 billion investment goal.<sup>24</sup> Goldman Sachs and Mubadala, Abu Dhabi’s state-owned global investment company, signed a \$1 billion private credit agreement in 2024 to co-invest in the Asia-Pacific region, with a particular focus on India.<sup>25</sup>

Capital is also flowing from Asia into the Gulf. Notably, investment flows from China have been substantial due to the Belt and Road Initiative (BRI) infrastructure investments, manufacturing projects in the Gulf, and investments aimed at securing energy supplies. Chinese investments in the UAE, worth \$15 billion in 2022 and \$1.3 billion in 2023, account for 60 percent of its total investments in Arab countries and a third of the UAE’s foreign direct investment (FDI).<sup>26,27</sup> One of the largest energy infrastructure deals and investments in Saudi Arabia in 2022 was the \$15.5 billion acquisition of a 49 percent stake in Saudi Aramco Gas Pipeline by an investor group consortium led by U.S. asset management firm BlackRock and comprising the China Silk Road Fund, China Merchants Capital, and others.<sup>28,29</sup> In June 2024, China’s Petroleum and Chemical Corporation (Sinopec) signed a \$1.1 billion deal to build natural gas pipelines for Saudi Aramco.<sup>30</sup> China has also been supporting the development of projects to refine Gulf oil resources into higher-value petrochemicals, and as discussed in the next section, renewable energy projects.

Meanwhile, China could receive between 10 and 20 percent of the Gulf’s overall investment capital, equivalent to \$1-2 trillion, by 2030, as expected by the former Hong Kong stock exchange chief.<sup>31</sup> Moreover, China and GCC countries are co-investing to accelerate the growth of new economic sectors, as discussed later in this briefing. In September 2024, Chinese Premier Li Qiang met with Saudi Crown Prince Mohammed bin Salman and UAE President Sheikh Mohamed bin Zayed Al Nahyan respectively. He called for deeper cooperation in new energy, electric vehicles (EVs), high-end manufacturing,

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biomedicine, information and communications, the digital economy, and other fields, and reinforced collaboration in investment and traditional sectors like oil and gas, as well as infrastructure construction.<sup>32,33</sup> Investcorp, an alternative asset manager that counts Mubadala as its biggest shareholder, has teamed up with China Investment Corp., China's largest sovereign wealth fund, to jointly launch a \$1 billion fund to co-invest in high-growth companies in consumer, health care, logistics, and business services in GCC countries, and China.<sup>34</sup>

Investment partnerships extend beyond China. For instance, South Korea is investing in onshore and oil field development projects in the UAE and large-scale construction projects in the Gulf. Previously, Oman oil companies made big investments in power companies in South Korea, including in GS EPS, one of the largest independent power producers.<sup>35</sup> The 2023 FTA between South Korea and GCC countries is expected to enhance economic exchanges and expand them beyond energy and construction to digital economy, smart cities, gaming, cybersecurity, AI, smart farming, as well as health and biotechnology industries.<sup>36,37</sup>

Other major Asian economies like Japan and India are also growing investments in the Gulf. For example, Mubadala and the Saudi Public Investment Fund (PIF) have invested with Japan-based Softbank Group's Vision Fund, which targets pioneering technology companies in Asia and the Gulf building software, hardware, and internet platforms in areas such as connectivity, data analytics, artificial intelligence, new forms of computing, and deep science applications.<sup>38,39</sup> India is a major contributor to Dubai's FDI, particularly in sectors like trade, IT services, and real estate.<sup>40,41</sup> Investment partnerships with the UAE and Saudi Arabia, especially in emerging sectors, have also been growing, as will be discussed further in the emerging technology section later in the briefing.

Looking ahead, ASEAN offers significant untapped potential for trade and investment growth. In 2022, only 8.6 percent of GCC exports went to ASEAN countries, while imports from ASEAN amounted to 6.4 percent of the GCC's total.<sup>42</sup> Moreover, GCC investments into ASEAN only represented 4 percent of the region's total FDI.<sup>43</sup> In recognition of the opportunities, the first summit between ASEAN and GCC heads of state in October 2023 established a five-year ASEAN-GCC Framework of Cooperation 2024-2028 to expand collaboration in digital economy, food security, renewable energy, and climate adaptation.<sup>44</sup> Bilateral trade agreements are also being established. The UAE recently concluded CEPA agreements with Indonesia and Cambodia and is negotiating with the Philippines. The CEPA with Indonesia, which came into force in September 2023, is expected to create a significant increase in bilateral non-oil trade by 2030.<sup>45</sup> These agreements set the stage for deepening trade and investment. For instance, Indorama Ventures, a Thailand-based global leader in polyethylene terephthalate (PET) and recycled PET products, maintains significant trade and investment ties with GCC countries. Temasek Holdings, Singapore's state-owned global investment company, is also considering expanding its investments in the Gulf region.<sup>46</sup>

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## Growing Asian-Gulf Economic Interdependence Benefits Both Regions

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The growth in Asian-Gulf relations is underpinned by the Gulf's economic diversification goals and Asia's energy security needs. Changes in the global strategic environment have also prompted Asian and Gulf states to forge new geoeconomic and security alliances. As the economies become more intertwined, there is also joint interest in protecting reciprocal investments by ensuring a stable regional environment. This section explores the rationale behind the increasing cooperation of Gulf and Asian economies and why mutually beneficial partnerships are set to expand further.

### Economic Diversification for Gulf Economies

While hydrocarbon export revenues have played an outsized role in regional economic growth, the Gulf's energy-producing countries have long been aware of the finite nature of their oil and gas resources and the related need to invest in strategic industries, including digital and green infrastructure, to enhance their economic and fiscal resilience.

Conventional fossil fuels are expected to remain a part of the energy mix until 2050.<sup>47</sup> At the same time, the GCC will face pressures of declining oil demand amid a global energy transition, as well as depletion in oil and gas reserves in the longer term. Growing competition from non-OPEC+ producers is another issue they must contend with.<sup>48</sup>

Some GCC countries are facing additional challenges. Saudi Arabia has a large, young population, relatively modest hydrocarbon revenue per capita, and a pressing need to generate meaningful employment opportunities. Kuwait, Qatar, and Oman will similarly need to produce more tradable goods and services, to generate new sources of revenue to support their economies and populations.<sup>49</sup>

The drive for economic diversification and modernization of societies has led to the launch of national initiatives in Gulf economies with these explicit aims, such as Saudi Vision 2030, "We the UAE 2031," Oman Vision 2040, and Qatar National Vision 2030. According to these strategic plans, hydrocarbon export revenues are expected to support economic diversification, funding the development of new economic sectors, as well as oil-and-gas-exporting countries' own energy transition.

Notably, Saudi Arabia's Vision 2030, launched in 2016, includes strategic objectives to grow and diversify the economy and provide job opportunities for all Saudis by attracting more FDI, expanding the non-oil-related areas of the economy, and expanding industrial and urban infrastructure. Achievements under Vision 2030 include significant growth in the non-oil sector, contributing 50 percent to Saudi Arabia's GDP by 2023.<sup>50,51</sup> FDI surged from \$7 billion in 2017 to \$25 billion in 2023.<sup>52</sup> The tourism sector saw record growth, and there is significant growth in women's labor force participation including management roles and SME ownerships, among other achievements. However, investments in some mega projects of Vision 2030 have faced recent retrenchment, amid growing discourse on the need for fiscal prudence, as well as reprioritization of projects and sectoral strategies.<sup>53,54</sup>



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## Energy Security for Asian Economies

The growth in oil and gas demand of both China and India and gradual reduction in European and U.S. demand have supported the accelerated GCC oil and gas exports to Asia.

Asian economies are expected to continue depending on Gulf oil until around 2050. Exports of Gulf natural gas to Asia are also set to increase as natural gas becomes a key transition fuel from coal to renewables and acts as an important source of feedstock in agriculture. Asia's natural gas consumption is expected to grow 78 percent by 2050, with China accounting for almost half of the region's additional gas usage between 2021 and 2050.<sup>55</sup>

This growing dependency means that ensuring stable energy supplies has become a shared interest. GCC oil companies have committed to support Asia's long-term energy security. For example, Saudi Aramco has announced that it aims to produce a maximum sustainable capacity of 13 million barrels per day by 2027 and also increase its gas production by more than 50 percent by 2030.<sup>56</sup>

The U.S.'s growing role as an international hydrocarbon supplier has also influenced trade dynamics and geoeconomic relations between the two regions.<sup>57</sup> For Gulf states, building relationships with Asia presents an opportunity to leverage their growing influence to pursue their energy interests, as the U.S. continues to expand its influence as a global supplier.

## Growing Alignment in Geostrategic Interests

Recent changes in the geostrategic environment, as well as regional security challenges, have prompted Gulf states to forge new alliances with Asian countries, particularly China and India, both of which recognize the importance of a stable and secure Gulf region for their energy security, economic, and strategic interests.

It also paves the way for Gulf states to participate in South-South alliances, such as the BRICS+ platform, formed by some of the largest emerging markets with immense economic clout. Saudi Arabia and the UAE were both invited to join in August 2023. The UAE has become a member, and Saudi Arabia was still considering as of October 2024.<sup>58</sup>

Joining the BRICS+ platform could give GCC countries more agency to shape the global agenda in different realms. The BRICS+ ambition to create new trade and financial instruments such as a BRICS+ currency, and the exploration of Central Bank Digital Currencies (CBDCs) by some countries, presents opportunities to facilitate cross-border transactions and mitigate dollar weaponization risks. A pilot cross-border multiple-country CBDC bridge (mBridge) was set up in 2022 by the central banks of the UAE, Hong Kong, Thailand, and the Digital Currency Institute of the People's Bank of China, to prepare for the establishment of a non-dollar payments system.<sup>59</sup> The central bank of Saudi Arabia has since joined mBridge as a full participant and mBridge members have been accumulating gold to replace U.S. Treasuries as the prime international reserve asset since the successful completion of the pilot. The project reached the Minimum Viable Product (MVP) stage in June 2024.<sup>60,61</sup> Pending the more formalized establishment of CBDC bridges, oil and gas shipments between the Gulf, China, and India are increasingly being settled in local currencies. However, these ambitions may encounter obstacles with tariff threats from U.S. President-elect Donald Trump as of December 2024.

Amid the intensifying great power competition and growing trade tensions with the West, China has also been pursuing new strategic alliances. Gulf states' huge industrialization potential, significant influence in West Asia and the broader Middle East and North Africa (MENA) region, and strategic location at the intersection of the Silk Road Economic Belt

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and the 21st Century Maritime Silk Road make them ideal partners in the BRI.<sup>62</sup> Accordingly, China has been drawing upon the GCC's significant infrastructure investment needs — close to \$1.6 trillion between 2020 and 2025 — to onboard Gulf states as strategic partners to expand the BRI.<sup>63,64</sup> In 2015, Mubadala, China Development Bank Capital, and China's State Administration of Foreign Exchange established a \$10 billion UAE-China Joint Investment Fund to make greenfield investments in renewable energy, infrastructure, technology, and advanced manufacturing projects in China and the UAE, and implement strategic BRI initiatives to enhance connectivity across Eurasia.<sup>65</sup> In 2018, at the China-Arab States Cooperation Forum, China committed \$20 billion in loans and \$106 million in financial aid to support the construction of economic zones, energy, and transport and logistics infrastructure in the Gulf.<sup>66</sup> This has led to several significant projects and helped China strengthen its influence over critical oil and international trade routes (see Case Study 1). In May 2024, during UAE President Mohamed bin Zayed Al Nahyan's visit to Beijing, the two countries agreed to formulate a plan to jointly develop BRI projects, notably in energy, renewable energy, green technology, and infrastructure, and to co-invest in new economy ventures.<sup>67</sup>

Trade and investment serve as a critical foundation for strengthening these alliances. The Arabian Peninsula, which is linked to the Persian Gulf, Red Sea, Arabian Sea, and Indian Ocean, plays a key role in connecting the East and West. Due to its energy, minerals, and central location along with two core coasts on the Arabian Gulf, Ras Tanura, and Red Sea, Jeddah Islamic Port in Saudi Arabia is a critical hub for trade. Salalah in Oman is also playing a growing role as trade with the East is multiplying and shipments are trying to avoid the Strait of Hormuz and Bab el-Mandeb. Connectivity in the Arabian Peninsula will increase enormously, including through railways, roads, and pipelines, and technological advancements in logistics, trade agreements, and supply chain integration will make the movement of goods, services, and information across countries more seamless and efficient. Saudi Arabia is building critical supply chains and bonded corridors to take merchandise all the way to key international markets. This initiative is part of the broader Saudi Vision 2030, which aims to transform the Kingdom into a global logistics hub.<sup>68,69</sup> Further collaboration to develop new economic sectors and to jointly set international technology standards will cement the ties, positioning the Gulf states alongside their Asian partners as key players in global technological advancements.

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## China Strengthening its Presence in the Arabian Peninsula to Safeguard its Energy Interests

### Case Study 1

China relies on the Gulf for a substantial portion of its oil imports. Increasing energy demand has led to rising crude oil imports, notably from Saudi Arabia and Oman. In 2023, approximately one-third of Chinese crude oil imports originated from the GCC.<sup>70</sup> Accordingly, China has been striving to secure critical oil chokepoints, notably the Straits of Bab el-Mandeb and Hormuz, to protect its energy flows.

In 2017, China established its first overseas military facility in Djibouti, at the entrance of the Bab el-Mandeb Strait, a narrow waterway through which tankers from the Gulf transit on their way to the Suez Canal and the SUMED Pipeline connecting Europe and Asia. The Iran-China 25-Year Comprehensive Cooperation Agreement, signed in 2021, has enabled China to further secure its access to the Strait, by making substantial investments in Iran's infrastructure, energy, and transportation sectors. China's role in facilitating the resumption of diplomatic and economic relations between Saudi Arabia and Iran in 2023 also supported its continued access to the Strait.

China has also been increasing its strategic influence near the Strait of Hormuz, another critical oil chokepoint through which Chinese oil imports from the Gulf transit.<sup>71</sup> Accordingly, Chinese State-Owned Enterprises (SOEs) have built infrastructure in Fujairah, a port on the Gulf of Oman. While Fujairah is by no means the largest port by tonnage in the Gulf, it can serve as an effective bypass to the Strait of Hormuz. Fujairah's strategic location at the intersection of major trade routes connecting the Arabian Peninsula to India and East Asia also makes it central to China's BRI, a strategic plan to promote economic growth through expanding digital connectivity, fostering financial integration, and facilitating trade.

Chinese SOEs have been involved in building the Etihad rail network, a 1,200-kilometer freight and passenger railway connecting major industrial hubs in the GCC to the Port of Fujairah and the Abu Dhabi Crude Oil Pipeline connecting Habshan oil fields in Abu Dhabi to Fujairah.<sup>72,73</sup> These two projects allow the UAE to transport oil directly to the Arabian Sea, bypassing the Strait of Hormuz. In Fujairah, the Chinese SOE Sinopec holds a 50 percent stake in the Fujairah Oil Terminal FZC, which hosts the region's largest commercial storage capacity for refined oil products.<sup>74</sup>

China has also been making investments in Oman, which is strategically located at the entrance of the Strait of Hormuz, drawing attention to its broader ambitions. In 2018, China signed an agreement to develop and operate a special economic zone in Duqm, and to support the expansion of the Duqm Refinery Project (DRP).<sup>75,76</sup> Some \$10.7 billion was invested by a Chinese consortium to develop the Duqm Port and Industrial Zone, inaugurated in February 2024.<sup>77,78</sup> China's loan involves a strict repayment schedule and the right to seize assets in Duqm, including strategically important pieces of land and sea, in case of default.<sup>79</sup> Besides supporting China's access of the Strait, the deal also gave China more leverage to ask Oman to resume the construction of a pipeline that would enable Iranian liquified natural gas (LNG) to reach global gas markets via the Gulf of Oman. The Iran-Oman pipeline should be operational in 2025.<sup>80</sup>

Investments in port infrastructure projects could also support the advancement of Chinese military diplomacy in the Arab Peninsula without requiring the establishment of new military bases.<sup>81,82</sup> According to China's 2017 National Defense Transportation Law, Chinese civilian companies can be mobilized to support the Chinese military, and notably, to resupply Chinese ships, aircraft, and other vehicles involved in military operations to defend national interests.<sup>83</sup>

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## Closer Cooperation in Emerging Technology Sectors

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GCC countries are actively spurring investment in new economic sectors, to foster non-oil growth drivers. Rising high-tech sectors and green industries are being prioritized to position Gulf countries on the global stage amid many countries' drive toward greater digitization and sustainability.

While GCC countries have strong investment capacity, they have historically lacked technology development and manufacturing capabilities in some of these specialized emerging sectors. The multifaceted partnerships between Asian and GCC countries to develop new sectors not only catalyze the Gulf's industry diversification but also help to enhance technological competitiveness. Moreover, they support Asia's quest for energy and resource security and create a counterbalance to Western influence. The section below discusses four key emerging technology sectors where partnerships are expected to grow.

### Artificial Intelligence and Advanced Digital Infrastructure

Gulf countries have embedded digitization in their national visions to transform their economies. Digital transformation is expected to generate greater productivity and efficiency gains, drive innovation, improve public services, create employment for the Gulf's young and tech-savvy population, and support climate and energy transition goals.

In particular, AI is recognized for its potential to add substantial value to Gulf economies. Saudi Arabia, the UAE, and Qatar are investing heavily in the field through building robust infrastructure such as large-scale data centers, fiber connectivity, and cloud infrastructure. Chinese companies are involved in supporting these developments, in line with Beijing's 2015 Digital Silk Road strategy, which promotes the China-led development of regional telecommunication networks. Tech giants Alibaba, Tencent, and Huawei have been conducting research and investing in areas such as installing 5G networks, smart city applications, and large data centers in Riyadh and Abu Dhabi. Huawei has been a significant partner of Gulf countries in deploying the 5G networks and is now moving toward 5.5G, an advanced version of 5G, with partners including Saudi Telecom Co. (stc) in Bahrain, Omantel in Oman, Zain in Kuwait and Saudi Arabia, and du in the UAE.<sup>84</sup> In 2020, Alibaba Cloud committed up to \$500 million over five years to build cloud infrastructure in Saudi Arabia in partnership with stc and provide services for companies across a range of industries.<sup>85</sup> In 2023, Huawei opened a cloud data center in Riyadh to support the development of e-government services and has committed to \$400 million for cloud development over five years.<sup>86</sup> The Gulf is also seen by Western companies as a new growth opportunity, as Ericsson and Nokia have also been involved in numerous 5G deployments across the region, like Ooredoo in Qatar.

Gulf countries aim to leverage these infrastructure developments and the availability of affordable land and electricity to become prime destinations for "green shoring" data centers, combining economic incentives with eco-friendly practices. The anticipated doubling of global data center power demand over the next five years will help to entice global companies to establish their data centers in the region, where they can be operated more cost-effectively and with a higher mix of renewable energy.

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Saudi Arabia is actively investing approximately \$18 billion to develop hyperscale data centers. This initiative is a key component of the country's Vision 2030 strategy, aimed at transforming Saudi Arabia into a global hub for technology and innovation while adhering to regulatory standards for data security and sovereignty.<sup>87,88</sup> For instance, Saudi Data & Artificial Intelligence Authority (SDAIA) amended Saudi Arabia's newly implemented Personal Data Protection Law in September 2024 by issuing a Regulation on Personal Data Transfer Outside the Kingdom, and published a Personal Data Breach Incidents Procedural Guide a month later. According to SDAIA, the amendments constitute the foundations of a "data embassy law" and aim to address concerns about forced data transfer and data breaches.<sup>89,90</sup>

In addition to pursuing opportunities in data center development, Gulf countries also aim to become a global hub for AI development and training. The UAE's Vision 2030 includes a plan to transform Dubai into a hub for technological innovation to attract information and communications technology (ICT) companies. Kuwait's Vision 2035 includes a digital roadmap focused on Internet of Things (IoT) systems. The Saudi Company for Artificial Intelligence (SCAI), a division of PIF, is focused on investing in AI and emerging technologies to position the country as a leading hub for next-generation technologies for businesses and consumers.

Domestically, AI is being implemented in Gulf countries across various business operations to enhance productivity and efficiency. Examples include exploration and predictive maintenance in oil and gas. The development of autonomous systems and the use of AI in logistics and supply chain management are also making a significant impact. In government services, AI is being leveraged to expedite processes, improve public services, and enhance public safety. Other applications are being explored in the healthcare sector. Saudi Arabia's National Digital Transformation Strategy promotes the digitization of government services spanning public health, business facilitation, court services, and education. Bahrain's Digital Government Strategy 2022 and Oman's e.Oman strategy both emphasize e-government and ICT infrastructure development. In all GCC countries, the digitization of the financial system is also progressing rapidly as they continue to explore CBDCs.<sup>91</sup>

Collaboration with Asia allows Gulf countries to acquire AI technologies and know-how. Given a shortage of top AI talent in the Gulf, Asian companies play a key role in building domestic engineering capabilities and training the workforce. For instance, Chinese company SenseTime is collaborating with SDAIA to upskill thousands in AI technologies.<sup>92</sup> In February 2024, China's Ministry of Commerce and the UAE's Ministry of Economy agreed to jointly promote the growth of the digital economy in their countries and invest in digital infrastructure projects and AI.<sup>93</sup> Chinese AI company Terminus partnered with Mubadala to work on data centers and AI platforms. Terminus also trains local tech talent in the Middle East and provides smart hardware solutions. Tencent Cloud and Saudi telecommunications giant Mobily are advancing intelligent development in the tech, media, and telecom sectors.<sup>94</sup> ChinaSoft International and Huawei Cloud are also jointly working on smart city development for the NEOM project.

South Korea's expertise has been instrumental in pushing forward initiatives such as digital twin platforms for urban planning, which uses AI to simulate and optimize infrastructure for sustainable city development, as well as intelligent robot R&D. Medical AI is another key area, with South Korean companies participating in Saudi Arabia's digital health innovation projects to deliver advanced AI medical solutions.<sup>95</sup> Additionally, South Korean companies are actively entering the online and mobile markets, backed by Gulf investors, as gaming and esports are highly popular among regional populations.

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Several U.S. tech giants are actively partnering with governments and enterprises in the Gulf to accelerate digital transformation, particularly through AI, cloud computing, IoT, and smart city solutions. Microsoft has launched data centers in the UAE to support cloud adoption across the region and is also working with Saudi organizations to drive innovations in sectors like education, healthcare, and oil and gas.<sup>96</sup> Google and IBM are also contributing to the region's digital transformation goals.

These developments underscore that while Gulf countries collaborate with Chinese companies in AI and high-tech sectors, they also seek to strengthen partnerships with major U.S. companies, which are considered more advanced in a number of AI-driven sectors.

## Renewable Energy

Gulf countries are on a path of energy transition, with efforts to explore alternative energy sources, such as solar power. The aim is now to diversify beyond traditional oil and gas sectors and secure a pivotal role and attractive future returns in a shifting global energy landscape, which is increasingly favoring sustainable sources and advanced technological solutions.

In particular, Gulf countries see tremendous business opportunities in the Global South. Countries in Asia and Africa need secure and affordable access to energy to support their economic growth. Over the next 20 years, an additional two billion people will require access to energy sources—one billion in Africa, where the energy infrastructure also needs to be built, and another billion in South Asia.

Renewable imports to South Korea and Japan are also rising as these countries transition their energy systems toward more renewable sources. The Gulf's existing infrastructure and abundant solar resources are well suited for expanding into blue and green hydrogen, which have huge potential for decarbonizing hard-to-abate sectors, including cement, aluminum, and steel, complemented by robust port facilities for export.<sup>97,98</sup> They are in an advantageous position to continue supplying their existing Asian customers, thereby sustaining Asia's reliance on Gulf energy resources and supporting the reinforcement of strategic economic ties.<sup>99</sup>

Finally, renewable energy developments are crucial to the Gulf's strategy to lead in AI development and attract global data centers. Data centers, essential for running AI models, are significant energy consumers and contributors to carbon emissions. Saudi Arabia has committed to have 50 percent of its power generated from renewable sources by 2030 and the country's sovereign wealth fund Saudi Public Investment Fund (PIF) is aiming to develop 70 percent of the country's renewable energy by the end of the decade through investing in local manufacturing capabilities.<sup>100,101,102</sup> By offering an optimal mix of gas and renewables, Saudi Arabia is positioned to offer some of the lowest electricity costs per kilowatt hour globally.<sup>103</sup>

Asia and the Gulf have embarked on extensive partnerships to become leaders in technological innovation within the renewable energy sector. Together, they aim to capitalize on the new commercial opportunities presented by the growing demand for renewable energy.

A notable partnership under development involves Chinese solar giant LONGi Green Energy Technology, with the goal of making Saudi Arabia one of the few countries outside China to have a complete solar value chain, from polysilicon production to module manufacturing.<sup>104</sup> Additionally, Renewable Energy Localization Company, a PIF-owned company, has partnered with Jinko Solar, TCL Zhonghuan, and Envision Energy, three major Chinese clean-energy manufacturers, to localize advanced solar technologies and wind turbine manufacturing in Saudi Arabia.<sup>105</sup>

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The UAE, whose 2050 National Energy Strategy includes a goal to increase the share of renewables to 30 percent by 2030, is also pursuing partnerships with Chinese companies such as Trina Solar and GCL Technology Holdings to set up vertically integrated solar manufacturing hubs, including facilities to produce high-purity silicon, wafers, battery modules, and photovoltaic (PV) panels in the Gulf region, and to acquire technology and expertise.<sup>106,107,108</sup> Chinese companies were also involved in building two of the world's largest solar-energy projects in the UAE. The 2 GW Al Dhafra solar PV plant, built with the support of Jinko Power and launched in 2023 is currently the largest single-site solar power plant in the world.<sup>109,110</sup> The Mohammed Bin Rashid Al Maktoum Solar Park in Dubai, built with the support of Shanghai Electric, incorporates both concentrated solar power (CSP) and solar PV technologies, and will ultimately become the largest single-site solar park in the world with a planned total capacity of 5 GW once completed in 2030.<sup>111,112</sup>

Cooperation has also been driven by necessity. GCC countries are dependent on China for their integration into global renewables supply chains, spanning mining, critical mineral processing, and component manufacturing.<sup>113,114</sup> China dominates the supply of materials used in clean energy, producing 60 percent of the world's rare earths and refining nearly 90 percent.<sup>115</sup> In 2023, the Chinese Ministry of Commerce implemented licensing requirements for exporting selected rare earths used in such industries. Beyond banning the export of rare earth extraction and separation technologies, new regulations starting from October 2024 introduced a traceability system to enhance national scrutiny over rare earth trade.<sup>116,117</sup> Gulf countries looking to expand in renewable sectors have a vested interest in accessing these rare earths.

For China, supporting the development and operation of renewable energy assets in the Gulf and beyond aligns with ongoing policy goals, reemphasized by President Xi Jinping at China's 20th Party Congress, to actively participate in global efforts to combat climate change and become a leading country in science and technology.<sup>118</sup> The commitment to partnering with Gulf states in new energy has been reiterated most recently at Chinese Premier Li Qiang's visit to Saudi Arabia and the UAE in September 2024.<sup>119</sup> Besides developing solar projects in the GCC, China is also building the capacity of Gulf energy companies to develop new renewable energy projects in MENA and other parts of Asia. To this end, China's Silk Road Fund purchased a 49 percent stake in Saudi Arabia's leading renewable energy investment vehicle, ACWA Power RenewCo. This entity already holds 1,668 MW of CSP, PV, and wind assets in the UAE, South Africa, Jordan, Egypt, and Morocco.<sup>120</sup> China's BRI also aims to construct infrastructure projects to transport energy back to China. Most transmission line construction projects in Asia and MENA fall within the framework of this initiative. Lastly, China has leveraged its collaboration with GCC countries on renewable energy projects to sign long-term supply deals for both hydrocarbons and renewables. For example, in 2022, Saudi Aramco signed a Memorandum of Understanding (MoU) with China's Shandong Energy Group to cooperate across technologies related to hydrogen, renewables, and carbon capture and storage. The MoU also entailed a potential crude oil supply agreement.<sup>121</sup>

While China is a significant partner for GCC economies in the development of renewable energy projects, it is not the only one. India is also actively forming partnerships with GCC countries to expand its renewable energy capacity and tap into the renewable energy potential of developing economies in the broader region.<sup>122</sup> India is working with Saudi Arabia and the UAE to develop green hydrogen and green ammonia projects in the Suez Canal Economic Zone. India's Acme Group has committed \$13 billion to build a green hydrogen plant with an annual production capacity of 2.2 billion tons, while India's ReNew Power signed a framework agreement with Egypt to set up an \$8 billion green hydrogen plant.<sup>123,124</sup> India is also receiving Gulf investments to develop its own renewable energy capacity. In 2022, Mubadala

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and BlackRock jointly invested \$526 million to acquire a 10.5 percent stake in India's Tata Power Renewable Energy Ltd. and fund its aggressive expansion plans.<sup>125</sup> Abu Dhabi National Oil Company (ADNOC) and Indian state-owned energy corporation, GAIL, have also signed an MoU regarding collaboration in green hydrogen.<sup>126</sup> India and the UAE are negotiating an agreement to connect their renewable energy grids.<sup>127</sup>

Other than India, Indonesia's state-owned utility company, PLN, is receiving support from UAE's urban community Masdar City to develop Southeast Asia's largest floating solar power plant in the Cirata reservoir in West Java.<sup>128</sup> Korea Electric Power is also building a \$1 billion green hydrogen plant at Khalifa Industrial Zone in Abu Dhabi.<sup>129</sup> Japan is also investing in solar and wind energy projects in the UAE and Saudi Arabia and collaborating with GCC countries to develop renewable energy projects in Asia.<sup>130,131</sup> These collaborations are part of broader efforts to enhance energy security, diversify energy sources, and support global decarbonization goals.

South Korean and Japanese companies are working on a project in the UAE to produce 1 million tons of blue ammonia annually by 2028, with a second project underway. South Korea is also actively discussing blue ammonia and green hydrogen projects with Saudi Arabia and Oman.<sup>132,133</sup>

## Electric Vehicles

GCC countries are promoting capital inflows in other strategic industries linked to the climate and energy transition, such as EVs. As the EV industry spans a broad engineering spectrum, offering opportunities for workforce development in hardware, software, mechanical design, manufacturing processes, and supply chain logistics, EV growth also enables the development of new capabilities for other sectors that help Gulf countries build tech and knowledge-driven economies.<sup>134</sup>

Partnerships with Asian manufacturers are being leveraged to build R&D capabilities and address current shortages of domestic engineering talent. In 2023, less than one-third of the GCC's tertiary education graduates earned science, technology, engineering, and mathematics diplomas.<sup>135</sup>

In 2022, Saudi Arabia launched Ceer, its first EV brand, as a joint venture between PIF and Taiwanese tech giant Foxconn, with additional component technology licensed from BMW.<sup>136</sup> The venture is expected to support the establishment of a sustainable automotive industry in Saudi Arabia, in line with its Vision 2030's economic diversification goal. The venture will sell a range of EVs in Saudi and other MENA markets (see Case Study 2).



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Ceer Steering  
Saudi Arabia  
Toward Economic  
Diversification  
Case Study 2

The Ceer venture has enabled the development of state-of-the-art EV manufacturing complex in King Abdullah Economic City.<sup>137</sup> The complex represents a \$1.3 billion investment and is designed to handle all phases of vehicle production. While vehicles are manufactured locally, Foxconn is developing the electrical architecture, notably the elements required for connectivity, infotainment, and autonomous driving, and BMW is supplying the vehicle components.

Through partnering with Foxconn and BMW, Saudi Arabia aims to foster local capabilities to design and manufacture EVs, and the development of specialized skills which can enhance the country's industrial capabilities in the long term.<sup>138</sup>

For Foxconn, the partnership is a critical avenue for growth beyond smartphones, and also strengthens its position within Saudi Arabia's economic diversification plans. The strategic alliance also provides Foxconn with access to the MENA EV market, offering substantial growth opportunities in a region poised for rapid technological advancement.<sup>139</sup>

The venture is expected to draw over \$150 million in FDI for Saudi Arabia, create up to 30,000 jobs, and contribute \$7.9 billion to the country's GDP by 2034. Looking ahead, Ceer positions Saudi Arabia as a future EV exporter to neighboring MENA markets, which is projected to reach \$4.3 billion by 2028.<sup>140</sup>

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Chinese companies are also playing a key role in building the Gulf's technical capabilities and supporting the development of a local EV industry. Chinese electric car manufacturer Nio has licensed its technology, know-how, software, and intellectual property to help Forseven, an Abu Dhabi-based startup affiliated with government fund CYVN Holdings, manufacture EVs.<sup>141</sup> Chinese EV maker Human Horizons signed a deal worth \$5.6 billion with Riyadh for a joint venture to carry out research, development, and manufacturing in Saudi Arabia, in 2023.<sup>142</sup> The Gulf's interest in accessing Chinese technologies is such that they are providing financing to support Chinese R&D activities to benefit local R&D. Saudi Arabia's ambitious NEOM project, a \$500 billion sustainable city initiative, includes a \$100 million investment in the Chinese autonomous driving company Pony.ai to establish a joint venture for autonomous driving R&D in Saudi Arabia.<sup>143</sup>

As China finds itself increasingly locked out of Western markets on EVs, there is also an interest in accessing new markets. China is establishing new manufacturing facilities in the Gulf to serve local markets. In 2022, Chinese EV startup Enovate formed a joint venture with Saudi Arabia's Sumou Holding to establish a \$500 million manufacturing plant in the Kingdom.<sup>144</sup> When Chinese Premier Li Qiang visited the Gulf in September 2024, he noted the potential in expanding supply chain cooperation in EVs.<sup>145,146</sup> Through partnering with local companies, Chinese EV manufacturers can also expand their distribution and after-sales support networks in the Gulf. For instance, BYD has partnered with the UAE Al-Futtaim Electric Mobility Company to distribute several of its EV models in the UAE, and launch its first global low-cost EV model Atto 3, known as the Yuan Plus in China.<sup>147,148</sup> In February 2024, Chinese company XPeng Motors entered a strategic partnership with UAE-based Ali & Sons to expand into international markets, leveraging the Ali & Sons distribution network in MENA.<sup>149</sup> Commercial opportunities also expand to build the Gulf's EV infrastructure. For example, BYD's partnership with Al-Futtaim Electric Mobility Company aims to install 3,000 charging stations by 2030.<sup>150</sup>

South Korean EV manufacturers such as Hyundai and Kia Motors have also explored business prospects in the Gulf. Hyundai signed a memorandum of understanding with Saudi Arabia's PIF in 2023 to jointly invest at least \$500 million to establish an EV assembly plant in the planned King Abdullah Economic City. Under the initial agreement, Hyundai will ship semi-finished EVs and parts to Saudi Arabia, where they will be assembled locally.<sup>151</sup>

## Agricultural Technology

The agricultural technology sector is gaining prominence among Gulf economies, as it promises to address critical food security issues due to arid climates and limited arable land.

While the GCC countries are deemed relatively food-secure by the Global Food Security Index –capable of providing affordable and sufficient access to safe and nutritious food for their own populations – they still depend heavily on imports for about 85 percent of their food needs.<sup>152</sup> This includes nearly all rice, around 93 percent of cereals, approximately 62 percent of meat, and 56 percent of vegetables. Several ASEAN member countries export these food products to the Gulf market, including rice and poultry from Thailand and Halal-certified food from Malaysia. This reliance on imports makes GCC countries susceptible to shortages during disruptions in supply chains, such as those experienced during the COVID-19 pandemic, or at the onset of the war in Ukraine. Additionally, most food imports to GCC countries pass through the Straits of

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Bab el-Mandeb and Hormuz, where tensions often increase the risk of supply chain disruptions.<sup>153</sup> Lastly, agriculture in GCC countries has historically faced challenges such as a lack of agricultural labor, low yields, soil salinity, and shortages of arable land, feed resources, and water. For all these reasons, food insecurity is mounting in the GCC.<sup>154</sup>

By partnering with Asian countries such as Japan, South Korea, and India, renowned for their innovation in agritech, Gulf nations aim to overcome these obstacles and develop a more resilient and sustainable agricultural sector (see Case Study 3).<sup>155</sup> By adopting agritech practices such as genetically modified crops, desert agriculture, seawater farming, vertical farming, urban farming, and precision agriculture, Gulf countries can achieve higher yields using fewer resources, thereby reducing emissions and enhancing sustainability.<sup>156</sup> For instance, Saudi Arabia's Vision 2030 included an objective to reduce the agricultural sector's consumption of non-renewable groundwater from 17 billion cubic meters in 2016 to 9 billion cubic meters in 2020.<sup>157</sup> Moreover, GCC governments are promoting the transition to online platforms and e-markets for producers and consumers to manage supply chain risks and reduce food waste.

Similar to other industries, Asian companies are transferring their agritech-related technology and expertise in exchange for access to new markets with potentially profitable returns, strengthening their diplomatic ties, and enhancing their global reputations.

Japan has played a pivotal role in advancing agritech in the Gulf, notably through the establishment of the \$400 million Gulf Japan Food Fund (GJFF) aimed at boosting local food production and reducing import reliance in the region.<sup>158</sup> For example, the GJFF backed a collaboration to increase Oman's production of eggs by using technology from Japanese egg producer Ise Foods.<sup>159</sup> Ise's technology includes employing automated systems for egg collection, maintaining hygiene, and minimizing contamination risks. It also implements traceability systems for quality assurance, robotics and AI for process optimization, and renewable energy to minimize environmental impact.

There is also growing government and private sector collaboration in smart farming between South Korea and the Gulf, with pilot greenhouses in Saudi Arabia, and smart farming projects in Qatar. As part of the UAE's efforts to enhance nutrition and health, Smart Acres, a vertical farm in Abu Dhabi, has partnered with South Korean startup N.THING to develop crops for patients with severe diabetes, heart conditions, and kidney disease.<sup>160</sup> In its quest to grow a leading agritech sector, the UAE has also invested in significant agritech projects such as the AeroFarms AgX R&D center in Abu Dhabi, and the Bustanica vertical farming plant in Dubai are contributing to job creation.<sup>161</sup>

Driven by significant investments and technological advancements, as well as an increasing demand for innovative agricultural technologies and sustainable farming practices, the agritech sector is set to create a substantial number of jobs in the Gulf. Moreover, agritech roles typically offer better pay compared to traditional agricultural jobs.<sup>162</sup> The advanced skills required for operating high-tech farming equipment, managing data analytics, and implementing AI-driven agricultural solutions command higher salaries, making agritech a lucrative sector. The UAE government is actively supporting local food manufacturing businesses and creating new jobs like food geneticists and agriculture engineers.<sup>163</sup>

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**India-GCC Agritech Alliance to Boost Food Security**  
**Case Study 3**

Unlike the GCC, where agriculture has historically been a smaller part of the economy, India's agriculture sector is a cornerstone of its economy. However, similar to the GCC, India faces significant pressure to ensure food security due to its rapidly growing population and the impacts of climate change. In 2018, the National Strategy for AI identified agriculture as a sector in which AI could enhance efficiency, sustainability and resilience.<sup>164</sup> This has prompted the government to promote the smart use of technology.

In 2020, the Indian government launched Agristack, a digital farmers registry that provides real-time and accurate information on farmlands and helps optimize the allocation of government support.<sup>165</sup> Between 2020 and 2023, the government also allocated more than \$500 million to promote the adoption of emerging and disruptive technologies including AI, drones, blockchain, remote sensing, and geolocalization in agriculture.<sup>166</sup> Last year, the government launched the Agri Fund for Startups and Rural Enterprises to provide equity and debt financing to agritech startups.<sup>167</sup> The support has paid off. India now has more than 3000 startups pioneering innovations in AI, machine learning and blockchain to advance precision farming.<sup>168</sup>

Meanwhile, GCC countries have been investing in large-scale agritech projects, often in partnership with international firms.<sup>169</sup>

This makes India and the GCC natural partners in advancing both of their agritech industries. A notable example of Indian-Gulf collaboration is FarmERP, a Pune-based start-up, which has developed a comprehensive platform that uses AI and Machine Learning (ML) technologies to help businesses manage various aspects of agribusiness, such as procurement, processing, supply chain, financial management and analytics.<sup>170</sup> FarmERP also helps farmers use sensors, agribots, drones, and other IoT devices for precision farming. It assists in detecting crop and soil moisture, managing water requirements, and overseeing irrigation practices through satellite-based crop health monitoring tools.<sup>171</sup> Initially designed for small farmers in India, FarmERP has expanded to Oman, Saudi Arabia, and Qatar, where it is being used by berry companies to capture harvest data and monitor labor productivity using a mobile app that tracks the number of berries picked by each worker through facial recognition.<sup>172</sup>

Government-backed initiatives such as the India-Middle East Food Corridor are also proving mutually beneficial. For Gulf states, this corridor helps secure food supplies, aiming to triple food trade between the UAE and India by 2025. For India, the corridor is expected to benefit approximately two million farmers and create around 200,000 jobs.<sup>173</sup>

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## Striking a Balance in Asian Partnerships

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As discussed in the first part of this briefing, economic cooperation between GCC and Asian economies has expanded significantly, and GCC economies have become increasingly dependent on Asia, especially China, for trade and investments. While growth ties between the Gulf and Asia bring immense benefits, they also come with risks as Gulf states seek a balance amid intensifying U.S.-China rivalry and growing global uncertainty and fragmentation.

The Gulf's oil export dependency on China creates economic risks during periods of Chinese economic weakness. According to the IMF, a one percentage point negative shock in China's growth would decrease non-oil output in the GCC by 0.24 percent in the year of the shock, and then by about 0.57 percent after four years.<sup>174</sup>

China's centrality as a purveyor of capital, technology, and know-how, and as an industrial partner to the Gulf's technological specialization strategy, also has the potential to put GCC countries in a challenging position. As discussed in the previous sections, Gulf economies have made calculated decisions to partner with China to access key technologies in targeted sectors such as EVs. Meanwhile, the U.S. remains the Gulf's number one investment destination, a key security partner, and an essential provider of technologies. The growing tendency of U.S.-China technological bifurcation heightens challenges as Gulf countries seek to partner with both countries in realms such as AI and chips.

Research collaboration between GCC countries and China in AI has elevated concerns that China might have access to technologies that the U.S. considers sensitive. Bloomberg reported in May 2024 that the U.S. administration under President Joe Biden launched a national security review of AI developments in the Gulf, and the U.S. Department of Commerce had been ordered to delay the issuance of new export licenses for AI accelerators from U.S. chipmakers such as Nvidia and Advanced Micro Devices pending the results of the investigation. However, a new policy in October 2024 could ease shipments of AI chips like those from Nvidia to data centers in places like the UAE and Saudi Arabia.<sup>175,176</sup>

The U.S. government is also concerned that the digital networks, cloud, and connected infrastructure built by Chinese companies in the Gulf could be exploited for surveillance, as the Chinese Cybersecurity Law requires that Chinese companies must assist state intelligence agencies when requested.<sup>177,178</sup> Such concerns range from 5G networks built by Huawei to China's National Public Information Platform for Transportation and Logistics (LOGINK) data system installed in Chinese-funded developments in ports along the Persian Gulf and Red Sea.<sup>179</sup> Gulf countries with ambitions to become prime destinations for international data centers are aiming to address these concerns through strengthening their regulatory frameworks.

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The development of manufacturing bases in the Gulf, for products incorporating Chinese technologies like EVs, could also create trade frictions. In February 2024, U.S. President Joe Biden ordered an investigation into the national security risks posed by Chinese-made smart cars, including those assembled outside of China.<sup>180</sup> U.S. Commerce Secretary Gina Raimondo called connected cars “smart phones on wheels” that collect sensitive data, posing national security risks.<sup>181</sup> EVs manufactured in the Gulf using Chinese technology could become the focus of future U.S. investigations if they are exported to the U.S.

Given their reciprocal trade and investment relationship with China, Gulf countries have maintained a notable degree of political autonomy from Beijing. However, as Western, and notably U.S., concerns over China’s “digital authoritarianism” and growing influence in the Gulf escalate, GCC nations could encounter new challenges in accessing dual-use technologies, such as certain semiconductors, and face increased scrutiny of their technology sector investments in the West.<sup>182</sup> All the more so as Donald Trump’s second presidency could mean more U.S.-China frictions, especially over trade and technology, with possible ripple effects across trade networks and economies deeply linked with China, including increased pressure on GCC states to limit their engagement with the Chinese tech companies deemed to be national security threats to the U.S. Given the significant role of Chinese tech companies in advancing GCC telecom and AI infrastructure, tech restrictions could end up hurting the progress of Gulf digital economies. Moreover, heightened pressure on GCC states could arise from the new Trump administration’s drive for unrestricted U.S. oil production, which may compete with Gulf economies.<sup>183,184</sup>

On the other hand, these trade frictions could also open up more opportunities for Gulf countries to form new technology partnerships and attract Western investments. For example, the EU has begun investing in infrastructure interconnections in the Gulf under its Global Gateway scheme, which aims to tackle the most pressing global challenges, from fighting climate change to boosting supply chain security.<sup>185</sup> Similarly, as the U.S. enhances its ties with Gulf partners, working relationships with U.S. academic institutions and technology firms will deepen, as will new collaborations with Asian countries such as South Korea and Japan, considered by the U.S. as geoeconomic partners.<sup>186,187</sup>

U.S.-GCC relations are anticipated to strengthen under Trump’s second term. During his first presidency, Trump prioritized the region, as demonstrated by his decision to make Saudi Arabia his first foreign visit in 2017, highlighting the significance of U.S.-Saudi ties. His administration also facilitated the 2020 Abraham Accords, which sought to normalize relations between Israel and several Arab nations. This trajectory of normalization has been derailed by the ongoing regional conflict starting in October 2023. It is unclear how the second Trump administration’s foreign policy stance will affect the region’s continued de-escalation with Iran and the progress toward peace given Saudi Arabia’s firm commitment to a clear path to Palestinian statehood.<sup>188</sup> These unpredictable geopolitical developments may introduce greater uncertainty into the Gulf’s economic and social transformation agenda.

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## Conclusion

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GCC countries' efforts in expanding ties with Asian countries are part and parcel of their strategy to diversify their economies beyond oil and gas and develop partnerships with emerging powers in the East in a changing world order, especially China and India, while simultaneously preserving and growing ties with the West where it advances national and economic interests.

Asian economies stand to gain significantly from the Gulf's capital and expertise. GCC economies also have the opportunity to fast-track their economic development and achieve more sustainable growth, with Asia's capital, technologies, and talent.

Growing engagement between the two regions will come with the challenges of having to navigate an increasingly complex geopolitical environment. Continued volatility in the broader Middle East may drive Gulf countries to shift their focus eastward rather than westward, presenting opportunities for greater international engagement with Asia. Countries in both regions will have to collaborate strategically, to manage complexities in an uncertain world and maximize mutual benefits for their economies and societies.

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## Endnotes

1. South China Morning Post, Alyssa Chen and Zhao Ziwen “Chinese Premier Li Qiang Cements Ties with Saudi Arabia, UAE, Including on New Energy,” September 14, 2024, <https://www.scmp.com/news/china/diplomacy/article/3278489/chinese-premier-li-qiang-cements-ties-saudi-arabia-uae-including-new-energy>
2. GCC Stat (Gulf Statistical Centre), “Economic Relations: Gulf Cooperation Council (GCC) and India,” March 17, 2024, [https://gccstat.org/images/gccstat/docman/publications/India\\_2.pdf](https://gccstat.org/images/gccstat/docman/publications/India_2.pdf)
3. Economy Middle East, Elias Al Helou, “UAE, India Forge Trans-continental Trade Corridor Agreement,” February 14, 2024, <https://economymiddleeast.com/news/uae-india-forge-trans-continental-trade-corridor-agreement/>
4. Malcolm H. Kerr Carnegie Middle East Center, Alexandre Kateb, “The GCC’s Multipolar Pivot: From Shifting Trade Patterns to New Financial and Diplomatic Alliances,” May 28, 2024, <https://carnegieendowment.org/research/2024/05/the-gccs-multipolar-pivot-from-shifting-trade-patterns-to-new-financial-and-diplomatic-alliances?lang=en&center=middle-east>
5. Statista, “GCC: exports of crude oil 2000–2024 | Statista”, Accessed on September 29, 2024, <https://www.statista.com/statistics/1106229/gcc-exports-of-crude-oil/>
6. Asia Business Council calculation based on information from China Daily, Wang Keju, “China Ready to Boost Oil Ties with GCC,” May 25, 2024, <https://www.chinadaily.com.cn/a/202405/25/WS665145caa31082fc043c9112.html> and Statista, Amna Puri-Mirza, Crude oil industry in the GCC - statistics & facts | Statista, June 21, 2024 <https://www.statista.com/topics/4546/gcc-crude-oil-industry/>, and <https://gccstat.org/en/statistic/economic/oil-exports>
7. Atlantic Council, Joseph Webster and Joze Pelayo, “China Is Getting Comfortable with the Gulf Cooperation Council. The West Must Pragmatically Adapt to Its Growing Regional Influence,” April 5, 2023, <https://www.atlanticcouncil.org/blogs/menasource/china-is-getting-comfortable-with-the-gulf-cooperation-council-the-west-must-pragmatically-adapt-to-its-growing-regional-influence/>
8. International Energy Agency, “Indian Oil Market Outlook to 2030,” February 2024, <https://www.iea.org/reports/indian-oil-market/executive-summary>
9. International Monetary Fund, “Gulf Cooperation Council: Economic Prospects and Policy Challenges for the GCC Countries,” December 14, 2023, <https://www.imf.org/en/Publications/CR/Issues/2023/12/14/Gulf-Cooperation-Council-Economic-Prospects-and-Policy-Challenges-for-the-GCC-Countries-542513>
10. Reserve Bank of India, “Reserve Bank of India and Central Bank of the UAE Sign Two MoUs to (i) Establish a Framework to Promote the Use of Local Currencies for Cross-border Transactions and (ii) Cooperation for Interlinking Their Payment and Messaging Systems,” July 15, 2023, <https://rbidocs.rbi.org.in/rdocs/PressRelease/PDFs/PR6041130ACA6CBF84541B0F1FAEACFFB47D0.PDF>
11. Zawya, Faisal Al Nasser, “China and Saudi Arabia central banks sign local currency swap agreement”, July 27, 2017, <https://www.zawya.com/en/economy/gcc/china-and-saudi-arabia-central-banks-sign-local-currency-swap-agreement-b15s3sco>
12. Georgetown Journal of International Affairs, Mohammad Eslami, Maria Papageorgiou, “China’s Increasing Role in the Middle East: Implications for Regional and International Dynamics”, June 2, 2023, <https://gija.georgetown.edu/2023/06/02/chinas-increasing-role-in-the-middle-east-implications-for-regional-and-international-dynamics/>
13. India Briefing, Melissa Cyrill, “India’s Exports to UAE Reached US\$31.3 bn in FY23: One Year Anniversary of CEPA,” May 1, 2023, <https://www.india-briefing.com/news/indias-exports-to-the-uae-reach-new-high-with-us32-billion-projection-in-fy2022-23-27504.html/>
14. Indian Ministry of Commerce and Industry, “CEPA is the growth engine for India-UAE bilateral trade”, May 1, 2023, <https://pib.gov.in/PressReleasePage.aspx?PRID=1921222>
15. The National, Sarmad Khan, “China to Receive Up to \$2 tn in Middle East Sovereign Investments by 2030, HKEX CEO Says,” June 12, 2023, <https://www.thenationalnews.com/business/markets/2023/06/12/china-to-receive-up-to-2tn-in-middle-east-sovereign-investments-by-2030-hkex-ceo-says/>
16. IMF, “Regional Economic Outlook, Asia and the Pacific”, April 2024, <https://www.imf.org/en/Publications/REO/APAC/Issues/2024/04/30/regional-economic-outlook-for-asia-and-pacific-April-2024#:~:text=Growth%20in%20Asia%20and%20the%20Pacific>
17. World Economic Forum, “Why Asia’s time is now: what’s fueling Asian growth and what does it mean for the rest of the world?”, June 24, 2024, <https://www.weforum.org/agenda/2024/06/why-asia-s-time-is-now-whats-fueling-asian-growth-and-what-does-it-mean-for-the-rest-of-the-world/>
18. McKinsey Global Institute, “Asia on the cusp of a new era”, September 22, 2023, <https://www.mckinsey.com/mgi/our-research/asia-on-the-cusp-of-a-new-era>
19. World Economic Forum, “Why Asia’s time is now: what’s fueling Asian growth and what does it mean for the rest of the world?”, June 24, 2024, <https://www.weforum.org/agenda/2024/06/why-asia-s-time-is-now-whats-fueling-asian-growth-and-what-does-it-mean-for-the-rest-of-the-world/>
20. Gulf Business, “How World Sees GCC: Region’s Sovereign Wealth Funds on the Rise,” January 2, 2024, <https://gulfbusiness.com/how-world-sees-gcc-regions-sovereign-wealth-funds-on-the-rise/>
21. The National, Sarmad Khan, “China to Receive Up to \$2 tn in Middle East Sovereign Investments by 2030, HKEX CEO Says,” June 12, 2023, <https://www.thenationalnews.com/business/markets/2023/06/12/china-to-receive-up-to-2tn-in-middle-east-sovereign-investments-by-2030-hkex-ceo-says/>
22. Global SWF, Diego López, “2024 Annual Report SOIs Powering through Crises,” January 1, 2024, <https://globalswf.com/reports/2024annual>
23. Reuters, Jayshree P Upadhyay, “Exclusive: UAE Wealth Fund Plans US\$ 4–5 Billion in Investments via India’s New Finance Hub – Sources,” February 7, 2024, <https://www.reuters.com/business/finance/uae-wealth-fund-plans-4-5-billion-investments-via-indias-new-finance-hub-sources-2024-02-07/>
24. India Briefing, Archana Rao, “Outlook for Sovereign Wealth Fund Investments in India,” March 4, 2024, <https://www.india-briefing.com/news/sovereign-wealth-fund-investments-india-outlook-2024-31398.html/>
25. Ibid.
26. The National, Fareed Rahman and Sunil Singh, “China’s Investment in UAE Rose 16% to US\$1.3 bn in 2023 as Ties Strengthen,” May 15, 2024, <https://www.thenationalnews.com/business/economy/2024/05/15/chinas-investment-in-uae-rose-16-to-13bn-in-2023-as-ties-strengthen/>
27. China Briefing, Giulia Interesse, “China-United Arab Emirates (UAE): Bilateral Trade and Investment Outlook”, May 10, 2024, <https://www.china-briefing.com/news/china-united-arab-emirates-uae-bilateral-trade-investment-outlook/>



28. Saudi Aramco, "Aramco Closes Gas Pipeline Deal with Global Investor Consortium," February 23, 2022, <https://www.aramco.com/en/news-media/news/2022/aramco-closes-gas-pipeline-deal-with-global-investor-consortium>
29. UN Trade and Development, "World Investment Report 2023, Chapter 1 – International Investment Trends" July 5, 2023, [https://unctad.org/system/files/official-document/wir2023\\_ch01\\_en.pdf](https://unctad.org/system/files/official-document/wir2023_ch01_en.pdf)
30. Reuters, Chen Aizhu, "Sinopec Unit Agrees \$1.1 bln Deal to Build Gas Pipelines for Saudi Aramco," June 6, 2024, <https://www.reuters.com/business/energy/sinopec-unit-agrees-11-bln-deal-build-gas-pipelines-saudi-aramco-2024-06-06/>
31. The National, Sarmad Khan, "China to Receive Up to US\$2 tn in Middle East Sovereign Investments by 2030, HKEX CEO Says," June 12, 2023, <https://www.thenationalnews.com/business/markets/2023/06/12/china-to-receive-up-to-2tn-in-middle-east-sovereign-investments-by-2030-hkex-ceo-says/>
32. South China Morning Post, Alyssa Chen and Zhao Ziweng, "Chinese Premier Li Qiang Cements Ties with Saudi Arabia, UAE, Including on New Energy," September 14, 2024, <https://www.scmp.com/news/china/diplomacy/article/3278489/chinese-premier-li-qiang-cements-ties-saudi-arabia-uae-including-new-energy>
33. Ministry of Foreign Affairs of the People's Republic of China, "Li Qiang Holds Talks with Saudi Crown Prince and Prime Minister Mohammed and Co-chairs the Fourth Meeting of the China-Saudi Arabia High-Level Joint Committee," September 12, 2024, [https://www.mfa.gov.cn/translate.goog/web/wjdt\\_674879/gjldrhd\\_674881/202409/t20240912\\_11489344.shtml?\\_x\\_tr\\_sl=auto&\\_x\\_tr\\_tl=zh-CN&\\_x\\_tr\\_hl=zh-CN&\\_x\\_tr\\_pto=wapp](https://www.mfa.gov.cn/translate.goog/web/wjdt_674879/gjldrhd_674881/202409/t20240912_11489344.shtml?_x_tr_sl=auto&_x_tr_tl=zh-CN&_x_tr_hl=zh-CN&_x_tr_pto=wapp)
34. Investcorp, "Investcorp Launches a USD 1 billion Platform, To Be Anchored by China Investment Corporation, to Invest in the GCC and China," April 24, 2024, <https://www.investcorp.com/investcorp-launches-a-usd-1-billion-platform-to-be-anchored-by-china-investment-corporation-to-invest-in-the-gcc-and-china/>
35. S&P Global, Jacqueline Holman, "Oman Oil joint venture GS EPS opens Asia's largest biomass power plant in South Korea," September 28, 2015, <https://www.spglobal.com/commodityinsights/ko/market-insights/latest-news/electric-power/092815-oman-oil-joint-venture-gs-eps-opens-asias-largest-biomass-power-plant-in-south-korea>
36. Reuters, Rachna Uppal and Ahmed Eliman, "GCC-South Korea sign free trade deal in boost to Gulf-Asia economic ties," December 28, 2023, <https://www.reuters.com/world/middle-east/gulf-cooperation-council-signs-free-trade-agreement-with-south-korea-gcc-2023-12-28/>
37. Ministry of Trade, Industry and Energy, South Korea, "Press Release – Korea and GCC conclude FTA deal," December 28, 2023, <https://english.motie.go.kr/eng/article/EATCLdfa319ada/1629/view>
38. Mubadala, "Mubadala Makes A \$15bn Commitment to the Softbank Vision Fund," May 20, 2017, <https://www.mubadala.com/en/news/mubadala-makes-15bn-commitment-softbank-vision-fund>
39. PIF, Kingdom of Saudi Arabia, "The Public Investment Fund, SoftBank Group and Mubadala joined by initial investors in Vision Fund including Apple, Foxconn, Qualcomm and Sharp," May 20, 2017, <https://www.pif.gov.sa/en/news-and-insights/press-releases/2017/pif-softbank-group-and-mubadala/>
40. Khaleej Times, Somshankar Bandyopadhyay, "Indian investors invested \$335 million in Dubai's market in H1 2023," December 26, 2023, <https://www.khaleejtimes.com/business/indian-investors-invested-335-million-in-dubais-market-in-h1-2023>
41. Economic Times, "India emerges as key source country for FDI into Dubai," May 30, 2023, <https://bfsi.economicstimes.indiatimes.com/news/financial-services/india-emerges-as-key-source-country-for-fdi-into-dubai-report/100612262>
42. Asia House, "The Middle East Pivot to Asia 2022", November 2, 2022, [https://asiahouse.org/research\\_posts/the-middle-east-pivot-to-asia-2022/](https://asiahouse.org/research_posts/the-middle-east-pivot-to-asia-2022/)
43. Gulf Research Center, Layla Ali, "Developing Cooperation Between the GCC and ASEAN," December 12, 2023, <https://www.grc.net/documents/65784dd3b5d99GCCASEANCommentaryAnalysis2.pdf>
44. Association of Southeast Asian Nations, "ASEAN Leaders and Gulf Cooperation Council Hold First Summit," October 20, 2023, <https://asean.org/asean-leaders-and-gulf-cooperation-council-hold-first-summit/>
45. EY, "UAE is boosting trade through Comprehensive Economic Partnership Agreements," May 21, 2024, <https://globaltaxnews.ey.com/news/2024-1030-uae-is-boosting-trade-through-comprehensive-economic-partnership-agreements>
46. Reuters, "Temasek portfolio value rises on India profits; to build Middle East Presence," July 9, 2024, <https://www.vccircle.com/temasekportfolio-value-rises-on-india-profits-to-build-middle-east-presence?amp=1>
47. Mckinsey & Company, "Global Energy Perspective 2023: Energy value pools outlook," January 16, 2024, <https://www.mckinsey.com/industries/oil-and-gas/our-in-sights/global-energy-perspective-2023-energy-value-pools-outlook>
48. International Energy Agency, "Oil Market Report – August 2024," August 2024, <https://www.iea.org/reports/oil-market-report-august-2024>
49. Brookings, Nader Kabbani and Nejla Ben Mimoune, "Economic Diversification in the Gulf: Time to Redouble Efforts," January 31, 2021, <https://www.brookings.edu/articles/economic-diversification-in-the-gulf-time-to-redouble-efforts/>
50. National Authority of Statistics, "Gross Domestic Product Second Quarter, 2024," [https://www.stats.gov.sa/sites/default/files/GDP%20Q2%202024E\\_V3.pdf](https://www.stats.gov.sa/sites/default/files/GDP%20Q2%202024E_V3.pdf)
51. Saudi Press Agency, "Saudi Arabia's Non-Oil Economy Hits Record High, Contributes Half of Real GDP in 2023," September 4, 2024, <https://www.spa.gov.sa/en/N2065314>
52. MISA – Ministry of Investment of Saudi Arabia, "Investment Statistics," June 30, 2024, <https://misa.gov.sa/app/uploads/2024/11/Annual-Foreign-Direct-Investment-Bulletin-2023.pdf>
53. Financial Times, Andrew England and Ahmed Al Omran, "Saudi Arabia tightens its belt," October 16, 2024, <https://www.ft.com/content/b50b2763-3435-42f9-8025-8c70ed776957>
54. The Guardian, "Neom CEO departs as Saudi Arabia scales back mega-projects," November 12, 2024, <https://www.theguardian.com/world/2024/nov/12/neom-ceo-saudi-arabia>
55. Exporting Countries Forum, "Expert Commentary – the Future of Natural Gas in Asia Pacific," March 23, 2023, <https://www.gecf.org/events/expert-commentary-the-future-of-natural-gas-in-asia-pacific>
56. BBC, "Saudi Aramco ramps up investment to boost production," March 20, 2022, <https://www.bbc.com/news/business-60812330>
57. U.S. Energy Information Administration (EIA), "United States Produces More Crude Oil Than Any Country," March 2024, <https://www.eia.gov/todayinenergy/detail.php?id=61545>
58. Carnegie Endowment for International Peace, Oliver Stuenkel and Margot Treadwell, "Why Is Saudi Arabia Hedging Its BRICS Invite?," November 21, 2024, <https://carnegieendowment.org/emissary/2024/11/brics-saudi-arabia-hedging-why?lang=en>
59. Bank for International Settlements, "Project mBridge: Connecting Economies through CBDC," October 2022, <https://centralbank.ae/media/inchury/project-mbridge-connecting-economies-through-cbdc-final.pdf>
60. Money Metal, Jan Nieuwenhuijs, "Nations in the mBridge Project Are Stockpiling Gold, Driving Up Prices," September 23, 2024, <https://www.moneymetals.com/news/2024/09/23/nations-in-the-mbridge-project-are-stockpiling-gold-driving-up-prices-003485>
61. Nai500, Sunlight Xiang, "The mBridge Project and De-dollarization Trend: The Biggest Winner is Gold," September 26, 2024, <https://nai500.com/blog/2024/09/the-mbridge-project-and-de-dollarization-trend-the-biggest-winner-is-gold/>
62. China Institute of International Studies, Liu Li and Wang Zesheng, "Belt and Road Initiative in the Gulf Region: Progress and Challenges," November 9, 2017, [https://www.ciis.org.cn/english/ESEARCHPROJECTS/Articles/202007/t20200715\\_3599.html](https://www.ciis.org.cn/english/ESEARCHPROJECTS/Articles/202007/t20200715_3599.html)
63. Oliver Wyman, Jeff Youssef, Raji Souag, Jose Luis Juanas, "Private Investment is Key to Unlocking Long-Term Capital for Gulf Infrastructure," Launched October 27, 2019, <https://www.oliverwyman.com/content/dam/oliver-wyman/v2/publications/2019/October/private-investment-is-key-to-unlocking-long-term-capital-for-gulf.pdf>

64. Middle East Institute, Jonathan Fulton, "The GCC Countries and China's Belt and Road Initiative (BRI): Curbing Their Enthusiasm?" October 17, 2017, <https://www.mei.edu/publications/gcc-countries-and-chinas-belt-and-road-initiative-bri-curbing-their-enthusiasm>
65. United Arab Emirates, The Cabinet, "UAE and China Create US\$10 Billion Strategic Investment," December 14, 2015, <https://uaecabinet.ae/en/details/news/uae-and-china-create-us10-billion-strategic-investment>
66. ZAWYA, Syed Ameen Kader, "BRI in the Gulf: Opening Up a World of Opportunities in Construction and Real Estate Sectors," October 30, 2019, <https://www.zawya.com/en/business/bri-in-the-gulf-opening-up-a-world-of-opportunities-in-construction-and-real-estate-sectors-p4rdhpy7>
67. The National, Fareed Rahman, "UAE and China to Boost Co-operation in Investments and Belt and Road Initiative," May 30, 2024, <https://www.thenationalnews.com/business/economy/2024/05/30/uae-and-china-to-boost-co-operation-in-investments-and-belt-and-road-initiative/>
68. GACA, "Special Integrated Logistics Zone's Main Regulations, Saudi Arabia's First Economic Zone," October, 2024, [https://gaca.gov.sa/scs/Satellite?c=GACA\\_Content\\_C&cid=1440409719677&locale=en\\_GB&pagename=GACA%2FGACA\\_Content\\_C%2FGACA\\_ContentDetailInvestm\\_CT](https://gaca.gov.sa/scs/Satellite?c=GACA_Content_C&cid=1440409719677&locale=en_GB&pagename=GACA%2FGACA_Content_C%2FGACA_ContentDetailInvestm_CT)
69. Arabia, "Saudi Arabia Emerges as Key Link in Global Supply Chains," June 30, 2024, <https://www.1arabia.com/2024/06/saudi-arabia-emerges-as-key-link-in.html>
70. China Daily, Wang Keju, "China Ready to Boost Oil Ties with GCC," May 25, 2024, <https://www.chinadaily.com.cn/a/202405/25/WS665145caa31082fc043c9112.html>
71. Center for Strategic and International Studies, Matthew P. Funairole, Brian Hart, and Lily McElwee, "Dire Straits: China's Push to Secure Its Energy Interests in the Middle East," February 3, 2023, <https://features.csis.org/hiddenreach/china-middle-east-military-facility/>
72. Digital Construction North, "Etihad Rail signs \$1.2bn deal with China Railways", June 26, 2019, <https://www.globalconstructionreview.com/etihad-rail-signs-12bn-deal-china-railways/>
73. Hydrocarbons Technology, "Abu Dhabi Crude Oil (Habshan -Fujairah) Pipeline Project," Accessed August 15, 2024, <https://www.hydrocarbons-technology.com/projects/abu-dhabi-pipeline/>
74. Sinopec Kantons, "Fujairah Oil Terminal FZC," Accessed August 15, 2024, <http://www.sinopec.com.hk/en/getNewsDetailAction.do?target=GuandeNews&key=0CDEE9FE69E0EC4E69D7613CA42B9B4B>
75. Xinhua, "Spotlight: China, Oman Establish Industrial Park to Boost Bilateral Cooperation," December 19, 2018, [http://www.xinhuanet.com/english/2018-12/19/c\\_137683272.htm](http://www.xinhuanet.com/english/2018-12/19/c_137683272.htm)
76. Asharq Al Awsat, "Sultan of Oman, Emir of Kuwait to Inaugurate \$9 Bn Duqm Refinery on Wednesday," February 6, 2024, <https://english.aawsat.com/business/4836811-sultan-oman-emir-kuwait-inaugurate-9-bn-duqm-refinery-wednesday>
77. Ibid
78. ZAWYA, Syed Ameen Kader, "BRI in the Gulf: Opening Up a World of Opportunities in Construction and Real Estate Sectors," October 30, 2019, <https://www.zawya.com/en/business/bri-in-the-gulf-opening-up-a-world-of-opportunities-in-construction-and-real-estate-sectors-p4rdhpy7>
79. Oilprice.com, Simon Watkins, "Oman Increases Its Appeal to China and Iran With Game-Changing Duqm Project," February 28, 2024, <https://oilprice.com/Energy-General/Oman-Increases-Its-Appeal-To-China-And-Iran-With-Game-Changing-Duqm-Project.html>
80. Press TV Iran, "Omani minister: Iran gas pipeline project progressing," April 18, 2023, <https://www.presstv.ir/Detail/2023/04/18/701788/Iran-Oman-gas-pipeline-LNG-hydrogen>
81. U.S.-China Economic and Security Review Commission, Kevin McCauley, "Testimony Before the U.S.-China Economic and Security Review Commission 'China's Military Power Projection and U.S. National Interests'," February 20, 2020, [https://www.uscc.gov/sites/default/files/McCauley\\_Written\\_20Testimony\\_0.pdf](https://www.uscc.gov/sites/default/files/McCauley_Written_20Testimony_0.pdf)
82. Center for Strategic and International Studies, Matthew P. Funairole, Brian Hart and Lily McElwee, "Dire Straits: China's Push to Secure Its Energy Interests in the Middle East," February 3, 2023, <https://features.csis.org/hiddenreach/china-middle-east-military-facility/>
83. People, "Law of the People's Republic of China on National Defense Transportation," January 12, 2017, <http://npc.people.com.cn/n1/2017/0112/c14576-29017009.html>
84. Economy Middle East, Anthon Garcia, "Huawei: Leading the Next Phase of 5G Advances in the GCC," December 19, 2023, <https://economymiddleeast.com/news/huawei-leading-5g-advances-gcc/>
85. Arab News, "STC Announces Partnership with Alibaba Cloud," December 28, 2020, <https://www.arabnews.com/node/1784071/business-economy>
86. Reuters, "China's Huawei Opens Cloud Data Center in Saudi Arabia in Regional Push," September 4, 2023, <https://www.reuters.com/technology/chinas-huawei-opens-cloud-data-centre-saudi-arabia-regional-push-2023-09-04/>
87. Saudi Press Agency, Kingdom of Saudi Arabia, "Saudi Arabia Expands Digital Infrastructure Plan, Hyperscale Data Center Enablement Initiative," October, 2021, <https://www.spa.gov.sa/2295536>
88. Roland Berger, Jawad Shaikh, "Unlocking the Data Center opportunity in KSA," July 12, 2024, <https://www.rolandberger.com/en/Insights/Publications/Unlocking-the-Data-Center-opportunity-in-KSA.html>
89. Mayer Brown, Nanda Al Qazaz, Jad A. Taha, "Updates to Saudi Arabia's Personal Data Protection Regulations: SCCs, Guidelines and More," October 9, 2024, <https://www.mayerbrown.com/en/insights/publications/2024/10/updates-to-saudi-arabias-personal-data-protection-regulations-sccs-guidelines-and-more>
90. One ust Data Guidance, "Saudi Arabia: SDAIA publishes guide on data breaches," 23 October 2024, <https://legacy.dataguidance.com/news/saudi-arabia-sdaia-publishes-guide-data-breaches>
91. International Monetary Fund, "Gulf Cooperation Council: Economic Prospects and Policy Challenges for the GCC Countries," November 29, 2022, <https://www.imf.org/en/Publications/Policy-Papers/Issues/2022/11/29/Gulf-Cooperation-Council-Economic-Prospects-and-Policy-Challenges-for-the-GCC-Countries-525945>
92. Sensetime, "Saudi Data & Artificial Intelligence Authority (SDAIA)," February, 2024, <https://www.sensetime.com/en/cause-detail?categoryid=51134251&gioNav=1>
93. United Arab Emirates Ministry of Economy, "UAE and China agree to strengthen collaboration in new economy, entrepreneurship, tourism, technology, circular economy, aviation, and logistics transport," February 27, 2024, <https://www.moec.gov.ae/en/-/uae-and-china-agree-to-strengthen-collaboration-in-new-economy-entrepreneurship-tourism-technology-circular-economy-aviation-and-logistics-transport>
94. International Business Magazine, "Mobily and Tencent Partnership Boosts KSA's Digital Ecosystem," March 7, 2024, <https://intlbm.com/2024/03/07/mobily-and-tencent-partnership-boosts-ksas-digital-ecosystem/>
95. The Korea Herald, "Lunit Participates in Saudi Vision 2030 Healthcare Sandbox, Accelerating Saudi Arabia's Healthcare Transformation," October 27, 2023, <https://www.koreaherald.com/view.php?ud=20231026000846>
96. Khaleej Times, Alvin R. Cabral, "Microsoft's Middle East Data Centers in Abu Dhabi, Dubai Now Online," September 27, 2024, <https://www.khaleejtimes.com/local-business/microsofts-middle-east-data-centres-in-abu-dhabi-dubai-now-online>
97. Stiftung Wissenschaft und Politik, Deutsches Institut für Internationale Politik und Sicherheit, "The Hydrogen Ambitions of the Gulf States, Achieving Economic Diversification while Maintaining Power," July 2022, <https://www.swp-berlin.org/10.18449/2022C44/>
98. UN Trade and Development, "World Investment Report 2023, Chapter 1, International Investment Trends," July 5, 2023, [https://unctad.org/system/files/official-document/wir2023\\_ch01\\_en.pdf](https://unctad.org/system/files/official-document/wir2023_ch01_en.pdf)
99. Middle East Council on Global Affairs, Adel Abdel Ghafar and Abdullah Baabood, "Asia in the GCC: A New Strategic Partner?," July 12, 2023, <https://mecouncil.org/publication/asia-in-the-gcc-a-new-strategic-partner/>
100. Saudi & Middle East Green Initiatives, "SGI target: reduce carbon emissions by 278 mtpa by 2030," Accessed on September 28, 2024, <https://www.greeninitiatives.gov.sa/about-sqi/sqi-targets/reduce-carbon-emissions/>
101. Public Investment Fund, "The Groundbreaking Solar Project Helping to Power a Brighter Tomorrow," July 2, 2023, <https://www.pif.gov.sa/en/news-and-insights/global-insights/2023/the-groundbreaking-solar-project-helping-to-power-a-brighter-tomorrow/>

102. Public Investment Fund, Press Release, "PIF strengthens renewable energy localization in Saudi Arabia with three new joint ventures," July 16, 2024, <https://www.pif.gov.sa/en/news-and-insights/press-releases/2024/pif-strengthens-renewable-energy-localization-in-saudi-arabia-with-three-new-joint-ventures#:~:text=PIF%20has%20today%20announced%20the%20signing%20of>
103. Jowad Shaikh, Roland Berger, "Unlocking the Data Center opportunity in KSA | Roland Berger," July 12, 2024, <https://www.rolandberger.com/en/Insights/Publications/Unlocking-the-Data-Center-opportunity-in-KSA.html>
104. Saudi Gulf Projects, "Saudi's PIF and LONGi Signed Agreement for Solar PV Products and Services," January 4, 2023, [https://www.saudigulfprojects.com/2023/01/saudis-pif-and-longi-signed-agreement-for-solar-pv-products-and-services/#google\\_vignette](https://www.saudigulfprojects.com/2023/01/saudis-pif-and-longi-signed-agreement-for-solar-pv-products-and-services/#google_vignette)
105. Public Investment Fund, "PIF Strengthens Renewable Energy Localization in Saudi Arabia with Three New Joint Ventures," July 16, 2024, <https://www.pif.gov.sa/en/news-and-insights/press-releases/2024/pif-strengthens-renewable-energy-localization-in-saudi-arabia-with-three-new-joint-ventures/>
106. Middle East Business Intelligence, Jennifer Aguinaldo, "Chinese Firm Plans 30 GW Solar Manufacturing Hub," October 23, 2023, <https://www.meed.com/chinese-firm-plans-uae-solar-manufacturing-hub>
107. Pv-tech.org, Carrie Xiao, "GCL Tech is to build the Middle East's first polysilicon plant," June 5, 2024, <https://www.pv-tech.org/gcl-polysilicon-middle-east/>
108. World Economic Forum, "As China-Gulf Relations Deepen, Here Are 3 Key Sectors for Growth," April 10, 2024, <https://www.weforum.org/agenda/2024/04/3-key-sectors-poised-for-explosive-growth-as-china-gcc-cooperation-deepens/>
109. World-Energy, "The World's Largest Single-Site Solar Farm Just Came Online," November 18, 2023, <https://www.world-energy.org/article/38227.htm>
110. China Daily, "Solar plant in UAE testimony to China's part in reducing carbon emissionschinadaily.com.cn," September 20, 2023, <https://global.chinadaily.com.cn/a/202309/20/WS650a5d88a310d2dce4bb6b7a.html>
111. Power-technology.com, "Shanghai Electric completes Phase B of solar facility in Dubai, Shanghai Electric completes Phase B of solar facility in Dubai," September 5, 2022, <https://www.power-technology.com/news/shanghai-electric-dubai/>
112. Dewa.gov.ae, "Mohammed bin Rashid Al Maktoum Solar Park," Accessed on September 29, 2024, <https://www.dewa.gov.ae/en/about-us/strategic-initiatives/mbr-solar-park>
113. Center for Strategic & International Studies, Faris Al-Sulayman and Jon B. Alterman, "China's Essential Role in the Gulf States' Energy Transitions," December 11, 2023, <https://www.csis.org/analysis/chinas-essential-role-gulf-states-energy-transitions>
114. Illuminem, John Calabrese, "Driving the Green Transition: China-Gulf Arab Cooperation in the 'New Three' Industries," February 11, 2024, <https://illuminem.com/illuminemvoices/driving-the-green-transition-chinagulf-arab-cooperation-in-the-new-three-industries>
115. International Energy Agency, "The Role of Critical World Energy Outlook Special Report Minerals in Clean Energy Transitions," March 2022, <https://iea.blob.core.windows.net/assets/ffd2a83b-8c30-4e9d-980a-52b6d9a86fdc/TheRoleofCriticalMineralsinCleanEnergyTransitions.pdf>
116. Reuters, Siyi Liu, Dominique Patton, "China Bans Export of Rare Earths Processing Tech over National Security," December 22, 2023, <https://www.reuters.com/markets/commodities/china-bans-export-rare-earths-processing-technologies-2023-12-21/>
117. The State Council of the People's Republic of China, "Li Qiang Signed the State Council Order to Promulgate the Rare Earth Management Regulations," June 29, 2024, [https://www.gov.cn.translate.google/yaoven/liebiao/202406/content\\_6960162.htm?\\_x\\_tr\\_sl=auto&\\_x\\_tr\\_tl=en&\\_x\\_tr\\_hl=en-US&\\_x\\_tr\\_pto=wapp](https://www.gov.cn.translate.google/yaoven/liebiao/202406/content_6960162.htm?_x_tr_sl=auto&_x_tr_tl=en&_x_tr_hl=en-US&_x_tr_pto=wapp)
118. Nikkei, "Transcript: President Xi Jinping's Report to China's 2022 Party Congress Full Text of Xi's Nearly Two-hour Address at the Twice-a-decade Event," October 18, 2022, <https://asia.nikkei.com/Politics/China-s-party-congress/Transcript-President-Xi-Jinping-s-report-to-China-s-2022-party-congress#:~:text=BEIJING%20-%20The%20following%20is%20the%20full%20text%20of%20Chinese>
119. South China Morning Post, Alyssa Chen and Zhao Ziwen, "Chinese Premier Li Qiang Cements Ties with Saudi Arabia, UAE, Including on New Energy," September 14, 2024, <https://www.scmp.com/news/china/diplomacy/article/3278489/chinese-premier-li-qiang-cements-ties-saudi-arabia-uae-including-new-energy>
120. ACWA Power, "Silk Road Fund becomes a 49% shareholder in ACWA Power Renewable Energy Holding Ltd," May 11, 2020, <https://www.acwapower.com/news/silk-road-fund-becomes-a-49-shareholder-in-acwa-power-renewable-energy-holding-ltd/>
121. Saudi Aramco, "Aramco and Shandong Energy Collaborate on Downstream Projects in China," December 9, 2022, <https://china.aramco.com/en/news-media/china-news/2022/aramco-and-shandong-energy-collaborate-on-downstream-projects-in-china>
122. Financial Express, Dr Lakshmi Priya, "National Green Hydrogen Mission creates opportunities for strengthening India's renewable energy partnership with GCC countries," January 11, 2023, <https://www.financialexpress.com/business/defence-national-green-hydrogen-mission-creates-opportunities-for-strengthening-indias-renewable-energy-partnership-with-gcc-countries-2945017/>
123. Renewables Now, Anna Ivanova, "Egypt Signs US\$32 bn of MoUs for Green Fuel Projects," August 26, 2022, <https://renewablesnow.com/news/egypt-signs-usd-32bn-of-mous-for-green-fuel-projects-796026/>
124. ReNew, "ReNew Power Signs Framework Agreement with Egyptian Government to Establish a Green Hydrogen Plant in The Suez Canal Economic Zone," November 15, 2022, <https://investor.renew.com/news-releases/news-release-details/renew-power-signs-framework-agreement-egyptian-government>
125. Reuters, Chris Thomas, "BlackRock, Mubadala to Invest US\$526 mln in Tata Power's Renewable Energy Unit," April 14, 2022, <https://www.reuters.com/world/india/blackrock-led-consortium-invest-525-mln-tata-powers-renewable-energy-unit-2022-04-14/>
126. ADNOC, "ADNOC and GAIL of India to Explore LNG Supply and Decarbonization Opportunities," October 31, 2022, [https://www.adnoc.ae/en/news-and-media/press-releases/2022/adnoc-and-gail-of-india-to-explore-lng-supply-and-decarbonization-opportunities#:~:text=Abu%20Dhabi%20National%20Oil%20Company%20\(ADNOC\)](https://www.adnoc.ae/en/news-and-media/press-releases/2022/adnoc-and-gail-of-india-to-explore-lng-supply-and-decarbonization-opportunities#:~:text=Abu%20Dhabi%20National%20Oil%20Company%20(ADNOC))
127. NDTV, "Close To Deal On Renewable Electricity Grid Link: Minister India, UAE Close To Deal On Renewable Electricity Grid Link: Minister," January 15, 2023, <https://www.ndtv.com/india-news/india-uae-close-to-deal-on-renewable-electricity-grid-link-minister-3694952>
128. Masdar, "Masdar and PLN Advance Plans to Develop World's Largest Floating Solar Plant in Indonesia," December 3, 2023, <https://www.prnewswire.com/in/news-releases/masdar-and-pln-advance-plans-to-develop-worlds-largest-floating-solar-plant-in-indonesia-302003893.html>
129. UN Trade and Development, "World Investment Report 2023, Chapter 1 - International Investment Trends," July 5, 2023, [https://unctad.org/system/files/official-document/wir2023\\_ch01\\_en.pdf](https://unctad.org/system/files/official-document/wir2023_ch01_en.pdf)
130. Marubeni Corporation, "Marubeni Awarded and Concludes Agreement for Al-Ghat and Waad Al-Shamal Wind IPP Projects in the Kingdom of Saudi Arabia with Ajlan & Bros," May 23, 2024, <https://www.marubeni.com/en/news/2024/release/00032.html>
131. World-energy.com, "Marubeni Secures 1.1 GW Wind Power Deal in Saudi Arabia," May 27, 2024, <https://www.world-energy.org/article/42527.html>
132. Mitsui&Co., "Construction begins on clean ammonia production facility in UAE, project loan agreement signed," June 25, 2024, [https://www.mitsui.com/jp/en/release/2024/1249366\\_14372.html](https://www.mitsui.com/jp/en/release/2024/1249366_14372.html)
133. Middle East Economy, "Japan's Mitsui & Co. to begin construction on clean ammonia facility in UAE," June 25, 2024, <https://economy.mideast.com/news/japans-mitsui-co-to-begin-construction-on-clean-ammonia-facility-in-uae/>
134. EV Magazine, Tom Swallow, "Ceer EVs Can Model Sustainable Transport for MENA and Beyond," September 23, 2023, <https://evmagazine.com/mobility/ceer-evs-can-model-sustainable-transport-for-mena-and-beyond>
135. UNESCO Institute for Statistics Database, Accessed August 15, 2024, <https://data.uis.unesco.org/>
136. Reuters, Alaa Swilam and Yousef Saba, "Saudi Wealth Fund Sets Up Electric Car Joint Venture with Foxconn," November 4, 2022, <https://www.reuters.com/business/autos-transportation/saudi-crown-prince-launches-ceer-first-saudi-electric-vehicle-brand-2022-11-03/>
137. Ibid.
138. Ibid.

139. CNN, Peter Valdes-Dapena, "Foxconn Makes Most of the World's iPhones. Now Its CEO Wants to Make EVs," December 18, 2023, <https://edition.cnn.com/2023/12/18/business/young-liu-risk-taker/index.html>
140. Sustainability Middle East News, "World Future Energy Summit to Spotlight Regional EV Target Viability at New eMobility Forum," April 1, 2024, <https://www.sustainabilitymenews.com/energy/world-future-energy-summit-to-spotlight-regional-ev-target-viability-at-new-emobility-forum>
141. Global Fleet, Mufit Yilmaz Gokmen, "Chinese NIO to Provide Technical Know-How to Middle Eastern EV Startup," March 12, 2024, <https://www.globalfleet.com/en/manufacturers/global/features/chinese-nio-provide-technical-know-how-middle-eastern-ev-startup?%5B0%5D=NIO&curl=1>
142. South China Morning Post, Kinling Lo, "Arab-China Business Conference: Chinese EV Firm Human Horizons' US\$5.6 Billion Deal Among Agreements Signed During Two-day Summit," June 12, 2023, <https://www.scmp.com/business/china-business/article/3223842/arab-china-business-conference-chinese-ev-maker-human-horizons-us56-billion-deal-among-agreements>
143. TechCrunch, Rebecca Bellan, "Pony.ai Gets \$100M, Establishes JV with Saudi Arabia's Neom," October 25, 2023, <https://techcrunch.com/2023/10/25/pony-ai-gets-100m-autonomous-vehicle-jv-saudi-arabias-neom/>
144. South China Morning Post, Daniel Ren, "Chinese EV Startup Enovate to Build Plant in Saudi Arabia as President Xi's Visit to Riyadh Begins to Pay Off," December 13, 2022, <https://www.scmp.com/business/banking-finance/article/3203039/chinese-ev-start-enovate-build-plant-saudi-arabia-president-xis-visit-riyadh-begins-pay>
145. South China Morning Post, Alyssa Chen and Zhao Ziwen, "Chinese Premier Li Qiang Cements Ties with Saudi Arabia, UAE, Including on New Energy," September 14, 2024, <https://www.scmp.com/news/china/diplomacy/article/3278489/chinese-premier-li-qiang-cements-ties-saudi-arabia-uae-including-new-energy>
146. Ministry of Foreign Affairs of the People's Republic of China, "Li Qiang Holds Talks with Saudi Crown Prince and Prime Minister Mohammed and Co-chairs the Fourth Meeting of the China-Saudi Arabia High-Level Joint Committee," September 12, 2024, [https://www.mfa.gov.cn/translate/goog/web/wid\\_674879/gjldhd\\_674881/202409120240912\\_11489344.shtml?\\_x\\_tr\\_sl=auto&\\_x\\_tr\\_tl=zh-CN&\\_x\\_tr\\_hl=zh-CN&\\_x\\_tr\\_pto=wapp](https://www.mfa.gov.cn/translate/goog/web/wid_674879/gjldhd_674881/202409120240912_11489344.shtml?_x_tr_sl=auto&_x_tr_tl=zh-CN&_x_tr_hl=zh-CN&_x_tr_pto=wapp)
147. Gulf News Report, "AI-Futtaim Electric Mobility Launches 3 New Models from World's Top EV Maker BYD in UAE," March 13, 2024, <https://gulfnews.com/business/corporate-news/ai-futtaim-electric-mobility-launches-3-new-models-from-worlds-top-ev-maker-byd-in-uae-1.1710322905058>
148. CnEVPost, Phate Zhang, "BYD Expands Presence in Middle East with Launch of Atto 3 in UAE," June 22, 2023, <https://cnevpost.com/2023/06/22/byd-launches-atto-3-in-uae/>
149. Gulf Business, Kudakwashe Muzoriwa, "Tesla's Chinese Rival Xpeng Signs Partnership with UAE's Ali&Sons," February 22, 2024, <https://gulfbusiness.com/xpeng-signs-partnership-with-uaes-alisons/>
150. Gulf News, Manoj Nair, "China's EV Brand BYD Launches in UAE, Signs Up with Al Futtaim Electric Mobility Co.," March 16, 2023, <https://gulfnews.com/business/retail/chinas-ev-brand-byd-launches-in-uae-signs-up-with-al-futtaim-electric-mobility-co-1.1678945032701>
151. Hyundai, "PIF and Hyundai Motor Company Sign Joint Venture Agreement to Establish New Automotive Manufacturing Plant in Saudi Arabia," October 23, 2023, <https://www.hyundai.com/worldwide/en/newsroom/detail/pif-and-hyundai-motor-company-sign-joint-venture-agreement-to-establish-new-automotive-manufacturing-plant-in-saudi-arabia%2509%2509%2509%2509-000000334>
152. PricewaterhouseCoopers, Salim Ghazaly, Roger Rabbat, and Ahmed Mokhtar, "How GCC Countries Can Ensure Their Food Security," August 2020, <https://www.strategyand.pwc.com/m1/en/articles/2020/how-gcc-countries-can-ensure-their-food-security.html>
153. Americans for Democracy & Human Rights in Bahrain, "Food Security in the GCC: Assessing the Risk of Future Shortages," March 6, 2024, <https://www.adhrb.org/2024/03/food-security-in-the-gcc-assessing-the-risk-of-future-shortages/>
154. Middle East Council on Global Affairs, Nejla Ben Mimoune and Hana El Shehaby, "Food Insecurity in the Middle East and North Africa," February 28, 2023, <https://mecouncil.org/publication/food-insecurity-in-the-middle-east-and-north-africa/>
155. Springer Link, "Future of Agritech Startups: Perspectives from India and Japan," June 28, 2024, [https://link.springer.com/chapter/10.1007/978-981-97-3282-1\\_12](https://link.springer.com/chapter/10.1007/978-981-97-3282-1_12)
156. PricewaterhouseCoopers, Salim Ghazaly, Roger Rabbat, Makram Debbas, and Aya Hallak, "How the Middle East Can Promote Agritech," November 2022, <https://www.strategyand.pwc.com/m1/en/strategic-foresight/sector-strategies/consumer-retail-industry/promoteagritech.html>
157. Kingdom of Saudi Arabia, "Vision 2030 Achievements 2016-2020," Accessed September 29, 2024, [https://www.vision2030.gov.sa/media/irsiefvh/achievements-booklet\\_en.pdf](https://www.vision2030.gov.sa/media/irsiefvh/achievements-booklet_en.pdf)
158. Oman Investment Authority, "OIA to Invest in a \$400 Million Joint Food Fund with Japan," October 10, 2015, <https://oia.gov.om/Index.php?r=en%2Fsite%2Fnewsview&nid=oia-to-invest-in-a-400-million-joint-food-fund-with-japan>
159. Oman Investment Authority, "GCC Largest Table-Egg Farm to Be Launched in Oman Using Japanese Technology," December 20, 2016, <https://www.oia.gov.om/Index.php?r=en%2Fsite%2Fnewsview&nid=gcc-largest-table-egg-farm-to-be-launched-in-oman-using-japanese-technology>
160. Arabian Business, Andrew Sambidge, "South Korean Agritech Firm to Develop Functional Crops in the UAE," December 31, 2021, <https://www.arabianbusiness.com/industries/technology/south-korean-agritech-firm-to-develop-functional-crops-in-the-uae>
161. Gulf News, Al Anoud Al Hashmi, "The Next 50 Years of Agritech in the UAE Start Now," July 5, 2021, <https://gulfnews.com/uae/year-of-the-50th/the-next-50-years-of-agritech-in-the-uae-start-now-1.80421746>
162. Gulf News, Dhanusha Gokulan, "UAE's Food Sector's Rapid Growth Makes It Top Job Creator with 20,000 New Positions," October 8, 2023, <https://gulfnews.com/business/markets/uaes-food-sectors-rapid-growth-makes-it-top-job-creator-with-20000-new-positions-1.98618614>
163. Ibid
164. National Institution for Transforming India, "National Strategy for Artificial Intelligence," 2018, <https://www.niti.gov.in/sites/default/files/2023-03/National-Strategy-for-Artificial-Intelligence.pdf>
165. Observer Research Foundation, Anirban Sarma and Shrushti Jaybhaye, "Shoots of Change: India's Agritech Revolution," January 12, 2024, <https://www.orfonline.org/expert-speak/shoots-of-change-india-s-agritech-revolution>
166. Ibid
167. Your Story, Ahmad Khan, "AgriSure Fund: Rs. 750 cr to Boost the Agritech Revolution," September 8, 2024, <https://yourstory.com/2024/09/govt-launches-agrisure-fund>
168. Observer Research Foundation, Anirban Sarma and Shrushti Jaybhaye, "Shoots of Change: India's Agritech Revolution," January 12, 2024, <https://www.orfonline.org/expert-speak/shoots-of-change-india-s-agritech-revolution>
169. Middle East Institute, Chloé Bernadaux, "Agricultural technology in the Middle East: Sowing the seeds of the future | Middle East Institute," May 19, 2021, <https://www.mei.edu/publications/agricultural-technology-middle-east-sowing-seeds-future>
170. Zawya, Syed Ameen Kader, "FarmERP Aims to Transform Agriculture Sector with AI and Sustainability Initiatives," May 7, 2024, <https://www.zawya.com/en/projects/industry/farmerp-aims-to-transform-agriculture-sector-with-ai-and-sustainability-initiatives-r29j6ii>
171. Edge Middle East, Arya Devi, "How Technology Is Reshaping Agriculture in the Middle East," April 15, 2024, <https://www.edgemiddleeast.com/emergent-tech/how-technology-is-reshaping-agriculture-in-the-middle-east>
172. Agri Business Global, "FarmERP to Expand Agtech Footprint into Saudi Arabian Market," December 4, 2023, <https://www.agribusinessglobal.com/markets/africa-middle-east/farmerp-to-expand-agtech-footprint-into-saudi-arabian-market/>
173. Middle East Institute, Michaël Tanchum, "The India-Middle East Food Corridor: How the UAE, Israel, and India Are Forging a New Inter-regional Supply Chain," July 27, 2022, <https://www.mei.edu/publications/india-middle-east-food-corridor-how-uae-israel-and-india-are-forging-new-inter>
174. International Monetary Fund, "Gulf Cooperation Council: Economic Prospects and Policy Challenges for the GCC Countries," December 14, 2023, <https://www.elibrary.imf.org/view/journals/002/2023/413/article-A001-en.xml>
175. Bloomberg, Mackenzie Hawkins and Ian King, "U.S. Is Slowing AI Chip Exports to Middle East by Nvidia, AMD," May 31, 2024, <https://www.bloomberg.com/news/articles/2024-05-30/us-officials-rein-in-ai-chip-sales-to-middle-east-by-nvidia-amd>

- 
176. BNN Bloomberg, Mackenzie Hawkins, "US Weighs Capping Exports of AI Chips From Nvidia and AMD to Some Countries," October 14, 2024, <https://www.bnnbloomberg.ca/business/technology/2024/10/15/us-weighs-capping-exports-of-ai-chips-from-nvidia-and-amd-to-some-countries/>
  177. Middle East Institute, Mohammed Soliman, "The GCC, U.S. -China Tech War, and the Next 5G Storm," September 1, 2020, <https://www.mei.edu/publications/gcc-us-china-tech-war-and-next-5g-storm>
  178. Center for a New American Security, Paul Scharre, "The Dangers of the Global Spread of China's Digital Authoritarianism," May 04, 2023, <https://www.cnas.org/publications/congressional-testimony/the-dangers-of-the-global-spread-of-chinas-digital-authoritarianism>
  179. The Washington Institute for Near East Policy, Louis Dugit -Gros, "How to Respond to China's Growing Influence in the Gulf," July 21, 2022, <https://www.washingtoninstitute.org/policy-analysis/how-respond-chinas-growing-influence-gulf>
  180. Associated Press, Matthew Daly, "Biden Orders U.S. Investigation of National Security Risks Posed by Chinese-Made 'Smart Cars'," March 1, 2024, <https://apnews.com/article/china-electric-vehicles-privacy-personal-data-biden-844f2406512b94212ee1a92a61e5a33a>
  181. Reuters, David Shepardson, "U.S. to Issue Rules on Chinese Connected Vehicles This Autumn," May 16, 2024, <https://www.reuters.com/world/us/us-issue-rules-chinese-connected-vehicles-this-fall-2024-05-15/>
  182. The Washington Institute for Near East Policy, Louis Dugit-Gros, "How to Respond to China's Growing Influence in the Gulf," July 21, 2022, <https://www.washingtoninstitute.org/policy-analysis/how-respond-chinas-growing-influence-gulf>
  183. Gulf Research Centre, Saleh Alkhathlan, "GCC-US Relations in Trump's Second Term: It's Not Necessarily All Bad News," November 11, 2024, <https://www.grc.net/single-commentary/204>
  184. Gulf Research Centre, "Hope and Despair: Reactions to the Trump Election," November 2024, <https://www.grc.net/publication/589>
  185. The Washington Institute for Near East Policy, Louis Dugit-Gros, "How to Respond to China's Growing Influence in the Gulf," July 21, 2022, <https://www.washingtoninstitute.org/policy-analysis/how-respond-chinas-growing-influence-gulf>
  186. Bloomberg, Ben Bartenstein, "Mideast Wealth Funds Draw Greater U.S. Scrutiny over China Ties," November 24, 2023, <https://www.bloomberg.com/news/articles/2023-11-24/mideast-wealth-funds-draw-greater-us-scrutiny-over-china-ties> Mideast Wealth Funds Draw Greater US Scrutiny Over China Ties (bloomberglaw.com)
  187. Embassy of the United Arab Emirates, "Forging the Future of Artificial Intelligence and Advanced Tech," Accessed September 10, 2024, <https://www.uae-embassy.org/uae-us-cooperation/economic/artificial-intelligence>
  188. Gulf Research Centre, "Hope and Despair: Reactions to the Trump Election," November 2024, <https://www.grc.net/publication/589>