Sustainability Insights | Research

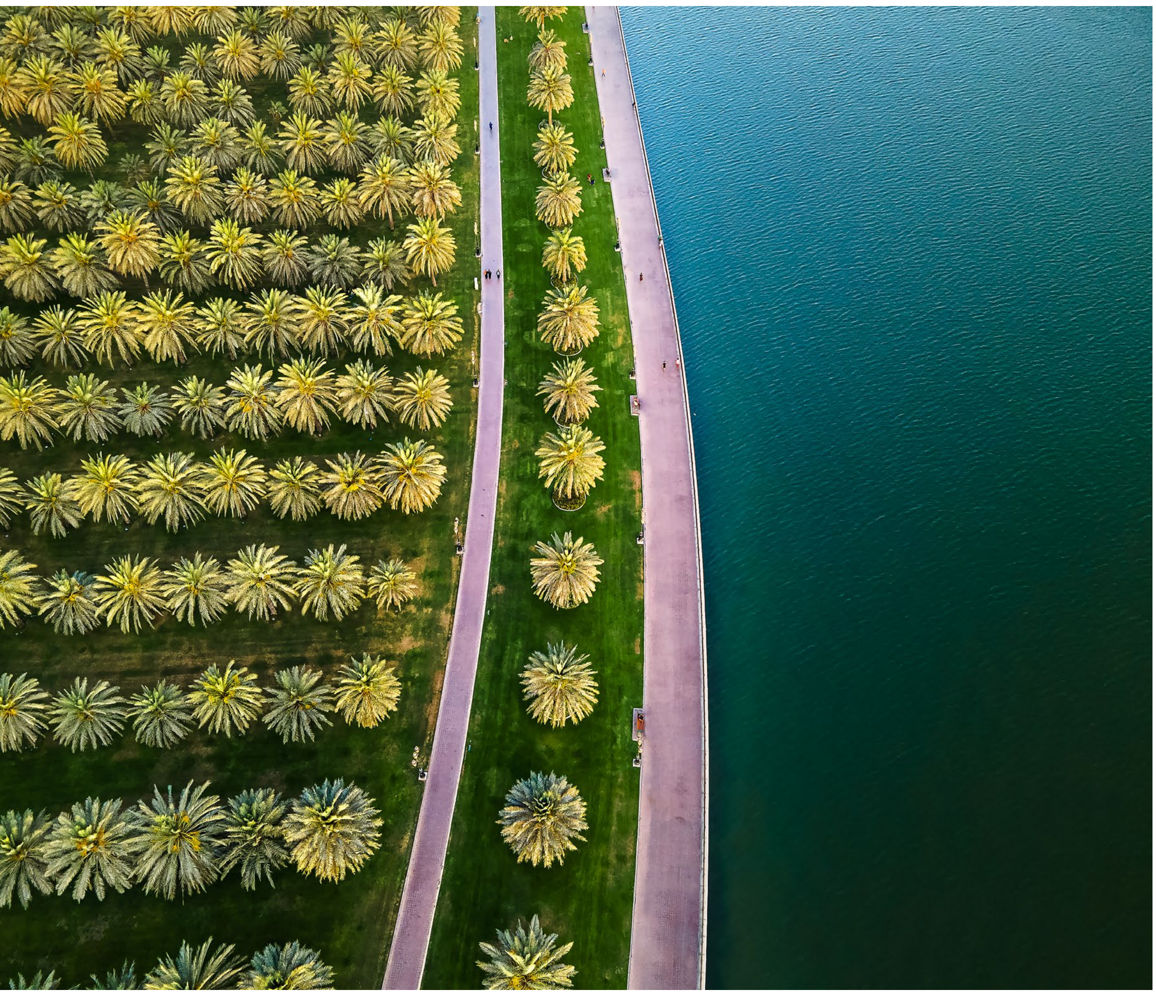
Middle East Sustainable Bonds May Expand Further

Nov. 14, 2023

Heightened exposure to climate change, as well as government initiatives and company pledges, will fuel sustainable, mostly green, bond issuances in the Middle East.

This research report explores an evolving topic relating to sustainability. It reflects research conducted by and contributions from S&P Global Ratings' sustainability research and sustainable finance teams as well as our credit rating analysts (where listed).

This report does not constitute a rating action.



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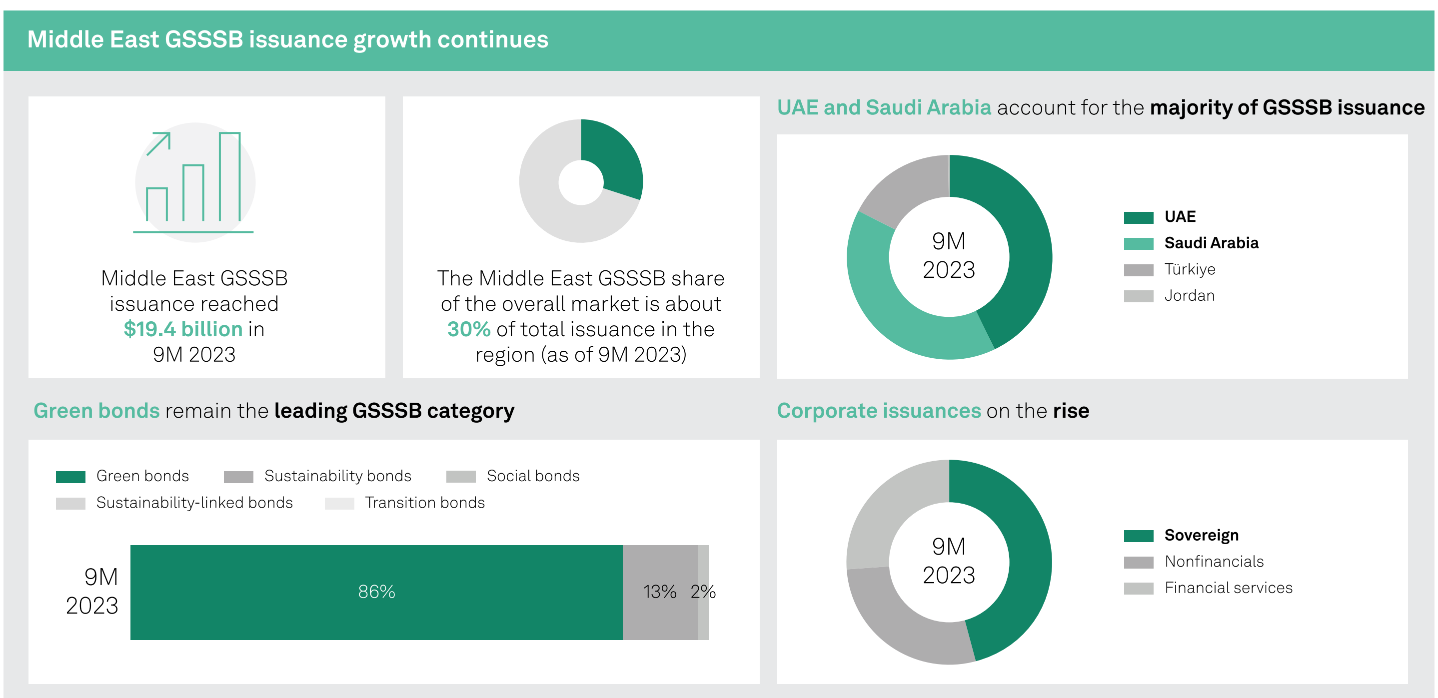
Given the Middle East's concentration of oil and gas in the economy, and challenges with issuing sustainable sukuk, (see "Islamic Finance's Role In The Climate Transition," published Nov. 14, 2023), we examine the potential role of sustainable bond instruments, including Islamic finance instruments, in funding the region's energy transition. We highlight trends in the green, social, sustainable, and sustainable-linked bonds (GSSSB) market--including sustainable sukuk--in the Middle East, and the potential challenges. We look at the markets in the region (see the appendix for a list of countries considered) and explore key drivers of future issuance growth, by sector and issuer type.

The research draws on Environmental Finance's Bond Database of global GSSSB issuance for nonfinancial corporates, sovereigns and financial institutions, and international public finance issuers, but excludes structured finance issuers. We also gather non-GSSSB data from public sources, such as Bloomberg and C-Bonds.

Key Takeaways

- GSSSB issuance in the Middle East should continue to increase in the coming years, supported by government initiatives and the relative nascency of certain markets.
- The UAE and Saudi Arabia will likely remain the leaders of the region's GSSSB market, particularly through green bonds, which we expect will continue driving regional issuance over the next three to five years.
- Gulf Cooperation Council (GCC) government-related entities (GREs) in fossil fuel dependent sectors are aligning strategies with national sustainability targets, but implementation may be delayed.
- The demand for GSSSB issuance in the region is sensitive to oil prices, inflation, and interest rates; these factors could impact funding and regulations.



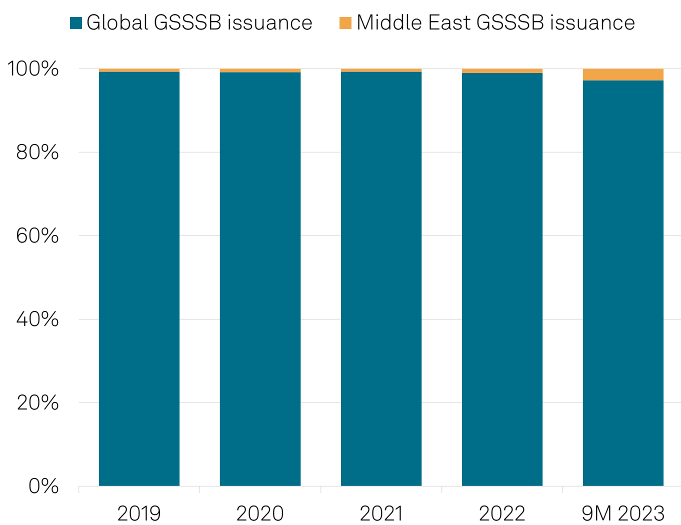
9M--First nine months. GSSSB--Green, social, sustainability, and sustainability-linked bonds.
Sources: Environmental Finance Database; Social Bond includes Akbank $300 million issuance.

Middle East GSSSB Issuance Rises From A Low Base

Middle East economies' GSSSB issuance is increasing fast, from a low base, despite a weaker global economy and higher interest rates. GSSSB bond issuance (including sustainable sukuk) more than quadrupled in the first nine months of 2023 from the same period last year, to reach $19.4 billion. However, it expanded from a relatively low base. GSSSB issuance is less than 1% of the GDPs of the Middle East countries studied. This is relatively in line with certain other emerging economies. For example, GSSSB issuance in the first nine months of 2023 was comparable relative to nominal expected 2023 GDP in countries such as Indonesia (0.1%) and South Africa (0.1%). The Middle East accounts for less than 3% of global GSSSB issuance (see chart 1).

Chart 1

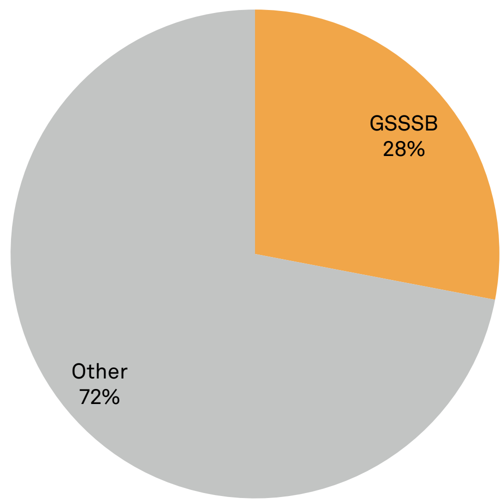
The Middle East accounts for a small share of global GSSSB issuance



9M--First nine months.
Sources: S&P Global Ratings, Environmental Finance Database.

Chart 2

GSSSBs account for about 30% of Middle East bond issuance



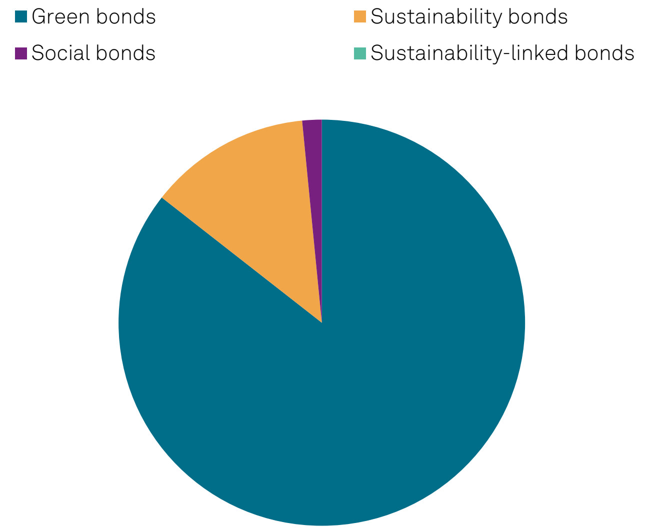
Data for January-September 2023.
Sources: S&P Global Ratings, Environmental Finance Database, C-Bonds Data. Bond issuances include international U.S.-dollar-denominated issuances.

Middle East GSSSB issuance represents a higher share of the region's bond issuance than the global average. We calculate GSSSB issuance comprised about 30% of total U.S.-dollar-denominated international bond issuance in the Middle East during the first nine months of 2023. Globally, we expect GSSSB issuance to make up about 15% of total issuance in 2023. Saudi Arabia and the UAE will likely continue to capture the largest share of issuance. This is largely fueled by government or GRE issuance to meet national sustainability targets. While we note the ramp up in GSSSB issuance in the Middle East, its contribution is still relatively marginal globally and domestically.

Most GSSSB issuance is likely to be green. In our opinion, issuance could be related to funding climate transition and adaptation and water projects, such as desalination. We believe this is due to the high reliance of regional economies on the hydrocarbon sector, in which emissions are difficult to reduce, and exposure to water scarcity. Notably, according to the United Nations' "Adaptation Gap Report 2022," the Middle East and North Africa need to spend a median of $15 billion annually between 2021-2030 on adaptation finance projects. As a result, we expect green bonds to remain prevalent in the region (86% as of the first nine months of 2023; see chart 3), and we expect the issuance of social bonds to remain comparatively low. Green bonds are prevalent in the Middle East (see chart 4) relative to other GSSSBs, which tracks general emerging market and global trends. This is particularly the case in Asia, where exposure to fossil fuels is higher. However, we think higher oil prices over the next few years (see "S&P Global Ratings Has Raised Its Henry Hub Natural Gas Price Assumptions For 2024 And 2025," published Nov. 7, 2023) could slow the pace of the transition if issuers prioritize fossil fuel projects and expansions over green projects.

Chart 3

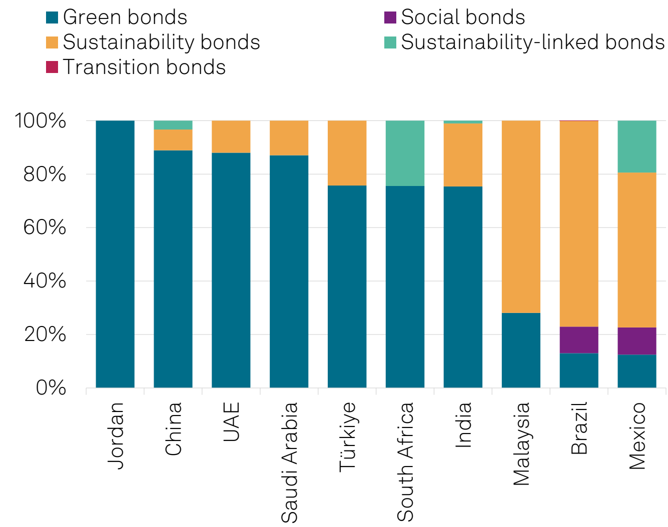
Green bonds make up most GSSSB issuance in the Middle East



Data for January-September 2023.
Sources: S&P Global Ratings, Environmental Finance Database.

Chart 4

Green bonds also make up most GSSSB issuance in many emerging markets



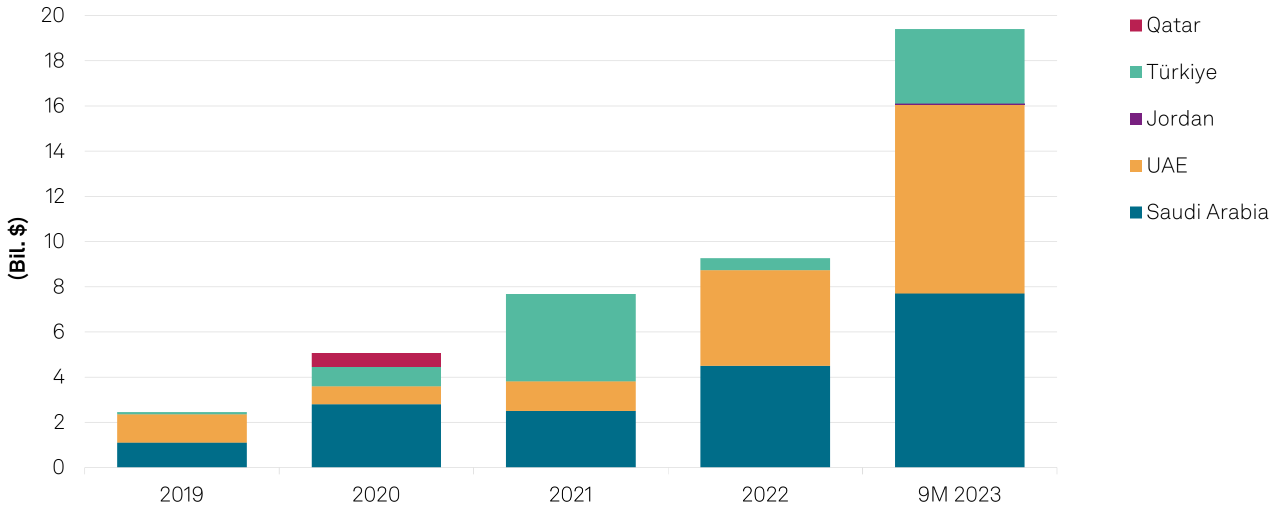
Data for January-September 2023.
Sources: S&P Global Ratings, Environmental Finance Database, Bloomberg, C-Bonds.

GCC governments drive GSSSB issuance in the Middle East

The majority of the governments in the GCC region, with the exception of Qatar, have announced net-zero targets. Türkiye has made a similar announcement. Deploying renewable energy will help meet the climate commitments in their nationally determined contributions (NDCs). The UAE and Saudi Arabia--which produce the highest greenhouse gas emissions in the GCC in absolute terms--have made the largest investments in renewables (see "Gulf Nations Invest To Accelerate Deployment Of Renewable Energy," published Feb. 27, 2023). In particular, we expect to see more issuance volumes from Saudi Arabia and the UAE. Both have committed to diversifying and enhancing the sustainability of their economies. This will likely create opportunities for tapping the sustainable bond and sukuk markets.

Chart 5

UAE and Saudi Arabia make up most GSSSB issuance in the Middle East



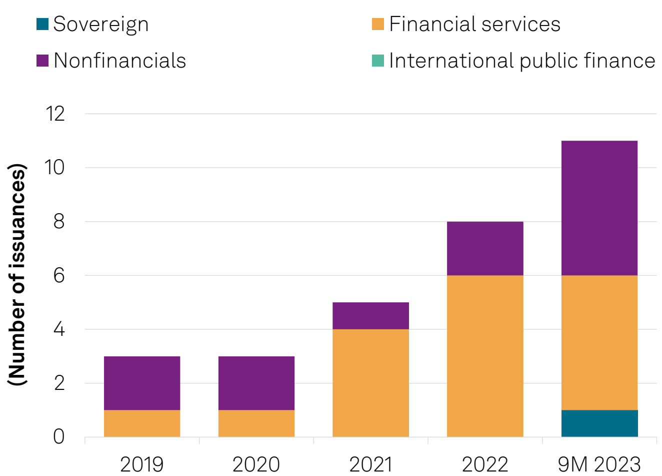
9M--First nine months. Excludes structured finance issuance.
Sources: S&P Global Ratings, Environmental Finance Bond Database.

Issuances in the UAE are more diversified by issuer type than in Saudi Arabia. The UAE and Saudi Arabia have accounted for the majority of GSSSB issuance in the Middle East (see chart 5). In the first nine months of 2023, UAE and Saudi GSSSB issuances reached $8.4 billion and $7.7 billion, respectively, making up 43% and 40% of the GSSSB in the region. Direct sovereign issuance comprised 71% of the total number of issuances in Saudi Arabia--all through Public Investment Fund (PIF) issuances. This compares with 12% for the UAE in the same period (see charts 6 and 7). In the UAE, GREs--including corporates and banks--are driving issuance.

Chart 6

Corporate issuance of GSSSBs, including from government-related entities, is ramping up in the UAE

UAE issuance frequency by issuer type

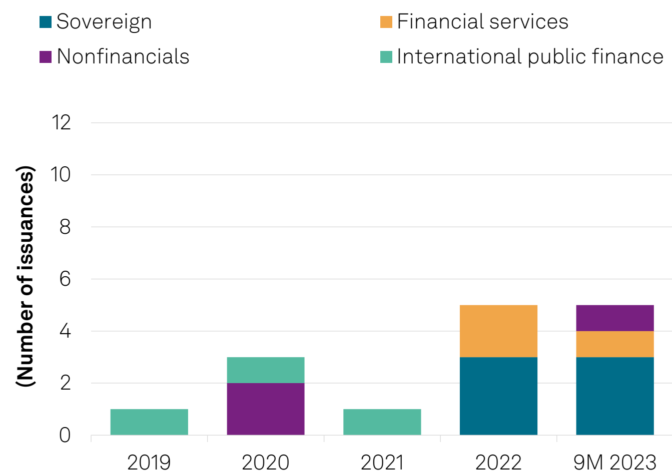


9m--Nine months.
Sources: S&P Global Ratings, Environmental Finance Database.

Chart 7

Sovereign entities drive Saudi Arabia GSSSB issuances

Saudi Arabia issuance frequency by issuer type



9M--Nine months.
Sources: S&P Global Ratings, Environmental Finance Database.

Banks and GREs are major issuers of GSSSB in the Middle East

We believe banks are likely to play an increasing role in financing the climate transition-related projects in the region. Indeed, we observed banks have been one of the main issuers since at least 2021. We believe this trend is likely to continue.

Large corporates--including GREs--are driving GSSSB issuances, particularly in 2023. Government-owned entities typically focus on national sustainability targets. For example, Masdar, a renewable energy company in the UAE, and Abu Dhabi National Energy Co. PJSC (TAQA) established green financing frameworks in 2023. In July 2023, Masdar--which is jointly owned by Abu Dhabi National Oil Co. (ADNOC), Mubadala Investment Co. (MIC), and TAQA--issued a 10-year, $750 million debut green bond. It previously announced plans to raise up to $3 billion for renewable energy projects. The company has invested in portfolio projects with combined capacity of 20 gigawatts (GW) and has ambitions to increase this to at least 100 GW by 2030.

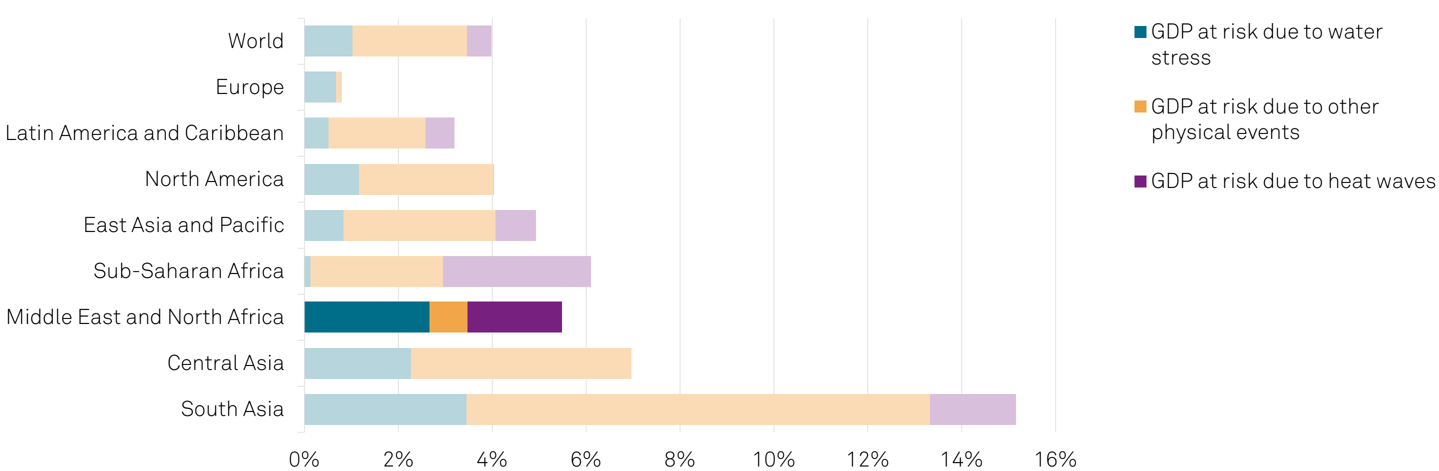
Renewables and hydrogen projects dominate use of proceeds for climate mitigation objectives. In S&P Global Ratings' second party opinions (SPOs) in the region, we are seeing more focus on renewables projects aimed at climate change mitigation. These have included photovoltaic power plant facilities (Ar Rass in Saudi Arabia) and green hydrogen plants (Neom, northwest Saudi Arabia). See table 2 in the appendix and S&P Global Ratings' four published SPOs on loans for Saudi and UAE-based projects in 2023 for more details.

Financing adaptation to water stress and heatwaves should remain a driver of GSSSB issuances. The Middle East is more exposed to water stress and heat waves (see chart 8). Notably, the majority of GSSSB issuance this year in the Middle East has included sustainable water management under use of proceeds, in line with the NDCs of the countries in the region. The latter typically focus on water management, mainly through energy-efficient desalination technologies--for example those using reverse osmosis technology combined with renewable energy (such as solar panels on the roof). The UAE aims to expand its use of reverse osmosis technology to contribute two-thirds of the country's desalination capacity by 2030, which will likely foster the financing of additional desalination projects.

Chart 8

Middle East and North Africa are more exposed to water stress and heatwaves

2050 combined GDP at risk under RCP4.5 scenario, physical risk contribution



Note: Countries' income and regional classification is based on World Bank.
Sources: S&P Global Ratings, S&P Global Sustainable1 (2022).

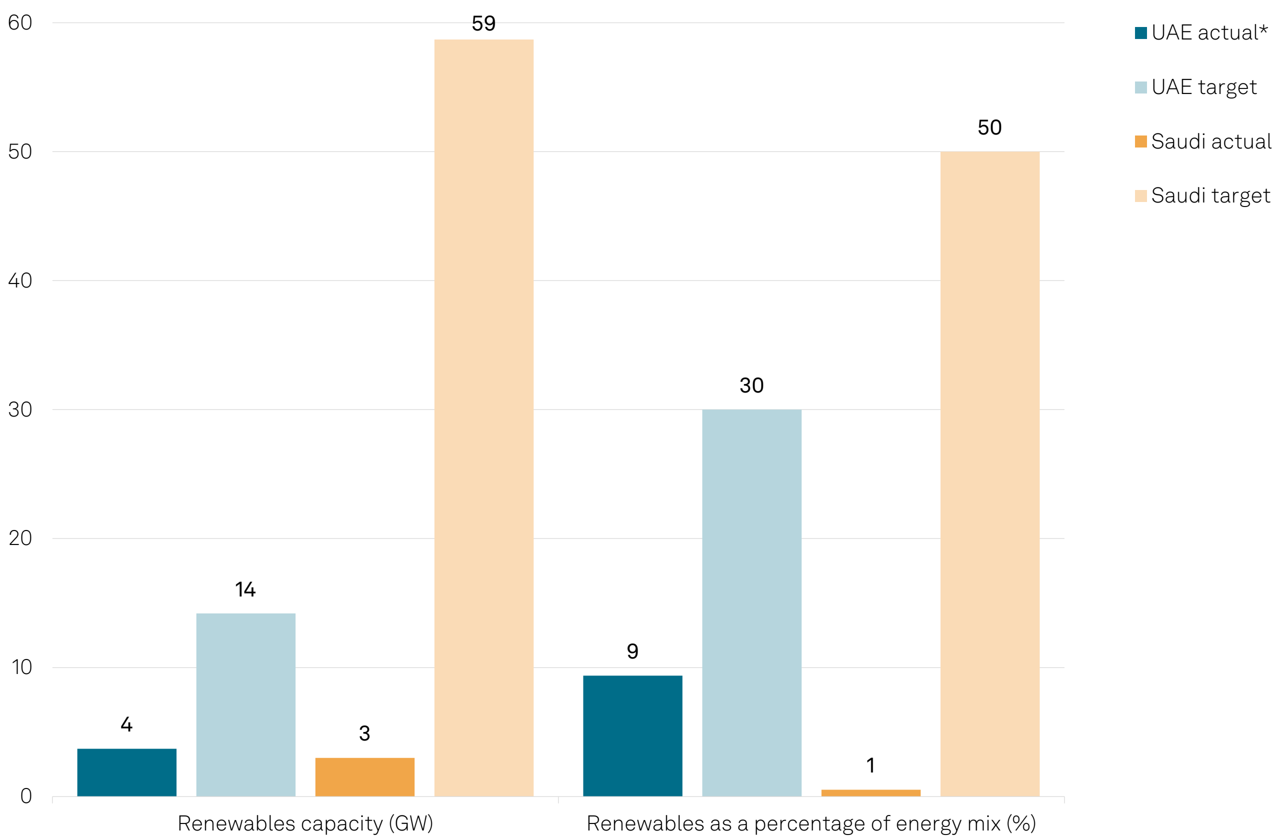
GSSSB Issuance In Fossil Fuel Dependent Sectors Depends On Pace Of Decarbonization Strategies

We believe there could be more GSSSB issuance related to projects coming from corporates in sectors that will struggle to reduce emissions. Large domestic players in sectors that will find reducing their carbon footprints difficult, such as oil and gas, metals and mining, power, chemicals, and agribusiness, are aligning their strategies with national sustainability targets. This could spur GSSSB issuance, but we believe much will depend on the pace of decarbonization strategies at corporates in these sectors.

The sectors' transitions will depend on alignment of corporate strategies to national greenhouse gas reduction targets. Sectors such as oil and gas, metals and mining, power, chemicals, or agribusiness, are inherently highly exposed to risks associated with greenhouse gas emissions, pollution, and biodiversity (see "S&P Global Ratings' ESG Materiality Maps For Oil And Gas, Metals And Mining, Power, Chemicals, And Agribusiness," published May-December 2022, and "Materiality Mapping: Providing Insights Into The Relative Materiality Of ESG Factors," published May 18, 2022). Hydrocarbons contribute 70%-80% of central government revenue in the GCC economies, on average. High exposure to hydrocarbons and a relatively wide gap from achieving sustainability targets shows national oil companies' strategies and national sustainability targets should tend to align (see chart 9 and "National Oil Companies In GCC Can Absorb The Energy Transition Impact For Now," published March 8, 2023).

Chart 9

Comparison of UAE and Saudi Arabia 2030 sustainability targets and actual figures



Note: For renewables as a percentage of energy mix section, targets are a percentage of the energy mix, actual figures are a percentage of electricity capacity. Sources: S&P Global Ratings, S&P Global Commodity Insights, EIU, IRENA.

Oil and gas: Green projects may not drive major investments currently

We believe GSSSB issuance for the sector could be driven largely by green bond issuance. This includes large green projects financing energy and transportation. Still, the ramp up of issuance for the sector could be delayed. This may be due to the current high oil price environment, with national oil companies' (NOCs') short- to medium-term strategies expected to focus on increasing oil and gas production, and less direct pressure overall from stakeholders compared with international publicly listed peers.

The oil and gas NOCs' decarbonization strategies include investing in renewables and energy-efficiencies. The NOCs are largely state owned in the GCC and have announced several initiatives to help with the decarbonization strategies of and improve their overall alignment with government sustainability targets. With oil prices likely to remain above $80 per barrel for the next three years, fiscal indicators at the sovereign level should improve. This trend may delay the actual implementation of decarbonization strategies, which we can observe in the absence of meaningful capital expenditure or cash flow.

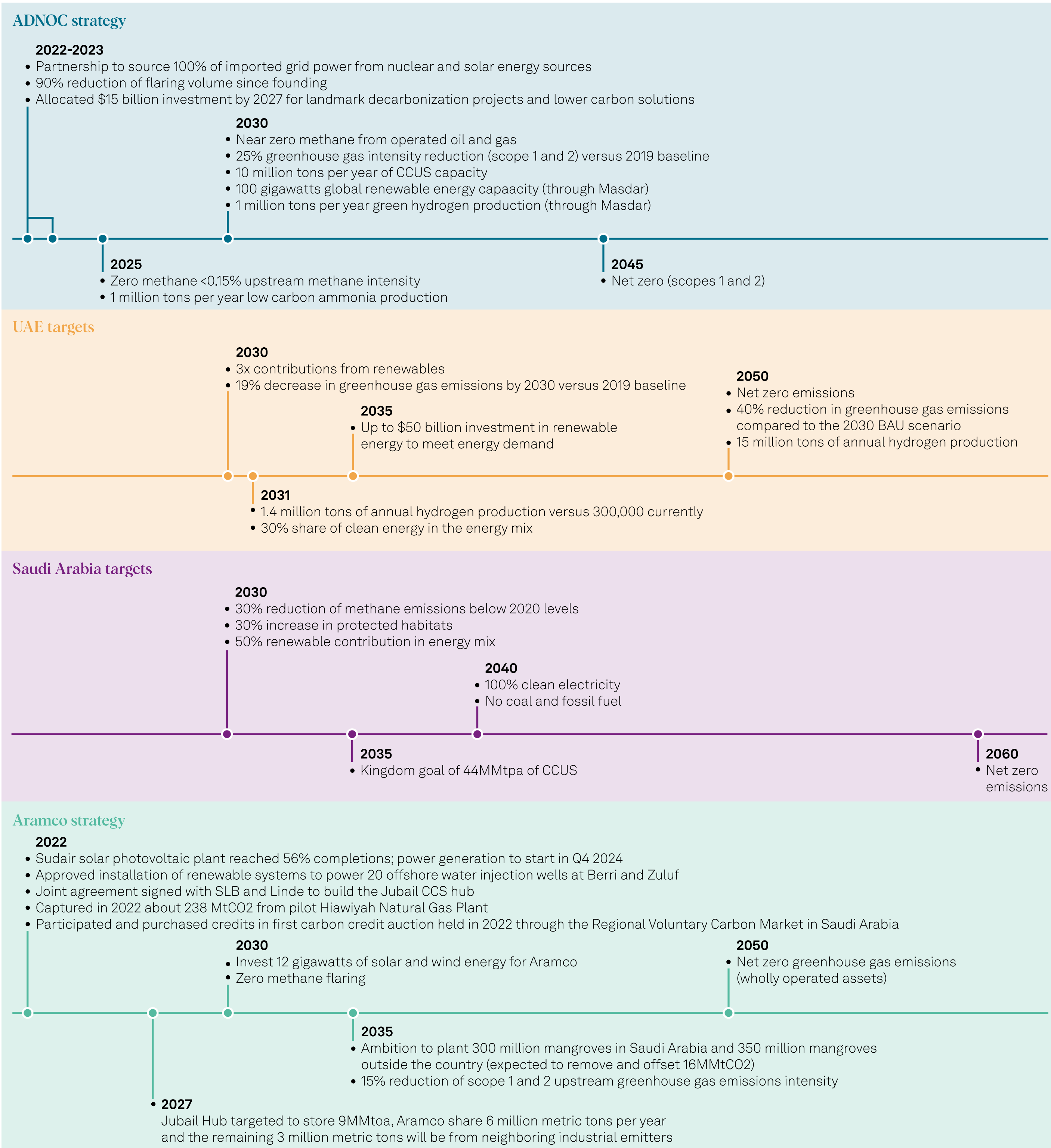
NOCs face less pressure to decarbonize and are still focused on upstream investments. NOCs in the GCC attract less direct pressure from shareholders, policymakers, and society to decarbonize in comparison with companies that are not state-owned and are publicly listed, and with global peers. These companies are still focusing on core upstream production, but we see a slow shift in their overall strategies to align with their sustainability targets and NDCs (see chart 10). Still, GSSSB funding could be needed for future energy and transportation projects.

Some decarbonization strategies for oil and gas companies in the GCC

- **UAE:** ADNOC, Mubadala Investment Co., and TAQA combined their focus in renewable energy and green hydrogen through Masdar, in which they owned 24%, 33%, and 43% stakes as of December 2022. Given national sustainability targets of increasing renewable contribution in the overall energy mix, reducing greenhouse gas emissions, and increasing hydrogen production in the UAE, ADNOC aligned its strategy to meet the targets (see chart 10).
- **Saudi Arabia:** Saudi Aramco is aligning its sustainability strategy to meet the kingdom's targets (see chart 10). In 2022, Aramco and SABIC Agri-Nutrients made the world's first commercial shipment of blue ammonia to South Korea. While still a relatively low number compared to total costs, sustainability-related research and development costs reached 59% of total research and development spending at year-end 2022 compared with 52% in 2021, according to the company's 2022 sustainability report. In 2022, Aramco launched a $1.5 billion Sustainability Fund through Aramco Ventures to focus on sectors closely aligned with the company's decarbonization strategy, including but not limited to carbon capture, usage, and storage (CCUS), renewable and energy storage, energy efficiency technologies, nature-based solutions, hydrogen, and ammonia value chains.

Chart 10

Highlights from climate transition targets of UAE and Saudi Arabia and their NOCs



UAE targets comprise National Energy Strategy, 2050 National Hydrogen Strategy, and Nationally Determined Contribution.
ADNOC--Abu Dhabi National Oil Co. CCUS--Carbon capture, usage, and storage. MMtCO2--Million metric tons of carbon dioxide. MMtpa--Million metric tons per year. Q--Quarter.
Sources: S&P Global Ratings, company reports and websites, Third Update of Second NDC for the UAE, Saudi Arabia Updated First Nationally Determined Contribution, Saudi Green Initiative, and media sources.

The Middle East chemical sector partners on green projects elsewhere

We believe green bond issuance for chemical companies in the region could take off, as it has elsewhere. In the first nine months of 2023, we observed that chemical companies globally have issued $4.4 billion of GSSSBs (1% of global GSSSB issuance), out of which 81% were related to green bonds. This includes a $500 million green bond issued by U.S.-based LyondellBasell that focuses on projects related to circular economy adapted products, production technologies and processes, renewable energy, pollution prevention and control; and energy efficiency.

Chemical producers in the region are focusing on technologies and partnering with international players for their decarbonization strategies. For the large chemical players in the region (including agribusiness and fertilizers), in which the respective governments have direct or indirect ownership, there are several initiatives and action plans for a decarbonization strategy. These initiatives include electrification of steam crackers, adding new trains for green hydrogen, and constructing plants for blue ammonia. We note partnerships with international players to study the reduction of emissions by electrification of crackers. For the chemical producers, in addition to decarbonization strategies, understanding the value chain, and ultimately the end-uses, would be important for determining the eligibility of projects for green frameworks (see "Decarbonizing Chemicals Part One: Sectorwide Challenges Will Intensify Beyond 2030," published Sept. 5, 2023).

Green ammonia (ammonia produced using renewable energy) and blue ammonia (ammonia produced using carbon capture and storage) can contribute to the decarbonization of the fertilizer industry. Chemical companies in the region are looking at low-carbon feedstock projects, in addition to other decarbonization initiatives (see table 1).

Table 1

Chemicals and agribusiness: Some examples of decarbonization strategies

Project category	SABIC	Industries Qatar	EQUATE	Fertiglobe
Energy efficiency	Projects to adjust medium pressure and change in boiler conductivity control parameters.			
Renewable energy	Targets 4 GW installed capacity by 2025 and 12 GW installed capacity by 2030. MoU with Neom (Saudi Arabia) to discuss and identify collaboration opportunities for developing green chemistry hub using renewable energy.	Collaborative feasibility study to install solar power plant.	Completed solar power project in Kuwait, which delivered 419 MWh of clean renewable energy to the Public Authority for Industry (PAI) annually.	19.3 GW of existing and planned renewable energy in Egypt (6.8 GW) and the UAE (12.5 GW).
Electrification	Partnership with BASF and Linde to develop electrically powered steam cracker technology that will aim for a 90% reduction in GHG emissions.		Aims to source green power for all North American units by 2030. Aims to source noncoal power in Germany by 2030.	
Low carbon feedstock	Investment plans ($1.37 billion) in the U.K. Teeside facility for decarbonization of feedstock (mixed to methane). Feasibility study: blue hydrogen economy at Teeside industrial cluster. In 2020, Aramco and SABIC sent the world's first blue ammonia shipment to Japan for zero carbon power generation.	Constructing the largest blue ammonia facility globally, with capacity of up to 1.2 mtpa of blue ammonia, expected to start in first-quarter 2026.		Green hydrogen to ammonia projects (FEED) in the UAE and Egypt expected to start during second-half 2023. FID stage for low carbon ammonia project in the UAE (1-million-ton capacity).
Carbon capture	CCU	CCS		Current CCUS capabilities 800 ktpa, targeting 5 mtpa by 2030.

GW--Gigawatt. MWh-Megawatt hour. mtpa--Million tons per annum. FID--Final investment decision. GHG--Greenhouse gas. MoU--Memorandum of understanding. ktpa--Thousand tons per annum. CCUS--Carbon capture, usage, and storage.
Sources: S&P Global Ratings, company sustainability reports and investor presentations.

Looking Ahead

We expect demand for GSSSB will continue expanding in the short to medium term, from a comparatively low base. We think increased investor demand, regulatory developments to help discipline the market, and issuers' desire to diversify their investor base and obtain favorable terms would play a role in determining GSSSB issuance trends.

We believe the funding of the investments needed to meet sustainability targets should support issuer and investor demand for GSSSB issuances in the short to medium term. That said, we think there are three key factors slowing the pace of demand. First, high oil prices could delay any noticeable changes in the energy mix. Second, elevated inflation and higher interest rates could reduce funding appetite. Third, the pace of change in the regulatory environment will influence issuance.

Related Research

- S&P Global Ratings Has Raised Its Henry Hub Natural Gas Price Assumptions For 2024 And 2025, Nov. 7, 2023
- Lost Water: Challenges and Opportunities, Sept. 6, 2023
- Materiality Mapping: Providing Insights Into The Relative Materiality Of ESG Factors, May 18, 2022
- Global Sustainable Bonds 2023 Issuance To Exceed $900 Billion, Sept. 5, 2023
- Carbon Pricing, In Various Forms, Is Likely To Spread In The Move To Net Zero, Aug. 9, 2022
- National Oil Companies In GCC Can Absorb The Energy Transition Impact For Now, March 8, 2023
- Crunch Time: Can Adaptation Finance Protect Against the Worst Impacts From Physical Climate Risks? Jan. 13, 2023

External Research

- Adaptation Gap Report 2022, United Nations. Nov. 1, 2022

Appendix

Table 2

S&P Global Ratings second-party opinions in the Middle East in 2023

			Use of proceeds							
Date	Issuer	Project summary	Renewable energy	Energy efficiency	Green buildings	Clean transportation	Sustainable water and wastewater	Pollution prevention and control	Employment generation	Socioeconomic advancement and empowerment
Green										
April 5, 2023	ACWA Power for Energy Co. Ltd.	Funding contribution in green hydrogen project	X							
Aug. 23, 2023	Ar Rass Solar Energy Co. (Ar Rass)	Financing the engineering, procurement, commissioning, and operation of the Ar Rass PV IPP	X							
April 26, 2023	Neom Green Hydrogen Co. Ltd.	Financing the design, development, construction, and operation of the Neom green hydrogen project	X							
Sustainable										
Sept. 5, 2023	Dubai International Financial Centre		X	X	X	X	X	X	X	X

Table 3

2023 year to date Middle East GSSSB issuances

			Use of proceeds														
Issuer	Value (mil. $)	Country	Energy efficiency	Green buildings	Pollution prevention and control	Renewable energy	Sustainable management of living natural resources	Sustainable water management	Access to essential services	Affordable housing/basic infrastructure	Clean transportation	Employment generation including through the potential effect of SME financing and microfinance	Climate change adaptation	Socioeconomic advancement and empowerment	Terrestrial and aquatic biodiversity conservation	Eco-efficient products	Production technologies and processes
Green bonds																	
Jordan Kuwait Bank	50	Jordan		X		X		X			X						
Public Investment Fund	2,000	Saudi Arabia	X	X	X	X	X	X									
Public Investment Fund	1,750	Saudi Arabia	X	X	X	X	X	X									
Public Investment Fund	1,750	Saudi Arabia	X	X	X	X	X	X									
Saudi Electricity Company	1,200	Saudi Arabia	X			X											
Republic of Türkiye	2,500	Türkiye	X	X	X	X	X	X			X		X		X	X	X
Abu Dhabi Commercial Bank	650	UAE	X	X	X	X	X	X			X						
Abu Dhabi National Energy Company	1,000	UAE	X			X		X			X				X		
Aldar Properties PJSC	500	UAE	X	X	X	X		X									
Commercial Bank of Dubai	500	UAE		X	X	X					X						
DP World	1,500	UAE	X	X		X											
Emirate of Sharjah	1,000	UAE	X	X	X	X	X	X	X	X	X	X	X	X	X		
First Abu Dhabi Bank	600	UAE	X	X	X	X		X			X		X				
First Abu Dhabi Bank	354	UAE	X	X	X	X	X	X			X		X		X		
Majid Al Futtaim	500	UAE	X	X		X		X									
Masdar	750	UAE	X														
Social bonds																	
Akbank	300	Türkiye										X					
Sustainable bonds																	
Al Rajhi Bank	1,000	Saudi Arabia	X	X	X	X		X	X	X	X	X					
Yapi Kredi	500	Türkiye	X	X		X			X		X	X					
Dubai Islamic Bank	1,000	UAE	X	X	X	X		X	X	X	X	X					

*2023 issuance first nine months of 2023.
Sources: Environmental Finance Database, company websites.

GSSSB Defined

Green, social, sustainability, and sustainability-linked bonds fall into two main categories:

Sustainability-linked bonds (SLBs): Any type of instrument for which the financial or structural characteristics can vary depending on whether the issuer achieves predefined sustainability objectives.

Use-of-proceeds bonds: Any type of instrument where the net proceeds (or an equivalent amount to the net proceeds) are exclusively used to finance or refinance, in part or in full, new and/or existing eligible green and/or social projects. The three main subcategories of use of proceeds instruments are:

- Green bonds: Instruments that raise funds for projects with environmental benefits including renewable energy, green buildings, and sustainable agriculture.
- Social bonds: Instruments that raise funds for projects that address or mitigate a specific social issue and/or seek to achieve position social outcomes, such as improving food security and access to education, health care, and financing, especially but not exclusively for target populations.
- Sustainability bonds: Instruments that raise funds for projects with both environmental and social benefits.

Finally, transition bonds can be either sustainability-linked or use-of-proceeds bonds issued specifically to support climate transition goals, geared towards issuers in hard-to-abate sectors.

Source: International Capital Market Assn.

List of Middle East countries for data collection:

- UAE
- Saudi Arabia
- Iraq
- Türkiye
- Egypt
- Jordan
- Qatar
- Oman
- Bahrain

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