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Can the Middle East catch the US$1 trillion green investment wave?

Contacts

Beirut
Dr. Yahya Anouti
Partner
+961-1-985-655
yahya.anouti
@strategyand.pwc.com

Dubai
Devesh Katiyar
Partner
+971-4-436-3000
devesh.katiyar
@strategyand.pwc.com

Rohin Bakshi
Manager
+971-4-436-3000
rohin.bakshi
@strategyand.pwc.com

About the authors

Dr. Yahya Anouti is a partner with Strategy& Middle East, part of the PwC network. Based in Beirut, he is a member of the energy, resources, and sustainability practice in the Middle East and leads the environmental, social, and governance (ESG) platform for PwC in the Middle East. He specializes in sustainability, resource-based sustainable development, and environment-related strategies, and he supports governments, national oil companies, international oil companies, and utility companies across Asia, Africa, Europe, the Middle East, and the United States.

Devesh Katiyar is a partner with Strategy& Middle East. Based in Dubai, he is a member of the energy, resources, and sustainability practice in the Middle East. He has over 15 years of experience in consulting and energy, working in multiple geographies. He specializes in local content, localization, chemicals, value chain optimization, and sustainability. He has led multiple projects in these areas, supporting governments, national oil companies, national champions, and public-sector entities in the Middle East and beyond.

Rohin Bakshi is a manager with Strategy& Middle East. Based in Dubai, he is a member of the energy, resources, and sustainability practice in the Middle East. He has over 12 years of industry and consulting experience across India and the Middle East. He specializes in investment development including foreign direct investment (FDI) and international growth strategies, as well as local content and localization. He has supported governments, sovereign wealth funds, and public-sector entities across the Middle East on high-impact strategic initiatives.

THE BIG PICTURE

Since 2020, new analysis Strategy& has conducted suggests that more than US$1 trillion in foreign direct investment (FDI), or more than half the total of large-scale FDI, has flowed globally into green projects such as renewable energy, hydrogen, and batteries for electric vehicles. This investment wave, made in response to the risks of climate change, has been encouraged by government programs in India, Europe, the U.S., and elsewhere.

Although the momentum of this investment may be affected by current policies including tariffs, the underlying green investment trend will likely remain a long-term one, given continuing concerns about climate change and continuing government efforts to combat it.

On paper, the Middle East region in general and Gulf Cooperation Council (GCC) countries[1] in particular should be well placed to benefit from this worldwide growth in green investment because they have some notable competitive advantages, including the lowest production cost for solar energy in the world. For now, however, GCC countries have mainly participated in the green FDI trend as investors rather than as recipients. We calculate that in 2020–24, outflows of green FDI from Oman, Saudi Arabia, and the United Arab Emirates (UAE) amounted to US$132 billion, compared with inflows of just $24 billion.[2]

This report uses new data through the lens of our proprietary Strategy& Green Seven taxonomy to highlight global trends in green FDI in seven sectors and examines ways in which leaders of GCC countries could make the region more attractive as a destination for large-scale green investment. It recommends policy moves that could strengthen the investment case, including mechanisms to de-risk investments, steps to develop a more mature regulatory framework, and ways to improve the broader investment climate.

Such actions would not only contribute substantially to mitigating climate change, but also help diversify GCC economies and achieve political and economic goals, including meeting net-zero emissions commitments, localizing new low-carbon industries in which the region could have a competitive advantage, and protecting local industries that might otherwise migrate elsewhere with green initiatives.

THE US$1 TRILLION SURGE IN GREEN FDI

In the first five years of this decade, climate-related investment became a dominant theme for cross-border foreign direct investment (FDI). According to Strategy& analysis, about 53 percent of all large-scale FDI, which we define as cross-border investment exceeding $1 billion, was allocated to environmentally sustainable ventures (*see "Strategy& Green Seven taxonomy"*). This investment was particularly strong in 2022 and 2023, as the COVID-19 pandemic subsided, and investment picked up globally. The volume of green FDI declined in 2024 as investments generally pulled back and as new FDI themes gained traction, including semiconductors and data centers needed to power AI. Nonetheless, the $158 billion inflow into green FDI in 2024 was still 50 percent higher than in 2021 and almost triple the volume in 2020 (*see Exhibit 1*).

Strategy& Green Seven taxonomy

The research for this paper into FDI flows for key climate-related sectors culminated in the creation of our proprietary Strategy& Green Seven taxonomy.

As its name suggests, the taxonomy focuses on seven green sectors: hydrogen and ammonia; renewable power including from solar, wind, hydro, and biomass; batteries; electric and hydrogen vehicles; green industrials and chemicals including e-gasoline, green steel, sustainable aviation fuel, and recycled plastic; sustainable building construction; and carbon capture, utilization, and storage (CCUS).

The taxonomy and the subsequent calculations of green FDI were based on three steps. First, multiple green taxonomies—including the EU Taxonomy Compass, China's green finance policy, Saudi Arabia's Green Financing Framework and its Circular Carbon Economy (CCE) Framework, as well as the G20-adopted CCE framework—were consulted and used to build the new simplified Strategy& Green Seven taxonomy. The taxonomy unifies the view from the various other taxonomies in broad alignment with the United Nations Economic and Social Commission for Asia and the Pacific guidance on green taxonomy.[3]

Second, the research identified a list of large-scale FDI announcements for projects exceeding investment of US$1 billion globally in the five years from 2020 to 2024. The source country for the investment, the destination country, the investment size, the sector, and the activity were identified using data from FDI Markets.[4]

Finally, the green FDI flows by region were mapped to the seven defined sectors, and non-green FDI was filtered out.

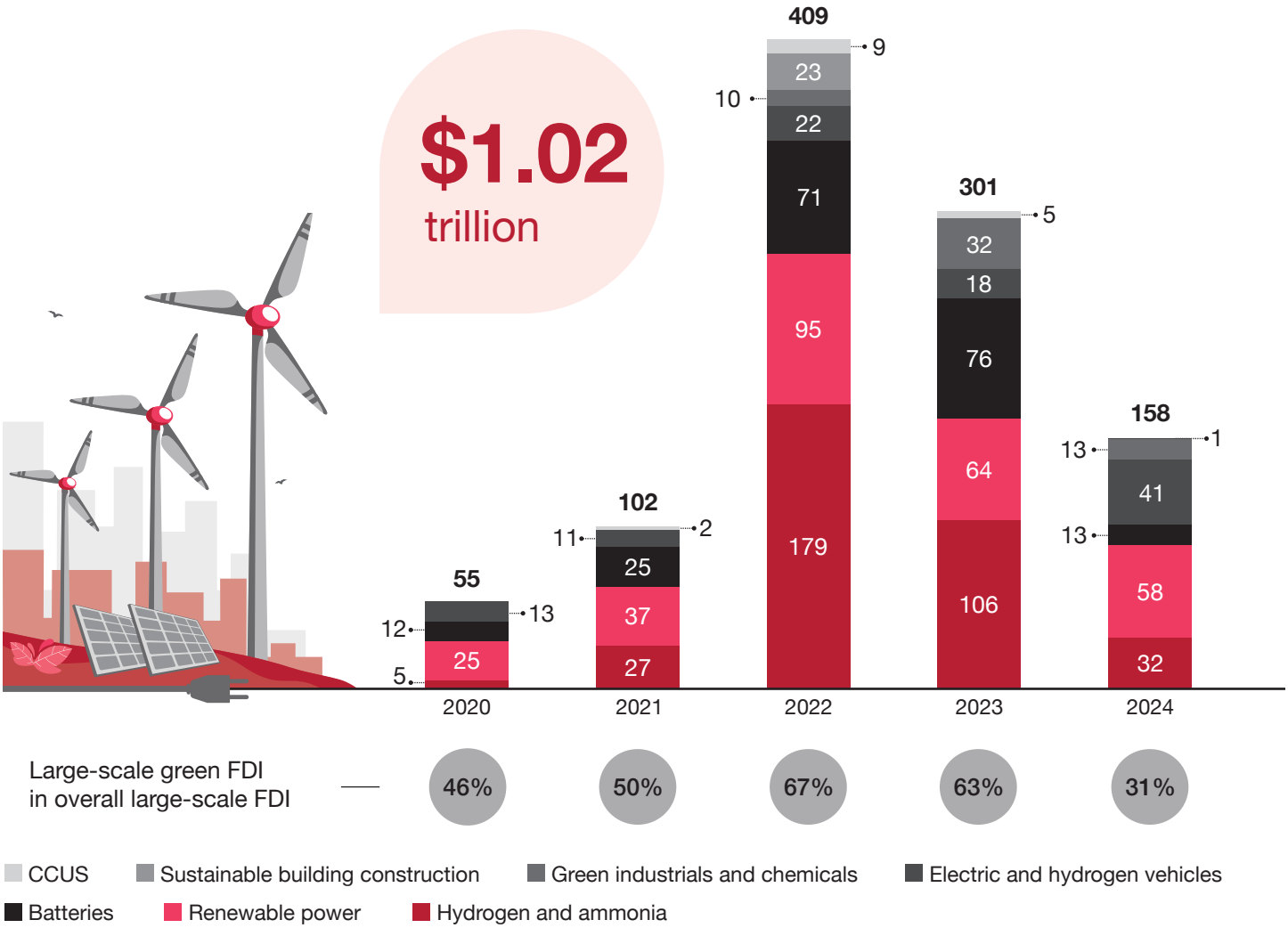
Most of this cross-border green investment has gone to projects involving hydrogen and ammonia, renewable power, and batteries: These three sectors together received more than 80 percent of all large-scale green FDI.

Our analysis of the FDI data identifies some clear patterns. Perhaps surprisingly, Africa emerged as the region attracting the largest inflows of green FDI, a total of $278 billion in the 2020–24 period. Almost 90 percent of this flowed to just four countries: Egypt, Mauritania, Morocco, and South Africa. Africa was closely followed by Europe, with $277 billion of inflows, the Asia-Pacific region, with $213 billion, and the U.S., with $173 billion. In terms of outflows by region, Europe and Asia-Pacific between them generated more than 70 percent of the total.

EXHIBIT 1

More than US$1 trillion has been allocated to large-scale green FDI since 2020

Trend by year and sector (US$ billions, 2020–24)

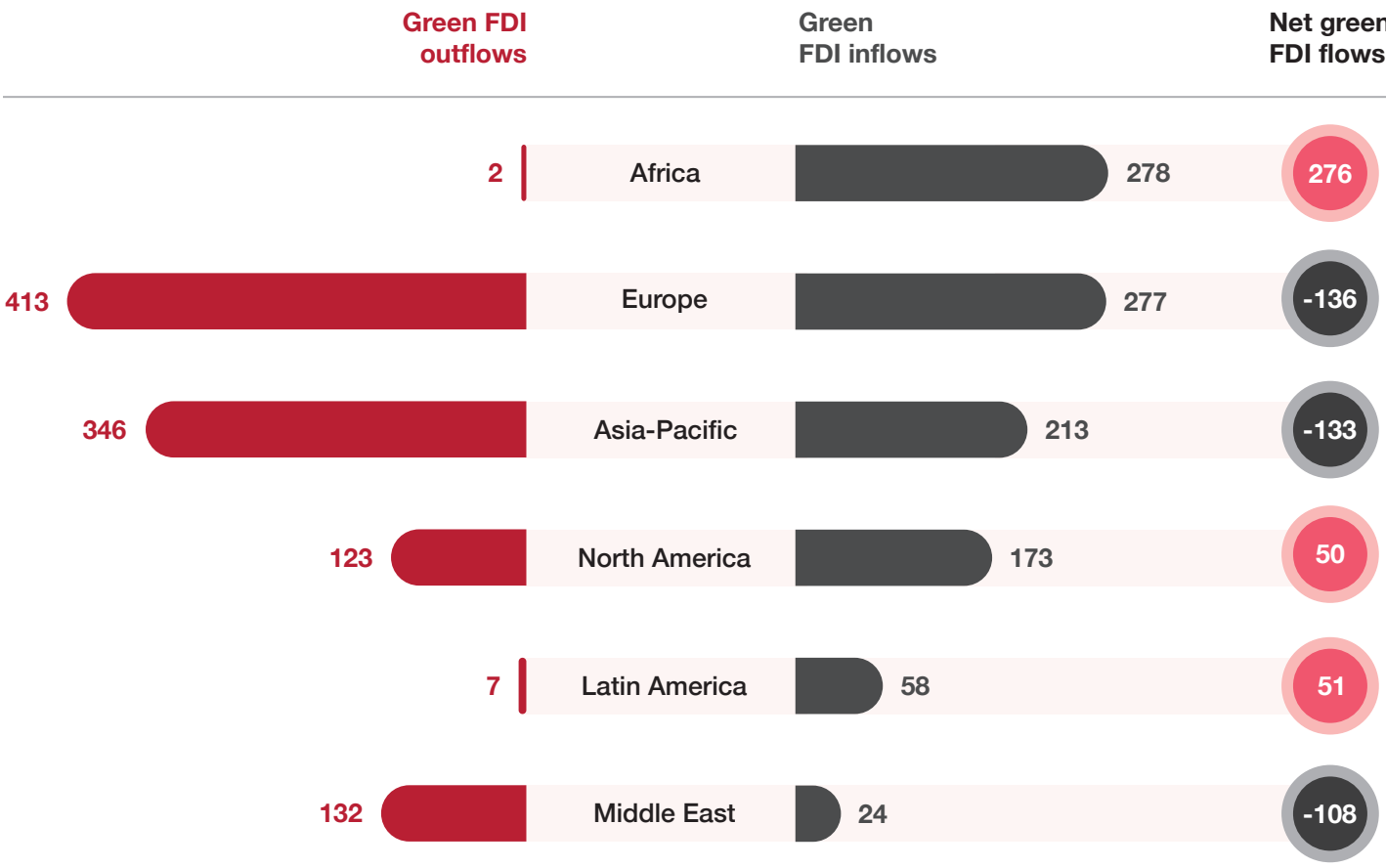


Note: CCUS = carbon capture, utilization, and storage, Large-scale = any individual investment over US$1 billion.
Source: fDi Markets, a service from The Financial Times Ltd. 2025. All Rights Reserved. (All deals announced between January 2020 and November 2024 with investment size >$1 billion, assessed using the Strategy& Green Seven taxonomy)

Looking at the difference between inflows and outflows, Africa had easily the largest net inflow, given its minimal outward investment, followed by Latin America and North America. In contrast, in the Middle East, Europe, and Asia-Pacific, outflows considerably exceeded inflows (*see Exhibit 2*). It should be noted that almost half of the Asia-Pacific outflows, or $102 billion, went to other Asian countries, and about one-third of the European outflows, or $170 billion, went to other European countries. Thus, a large portion of investments stayed in their respective regions.

EXHIBIT 2

Africa leads in green FDI inflows, Europe leads in outflows (US$ billions)



Source: fDi Markets, a service from The Financial Times Ltd. 2025. All Rights Reserved. (All deals announced between January 2020 and November 2024 with investment size >$1 billion, assessed using the Strategy& Green Seven taxonomy)

One common thread among the main recipients of green FDI inflows is the role of policy, and of incentive packages aimed at attracting investment in climate-related technologies and projects. In the European Union (E.U.), the European Green Deal launched in 2019 seeks to make the E.U. the first climate-neutral region by 2050. It put in place both public and private support for construction decarbonization, clean energy, green mobility, the circular economy, sustainable food production, and green industry and technology, among other efforts.[5] The European Green Deal has helped make European countries leading recipients of inbound investment in renewable energies.

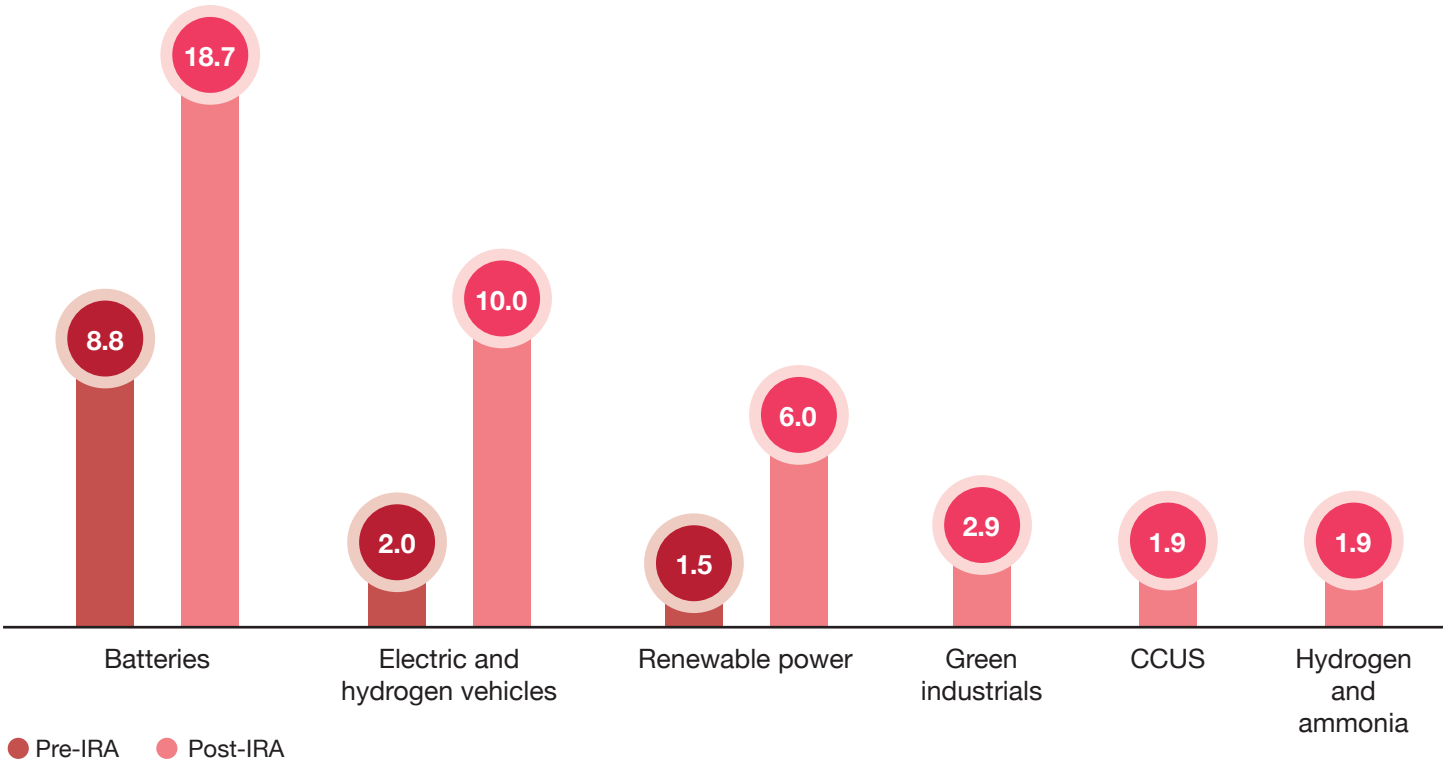
In the U.S., the 2022 Inflation Reduction Act (IRA) provided $400 billion in tax credits and incentives aimed at reaching sustainability goals. Other recipients of inbound green FDI have also put in place government programs to promote investment; these countries include Australia, India, and Japan.

Our research suggests that dedicated green transition programs have successfully drawn certain types of investment. For example, the IRA incentives in the U.S. prompted a sharp increase in investment in batteries; electric and hydrogen vehicles; renewable power; green industrials; carbon capture, utilization, and storage (CCUS); and hydrogen and ammonia projects (*see Exhibit 3*).

EXHIBIT 3

The U.S. Inflation Reduction Act led to significant green investments

U.S. average annual green FDI inflows, US$ billions, pre-IRA (2020–21) vs. post-IRA (2022–24)



Note: CCUS = carbon capture, utilization, and storage, IRA = Inflation Reduction Act.
Source: fDi Markets, a service from The Financial Times Ltd. 2025. All Rights Reserved. (All deals announced between January 2020 and November 2024 with investment size >$1 billion, assessed using the Strategy& Green Seven taxonomy)

THE MIDDLE EAST: MORE OUTBOUND THAN INBOUND INVESTOR

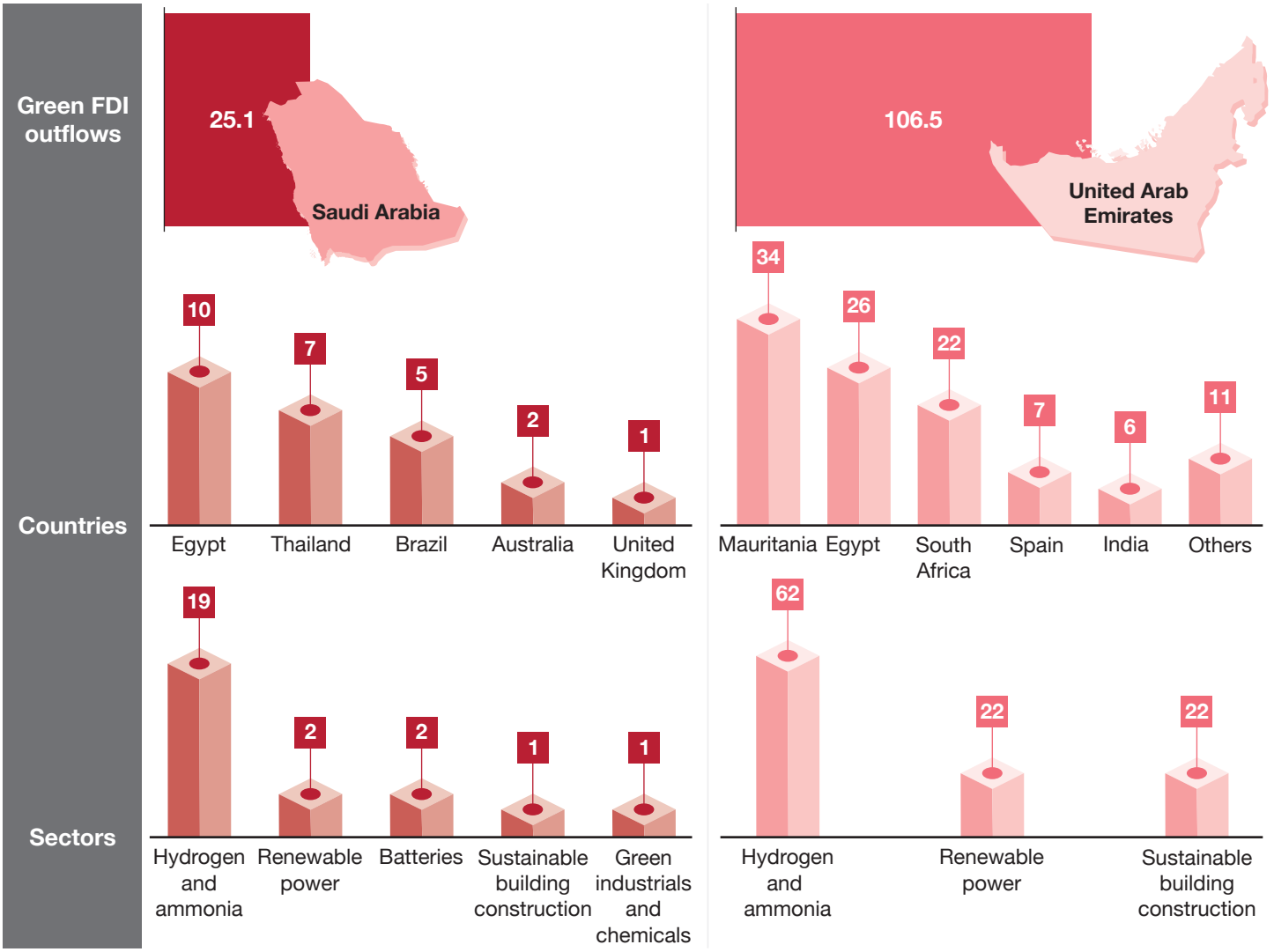
Three countries—Oman, Saudi Arabia, and the United Arab Emirates (UAE)—account for most of the large-scale green FDI in the GCC region. In the 2020–24 period, they together accounted for 29 outbound deals and 10 inbound ones.

The outflows from Saudi Arabia and the UAE have gone mainly to other Middle East and North African countries, particularly Egypt and Mauritania, with the focus primarily on hydrogen and ammonia (*see Exhibit 4*). For example, UAE investors such as Masdar are part of a consortium building a 10 gigawatt green hydrogen project in the country with an estimated cost of more than $30 billion.[6] Similarly, Egypt has seen investments to the tune of $34 billion across multiple hydrogen and ammonia projects by UAE- and Saudi Arabia–based investors such as ACWA Power, alfanar, AMEA Power, KK Power, and Ocior Energy.[7]

EXHIBIT 4

Green FDI outflows from the GCC region have gone mainly to the rest of the Middle East and North Africa

Large-scale green FDI outflows from the GCC region (US$ billions, 2020–24)



Source: fDi Markets, a service from The Financial Times Ltd. 2025. All Rights Reserved. (All deals announced between January 2020 and November 2024 with investment size >$1 billion, assessed using the Strategy& Green Seven taxonomy)

By contrast, inflows to the GCC region are modest, and the balance between outflows and inflows is particularly uneven compared with that of other regions (*see Exhibit 5*). The inflows focus mainly on hydrogen and the electric vehicle sector and come more or less equally from China, India, and the United States. Saudi Arabia has received the biggest share of these large-scale investments, a total of $12.6 billion, followed by Oman, at $8.9 billion. Oman received two exceptionally big investments from India in 2021–22. The first was from India's ACME Group, a solar energy company; the $3.5 billion investment is establishing a green ammonia project at the Duqm Special Economic Zone. The large-scale facility will produce green hydrogen and green ammonia to export to markets such as Asia and Europe. The second Indian investment in Oman is in a green steel plant in Duqm; the $3 billion investment was made by Jindal Shadeed Iron and Steel, a subsidiary of India-based Jindal Group. The facility is expected to be completed in 2026 and will process 5 million metric tons of steel per year.

Even when the size of the inflows is normalized to the size of each country's economy, as measured by the ratio of green FDI investment to GDP, all Middle East countries except Oman lag behind other green FDI destinations in terms of inflows.

How can that be explained, given the region's strong starting position as a destination for climate-related investment? As noted in *Arabian Gambit: The Path to Leadership in a Shifting Global Energy Landscape*, GCC countries have considerable advantages over other regions, as their abundance of sunshine and wind means they can produce and export renewable energies at a consistently lower cost than any other region can.[8] Indeed, six of the 10 lowest-cost existing solar projects are in the GCC region; the lowest cost is achieved by Saudi Arabia's Al Shuaibah project, which can generate solar energy at a levelized cost of electricity of 1.04 U.S. cents per kilowatt-hour. That's just one-fifth of the 2021 global average for solar PV.[9]

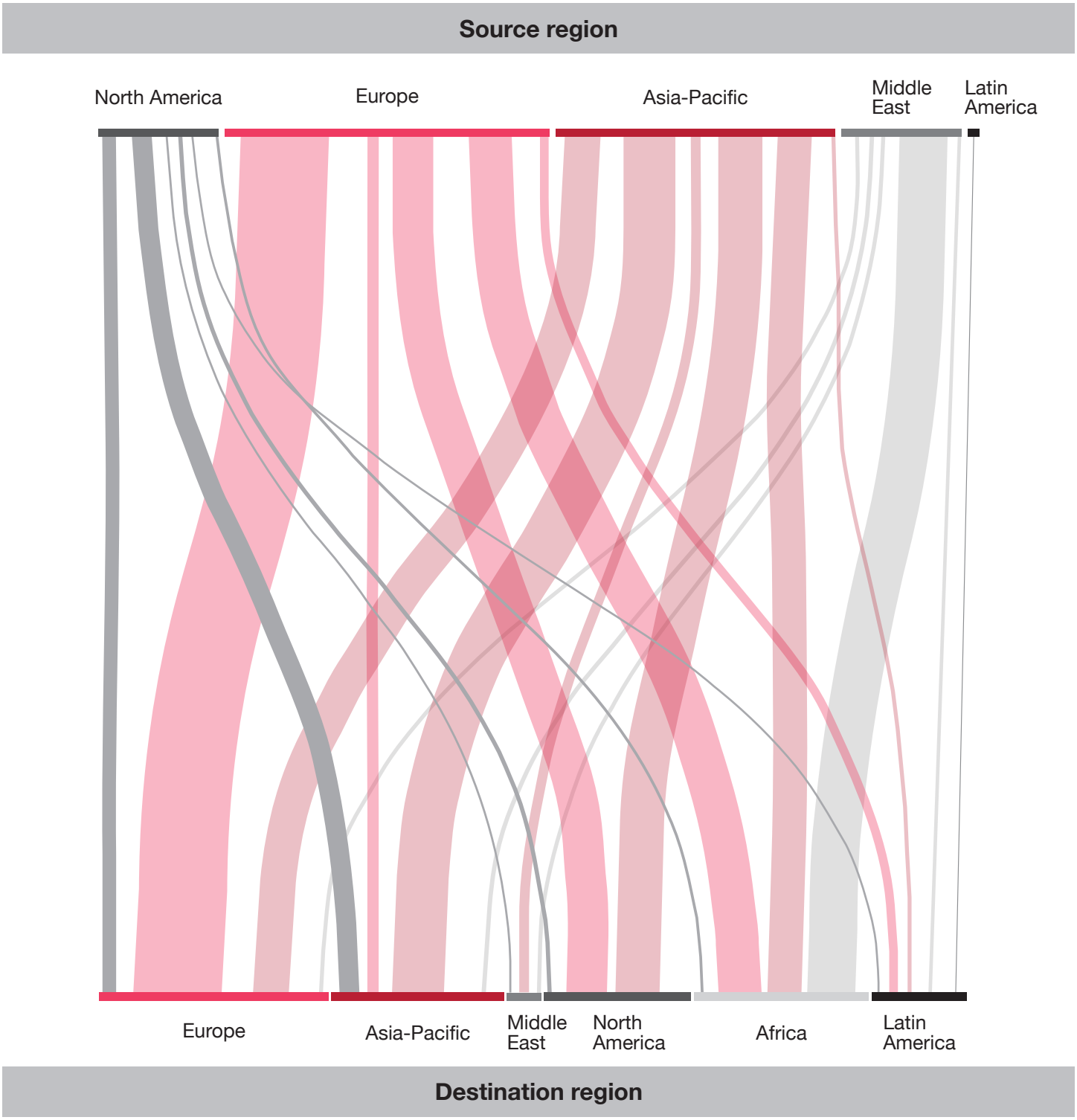
A few factors underlie the relatively low volume of large climate-related deals and green FDI inflows in the Middle East. Among them are issues relating to investment support, policies and regulations, and the overall investment climate.

GCC countries have considerable advantages over other regions, as their abundance of sunshine and wind means they can produce and export renewable energies at a consistently lower cost than any other region can.

EXHIBIT 5

The Middle East has received little inbound green FDI from other regions

Announced large-scale green FDI, source and destination regions (2020–24)



Note: Large-scale = any individual investment over US$1 billion.

Source: fDi Markets, a service from The Financial Times Ltd. 2025. All Rights Reserved. (All deals announced between January 2020 and November 2024 with investment size >$1 billion, assessed using the Strategy& Green Seven taxonomy)

Regarding investment support, many countries lack de-risking mechanisms that can overcome international investor concerns about long-term returns. These mechanisms can include green incentive packages for investors that are backed by regulations. Alternatively, GCC countries can make it easier for companies to access green financing and find offtake buyers for future products.[10] This would help create a market for green industrial goods and other products. In the U.S., for example, solar, wind, and other renewable energy projects received renewable energy tax credits under the IRA program, and in Germany, an initiative called H2Global Stiftung has sought to accelerate the emergence of markets for clean hydrogen and other low-emissions fuels worldwide.[11] Some investor hesitation may also be the result of opaque processes and procedures or poor aftercare support in the region.

In terms of policies and regulations, GCC countries can develop their regulatory frameworks such as green taxonomies at the national or regional levels. They also can put in place the associated infrastructure such as carbon pricing and trading mechanisms.

More broadly, GCC countries can make their investment climate for green FDI more appealing. For example, they can strengthen investment protection, intellectual property (IP) protection, and bankruptcy procedures.

Other factors impeding inbound green FDI may be more a function of policies in other, non-GCC countries. These could include restrictions placed by some advanced economies on outbound investments in critical and emerging technologies for geopolitical reasons, or the availability of attractive nearshoring and "friendshoring" opportunities supported by regulatory frameworks.

Some countries in the GCC region have made progress in these areas. For example, Saudi Arabia published its Green Financing Framework in March 2024. The framework sets out guidelines for raising funds to support environmentally sustainable projects aligned with Saudi Vision 2030. It focuses on key areas like renewable energy, clean transportation, water, and waste management to reduce carbon emissions and drive a green transition. This framework underpins the country's broader commitment to environmental stewardship and a more diversified, resilient economy.[12] In the UAE, the Sustainable Finance Framework guides the issuance and management of funds dedicated to environmentally and socially responsible projects, aligning with national and global sustainability goals. It emphasizes transparency, accountability, and adherence to international standards, aiming to boost green investments in areas like clean energy, water conservation, and low-carbon transportation. This framework underlines the UAE's commitment to driving sustainable growth and contributing to the global climate agenda.[13]

Although Saudi Arabia and the UAE have made notable progress, other GCC countries have room for improvement in defining sustainable finance (green) taxonomy issues.[14]

MAKING THE MIDDLE EAST A GREEN INVESTMENT HUB

Leaders in GCC countries have several policy options that could broadly increase their country's attractiveness as a destination for cross-border green investment. There are also targeted actions leaders could take to propel growth of the green economy in the region.

To enhance their overall investment climates, GCC countries could prioritize a comprehensive investment policy review aimed at improving transparency, investor protection, and regulatory clarity—ensuring fair dispute settlement mechanisms and reducing discriminatory barriers such as ownership requirements. Indonesia provides one compelling international example of successful policy review; the country conducted a policy overhaul in 2020, culminating in the Omnibus Law that led to a 14 percent, 37 percent, and 16 percent increase in FDI in 2021, 2022, and 2023, respectively.[15]

Strengthening IP laws is another critical factor, in terms of both legal protection and the establishment of robust enforcement institutions; Singapore's dedicated IP court and IP office offer a strong example.[16] Also, investor aftercare must become a strategic pillar, with proactive post-investment support that fosters long-term confidence. For this, South Korea's investor ombudsman is a leading example of how sustained engagement can boost reinvestment and policy feedback loops.[17]

Targeted actions designed to accelerate the growth of the green economy in GCC countries can focus on four main areas: landmark policy moves; investment de-risking; green industrial development; and strategic outbound investment.

Landmark policy moves

As noted in other regions, major policy initiatives such as the E.U. Green Deal and the IRA in the U.S. can accelerate a green industrial transition and draw international investment. For GCC countries, a landmark move such as passage of a green manufacturing law would likewise be a powerful enabler for more investment.

Such legislation could address several issues.

First, it could provide incentives and infrastructure to support green industries.

Second, it could mandate clean manufacturing policies, for example, setting requirements for companies to share data about industrial energy use and introducing emissions reporting not just at the enterprise level, but for individual industrial products. Already, regulators and industry associations in various regions are pushing companies to calculate the carbon footprint of individual products, as we noted in a recent report.[18]

Third, a landmark manufacturing law could mandate green product standards for a range of sectors. These could include green hydrogen product certification, green building codes, and low-carbon product eco-labels for consumers.

For now, some GCC countries, such as Saudi Arabia and the UAE, have announced targets including reaching net-zero emissions.[19] These are high-level goals that in time can be promoted through enforceable and sector-specific legislation and orders. Saudi Arabia, for example, has put in place a Green Construction Code, which it could strengthen in the future with a robust enforcement mechanism.[20] Oman and the UAE have similarly announced plans for green hydrogen certification; legislation is pending.[21]

Investment de-risking

Climate investment is inherently risky: Even if effective technologies can be developed, there is no guarantee that they will quickly find a market. Hence the need for a range of policy tools that can reduce the risks to investors and bolster their confidence.

Long-term offtakes are one effective policy tool for de-risking investments from a commercial side. These are essentially guaranteed sales for newly developed green products. Similarly, recycling efforts for energy and waste could be subsidized. For example, green offtake agreements have seen an increase in Europe, with French TotalEnergies and Swiss Axpo signing offtake agreements with RWE AG (Germany) for 30,000 metric tons of hydrogen yearly and 628 megawatts of solar and wind energy, respectively. In the GCC region, Oman is eyeing its first green hydrogen offtake this year,[22] and the NEOM Green Hydrogen Company in Saudi Arabia has secured a 30-year offtake.[23] Although hydrogen offtake agreements are on the rise, there remains significant untapped potential in advancing offtakes for green industrial and chemical products to further catalyze the growth of sustainable manufacturing.

Another tool could be to establish a green industry fund—essentially, a financial support package that would increase the attractiveness of the region to investors. Such a fund could fill several needs:

- It could be used for large-scale investments in sustainable infrastructure, such as issuance of green bonds to build CCUS facilities or provide matching funds for clean hydrogen projects. Financial markets are ready for such actions. In February 2025, Saudi Arabia launched its first sovereign green bond, a €1.5 billion (US$1.7 billion) bond, in an issuance that was heavily oversubscribed.[24] This bond followed an offering by the country's sovereign wealth fund, the Public Investment Fund, including a US$5.5 billion green issue in February 2023.[25]

- It could provide incentives for development of a low- or zero-carbon economy.

- It could finance R&D grants for next-generation green technologies. Part of the fund could even be used as venture capital to foster promising startups.

Green industrial development

In addition to instituting landmark policy moves and de-risking of investments, a third potential path forward is to ramp up green industry in GCC countries, to take advantage of their low-cost renewable energy. The region could expand on existing industry and build new facilities powered by green energy and heat. Industries with potential include green hydrogen, recycled plastics, artificial proteins, and even some low-energy manufacturing.

Setting up a green industry development program that is dedicated to government collaboration with a range of stakeholders, with the aim of empowering green industry players, would be one of the steps needed to ramp up green industry. Such a development program would foster partnerships (for example, public–private green hydrogen development groups) and encourage free trade deals for green products. An important focus could be the talent needed for a successful transition to a green economy. University scholarship programs could be established with the goal of providing a younger generation of graduates with the skills required to thrive in a greener economy, such as environmental engineering. For them and others, apprenticeship programs could also help hone skills.

Strategic outbound investment

Targeted international investments are the final important tool for spurring domestic green transitions. Strategic outbound investment—particularly via acquisitions or joint ventures in green sectors abroad—can accelerate inbound green FDI to the GCC in several ways. First, such investments can give countries access to advanced technologies they might not yet have developed. Funds in the UAE such as XRG and Alterra will play a critical role here, considering their building of an $80 billion global portfolio of assets across clean energy value chains and their $30 billion commitment to climate investments, respectively. Second, these investments can secure critical resources needed for a green transition. The U.S.–Japan critical minerals agreement provides an example, promoting access to critical minerals and technology for both countries, facilitating trade and investment between the two.[26] And third, the investments can embed companies from the Middle East in global low-carbon supply chains. The Minerals Security Partnership co-led by the U.S. and E.U., alongside 14 other countries, aimed to secure and diversify global supply chains for critical minerals essential to clean energy technologies.[27]

South Korea offers another example: Its investment in hydrogen infrastructure in Australia and renewable energy assets in Europe has not only enabled domestic companies to acquire clean technology and green molecules, but also positioned South Korea as an attractive partner for inward co-investment and project development in its domestic green economy.[28] A similar strategy for GCC sovereign investors or national champions—focused on green hydrogen, battery metals, clean-tech manufacturing, or circular economy technologies—could seed capabilities that later draw international partners into local industrial investments. Over time, this “reverse FDI” dynamic could help anchor global green capital and capability in the region.

RIDING THE GREEN WAVE

Although this report has highlighted a variety of actions that could help accelerate a green transition in the region and draw more cross-border investment, progress is unlikely to be linear. For one thing, geopolitical and regulatory shifts may affect future green FDI flows, at a time of increased trade tensions and greater scrutiny of outbound investments by some developed nations, including the United States. Already, the shift in capital allocation priorities in 2024 from climate technologies to data centers shows how quickly investment themes can change. Nonetheless, despite near-term fluctuations, the underlying drivers, such as corporate sustainability targets and technology advancements, will support a continued rise in green FDI over the longer term. Amid continuing uncertainty about tariffs, some companies may even consider relocating to geographies with more favorable market access—potentially creating new avenues for host countries to attract green FDI. GCC countries, and the Middle East more broadly, could play a central role in this growth—not just as investors, but also as recipients of sustainable investing at a global level.

ENDNOTES

1. The GCC countries are Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates.

2. Strategy& calculations based on fDi Markets, a service from The Financial Times Ltd. 2025. All Rights Reserved (https://www.fdimarkets.com).

3. EU Taxonomy Compass (https://ec.europa.eu/sustainable-finance-taxonomy/taxonomy-compass/the-compass); International Platform on Sustainable Finance, "Common Ground Taxonomy—Climate Change Mitigation, Instruction Report," IPSF Taxonomy Working Group, Co-chaired by the EU and China, June 3, 2022 (https://finance.ec.europa.eu/system/files/2022-06/220603-international-platform-sustainable-finance-common-ground-taxonomy-instruction-report_en.pdf); Saudi Arabia, Green Financing Framework, March 2024 (https://ndmc.gov.sa/investorsrelations/Documents/Green-Financing-Framework-KSA-28March2024.pdf); Lama Alhamawi, "How Saudi Arabia's Circular Carbon Economy Framework Is Setting a Global Benchmark for Emissions Reduction," *Arab News*, March 29, 2025 (https://arab.news/625vb); Circular Carbon Economy Index, "Tracking Countries' Progress to Net-Zero Emissions: Circular Carbon Economy Index 2024" (https://cceindex.kapsarc.org/cceindex/home); "Green Taxonomy: A Guidance Note by the United Nations Economic and Social Commission for Asia and the Pacific" (https://www.unescap.org/sites/default/d8files/event-documents/Session4_Green%20Taxonomy.pdf).

4. fDi Markets, a service from The Financial Times Ltd. 2025. All Rights Reserved (https://www.fdimarkets.com).

5. European Commission, "The European Green Deal: Striving to Be the First Climate-Neutral Continent" (https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal_en).

6. Rachel Parkes, "Masdar and Partners Plan Massive $34 Billion Green Hydrogen Project in Mauritania," *Hydrogen Insight*, March 8, 2023 (https://www.hydrogeninsight.com/production/10gw-electrolyser-masdar-and-partners-plan-massive-34bn-green-hydrogen-project-in-mauritania/2-1-1415956?zephr_sso_ott=qtmYTn).

7. FDI total from fDi Markets, a service from The Financial Times Ltd. 2025. All Rights Reserved (https://www.fdimarkets.com). Individual examples include: “AMEA Power Signs Agreement with the Government of Egypt to Employ 1,000MW Green Hydrogen Project,” AMEA Power, November 16, 2022 (https://www.ameapower.com/press-release-amea-power-signs-agreement-with-the-government-of-egypt-to-deploy-1000mw-green-hydrogen-project/); Sanaa Alaam, “UAE’s K&K to Build Green Hydrogen Plant in Egypt,” Amwal Al Ghad, August 28, 2022 (https://en.amwalalghad.com/uaes-kk-to-build-green-hydrogen-plant-in-egypt/); Polly Martin, “Egypt Agrees Deal for $4bn Suez Canal Green Hydrogen Project,” *Hydrogen Insight*, August 11, 2023 (https://www.hydrogeninsight.com/production/egypt-agrees-deal-for-4bn-suez-canal-green-hydrogen-project/2-1-1500084); “Alfanar Signs $4bn MOU for Green Hydrogen Facility in Egypt,” Saudi Gulf Projects, August 25, 2022 (https://www.saudigulfprojects.com/2022/08/alfanar-signs-4bn-mou-for-green-hydrogen-facility-in-egypt).

8. Shihab Elborai and Yahya Anouti, *Arabian Gambit: The Path to Leadership in a Shifting Global Energy Landscape*, Strategy&, 2024 (https://www.strategyand.pwc.com/m1/en/strategic-foresight/sector-strategies/sustainability-and-environment/arabian-gambit.html).

9. Ibid.

10. Offtake buyers agree in advance to purchase products.

11. H2Global Stiftung (https://www.h2-global.org/).

12. Saudi Arabia, Green Financing Framework, March 2024 (https://ndmc.gov.sa/investorsrelations/Documents/Green-Financing-Framework-KSA-28March2024.pdf).

13. UAE Ministry of Climate Change and Environment, UAE Sustainable Finance Framework 2021–2031 (https://www.moccae.gov.ae/assets/24b84d14/UAE_Sustainable_framework_21.pdf.aspx).

14. PwC Middle East, “Opportunities for the GCC to Strengthen the Sustainable Finance Ecosystem,” September 14, 2023 (https://www.pwc.com/m1/en/publications/opportunities-for-the-gcc-to-strengthen-the-sustainable-finance-ecosystem.html).

15. “Indonesia: ‘Omnibus Law’ on Job Creation Has Been Enacted,” UN Trade and Development Investment Policy Monitor, November 2, 2020 (https://investmentpolicy.unctad.org/investment-policy-monitor/measures/3567/indonesia-omnibus-law-on-job-creation-has-been-enacted).

16. Intellectual Property Office of Singapore, “IP Dispute Resolution Hub,” April 2, 2025 (https://www.ipos.gov.sg/global-ip-hub/ip-dispute-resolution-hub).

17. Korea Trade-Investment Promotion Agency, Foreign Investment Ombudsman (https://ombudsman.kotra.or.kr/ob-en/index.do).

18. James Thomas, “Rethinking Corporate Decarbonization,” Strategy&, World Future Energy Summit, 2025 (https://www.strategyand.pwc.com/m1/en/strategic-foresight/sector-strategies/energy-chemical-utility-management/rethinking-corporate-decarbonization.html).

19. Saudi & Middle East Green Initiatives (https://www.sgi.gov.sa/saudi-global-climate-impact), UAE Net Zero 2050 (https://u.ae/en/more/uae-net-zero-2050).

20 The Saudi Green Construction Code, SBC 1001-CC, 2024 (https://sbc.gov.sa/en/BC/Pages/BuildingCode/BCDetails.aspx?codeId=1001&year=2024).

21. National Hydrogen Strategy: United Arab Emirates, Ministry of Energy and Infrastructure, July 2023 (https://u.ae/-/media/Documents-2nd-half-2023/UAE-National-Hydrogen-Strategy-2023.pdf); "Oman, Belgium Sign Pact for Green Hydrogen Certificate Pilot," Zawya, May 9, 2023 (https://www.zawya.com/en/projects/industry/oman-belgium-sign-pact-for-green-hydrogen-certificate-pilot-ha3ntmq5).

22. Polly Martin, "TotalEnergies Agrees Long-Term Offtake of Green Hydrogen from RWE's 300MW Project for Use in Refining," HydrogenInsight, March 12, 2025 (https://www.hydrogeninsight.com/production/totalenergies-agrees-long-term-offtake-of-green-hydrogen-from-rwes-300mw-project-for-use-in-refining/2-1-1791297); Jennifer Aguinaldo, "Oman Eyes First Green Hydrogen Offtake This Year," MEED, February 5, 2025 (https://www.meed.com/oman-eyes-first-green-hydrogen-offtake-this-year).

23. Julian Atchison, "NEOM Project Reaches Financial Close, 30 Year Offtake Secured," Ammonia Energy Association, May 30, 2023 (https://ammoniaenergy.org/articles/neom-project-reaches-financial-close-30-year-offtake-secured/).

24. Mirette Magdy and Olga Voitova, "Investors Snap Up Saudi Arabia's Debut Green Bond," Bloomberg, February 25, 2025 (https://www.bloomberg.com/news/articles/2025-02-25/saudi-arabia-offers-middle-east-s-first-euro-green-bond).

25. Saudi Press Agency, "PIF Announces Completion of Second Green Bond Issuance of USD 5.5 Billion," February 10, 2023 (https://www.spa.gov.sa/w1852532).

26. "Agreement Between the Government of the United States of America and the Government of Japan on Strengthening Critical Minerals Supply Chains," March 2023 (https://ustr.gov/sites/default/files/2023-03/US%20Japan%20Critical%20Minerals%20Agreement%202023%2003%2028.pdf).

27. Minerals Security Partnership (https://2021-2025.state.gov/minerals-security-partnership/).

28. Green Economy Partnership Arrangement on Climate and Energy Between Australia and the Republic of Korea (https://www.dcceew.gov.au/sites/default/files/documents/green-economy-partnership-arrangement-climate-energy-aus-korea.pdf).

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