

NEWSLETTER

Green Horizons: Navigating the ESG Landscape in the Gulf's Energy Sector

Transforming Energy through Sustainability Leadership



Welcome to your essential resource for ESG (Environmental, Social, and Governance) and sustainability reporting in the GCC oil and gas industry. This newsletter explores the innovative strategies and best practices driving this transformation, including areas of improvement in the evolving sustainability landscape, and on how the Oil and Gas (OnG) sector is not only adapting to but also leading the way in the energy transition. Through these efforts, the industry is recalibrating to capture new opportunities, achieve long-term competitive advantage, and contribute positively to the global sustainability agenda of environmental stewardship.

As the global energy landscape shifts towards sustainability and renewable energy usage, the OnG sector that is mainly involved in the production, transportation, and refining operations of fossil fuels faces complex challenges. These include the dilemma OnG companies encounter in meeting the world's increasing sustainable energy demand against the backdrop of climate pledges and government policies that respective countries made based on their specific UN Sustainability Development Goals (UN SDGs) along with the net-zero emission timelines committed to the recent COP28 climate summit in UAE.

The SDG's Sustainable Development Report 2024 depicts a grim status that overall progress since inception towards the SDGs is slow and uneven. Only 16% of the UN SDG targets are on track to be achieved by 2030, with 84% showing limited or reversed progress.

(Source <https://dashboards.sdgindex.org/>) (Note 1)

The issuance of sustainability reporting standards IFRS S1 (General Requirements for Disclosure of Sustainability-related Financial Information) and IFRS S2 (Climate-related Disclosures) in June 2023 marks a pivotal moment, as it provides impetus for OnG sector companies to integrate ESG factors into their strategies and disclosures to improve information to investors and meet expectations of other stakeholders.

A comprehensive review of over 1,000 studies found a positive relationship between ESG and financial performance in 58% of corporate studies focused on operational metrics like ROE, ROA, or stock price. Only 8% showed a negative relationship.

(Source: https://www.stern.nyu.edu/sites/default/files/assets/documents/NYU-RAM_ESG-Paper_2021%20Rev_0.pdf) (Note 2)

Leading national oil companies in the Middle East are consequently transforming their operations to reduce emissions, enhance community engagement, and uphold high standards of transparency and governance.





Addressing Climate Change and Carbon Emissions

The Global Oil and Gas Sector Report (2023) of CDP (formerly Carbon Disclosure Project) highlights the financial risks associated with climate change for the OnG sector and the potential benefits of decarbonization. It suggests that companies that take early action to identify and decarbonize their operations can substantially reduce their carbon footprint and sustainability risks and potentially improve their financial performance.

<https://www.cdp.net/en/companies/cdp-2023-disclosure-data-factsheet> Note 3)

Increasing renewable energy (solar, wind, nuclear) capacities, improving clean energy efficiency of production, transportation, and refining activities and CCUS (Carbon Capture Utilization and Storage) are three leading methods of decarbonization currently envisaged and utilized. Besides using Carbon Capture and Storage (CCS) technology, leading companies are also investing in advanced biofuels and hydrogen production to lower the carbon intensity of their operations.

The following illustrates certain climate change and carbon emissions matters grouped together based on their relevance to OnG upstream, midstream, and downstream segments.

A. Upstream Initiatives

Exploration and production (E&P) companies are prioritizing the reduction of greenhouse gas (GHG) emissions. The upstream activities account for around 30–40% of GHG emissions within the OnG sector.

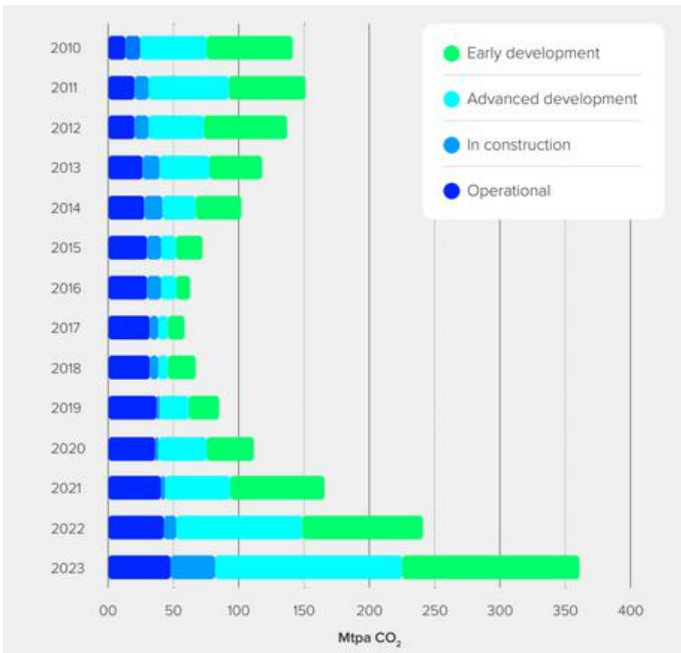
Globally, the CCS project pipeline has demonstrated robust year-on-year growth over the past six years, expanding at a compound annual rate of over 35% since 2017.

As of July 2023, there are **392 facilities in the pipeline**, marking a 102% year-on-year increase.

Among these, 41 facilities are operational, with a capacity to capture and store 49 Mtpa (million tons per annum), while 351 facilities are in development as reported by the Global CCS Institute. Companies like BP and Shell have set ambitious net-zero targets by 2050.

cont.

Fig: Capacity of Global commercial facility pipeline since 2010



Refer www.globalccsinstitute.com/wp-content/uploads/2024/01/Global-Status-of-CCS-Report-1.pdf (Note 4)

Asian countries' CCS capacities

Review of the current status of CCS operating capacities in Asia, measured in Million metric tons per annum of Carbon emission (Mtpa CO₂):

			
China 3.60	Saudi Arabia 0.8	UAE 0.8	India 0

These capacities of larger countries indicate that Asia, which is the largest continent, home to over half the world's population and highly vulnerable to climate risks, is not preferring this technology for decarbonization possibly due to cost constraints, space needs and other statutory restrictions.

MENA region's CCS capacities

The CCS report further states that the Middle East and North Africa (MENA) currently account for 8% of the global CO₂ capture capacity. Hosting COP28 recently in UAE turned the spotlight on the region's commitment to sustainability, emphasizing the need for early CCS implementation.

GCC countries' CCS capacities

The combined capture capacity of CCS projects in development, construction, and operation in Qatar, Saudi Arabia, the UAE, and Oman is 19.5 Mtpa. These are mainly across three large-scale commercial CCS facilities:

- Uthmaniyah CO₂-enhanced oil recovery (EOR) Demonstration Project in Saudi Arabia,
- Al Reyadah 2-EOR Project in Abu Dhabi, and
- Ras Laffan CCS Project in Qatar.

Saudi Aramco aims to **achieve net-zero emissions by 2060**, investing heavily in carbon capture and storage (CCS) technologies.

The Al Jubail CCUS industrial hub in Saudi Arabia targets capturing 9 Mtpa by 2027 and 44 Mtpa by 2035. Meanwhile, in the UAE, ADNOC took a Final Information Decision (FID) on the Habshan facility.

Kuwait's CCS capacities

Upstream (E&P) operations in Kuwait are carried out almost entirely through the state-owned Kuwait Oil Company (KOC), to produce oil at 2.7 bpd, using leading technologies, and there are currently no large-scale operational CCUS facilities existing or under development in Kuwait. While not a full-fledged CCUS facility, the Equate Petrochemical Plant CO₂ Recovery Plant, commissioned in 2014, stands out as a notable project that captures and recovers CO₂ for industrial use.



B. Midstream Improvements

Midstream operations, which include the transportation and storage of oil and gas, are focusing on reducing emissions from pipelines and storage facilities. Technologies such as advanced leak detection systems and the use of renewable energy to power midstream infrastructure are becoming more common.

In Kuwait, the Kuwait Oil Tanker (KOTC) has been implementing measures to reduce emissions from its fleet, including adopting cleaner fuels and improving energy efficiency.

The KOTC accounted for **8% of total Scope 1 emissions** in 2020–2021.

C. Downstream Innovations

These operations comprising refineries and petrochemical plants are adopting energy-efficient technologies to reduce carbon footprints. Refining and distribution activity results in around 60–70% of the carbon emission in the sector. It occurs due to activities like combustion flaring, venting, and fugitive emissions.

In Kuwait, the completion of the Clean Fuels Project (CFP) in 2020–21 enabled the Kuwait National Petroleum Company (KNPC), the Kuwait Petroleum Corporation (KPC) subsidiary that solely conducts refining operations, to upgrade and expand the capacity of existing refineries at Mina Al Ahmadi and Mina Al Abdulla. These two refineries now have a combined refining capacity of 800,000 bpd, besides gas and other refined petrochemical products with very low sulfur content, that meets the stringent US and UK standard specifications of Euro4/Euro5.

(Refer <https://www.knpc.com/en/sustainability/sustainability-report> –Note 5)

GCC countries

Midstream operations are significant contributors to overall greenhouse gas (GHG) emissions that may range around 8–15% of total OnG sector emissions. It occurs due to activities like flaring, venting, pipeline leaks, and fuel combustion for equipment.



As an example, the latest available KPC Sustainability Report of 2022–23 highlights the following trends in OnG sector sustainability disclosures:

- Expressed in Million Metric Tons Carbon Dioxide equivalent (MMt CO₂eq), out of total emissions of 25.8 MMt CO₂ eq., downstream, upstream, and midstream operations resulted in 67%, 28% and 5% thereof, respectively.
- Of the total emissions, Scope 1 direct emissions were 80%, while indirect emissions comprised the balance.

(Refer: Kuwait Petroleum Co. Sustainability Report 2022–23 – <https://www.kpc.com.kw/uploads/SustainabilityReport/KPC%20Sustainability%20Report%202022-2023.pdf> –Note 6)

cont.



GHG emissions – Prioritizing Methane and HFC Reduction

A. Methane (CH₄)

Methane (CH₄) is a colorless odorless gas, is 84 times more potent GHG than carbon by Global Warming Potential (GWP) and is emitted from mining and E&P process. It indirectly contributes to both the depletion of the ozone layer in the stratosphere (the upper atmosphere) and the creation of harmful ozone in the troposphere.

Due to adversity risks, countries agreed at COP28 to **reduce methane by 30% by 2030**, from current levels.

Reducing methane emissions, including through flaring reduction, is an important step in protecting the ozone layer and mitigating climate change.

Moreover, technological advancements through continuous monitoring using satellite technology and IoT sensors is becoming standard practice to detect and mitigate methane leaks. The International Energy Agency (IEA) estimates that the implementation of these technologies could cut global methane emissions by up to 75%.

(Refer <https://www.iea.org/> - Note 7)

B. Hydrofluorocarbons (HFC) impact

On similar lines, the Global Warming Potential (GWP) 20 of HFCs can range several thousands (2000 to 12000) times greater than the GWP of carbon dioxide (CO₂) depending on the type of HFC. The high GWP20 of HFCs emphasizes their significant impact on near-term warming and the need to address their mitigation to address global warming issues. In Kuwait and other GCC countries, HFCs are used for air-conditioning and refrigeration due to the hot climate.

The KPC Sustainability Report 2022–23 specifically mentions that it has not considered the impact of GHGs other than carbon dioxide, methane, and nitrogen oxide, as these do not apply to its operations. The significance of this statement may have to be reconsidered going forward, concerning the adverse GHG impact of HFCs from the air-conditioning and consumption impacts on household and commercial sectors.



Biodiversity and Ecosystem Protection

The GCC's vision for a sustainable future includes thriving ecosystems and abundant biodiversity. This month, we showcase the projects and initiatives that are paving the way for a more harmonious relationship between the OnG industry and the environment. Rigorous environmental impact assessments (EIAs) and habitat restoration projects are integral to new projects.

In Kuwait, the Kuwait Oil Company (KOC) is engaged in several biodiversity conservation projects, including the restoration of natural habitats and wildlife protection initiatives. In 2017, KOC launched a marine environment rehabilitation project at Kubbar Island, emphasizing coral reef protection. This follows their successful marine restoration at Al-Ahmadi Port, which **boosted fish production by 20%**. In collaboration with KISR, KOC planted artificial colonies to protect reefs, enhance fisheries, and support marine research for sustainable environmental management.

Kuwait heavily relies on desalination plants, that **produce around 1.5 million cubic meters of purified water daily**. This generates a substantial amount of brine, with high saline content often discharged back into the sea along the coastline. UAE, Qatar, and Bahrain may have similar issues, and this is an area of sustainability risks.

This brine discharge, along with oil spills and leakages from offshore drilling and transportation of hydrocarbon, hurts coastal marine life and impacts the livelihood of the vulnerable coastal communities, besides posing health hazards to the population that consumes the fish and marine products. Country-specific sustainability reporting, disclosing quantity of brine discharged from desalination plants and mode of disposal, could add value to managing and reduce its hazardous impact on human and marine resources.



Kuwait Water towers.

Governance and Disclosures

Matters related to OnG companies' internal governance and public disclosure practices are just as material as other matters, and are discussed further in this section.

Reporting Standards

Enhanced disclosure

Due to its comprehensive coverage of ESG issues, national oil companies in GCC like Saudi Aramco, ADNOC of UAE and Qatar Petroleum of Qatar and global leaders including Shell, BP and ExxonMobil are adopting the Global Reporting Initiative (GRI) framework. This is in tandem with the industry-specific SASB standards integrated within IFRS S1 and S2, and effective for the financial years commencing on January 1, 2024 onwards.

According to General & Accountability Inc. a US-based research and analysis company, 98% of the S&P500 companies and 90% of top US companies in Russell-1000 publish sustainability reports. Of these, SASB reporting standards are followed by 78%, and the GRI framework by 54%, while only 34% get their report audited. "The 2022 State of ESG in the GCC" (Sustainable Square) report focused on the GCC region and found that 75% of the surveyed companies in the OnG sector have some form of sustainability/ESG strategy, although only about 50% have a specific environmental strategy.

(Refer <https://www.ga-institute.com/sustainability-reporting-trends/2023-sustainability-reporting-in-focus.html>, - Note 8, and "The 2022 State of ESG in the GCC" (Sustainable Square) report - Note 9)

GCC rating on sustainability

 Kuwait is **ranked 111th** among GCC countries.

Compared to other countries:



(Source: Sustainable Development Report 2024 - Note 10)

Regulatory Compliance and Risk Management

As GCC nations continue to adapt and implement new regulations to address environmental concerns and promote sustainable practices, OnG companies must remain vigilant and proactive in their compliance efforts.

Using technology for ESG programs

Ensuring adherence to environmental and social regulations is critical. The sector is leveraging compliance management software to streamline regulatory adherence and risk management processes.

In Kuwait, KPC along with its main subsidiaries KOC, KNPC and KOTC is focused on complying with both local and international environmental regulations to ensure sustainable operations in the OnG sector, which is almost entirely with public sector.

Anti-corruption measures

Strong anti-corruption policies are being implemented to ensure ethical business practices. The Transparency International Corruption Perceptions Index (CPI) focuses on measuring perceptions of public sector corruption. Though it excludes the private sector, it leads companies to increase efforts to strengthen internal controls, adopt anti-corruption policies, and promote transparency.

The MENA-OECD Investment Programme supports MENA economies in creating favorable business environments through its regional initiative, "Strengthening Integrity in Business in Arab Countries" (SIBAC). The SIBAC Programme aims to raise awareness of international anti-corruption and integrity standards, promote ethics and compliance, and share best practices to enhance business integrity in the MENA region. It also encourages governments and companies to develop and implement integrity measures and tools, aiming to create a level playing field for businesses operating in the region.



Global Trends and Challenges

A. Transition to Renewable Energy

The global shift towards renewable energy sources is prompting oil and gas companies to diversify. Investments in wind, solar, and bioenergy are growing. In the Middle East, Saudi Arabia's Vision 2030 plan includes significant investments in solar and wind energy projects, aiming to diversify the energy mix.

Renewable energy potential is vastly untapped – a sustainable opportunity

Kuwait currently faces various challenges, including its population growth, higher oil production and much higher electricity usage during summer, which have increased consumption in recent years.

The government has set an ambitious target to **generate 15% of power generation from solar and wind energy sources by 2030.**

The Shegaya Renewable Energy Park, Kuwait with a planned capacity of 4 Gigawatt (GW) is an example, and in early stages of implementation.

(Refer Kuwait Authority for Partnership Projects (KAPP) – Note 11, and Middle East Economic Digest (MEED) – Note 12)

Further, due to the Kuwait's high-temperature climate, its carbon emission ranking and its high air-conditioning and refrigeration needs, it has one of the highest per capita consumption of electricity globally. This offers high potential to switch to solar energy sources and correspondingly reduce electricity generation from oil and gas (fossil fuel) for improving carbon footprint.

The same principles apply to other hydrocarbon rich GCC countries like UAE, Qatar and Saudi Arabia in varying degrees depending on their land area, net-zero pledges, and level of priority assigned to decarbonization. It specifically offers opportunities for investors, lenders, and businesses to expand their business revenue and play an active role in the predominantly state-owned oil sector dominant economies to address climate change issues, besides improving positive impact in biodiversity, human rights, and human capital.



B. Investor and Public Pressure

Increasingly considering ESG factors in its investment decisions, reflecting a broader trend towards responsible practices.

C. Technological Innovations

Digital transformation

Advancements in digital technologies, such as artificial intelligence (AI) and blockchain, are helping companies improve operational efficiency, reduce environmental impact, and enhance transparency.

Way Forward

OnG companies in the GCC, whether government, public or private, may have to adhere to various sustainability reporting standards such as IFRS S1 and S2. These, along with SASB industry-specific standards, lay out a comprehensive global baseline of minimum disclosure.

Country-specific regulations generally include, but are not limited to, ESG disclosure guidelines, environmental protection laws, labor and human right laws, Statutes and ministry directives on corporate governance codes, stock exchange requirements and Sharia compliances.

Companies should preferably conduct a materiality assessment of sustainability risks, preferably as a double materiality assessment to evaluate both financial as well as environmental and social impacts. Then a reliable process of data collection, quantification of emissions, management, and disclosure may be implemented, with clear KPIs to ensure clear and measurable targets that align with the sustainability strategy and risks.

To negotiate the early-stage complexities, OnG companies may consider obtaining external assurance for the company's sustainability report to enhance credibility and transparency, even where it might not be mandatorily required by applicable standards and regulations to do so.



How we can help

Emmanuel
One of the
RSM team



RSM Kuwait is committed to supporting our business community in navigating the complexities of ESG integration. Our team of experts can assist in various services such as, but not limited to:



ESG Strategy Development

Assessing the entity's current ESG performance, setting ambitious targets, and developing a roadmap for implementation.



IFRS S1 and S2 Compliance

Ensuring the entity's sustainability reporting disclosures meet the new standards, reducing risk, building investor confidence, and improving accountability and transparency.



Climate Risk Assessment

Identifying and quantifying climate-related risks in your portfolio, and developing strategies to mitigate and adapt to these risks.



Sustainable Reporting Solutions

Assisting entities in implementing sustainability reporting systems for meeting disclosure requirements and sharing innovative technology-driven OnG best practices that can reduce carbon footprint and align with ESG principles.



Assurance Services

Performing ESG attest and review engagements that provide entities with limited or reasonable assurance on adherence to sustainability reporting standards.



Underwriting Services

Evaluating sustainability performance of entities or projects for investment purposes, to advise on funding sustainability projects including through corporate finance, issuing green bonds or in line with evolving practices.



Conclusion

The integration of ESG principles if perceived beyond merely a compliance exercise, can be a transformative force reshaping the OnG industry in the GCC. Developing a mindset that prioritizes reduced emissions in every aspect of business operations is essential, in delivering additional value to end users and stakeholders. The journey is a collective effort and requires active collaboration between governments, companies operating in public and private sectors, investors, and communities.

By recognizing the gravity of the UN SDGs not satisfactorily addressed, sharing knowledge, fostering innovation, and aligning with global ESG goals, the region can set a powerful example for the world. By embracing innovation, diversifying their offerings, and investing in a cleaner energy future, companies in the GCC region are setting the stage for long-term success and resilience. The transition to a low-carbon future is complex, but the commitment to environmental stewardship, social responsibility, strong governance practices, and the willingness to improve the quality and comprehensiveness of sustainability reporting, will ultimately unlock new opportunities and set the stage to ensure the long-term viability of the GCC's energy sector.



RSM Kuwait

Arraya Tower, Floors: 41 & 42, Abdulaziz
Hamad Alsaqar Street, Sharq, P. O. Box
2115, Safat 13022, Kuwait

T: +965 22961000

F: +965 22412761

E: connect@rsm.com.kw

W: www.rsm.global/kuwait

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