## SUSTAINABILITY REPORT 2021

Preserving the future through sustainability









His Highness Sheikh Tamim bin Hamad Al Thani Amir of the State of Qatar



His Highness Sheikh Hamad bin Khalifa Al Thani

Father Amir

## About Our Report

Qatar Fuel Additives Company (QAFAC) is delighted to share insights on its performance across economic, environmental, and social topics of material importance to the organization and its valued stakeholders in the eleventh year of sustainability reporting.

In line with our previous sustainability reports and the most recent 2020 QAFAC Sustainability Report, this 2021 sustainability report discloses our annual sustainability performance for the calendar year from 1 January 2021 to 31 December 2021.

#### **LET US HEAR FROM YOU**

Sustainability reporting is an ongoing and evolving process. We welcome your feedback on the contents of this report as well as on our approach to reporting at:

Telephone: +974 4476 6777/4477 3400

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#### REPORTING FRAMEWORK

This report has been prepared in accordance with the GRI Standards: Core option. This report also references the Sustainability Accounting Standards Board (SASB) Oil and Gas Sector Standard, the International Petroleum Industry Environmental Conservation Association (IPIECA), and Qatar Stock Exchange (QSE) Environmental Social and Governance (ESG) Guidance.

Furthermore, this report highlights our role in supporting the national government and the larger society to achieve the United Nations Sustainable Development Goals (UN SDGs) and the Qatar National Vision (QNV) 2030.

#### **INFORMATION COVERED**

This report covers the management approach and performance on material topics to our business and our stakeholders. For more details on our material and other important topics, please refer to page 31. Additionally, this report highlights our key initiatives and achievements in the reporting period, which enabled us to enhance our performance on the material topics.

#### **REPORTING TOPIC BOUNDARIES**

This report covers information and data related to our activities in Qatar, including our Head Office, Methanol plant, utility facility, and Methyl-tert-butyl-ether (MTBE) plant. Our products' sales and transportation are not included in our reporting boundary. The international sales of our products are handled by Qatar Chemical and Petrochemical Marketing and Distribution Company Q.J.S.C. (Muntajat), while our domestic sales in Qatar are to Gulf Formaldehyde Company Q.S.C., a subsidiary of Qatar Fertilizer Company (QAFCO) and QatarEnergy. Data from contractors and suppliers are not included in this report unless otherwise stated.

#### DATA COLLECTION AND REPORTING APPROACH

The information and data disclosed in this report have been gathered from relevant functional departments in accordance with the GRI reporting framework, SASB, GPCA, IPIECA, and Industries Qatar (IQ) guidelines. Wherever relevant in the report, we have specified our approach for data collection, calculation methodologies, and assumptions, if any. QAFAC's greenhouse gas (GHG) emissions, as reported in the Environment Chapter, are substantiated by a QatarEnergy-appointed verifier. The report has not been subjected to external assurance. However, the data and information presented have been subjected to an interactive review process to identify any potential inaccuracies and ensure reliability.

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#### Introduction

This chapter provides an introduction to QAFAC and its integral association as a key member of the QatarEnergy family and the energy sector of the State of Qatar.



#### **Introducing Our Report**

#### Our 2021 Key Performance Highlights and Achievements

#### **GROWTH**



100% Methanol plant reliability



Achieved the second highest annual production record in our Methanol plant with a total of 1,114,593 MT



Attained 120.27% of the targeted annual production for Methanol



**63%** of our total supplier contribution spent on local suppliers



Enhancement of **QAFAC Digitalization Strategy** 

#### **ENVIRONMENT**



Successfully commissioned Regenerate Gas Scrubber (RGS) Unit in October 2021



Energy intensity - **14.57 GJ/ton** of production



GHG intensity -**0.67 TCO<sub>2</sub>e/ton**of production



**44.7%** reduction in flaring off-spec gases



Key milestone achievements in strengthening GHG emissions management system

#### **SAFETY**



No LTI and TRI during the reporting period



Zero fatalities during the reporting period



Occupational Health & Safety system and culture rewarded with RoSPA silver award



Zero heat stress incidents for 10 consecutive years



Maintained ISO 45001 occupational health and safety management system certification

#### **PEOPLE**



319 Employees



7.8% Female employees



**30.4% Qatarization** (increase from 30% in 2020)



39 trainees and interns



6,262.1 Training hours

# Sheikh Thani Bin Thamer Al-Thani QAFAC Sustainability Report 2021

### Message from our Chairman

I am pleased to introduce QAFAC's 2021 Sustainability Report, marking eleven years of our commitment to disclosing QAFAC's sustainability performance.

As Qatar gears up for the 2022 FIFA World Cup, the topic of sustainability has garnered international attention. The State of Qatar is continually striving to promote sustainability through its commitments to achieve a carbon-neutral event. This has resulted in wide ranging government plans and sustainability strategies and commitments by corporations, that are increasingly environmentally conscious of present and future.

2021 has marked a year of remarkable changes and renewed commitments for the State of Qatar. The renaming of the Ministry of Municipality and Environment (MME) to the Ministry of Environment and Climate Change (MoECC), coupled with the release of Qatar National Environment and Climate Change Strategy (QNE) by the MoECC has set a defined pathway to sustainable transformation of Qatar's environmental landscape.

Global efforts to tackle climate change have strengthened in the past year, this is supported by the multilateral dialogue at COP26 that emphasized the urgency to curb the disruptions caused by climate change. The State of Qatar, under the able and visionary leadership of the Amir of State, is a nation that commits to responsible development.

QAFAC is proud to play a role in building long-term sustainable growth in the chemicals sector as well as creating shared value for all our stakeholders. QAFAC is focused on producing petrochemical products in a responsible manner – primarily Methanol and MTBE and this demonstrates our commitment to actively contributing to sustainable development, in alignment with the objectives of the Qatar National Vision 2030 and the United Nation's Sustainable Development Goals.

This reporting year, QAFAC showed remarkable resilience in the face of significant challenges, and this resilience is testimony to the collective efforts of our people who are united in shared values and goals. QAFAC's refreshed corporate strategy sets strategic targets to achieve business and operational excellence.

This is enabled by various sustainability levers that aim to address the challenges of climate change, such as resource efficiency, business continuity, diversity & equal opportunity, and many others. By staying well-informed on global trends and addressing the needs of our community, QAFAC's

#### "Our sustainability-enabled corporate strategy is what underpins our success as a business today."

corporate strategy aims to achieve economic development that is both environmentally and socially conscious.

From an environmental standpoint, our focus to transparently track and report our greenhouse gas (GHG) emissions remains firm in 2021, and QAFAC has continued to implement the internationally recognized GHG Accounting and Reporting (A&R) program.

In addition to our efforts to promote and implement environmentally friendly business practices, we are keen to ensure that our workforce is healthy and safe. Workforce health and safety management is one of QAFAC's key priorities, and the absence of any work-related fatalities or lost time injuries during 2021 is a proud affirmation of this commitment.

In this new era of challenges categorized by change and with uncertain global situations, we are confident in our ability to adapt and to succeed. Our value-driven strategies have helped us to remain focused on our main objectives in delivering value for our shareholders.

We conducted a study to understand the outlook for the continued use of MTBE with our existing customer base and adapt our business to future market innovations. By studying the global supply, global demand drivers and the pricing trends for MTBE whilst accounting for the market impact of COVID-19, the study assisted us in aligning with QatarEnergy - a set of recommendations that can guide the development of a roadmap for optimum utilization and the strategic navigation of changes and challenges in the gasoline market arising today, and in the years until 2030 and beyond.

The petrochemical industry has shown great growth resilience especially in its recovery from the pandemic, and the future of the industry is promising. As a steadily growing field, the petrochemicals industry is well positioned to be a driving force in the promotion of global energy security and environmental protection. QAFAC places this opportunity to promote real change at a high regard and maintains its commitment to undertake economic development with a sustainable mindset.

Lastly, I would like to express my gratitude to the true agents of success and drivers of excellence at QAFAC – our very own leadership team, Board members and employees, who help us realize our mission and uphold our values, and to our contractors and business partners, who share our journey towards a more sustainable future.



## Message from our Chief Executive Officer

It gives me immense pleasure in presenting QAFAC's 11th annual sustainability report. Through this report, we communicate QAFAC's sustainability journey and demonstrate our commitment to the environment and socio-economic development of Qatar. As we publish this report, there is a myriad of challenges impacting businesses across geographies. The after effects of the pandemic and the global economic challenges are influenced by more demands placed on climate change requirements. This has an impact on the social and economic well-being of most operating assets in the State of Qatar.

QAFAC continued to uphold its values and to meet the targets throughout 2021. This year has proven to be another solid period of operational excellence, environmentally conscious growth, socially driven action focused on our workforce, and increased digitalization.

QAFAC's mission is "to produce high quality Methanol, MTBE and other derivatives by developing our talent, fostering our culture of excellence, and maintaining the highest HSSE standard. We create value for all our stakeholders and contribute to Qatar National Vision 2030."

#### Operational Excellence & Environmentally Conscious Growth

Driven by our persistent efforts to improve the efficiency and reliability of our plants, QAFAC's operational performance has witnessed a period of increased productivity and profitability during 2021. Our plant reliability figures in 2021 stood at 100% for our methanol plants and 88.64% for our MTBE plants, allowing us to achieve an annual production of 1,114,593 tons of methanol and 487,031 tons of MTBE.

QAFAC's focus on environmental protection and implementation of environmentally friendly initiatives is a significant driver of responsible and environmentally responsible production methods. QAFAC has maintained its commitment to conduct its business aligned to the goals of environmental preservation. Initiatives to influence our footprint on the environment in a positive manner include the Carbon Dioxide Recovery Unit, the Selective Non-Catalytic Reduction Unit in our methanol reformer and the Near-Zero Liquid Discharge (N-ZLD) project, which is currently under construction.

QAFAC is also upgrading its Jetty product loading system which enhance safety and limit the emission of vapors thereby reducing the environmental pollution from ship loading activities.

We have successfully completed the construction and commissioning of the Regenerate Gas Scrubber (RGS) Unit in the last quarter of 2021. QAFAC is monitoring the RGS unit to evaluate the performance against desired targets. RGS project is reducing flare emissions and minimizing the consumption of natural gas.

#### Socially Driven Action Focused on Workforce and Nationalization

Despite all the challenges we have faced during the past two years of pandemic, we have never taken our eyes off the need to operate safely as well as to protect and preserve the environment. Our commitment to achieving world-class Health, Safety, Security and Environmental (HSSE) performance is demonstrated by our consistent and predictable safety performance. At the time of publishing this report, QAFAC has successfully achieved 18 million safe working hours without any lost time injuries.

We are focused on the development of national human resources by placing great emphasis on the development of a new generation of professionals that will lead QAFAC into a successful future. QAFAC has achieved 30.4% Qatarization in 2021.

QAFAC has a set of values, code of conduct and life saving rules which are the foundation of how we operate. These values encourage professional conduct that prioritizes the compliance to workplace ethics and culture, QAFAC believes in a fair, tolerant, and equitable work environment that puts its people first.

#### **Increased Digitalization**

We have implemented several digital initiatives and projects during the year, thereby constantly increasing the efficiency of our operations, optimizing our costs, while also reducing our negative impacts on the environment and society. As we look to the future, we are optimistic in our ability to continue advancing our sustainability initiatives alongside the State of Qatar's National Vision for 2030 and the United Nations Sustainable Development Goals (UNSDGs).

I am confident that we will continue to thrive in the petrochemical industry and actively shape a sustainable and prosperous present and future for our company, the State of Qatar, and its people. We are pleased to present our annual sustainability report to provide our readers with an insight on QAFAC's 2021 sustainability performance.

GRI 102-1, GRI 102-2, GRI 102-3, GRI 102-4, GRI 102-5, GRI 102-7

#### **About QAFAC**

#### **Our Profile**

Qatar Fuel Additives Company (QAFAC) was established as a joint venture in 1991 and began operations in 1999. QAFAC's ownership currently rests with Industries Qatar (IQ), OPIC Middle East Corp., International Octane L.L.C, and LCY Middle East Corporation. We are headquartered in Doha, Qatar, while our manufacturing plant is located in Mesaieed Industrial City (MIC), Qatar.

QAFAC is a critical component of Qatar's downstream value chain, manufacturing two commercial natural gas derivatives. Our integrated facility uses Natural Gas and Butane to produce Methanol and Methyl-tert-butyl-ether (MTBE). The input Natural Gas is sourced from QatarEnergy. Additionally, pentane is produced as a by-product. Our finished Methanol and MTBE products are marketed by Muntajat, which has exclusive rights to purchase, market, distribute and sell specified regulated chemical and petrochemical products produced in the State of Qatar, both internationally and domestically.

#### **Methanol**



**%** 

- Commodity product
- QAFAC plant is designed to produce 2,950 MTPD/Year
- Fundamental chemical building block used for the production of many products
- Used as an additive for transportation and marine fuel
- Used in the marine, automotive, and electricity sectors

Methanol is a highly versatile chemical building block, used to produce a multitude of everyday consumer and industrial items. These items include:







**ADHESIVES** 

RESINS



**PLASTICS** 





LCD TV

**COMPUTER SCREENS** 



SILICONE













**WASHER FLUID** 

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PLYWOOD SUBFLOORS



**VACCINES & OTHER PHARMACEUTICALS** 

#### **MTBE**

- Specialty Product
- QAFAC plant is designed to produce 1,830 MTPD/Year
- Used as a emissions reducing additive in gasoline for the state of Qatar and customers around the globe



Additionally, methanol is also used in an increasing number of energy-related applications.

As global demand for clean energy and concerns for preserving the environment are rising, methanol has emerged as one of the choices for a **clean**, **sustainable transportation fuel alternative** for the future (vehicle fuel, marine fuel, etc.).



Whether used in a blended application with gasoline or on its own as a substitute for diesel or gasoline.

Methanol is an economically viable **alternative-energy solution** that can provide fuel diversity and **reduce emissions** like sulphur oxide (SO<sub>x</sub>) and nitrogen oxide (NO<sub>y</sub>).

It can also be **produced from**renewable resources
like biomass, landfill gas, and CO<sub>2</sub>
which are aimed at reducing the carbon footprint of the methanol production process.



On the other hand, MTBE is widely used as a fuel additive. For example, MTBE mixed with motor gasoline reduces the tail gas emissions generated by motor vehicles. The addition of MTBE provides a positive impact on the environmental foot print of gasoline.

QAFAC's domestic sales contribute to the earnings of QAFAC and its shareholders. We meet the MTBE needs for the entirety of domestic gasoline sold in the State of Qatar. Our Methanol is supplied to Gulf Formaldehyde Company Q.S.C, a subsidiary of Qatar Fertilizer Company (QAFCO), to produce Formaldehyde. Beyond Qatar, our footprint is in the Middle East, Americas, Europe, and Asia markets. The geographic sales distribution is represented in the figures on the right.





GRI 102-16



**Vision** 

Be a leading producer of Methanol & MTBE recognized for our reliability and the quality of our products.



Mission

To produce high-quality Methanol, MTBE, and other derivatives by developing our talent, fostering our culture of excellence and maintaining the highest HSSE standards. We create value for all our stakeholders and contribute to Qatar National Vision 2030.

**QAFAC's Values** 



#### Safety

"We ensure safety in everything we do."

We place the highest priority on health and safety of all the employees, the contractors, their families and the communities around us. We strive for incident free workplace.



#### **People**

"We care about people."

We promote trust, respect, empowerment and teamwork to leverage our collective strengths.



#### **Excellence**

"We strive for continuous improvement in all dimensions."

We always seek to enhance our processes and systems to achieve greater efficiency, productivity and performance.



#### Integrity

"Focus on performance, deliver what we promise. Clear objectives."

We govern our actions by honesty, ethics, transparency and fairness.



#### Responsibility

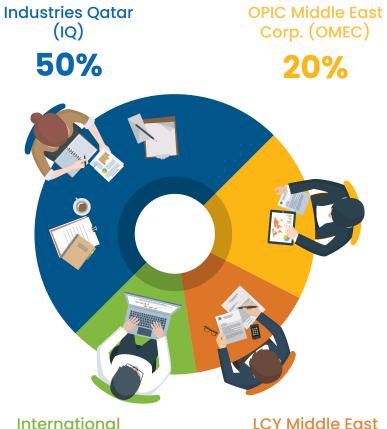
"We care deeply for the environment and all the communities we impact."

We commit to operate in a sustainable and socially responsible manner.

#### **Our Shareholders**

A joint stock company registered and incorporated in the State of Qatar as a Qatari Shareholding Company (Q.S.C.C). In 2003, QatarEnergy transferred the entire shareholding in QAFAC to IQ, owned 51% by QatarEnergy. QatarEnergy is the stateowned corporation of Qatar, engaged in all phases of the hydrocarbon industry in Qatar and abroad, including the exploration and production of oil and gas, and in downstream industries such as QAFAC.

A DUTCO Group of Companies member with interests in civil, mechanical, and electrical engineering, manufacturing, hospitality, real estate, oil, and gas production, and the renewable energy sector, both in the UAE and Globally. IOL was established to develop business opportunities worldwide in the rapidly growing MTBE and methanol markets. IOL was the developer of the QAFAC project jointly with QatarEnergy.



LCY Middle East Corp. (LCYMEC)

15%

A wholly-owned subsidiary of Overseas Petroleum and Investment Corporation, which in turn is beneficially owned by the CPC Corporation of Taiwan (CPC). CPC is a state-owned enterprise involved in exploring, refining, storing, and distributing oil and natural gas and manufacturing petrochemical raw materials.

Corp., which is, in turn, a wholly-owned subsidiary of the LCY Chemical Corp. (LCY), founded in 1965 and committed to science innovations for a sustainable future. The product portfolio of LCY includes synthetic rubber and performance plastics, electronic-grade chemicals, bioscience, and methanol and solvents. LCY operates with integrity, teamwork, innovation, and accountability and has footprints across Asia, North America, and the

Middle East.

A wholly-owned subsidiary of LCY Investments

QAFAC Sustainability Report 2021

Octane LLC (IOLLC)

15%

#### Our Memberships and Associations



#### The Royal Society for the Prevention of Accidents (RoSPA)

RoSPA is a registered British charity established in 1916 with the objective of saving lives and preventing accidents that can cause life-changing injuries.



#### The Gulf Petrochemicals and Chemicals Association (GPCA)

GPCA represents the downstream hydrocarbon industry in the Arabian Gulf. The association manages six working committees – Plastics, Supply Chain, Fertilizers, International Trade, Research and Innovation, and Responsible Care – and organizes six world-class events each year.



#### Mary Kay O'Connor Process Safety Center (MKOPSC)

The Center's mission is to promote safety as second nature for organizations around the world with goals to prevent future incidents. In addition, the Center also develops safer processes, equipment, procedures and management strategies to minimize losses within the processing industry.



#### MethanolInstitute (MI)

Methanol Institute is a global trade association for the methanol industry representing the world's leading methanol producers, distributors and technology companies. The mission of the Methanol Institute is to serve and provide cost-effective value to its members.



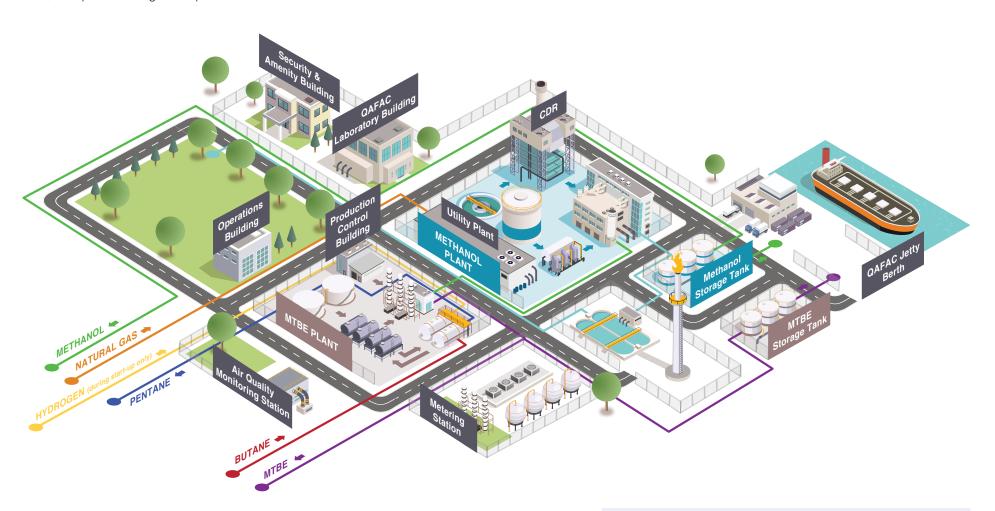
#### Asian Clean Fuels Association (ACFA)

ACFA is a non-profit organization established in 2000 and works closely with fuel policymakers, regulators and stakeholders in the fuel industry to promote and advance the use of cleaner transport fuels based on principles of sound science, cost efficiency and sustainability of the environment.

GRI 102-2, GRI 102-9

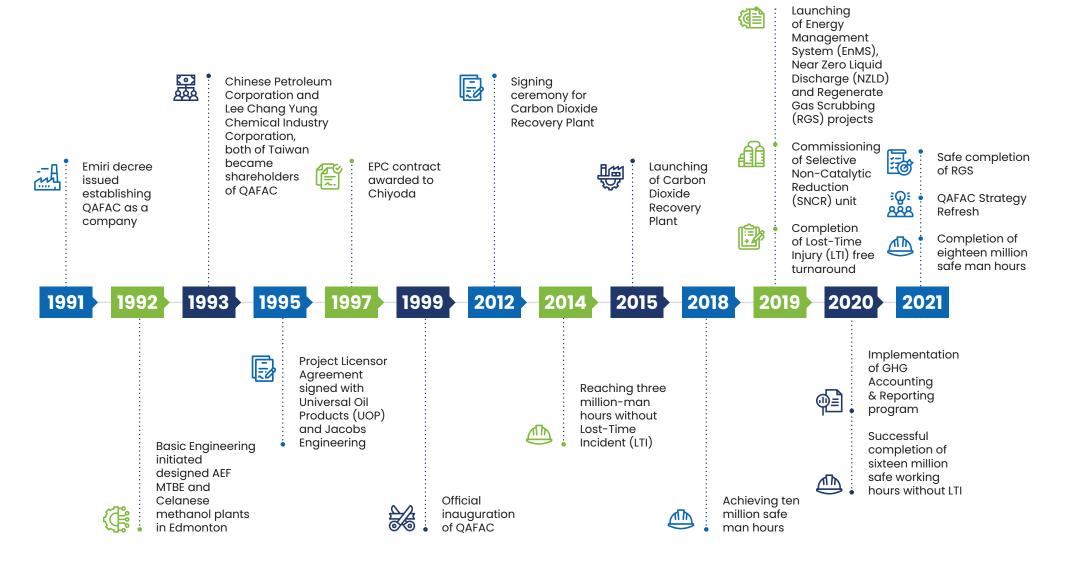
#### Our Value Chain

The QAFAC plant is designed to produce 2950 MTPD of Methanol and 1830 MTPD of MTBE.



Note: This diagram is for illustrative purposes only and does not necessarily reflect the exact layout of the plant or shape of the equipment

#### **Our Journey**



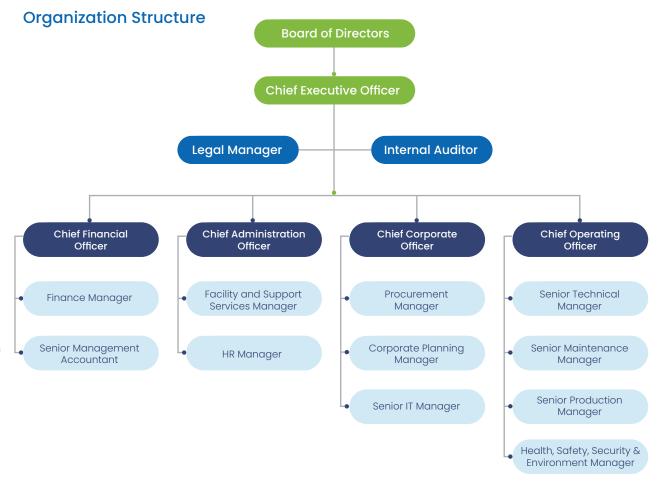
#### **QAFAC** at a Glance

#### **Corporate Governance**

The Board of Directors (BoD) is the ultimate governing body overseeing and supporting our executive management in monitoring legal and statutory compliance, establishing internal controls, and managing risks. The Board also approves the strategic direction, plans and priorities for the Company and monitors the performance against strategic business plans. This is achieved through a monthly reporting system, monthly meetings with BoD representatives, BoD and the Audit Risk Committee (ARC).

QAFAC's Board of Directors is comprised of the Chairman, Vice-Chairman, Chief Executive Officer (CEO) and five other directors with representation from all shareholders. Every year, the Board holds an annual meeting (AGM) with shareholders referred to as an Ordinary General Assembly (OGA), which is a legal requirement for organizations, as per the Companies Law. Concerning the remuneration policies, the members of the BoD are entitled to obtain an annual remuneration, which is approved by a shareholders' resolution at the yearly OGA.

QAFAC's Corporate Governance Manual is undergoing revisions and updates primarily to incorporate the upcoming changes in the Article of Association and thereafter will be tabled for approval by QAFAC's shareholders and BoD.









#### Strategy and Risk Management

QAFAC has effectively managed to navigate 2021, emphasizing leadership economics, operational safety, reliability, and fulfilling all customer requirements. To ensure preparedness and contingency planning, we maintain an open outlook toward the dynamism of markets and ever evolving consumer preferences. Further, we engage with Muntajat for any new requirements from our customers. Our affirmation and commitment to meeting the needs of our customers are deeply rooted in the Company's values and principles. This has been proven by our ability, in recent years, to navigate the restraints imposed due to the global pandemic and an emerging positive environmental footprint caused by our focused initiatives and projects discussed in the upcoming sections of the report.

QAFAC's corporate strategy activities are driven and delivered in alignment with the guidance set forth by the following policies and procedures, the applicability of which is further explored through the course of this section:

- 1. QatarEnergy Alignment
- 2. QAFAC Management Guidance
- 3. QAFAC Risk Management
- 4. QAFAC Operational Excellence



QAFAC's Corporate Strategy department championed a corporate strategy refresh exercise in 2019 (referred to as the Project 'Advance'); to realign with QAFAC's value system, evolving markets, and the business environment. With the help of an external party, we conducted a thorough financial,

operational, and organizational performance assessment and analyzed external market trends and developments. The renewed strategy has duly considered the internal and external ecosystem, organizational culture, and several stakeholder perspectives.

• Launch of Project Advance to refresh QAFAC's corporate strategy. 2019 Approval of strategy by QAFAC management, QatarEnergy management and the Board members. = 전 - 급 2020 • Planned strategy roll-out deferred (to 2021) due to the onset of COVID-19. Strategy roll-out completed through virtual off-sites, i.e., exclusive one-on-one meetings with all departments at QAFAC to communicate 2021 the refreshed corporate strategy. Discussions included brainstorming on implementation of risks and mitigation plans. Strategy implementation, monitoring and reporting. 2022 Focus on recognizing and communicating employee and program success, instilling a sense of pride amongst QAFAC workforce.

The refreshed corporate strategy focuses on three strategic priorities: Leadership Economics, Growth Engines, and Sustainability. It encompasses our internal strengths and capabilities to produce highquality Methanol and MTBE by optimizing the process parameters steadily and sustainably. These strategic priorities are achieved with the help of clearly defined strategic objectives, which are tracked, and monitored using appropriate key performance indicators (KPIs). These KPIs are distributed amongst the relevant departments, requiring monthly reporting by the concerned department (e.g., HSSE, Production, Technical, IT, etc.). The strategic review calendar is both a quarterly and an annual cycle, wherein QAFAC's Chief Executive Officer (CEO) together with Executive Leadership Team (ELT) preserves the oversight and authority on the performance against established KPIs. As a definite result of this timely and accurate tracking and review of strategic KPIs, QAFAC's performance and progress in achieving its strategic priorities are projected to strengthen for the foreseeable future.

#### **QAFAC**

Vision

Be a leading producer of Methanol & MTBE recognized for our reliability and the quality of our products.

Mission

To produce high quality Methanol, MTBE and other derivatives by developing our talent, fostering our culture of excellence and maintaining the highest HSE standards. We create value for all our stakeholders and contribute to Qatar National Vision 2030.

#### Double down on core products profitability **LEADERSHIP ECONOMICS**

#### Prepare for new **GROWTH ENGINES**

WHERE TO PLAY

HOW TO WIN

Optimize **production volume** for Methanol & MTBE

Achieve **business excellence** to optimize efficiency and quality

Continue exploring **de-bottlenecking** and prepare for potential brownfield plant expansion for Methanol & MTBE

Screen Methanol derivatives portfolio

Strategic Priorities

Maintain high **plant** availability and reliability in the most economical way

Continue to improve efficiency of operations, project execution and support

functions

Enhance cost synergies with **QatarEnergy** system

Explore technical ideas to optimize de-bottleneck the plant within current constraints

Develop technical & market intelligence with support of QatarEnergy & Muntajat (Includes Methanol

by-products synergies with the rest of QatarEnergy derivatives and system alternative production e.g., H<sub>2</sub>, CO<sub>2</sub> route for Methanol)

#### Prepare for long-term **SUSTAINABILITY**

**ENABLERS** 

Sustain top quartile **Health and Safety** performance

Strive for excellence in environmental protection

High Performance Organization, focus on talent management, Qatarization and succession planning

**Boost digitalization** to become a 'reference' in our industry

Strengthen stakeholder alignment

Support shaping regulations impacting our products

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**Explore** 

#### Global and Regional Market Study on MTBE

MTBE's usage as an additive in fuels has been widespread. However, while the demand for MTBE from the perspective of domestic and regional markets is easier to predict and quantify, the instruments and externalities affecting its demand, growth, or decline in the global markets pose challenges. The effects of the clean energy transition, growing penetration of electric vehicles, and impacts specific to the transportation sector needed further analysis. Given the lack of clarity around the market outlook for MTBE, QAFAC opted to engage a professional consultancy in 2021 to conduct a market study for this fuel additive. Executed under the directive of OAFAC's ELT the company wanted to understand the outlook for its products related to sectors beyond the immediate influence of QAFAC, QatarEnergy, and our stakeholders. The market analysis will help lay the foundation for better utilization of QAFAC assets for maximizing shareholder value.

#### (i) About the study

The study provided an overview of the global supply for MTBE, the global demand drivers, and the COVID-19 impact on the market. Additionally, the study presented an assessment of the regional market for MTBE, providing insights for QAFAC on crude oil, butane, LPG, methanol, and MTBE pricing trends for the near future (till 2030).



#### Outcomes

The outcomes of the study and embedded recommendations are expected to guide QAFAC's management and QatarEnergy in developing a roadmap for optimum utilization of the feedstock allocation. Further, it will aid QAFAC in strategically navigating the changes and challenges in the gasoline market in the future and beyond 2030 by mandating resilient solutions and further introspection into the production process.



#### $\stackrel{ extstyle }{ extstyle \psi}$ The value generated

The value generated for QAFAC and QatarEnergy has a direct impact on our deliverables towards QNV 2030.

#### Way Forward

QAFAC is currently reviewing the study's outcomes and assessing the path forward and action plans to materialize the recommendations in the study in consultation with QatarEnergy and other stakeholders.



GRI 102-15

The repertoire of the projects discussed throughout this report is envisioned, planned, executed, implemented, and commissioned through a collaborative approach. The synergy amongst QAFAC's departments has been a cornerstone of the organization's success over the years. With the corporate strategy refresh, QAFAC refreshed its approach to inter-organizational collaboration, with key departments working closely to shape the strategy implementation. The following committees were introduced in 2021, each serving an exclusive purpose and objective to enable seamless operations at QAFAC:

- 1. Supply Chain Optimization Advisory Committee
- 2. Digitalization Committee

In addition to the corporate strategy refresh of 2019, the organizational structure had undergone minor reshuffling of departments. One such structural change had been the apt integration of corporate planning, corporate risk management, and corporate strategy departments. Risk management is a critical component of our business performance, and this reshuffle ensures a streamlined approach to integrating the enterprise risks into corporate planning and vice-versa. This acts as an addition to our constant efforts to eliminate uncertainty surrounding QAFAC's strategic objectives, business strategy plans, and operational effectiveness.

Our guiding framework for risk management is the ISO 31000:2009 Enterprise Risk Management (ERM) framework. Under the guidance of this management system, we have identified eight major risk categories to ensure their proper management and minimization of consequences, presented below.

#### Financial Risk



#### Legal Risk



#### **Human Resource Risk**



- · Poor cash flow management
- Unfavorable market variables (low profitable product mix)
- Litigation or loss incurred due to negligence in compliance with contracts, laws and regulations



Poor employee retention

talent

· Poor knowledge transfer

#### **Reputational Risk**



#### Health and Safety Risk





- · Constraints on the execution of strategic initiatives
- · Lack of responsiveness to industry changes
- · Inability to sustain or grow with profitable business operations
- · Failure to meet customers' demands leading to reputational loss

- Failure to implement a robust system to proactively identify hazards to prevent incidents or injuries
- · Failure to manage the integrity of safe operating systems and processes to ensure a safe and healthy work environment
- · Failure to implement an effective system to manage the safety of the environment

- **Energy Performance Risk**
- QAFAC is currently undergoing the implementation of ISO 50001:2018 Energy Management System. Energy performance risks shall be

defined upon the complete

implementation of EnMS.

#### **Operational Risk**



#### Information and Technology Risk

- Ineffective IT infrastructure to manage hardware and software failures, viruses, malicious and cyber attacks
- Ineffective IT systems to meet business demands

- Poor management of asset integrity
- · Ineffective reliability and maintainability to sustain plant availability
- Interruption of raw materials



Further, QAFAC has taken cognizance of external global events, such as the pandemic, push to decarbonization, geopolitical shifts, etc., and has initiated a review to understand the mixed impacts of such events on our business environment. This exercise would involve a thorough review and evaluation of the current risk landscape, QAFAC's risk appetite, and risk management processes within the company to ensure business sustainability and resiliency.

Not limiting the management of our technical, operational, and business excellence to just the Enterprise Risk Management (ERM) System, we have standardized our operations successfully and reliably to meet the stringent requirements of several ISO certifications, including:

- ISO 9001:2015 Quality Management System
- ISO 14001:2015 Environmental Management System
- ISO 45001:2018 Occupational Health and Safety Management System
- ISO/IEC 27001:2013 Information Security Management System
- ISO 22301:2012 Business Continuity Management System

Through 2021, QAFAC successfully maintained all the ISO certifications. We aim to undergo a certification of selected management systems in 2022. We understand that establishing a management system is only one of the many activities that lead to comprehensive and powerful outcomes. One such crucial component remains feedback or grievance management, which is representative

of the checks and balances required to recalibrate our operations and business objectives. Hence, all QAFAC's management systems and processes undergo an independent review by QAFAC's Internal Audit function, which provides independent assurance of our business operations. The Internal Audit department maintains its independence from QAFAC's organizational management, directly reporting to QAFAC's Chief Executive Officer (CEO) and subsequently to the Board of Directors (BoD). As mandated by the ISO standard requirements, periodic internal audits are met and complied with.

We take pride in the absence of material audit findings with respect to legal non-compliance.

#### **Ethics and Culture**

The culture at QAFAC is driven by our core values of Safety, People, Excellence, Integrity, and Responsibility. The values collectively emphasize our stewardship towards ensuring we attain holistic excellence displaying an absolute commitment and integrity towards carrying out safe operations, our people, and our environment. We continuously strive to embed QAFAC values in every decision, carefully assessing the alignment of outcomes to our mission and corporate ambitions.

In 2021, QAFAC has chartered new paths, scripted renewed possibilities, and is on a trajectory to internalize its organizational culture in print through a new Code of Conduct (CoC). QAFAC is currently guided by our Code of Ethical Conduct and Conflict of Interest policies and further, an employee handbook "Guide to the QAFAC Code of Ethical Conduct". In this reporting year, QAFAC's Legal department, with the support of QAFAC's Executive Leadership Team (ELT), has undertaken the colossal task of finalising the new Code of Conduct (CoC) comprising a total of 19 policies, listed below. These policies are principally aligned with QatarEnergy and are being developed with their guidance. As per the accepted protocols at QAFAC, the policies are currently undergoing a review by the Policies & Procedures Committee (PPC), followed subsequently by QAFAC Management sign-off, and are expected to be formalized and implemented by the Q4 of 2022. The PPC facilitates the formulation, planning

and update by departments of applicable Policies and Procedures. The Committee will provide a review and endorsement process for organizational level Policies and Procedures that require CEO's approval before being adopted in the Company. The new CoC will be rolled out within QAFAC with the help of a carefully curated Launch Plan, incorporating the most effective roll-out strategy tailored for QAFAC. This plan is expected to cover training programs, videos, awareness and "Go-Live" campaigns, culminating with employee townhall(s). As the

QAFAC senior management is already involved in the process via review of the CoC policies and interviews geared towards understanding QAFAC's unique culture and identification of key risks, this eventual roll-out will ensure the CoC becomes ingrained in the hearts and minds of all QAFAC employees. Further, the new CoC policies also require compliance from all persons and entities doing business with QAFAC, i.e., the CoC will therefore, be applicable to QAFAC's contractors.



GRI 205-3, GRI 102-17

The revised Code of Conduct consists of the following 19 policies:



**HUMAN RIGHTS POLICY** 



**ENVIRONMENT POLICY** 



**CLIMATE CHANGE POLICY** 



CONFIDENTIAL INFORMATION POLICY



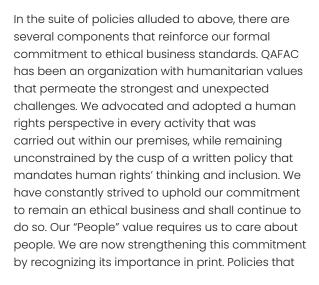
PRIVACY OF PERSONNEL INFORMATION POLICY



COMPETITION POLICY



EXTERNAL COMMUNICATION AND DISCLOSURE POLICY







RESPECTFUL WORKPLACE POLICY



STAKEHOLDER ENGAGEMENT POLICY



SPEAKING UP POLICY



CONFLICT OF INTEREST POLICY



SUSTAINABILITY POLICY



ANTI-BRIBERY POLICY

establish our commitment towards human rights are in the process of formalization. Anti-corruption and anti-bribery policies, while they already exist, are being further enhanced. However, QAFAC has never come across human rights concerns within its value chain. Similarly, there have been no incidents in relation to forced or compulsory labour, discrimination on the basis on gender, race, ethnicity, etc., in QAFAC in 2021 or since the establishment of the organization. Further, there have been no observed incidents of corruption in the reporting year.

These principles of ethical treatment are unquestionably extended to include our contractors.

ANTI-FRAUD POLICY



ANTI-MONEY LAUNDERING POLICY



**ASSET PROTECTION POLICY** 



REGULATORY COMPLIANCE POLICY



TRADE COMPLIANCE POLICY

While QAFAC does not include human rights provisions within the contracts or maintain a binding criterion addressing human rights risks, we maintain a credible oversight. However, with respect to contractual provisions, QAFAC explicitly focuses and includes HSSE obligations required from the contractor. Violation of these terms can lead to potential termination of the contract or suspension of the contractor, under general rights of termination provisions. These rights of termination, not limited to HSSE obligations, could also be enforced, and extended to cases where forced or compulsory labour are observed within the contractor organization.

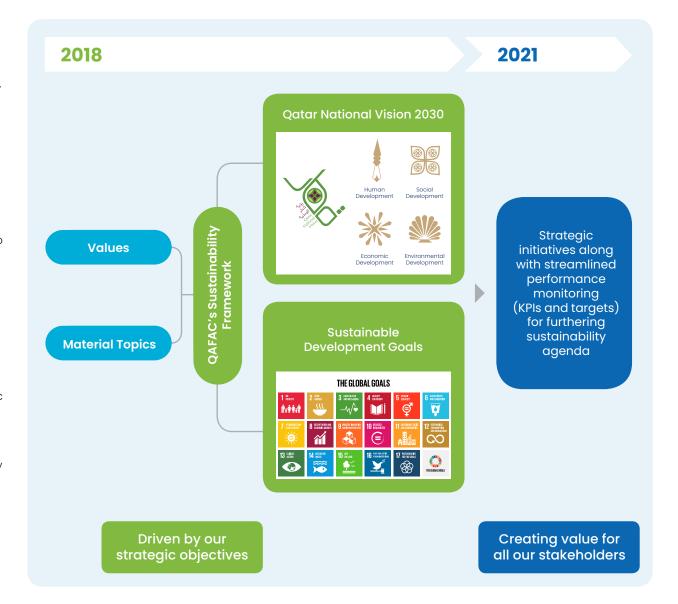
#### Sustainability at QAFAC

In the 2020 reporting year, we resolved to implement the QAFAC sustainability framework and strategy, which had been meticulously built based on our corporate values, strategic commitments and further, in alignment with QAFAC's material topics.

The renewed strategy has defined a pillar on sustainability - "Prepare for long-term sustainability". The objectives established under this pillar enable QAFAC to streamline its approach towards sustainability. We are directed efforts and resources to align the Company's operations and activities to address the six sustainability enablers, while aiming to improve and recalibrate our sustainability priorities to achieve the broader business goals.

QAFAC is developing a Sustainability Policy, establishing its commitment to sustainable growth and generating stakeholder value. This policy is being aligned with QatarEnergy's sustainability policy. We are also working on the development of a Sustainability Framework, encompassing the strategic KPIs established at business-level

In addition, our core team members track the progress of KPIs related to adaptation of sustainability practices about our sector, and its impacts on the production of Methanol and MTBE. Furthermore, we also receive communication from industry associations such as QatarEnergy and Industries Qatar on sustainability best practices and new techniques. This information is circulated internally to implement new practices wherever applicable.



GRI 102-42, GRI 102-43

#### Stakeholder Engagement and Materiality Assessment

A proactive, clear, transparent, and responsive culture form the foundation of our relationships with all our stakeholders. QAFAC recognizes the need for a healthy synergy amongst its stakeholders, both upstream (suppliers, investors, etc.) and downstream (customers, communities, etc.). This need for establishing synergistic relationships is being reinforced by QAFAC's upcoming Stakeholder Engagement Policy. The policy is aimed at creating trust-based relationships by engaging with our people, business partners, governments, civil society, educational institutions, and local communities. It also describes our commitment to engaging with identified stakeholders, communicating our expectations, and defining minimum compliance requirements. By applying these stakeholder engagement principles and commitments alongside the sustainability reporting framework requirements, we will strengthen our internal and external communication on sustainability matters. QAFAC will continue to remain active, accountable, aspirational, and responsible towards our stakeholders.



Stakeholder	Focus Areas	Channels of Engagement
State of Qatar and Regulatory Bodies	<ul> <li>QNV 2030</li> <li>Development of national talent</li> <li>Qatarization</li> <li>Compliance with regulations</li> </ul>	<ul> <li>Meetings with government entities</li> <li>Partnerships with government entities</li> <li>Conferences and exhibitions</li> <li>Performance reports to regulatory bodies</li> <li>Annual sustainability report</li> </ul>
Shareholders	<ul> <li>Maintenance of safe and reliable operations</li> <li>Process efficiency</li> <li>Financial returns</li> <li>Reputation</li> <li>Participation in local economic and social development</li> </ul>	<ul> <li>Monthly meetings with shareholder representatives</li> <li>Quarterly meetings</li> <li>Shareholder market presentations</li> <li>Board meetings</li> <li>Annual sustainability report</li> </ul>
Local Community	<ul> <li>Responsible business practices</li> <li>Minimal environmental impacts</li> <li>Employment opportunities</li> <li>Safe operations</li> <li>Development of national talent</li> </ul>	<ul> <li>Interaction with employees and their families</li> <li>Educational awareness sessions</li> <li>Public reports</li> <li>Career fairs</li> </ul>
& Employees	<ul> <li>Health and safety</li> <li>Competitive pay and benefits</li> <li>Continuous career development</li> <li>Open and transparent</li> <li>Communications</li> <li>Supportive</li> <li>Management</li> </ul>	<ul> <li>HSSE Newsletter</li> <li>Regular departmental/team meetings</li> <li>Employee satisfaction surveys</li> <li>Email communications</li> <li>QAFAC newsletter</li> <li>Annual sustainability report</li> </ul>
Media	Transparency Health and safety	<ul><li>Annual Sustainability Report (Online Version)</li><li>Press Releases (as needed)</li></ul>
Customers and Muntajat	<ul> <li>Reliable, timely supplies of methanol and MTBE</li> <li>Supply chain management</li> <li>Service excellence</li> <li>Quality products</li> </ul>	<ul> <li>Contracts and agreements</li> <li>Offtake requirements (issued by Muntajat)</li> <li>Meetings with Muntajat</li> <li>Conference and exhibitions</li> <li>Customer feedback surveys</li> <li>Memberships in industry associations</li> </ul>
Contractors and Suppliers	<ul><li>Fair contract bidding/awarding</li><li>Timely payments</li><li>Good working conditions</li></ul>	<ul><li>Contractual arrangements and bidding</li><li>Conferences and exhibitions</li><li>Third-party endorsement</li><li>Medical screening for contractors</li></ul>
Non-Governmental Organizations	Responsive communications     Support to local NGOs	<ul><li>Presentations/Briefings</li><li>Meetings</li></ul>

GRI 102-42, GRI 102-43, GRI 102-44, GRI 102-47

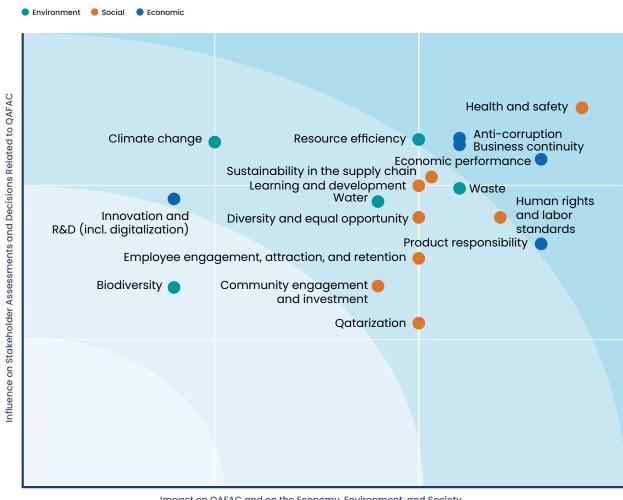
With respect to our materiality assessment process involving the identification and prioritization of QAFAC's material topics, we conducted a comprehensive materiality assessment in 2020, with the stakeholder groups that can substantially and potentially impact or be impacted by our business decisions, activities, and operations. This reporting year 2021, we carried out a materiality refresh, which entailed a series of tasks, fundamentally maintaining the materiality matrix of 2020, we accounted for the following externalities in the refresh exercise:

- Global megatrends affecting the sustainability/ ESG landscape
- Trends affecting the Oil & Gas sector
- QAFAC's internal growth trajectory in 2021
- QAFAC's future business plans and growth prospective
- Internal and external stakeholders' inputs

This materiality refresh exercise resulted in the following developments to QAFAC's 2021 Materiality Matrix:

- 1. Amalgamation of Energy and Emissions topics into Climate Change - maintaining the integrity and cognizance of the relationship between energy and emissions management.
- 2. Amalgamation of Process Safety and Occupational Health & Safety into Health and Safety - encompassing the aspects of workforce and contractor health and safety, reliability and process safety, asset integrity and associated health & safety matters.

QAFAC has reviewed the outcomes of the materiality refresh exercise and provided inputs to validate the materiality matrix. As part of this management validation, the materiality matrix shown below has been approved to be representative of QAFAC's material sustainability topics for 2021.



Impact on QAFAC and on the Economy, Environment, and Society

#### Our Continued Resilience Through COVID-19

The impacts of COVID-19 across our operations cascaded into 2021. The State of Qatar witnessed the third wave of COVID-19, the effects of which have had impacts on the activities of our organization. For instance, QAFAC's Health, Safety, Security and Environment (HSSE) department tackled issues pertaining to the implementation of COVID-19 precautionary measures, restriction on in-person training and meetings resulting to manage day-to-day operations. Further, delays in procurement of goods due to supply chain disruptions had considerable impacts on the timeline of the implementation of several initiatives. For instance, QAFAC's IT department is currently experiencing

delays in the delivery, caused due to COVID-19, of several environment monitoring devices for installation within its data centers and IT server rooms.

Despite these challenges, QAFAC's leadership and employees have tirelessly worked towards ensuring business continuity with an enhanced adaptability and resilience. The continued support and updates initiated by QAFAC's IT department continued to ensure smooth functioning of our operations. There have been improvements in the IT infrastructure in 2021 pertaining to aspects of remote support. Further, in 2020, our crisis management team

collaborated with the Ministry of Public Health and QatarEnergy to create a set of COVID-19 standards for employee health and safety measures. Two subcommittees were formed by the crisis management team: Human Resources and Business Continuity. The HR crisis management team (led by the CEO) handled employee and contractor visas and logistics during the lockdown. Our employees have continued to adapt to the rapid transformation of traditional business practices. In the reporting year, our response teams continued to monitor the changing landscape of the pandemic and ensured effective communication and guidance to QAFAC employees.



## Our Growth

This chapter discusses QAFAC's commitments to matters concerning its economic performance and business continuity matters. Using the following material topics as guidance, our management and performance is disclosed on the key focus areas.



#### Introduction

The global petrochemical industry is facing many challenges in addition to the COVID-19 pandemic which continues to affect all industries around the world. The main challenge that has been affecting our industry for the past years is the volatility in oil and gas prices. Additionally, there is an increase in demand for alternative energy resources that are cleaner with less negative environmental impacts.

Despite these challenges, we maintained our resilience and strength during the reporting year as we continued with our transformational activities, including optimization of operations and processes and adoption of technology and automation.

Our goal is to achieve business excellence and continuity in addition to sustainable growth in line with the Qatar National Vision (QNV) 2030 through continued focus on generating shared value, enhancing our operational reliability and efficiency, increasing our supply chain's resilience, and investing in innovation and digitalization.

Project "Advance", which was launched in 2019, supports our journey towards sustainable growth through a proactive strategy refresh encompassing newly defined strategic priorities which aim to optimize our Methanol and MTBE production volumes, while meeting our various stakeholders' needs and expectations.



In addition, our Quality Management System, which continues to be ISO 9001:2015 certified in 2021, enables us to continuously identify, control, measure and improve our core business processes; thus, achieving process efficiency and high profitability. It also aids our efforts in developing a quality-driven culture across the organization and achieving customer satisfaction through delivering high-quality products.

To ensure we are meeting our commitments, we continuously monitor and manage our performance, adopt advanced operations and equipment, and encourage innovation, ownership, accountability, and self-improvement within the whole organization.

Our Operational Excellence (OE) Program which was launched in 2015 continues to play a vital role in strengthening our leading position in the market of Methanol and MTBE production. Through this program, we continue to enhance our performance and plant reliability and efficiency by adopting leading tools and practices. The program also entails a performance monitoring system to track our production performance.

On the other hand, we monitor our financial performance, plant reliability, maintenance, production, product quality and customer satisfaction through our Key Performance Indicators (KPIs) that were established in 2019.

The steps we are taking towards economic growth arise from our strategic priority of striving for "business excellence and continuity" to prepare QAFAC for long-term sustainability. Hence, our efforts

towards this ambition are outlined in this chapter, which provides a brief description of the approach, framework, drivers, and actions towards QAFAC's material topics with direct economic impacts. This

year, we have realigned our economic priorities through a materiality refresh exercise as stated in the preceding sections of this sustainability report, to arrive at the following 2021 material topics:

#### Aligning our Material Topics to our Strategic Priorities and to Global and National Reporting Frameworks, Goals and Targets

Matarial Tania	Alignment to Global and National Reporting Frameworks, Goals and Targets			Key Enabler to Our Strategic Priority	
Material Topic	QNV 2030	UN SDGs	GRI	QSE	"Prepare for Long-term Sustainability"
Product Responsibility	Economic development  Social development  Environmental development	16 PEAGE_MISTIDES INSTITUTIONS	GRI 416	QSE E 2, S 14	<ul> <li>High performing organization, focus on talent management, Qatarization and succession planning</li> <li>Strengthen stakeholder</li> </ul>
Operational Reliability and Business Continuity	Economic development	12 geographic Additional Telephone Additional Telep	GRI 416-2, GRI 417-2, GRI 417-3, GRI 417-1	-	<ul><li>alignment</li><li>Support shaping regulations impacting our products</li></ul>
Economic Performance	Economic development	8 DEGRIT WORK AND DE PROSTRET NOVAMBEN AND P	GRI 201	-	Boost digitalization to become a 'reference' in our industry
Sustainability in the Supply Chain	Economic development  Social development  Environmental development	5 GOURTY 8 ECCHONICA AND 16 MAG STRONG NOTTHING	GRI 204, GRI 308, GRI 414	QSE S 22	
Innovation and R&D (including Digitalization)	Economic development  Social development	9 ROUSTIN INNOVATION 8 SECRET FOURS AND SCHOOLS CONVINT	-	-	

# **Economic Performance**



It is important for QAFAC, as a Qatari organization, to ensure sound economic performance to contribute to achieving a prosperous local economy in line with the fourth pillar of the Qatar National Vision 2030. This reflects our commitment to enhance the development of a competitive and diversified economy capable of meeting the needs of its people and securing a high standard of living for them.

Although we were facing several challenges in 2021 due to fluctuations in oil and gas prices and the repercussions of the COVID-19 pandemic, yet we were able to sustain our resilience and strength and increase our revenues through our continuous operations. This was only possible through optimizing

our processes and operations, driving productivity, and adopting new technology and automation.

The Chief Financial Officer (CFO) at QAFAC drives our Cost Optimization Policy, which is developed to govern our financial performance metrics, targets, and practices and to guide the Finance department throughout its optimization exercise. The CFO also assists in setting the annual targets and relevant Key Performance Indicators (KPIs) for QAFAC's economic performance including revenues, operating profits, liabilities, and expenses.

The CFO also ensures the compliance of our Finance department with the Internal Financial Control Framework and ensures there are adequate financial controls in place, to govern our activities. The Internal Financial Control Framework is monitored by our Internal Audit Department, and it is developed in compliance with applicable laws and regulations. It is also aligned with leading practices, such as The Committee of Sponsoring Organizations of the Treadway Commission (COSO) Internal Control Framework, allowing us to achieve financial reporting reliability.

By the 15<sup>th</sup> of December of each financial year, our CFO distributes the approved annual budget to the respective departments. The Finance Department develops the annual departmental budgets in line with our Cost Optimization Policy and Strategy. The latter was established as a requirement by QatarEnergy and it is aligned with the organization's strategy and mandate on cost optimization. Through our strategy, we are committed to reach 10% Controllable Cost by 2023.

We implemented various cost saving measures driven by the Cost Optimization Policy. As a result of these measures, in 2021, we were able optimize Capital and Operating expenditures in comparison to the set budget.

To regulate our budgets and spending, monthly budget meetings are held with all departments to analyze the actual vs budget and decide on the appropriate measures in case of existing deviations between the actual and planned budgets.

We measure, track, and monitor our economic performance using our existing Finance
Management System. It is an integrated software solution that helps our management in taking strategic decisions and it allows us to determine our budgets, forecasts, taxes, cash flows and investments at QAFAC. This system also facilitates our annual financial reporting process which is aligned to the International Financial Reporting Standards (IFRS) issued by the International Accounting Standards Board (IASB). To ensure transparency and credibility of our reported financial performance, we seek the assistance of an external auditor each year to perform an independent assurance on our annual financial statements.

All of these practices, combined with directed leadership, shared values and a culture that emphasizes accountability for control and effective communication, institute our internal control system. This internal control system is continuously monitored in order to identify, assess, and mitigate any rising risks in a timely manner.

Our Economic Contribution (USD '000)					
KPIs	2017	2018	2019	2020	2021
Direct Economic Value Generated					
Revenues	671,683	777,856	531,604	361,633	658,428
Economic Value Distributed					
Operating Costs	415,857	456,696	378,651	345,969	407,462
Employee Wages and Benefits	58,472	64,575	69,684	64,069	61,769
Payments to Providers of Capital*	-	-	-	-	-
Payments to Government(s)	64,300	91,150	31,000	15,000	53,000

<sup>\*</sup>Confidential

Community Investment					
KPIs	2017	2018	2019	2020	2021
Community Investment (USD)*	312,209	307,086	28,553	146,000	3,160

For 2021, we had set a reasonable target of USD 266 million in revenues and we successfully exceeded it by 147% and achieved an 82% increase in our revenues in comparison to 2020 with a total of approximately USD 658 million. The primary reason for this increase in our 2021 revenues is attributed to a favorable selling price of Methanol and MTBE during this year.

Although we are committed to contributing to the socio-economic development of the community in which we operate, the COVID-19 protocols and governmental regulations have posed several challenges for us to fulfill this commitment.

<sup>\*</sup>Community investment data for 2017, 2018 and 2019 have been restated in this report.

# Innovation and R&D (including Digitalization)

In our 2020 sustainability report, we disclosed our intentions, aspirations, and ongoing groundwork to establish a sound Information Technology (IT) infrastructure that would enable QAFAC to embark on a journey of digital enablement. QAFAC has made noteworthy progress in the arena of digital systems and their application to QAFAC's operations. While we did encounter several challenges due to flexible working modules and COVID-19 disruptions, we managed to implement our digitalization projects as intended.

Our ambition to deliver on QAFAC's strategic commitment to "Boost digitalization to become a 'reference' in our industry", is the driving force behind QAFAC's digital transformation journey and our IT department has a crucial role to play in this endeavor. Our IT department ensures tactical and systemic support to the core business functions. The IT protocols and procedures at QAFAC are aligned to the National Cybersecurity Agency, Ministry of Interior (MoI), State of Qatar and the Qatar Cybersecurity Framework, established by the Supreme Committee of Delivery and Legacy. The Mol helps in identifying any cybersecurity threats to QAFAC and therefore, countering them. QAFAC and Mol have a continuous feedback system, wherein, both parties exchange information on the organization's exposure to and

the nature of cybersecurity threats, information security, control mechanisms and other related elements. Whereas the relationship with the Supreme Committee is limited to an alignment with its cybersecurity framework.

QAFAC built a Cybersecurity roadmap in alignment with QATAR 2022 Cybersecurity framework to achieve certain objectives, which have been successfully executed and achieved in 2021. An example is provided in the case study.

# Cybersecurity Skills Upgraded by QAFAC InfoSec Team

QAFAC's IT department had been invited by the Supreme Committee of Delivery and Legacy to attend a training program on Cybercrime Prevention.

# i About the training

The training aims at enhancing the cybersecurity competencies of Qatar, in preparation for the FIFA 2022 World Cup, being hosted in Qatar. The modules involved within the training program were:

- CyberCrime Prevention ONLINE Foundation Course
- 2. CyberCrime Prevention Manage L2 Course
- 3. CyberCrime Prevention Respond L2 Course
- 4. CyberCrime Prevention Manage L3 Course

# The value generated

Enhancement of knowledge and confidence of QAFAC's IT administrators, while cementing their contribution in enabling the business, managing risk, and operating efficiently.

# **Way Forward**

Cybersecurity is one of the most important aspects of the fast-paced growing digital world. The threats posed by it are hard to deny, hence QAFAC considers it crucial to adopt a continuous improvement and learning process in tackling cybersecurity threats.



As mentioned in the previous sections, QAFAC is ISO 27001: 2013 Information System Management System (ISMS) certified. Our IT department collaborates closely with Business Continuity management (BCM) and the corporate risk management teams to simulate the risk management processes—to ensure IT risks are represented and reflected as strategic KPIs.

In 2021, QAFAC introduced a set of digital KPIs to achieve the objectives set forth by the strategic priority 'Boost digitalization to become a reference in our industry'. The table presented below highlights the KPIs defined by the IT department in alignment with regulatory and business requirements:

Strategic Priorities	Category	KPI	Targets in 2021	Performance in 2021
	Number of Digital Projects in pre- feasibility study phase with completed Digital pre-feasibility assessments		8	9
Boost digitalization	Projects Funneling	Number of Digital Projects in the final implementation phase/successful launch	4	6
to become a reference in our industry	Financial Performance of Digital Initiatives	Project Capex Actual Utilization/Project Capex allocation (%) = Variance	5%	0
	Conferences/ Tech Fairs	Number of digital conferences/ technology fairs attended	4	19

In 2021, several initiatives and projects have been undertaken by the IT department in collaboration with other QAFAC departments. Some notable achievements in the realm of QAFAC's information technology processes are provided below. The key initiatives are further elaborated and presented as in the relevant sections of the report:

### **IT Infrastructure**

**Enhancement to security software of QAFAC** 

Migration to cloud-based systems to enable seamless information exchange and storage, reduction in manual intervention, physical and local data storage, reduction in paper consumption, etc.

# **IT Applications**

### Development of Document Management System (DMS)

The DMS is a centralized document management system which is aimed at providing access of QAFAC's documents and procedures to all QAFAC employees with different level of authorization. The system is used for storing, organizing, and maintaining the Company's documents and data in a confidential and efficient manner. The DMS is being used widely across the Company providing a powerful tool for fast data access and retrieval. Additionally, aiding in management decision making.

### Development of Personal Development Program (PDP)

### Implementation of HSSE BBS Dashboard

HSSE BBS Dashboards & Reports – These are HSSE data dashboards, which provide the option to set goals and track the progress towards QAFAC's HSSE goals. During the process of working towards these goals, the dashboard can provide useful information and feedback to optimize and adapt certain strategies in order to achieve the set objectives. It provides visibility, improves decision making, saves time and resources.

# Implementation of Predictive Category Management POC (Tawteen initiative)

The project provides a comprehensive and complete solution, enabling the streamlining and management of QAFAC's organizational data. This allows QAFAC to classify its corporate spending based on defined categories. The users would be able to analyze the data, derive the product pricing, lead times and other factors to strengthen the buyer's negotiation power, improve planning accuracy and efficiency while maintaining supply assurance with reduced expedite costs.

### **Expected Value**

- Duplicate Elimination
- · Reduction of Inventory Hoarding Costs
- Contract Compliance
- Reduction on Procurement and Operational Costs
- Improved Vendor Analysis
- Reduction of Inventory Hoarding Costs
- Reduction on Procurement and Operational Costs



We also implemented Advanced Process Control (APC) at our MTBE plant to achieve operational excellence and cost optimization through digitalization. This helped us in reducing our energy and butane consumption and enhancing our production volumes by reducing fluctuations affecting plant operations. Since 2016, the APC with its three controllers allowed us to achieve smoother plant operations, process deviation alarms reduction, production improvements and steam savings.

For QAFAC's digitalization initiatives, 2022 looks optimistic with significant initiatives lined up for implementation. QAFAC has established a Digital

Transformation Committee in late 2021. This committee is a collaborative taskforce comprising the technical leads representing all the departments at QAFAC. While the activities and discussions of the committee have begun, it is due to be formalized and endorsed by the management in 2022, i.e., the committee's delivery and other obligations would be formally institutionalized in 2022.

Moreover, the IT department is also joining the energy efficiency efforts at QAFAC by procuring smart environment monitoring devices for QAFAC's data centers and server rooms. These devices are installed to monitor three key environmental parameters - temperature, humidity, and dew

point. With the help of these sensors, QAFAC's IT infrastructure team is now able to have a historical graph of all the mentioned environmental parameters and at the same time, it is integrated with IT Network Monitoring Tools for notification and alerting in case of a sudden rise of temperature which will bring an impact to IT equipment. Along with that, there is also a flood monitoring sensor that is placed in the nearby air-conditioned unit in the Operation Building data center room to detect if there are any water leaks and will alert the IT team to take further action if there is any water problem in Data Center.

Moving forward, we will continue to expand our digitalization efforts across multiple functions including production, maintenance, procurement, health and safety and other departments through task automations, wearables that involve devices, such as smart watches which allow our employees to share and view company data.

Additionally, we plan to adopt the Internet of Things (IoT) which enables us to transform any device into a smart solution through a simple internet connectivity for the sole purpose of efficiency of operations. For example, we plan to connect our products with our data monitoring system to transmit the product's performance data in real-time.

GRI 416, GRI 417

# Operational Reliability and Business Continuity

As the pandemic continued in 2021, the unforeseen circumstances remained a challenge for our business as we tried to ensure our business continuity through maintaining high plant availability and reliability throughout the year, in order to meet our customers' needs and expectations. We continued with our previous adjustments that we have implemented at the beginning of the pandemic and ensured the availability of adequate manpower by implementing permanent adjustments to the working shift (having fewer working days with longer hours). This helped us ensure efficient continuity of our operations while abiding with the pandemic protocols and regulations.

Our Operational Excellence (OE) Program which was launched in 2015 continues to play a vital role in strengthening our leading position in the market of Methanol and MTBE production. Through this program, we continue to enhance our performance and plant reliability and efficiency by adopting leading tools and practices. The program also entails a performance monitoring system to track our production performance.



At QAFAC, we maintain our strong operational reliability and efficiency by continuously monitoring our assets to avoid preventable failures- through the assistance of a combination of rigorous systems and procedures. For example, we have a risk-based

inspection approach in place that provides dynamic and planned inspection and maintenance activities, enabling us to deliver value by mitigating risks caused by unplanned operational interruptions.



Additionally, we have a Mechanical and Quality
Assurance (MIQA) Manual in place to guide us
through our equipment reliability assessments
including installation, maintenance, and asset
improvements according to each equipment design
specifications. We also have a comprehensive
set of sub procedures that monitor our alignment
with the manual while performing tasks relevant
to our Reliability Department, including managing
of process management safety critical equipment
and associated tasks. Our MIQA committee was
established in 2019 consisting of all QAFAC's
function heads to ensure the implementation of the
MIQA Manual and its associated procedures. The
committee is also associated with a sub-committee

to identify and resolve matters affecting our MIQA program's effectiveness, provide and arrange, if needed, for MIQA related trainings and guidance to our site employees, establish and report to management all MIQA KPIs, audit the program, and ensure appropriate tracking and documentation for all recommendations resulted from the MIQA audits.

We have an internal management system in place to manage our production performance where it supports us, through dashboards, in monitoring, tracking, and reviewing our performance data improvements at all operational levels in addition to initiating improvement actions when needed. To discuss and review our production performance,

targets, and improvement options, we hold production dashboard meetings on a daily and a monthly basis. Additionally, we held a critique meeting, chaired by the Chief Operations Officer and attended by key employees and senior managers, to evaluate our production procedures, operations, and areas of improvements. This meeting ensures our continuous communication of our strategic initiatives within QAFAC.

In 2018, we introduced an Operator Training Simulator (OTS), that allows us to utilize real time scenarios generated by our dynamic state of-the-art simulator for QAFAC's Methanol and MTBE plants; thus, enhancing our plant reliability. This provided our plant operators with regular trainings and enhanced their competencies through scenarios that range from normal operations to upset conditions similar to our real plant operations. The OTS serves as the means to achieve our commitment to reduce any operational interruptions caused by manpower, thus, enhancing our plant reliability and efficiency, generating higher production levels and delivering sound Health, Safety, Security and Environmental (HSSE) performance.

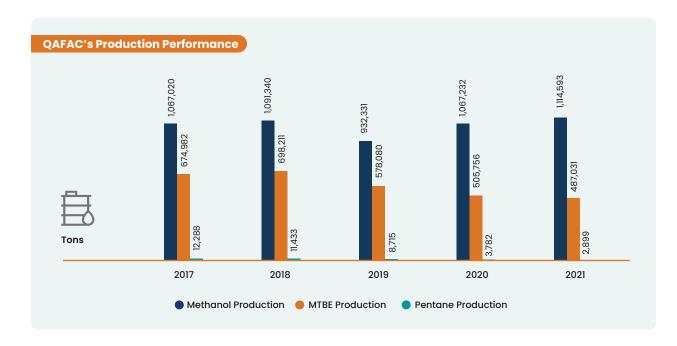
Our annual KPIs on plant reliability drive us to establish ongoing targets and conduct annual reliability assessments for both of our Methanol and MTBE plants to perform comparison between our set targets and our actual performance.

We ensure execution of our major projects within the budgeted time and cost in order to improve our operational efficiency. Our objective is aligned with QatarEnergy guidance which encourages automation of time-consuming processes and deployment of cost saving measures. Additionally, we established specific KPIs to measure and manage the manufacturing productivity and efficiency of our operations. These KPIs include equipment efficiency, consumption rates and quality adherence. This will allow us to achieve our goal in 2023 with 10% reduction in our controllable costs.

We plan to undertake benchmarking studies against best practices on operational costs, specifically, maintenance and procurement costs in order to identify improvement areas across our operations.

As a result of our reliability efficiency efforts, our Methanol production reached 1,114,593 MT in 2021, our second highest annual Methanol production (design capacity of 2,950 MT/day of US Federal Grade AA Methanol), which is 120.27% of our internal target for production and about 4.2% increase compared to 2020.

MTBE production reached 487,031 MT (design capacity of approximately 1,830 MT of MTBE/day), which was a slight decrease in production, attributed to plant shutdown.





GRI 204, GRI 414

# Sustainable Supply Chain Management

Supply chain management plays a vital role in maximizing our customer value and maintaining our success. To create a positive impact, especially during the challenging circumstances of the pandemic, we adopted supply chain sustainability where we optimize our supply chain operations, reduce our related costs, realize market and economic value, boost customer service and achieve a competitive advantage over our business rivals by generating positive risk management capabilities.

Our commitment to environmental and social responsibility through our value chain is depicted through our Procurement Policy which guides us through achieving a sustainable supply chain. When we make any procurement decision, our policy prioritizes the following:

- Contractors and suppliers with high social, environmental, and economic standards and practices.
- Local goods and services; thus, encouraging local economic development and enhancing local skills and expertise.



We achieve the implementation of our Procurement Policy our Supplier Performance Evaluation Procedure which enables us to assess our suppliers and contractors through a systematic approach, considering their technical and commercial capabilities, ISO certifications such as ISO 9001, ISO 14001 and ISO 45001, and their relationships with Qatari companies in the oil and gas industry. The results of this assessment lead us to identify the high performing suppliers that gain priority and a competitive advantage over their peers. Eventually, we select our suppliers and contractors based on the DIFOTIC criteria (Delivered in Full and On Time and Invoiced Correctly).

We improve our supply chain performance, value and savings and leverage opportunities for consolidation and contingency development, through the development of an advanced automated, Vendor Categorization System, in 2018, which allows us to categorize the active vendors according to the similarity of their offerings and the interrelation of their goods and services.

Our Procurement Department focuses on dealing with local suppliers to ensure our alignment with the Economic Development Pillar of QNV 2030, thus contributing to the economic development of our local communities. This is depicted in our Procurement Policy as well, where it emphasizes on

GRI 204-1

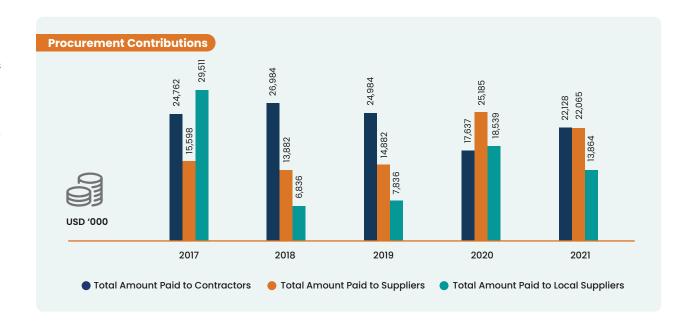
dealing with Qatari companies, Qatari nationals or companies controlled by the latter as a preference. If the cost provided by Qatari companies or nationals does not exceed a margin of more than 10% of the cost provided by non-Qatari companies or nationals, we engage with the former supplier or contractor as a preference.

Our Procurement Department also manages, records, monitors, and tracks all supply chain related data including payments to suppliers, contractors, and local suppliers. To reduce our costs in procurement, we follow an official tendering process where tenders are floated either by QAFAC or in collaboration with QatarEnergy as part of the Tawteen initiative. Examples include, security service agreements, Personal Protective Equipment (PPE) purchases, etc.

Additionally, we continue to reduce our costs by being part of the Ta'win Synergy Development Program. The program started in 2017 in collaboration with QatarEnergy subsidiaries, including Qatar Chemical Company (Q-Chem), Qatar Aluminum (QATALUM), Qatar Fertilizer Company (QAFCO), Qatar Steel and Qatar Petrochemical Company (QAPCO). It focuses on large aggregate orders across companies for preferential pricing, thus, achieving a sustainable and efficient supply chain.

In 2021, we paid a total of USD 44.19 million to our suppliers and contractors for their goods, products and services which is 3.2% more than what we paid in 2020. On contractors, we spent USD 22.13 million which is 25% more than that spent in 2020. This increase is believed to be due to the clearance of pending payments that have accrued from

2019 planned shutdown and several unplanned shutdowns in 2020, where these shutdowns demanded some maintenance activities and contractor involvement. On local suppliers, we spent USD 13.86 million, contributing to 63% of total supplier contribution.



Procurement Contributions						
2017 2018 2019 2020 2021						
Locally based Suppliers (%)	61	61	51	43	31	

# **Product Responsibility**



At QAFAC, we produce Methanol and MTBE as our two main petrochemical products. These two products have a wide variety of applications and are essential ingredients in different industries.

Methanol<sup>1</sup> is a clear, water-soluble liquid chemical used in the production of a variety of our daily products including plastics, LCD TV, adhesives, glues, computer screens, furniture, vaccines, pharmaceuticals, cosmetics, fuels, and paints. It is an energy source in different sectors including automotive, electricity and marine sectors.

At QAFAC, we produce our Methanol from natural gas supplied by QatarEnergy which is then reacted with steam in the reformer unit to produce the synthesis gas, converting it to Methanol through the Methanol synthesis reaction. We attain our 99.9% purity by sending our Methanol stream to the distillation section of our Methanol plant. Our pure Methanol is either sold or used to produce MTBE at our MTBE plant. Methanol can also be produced from different types of liquid and solid biomass such as, agricultural residues and farming waste<sup>2</sup>.

Methanol is also an emerging renewable energy source as it is a clean and sustainable biodegradable fuel that creates a positive environmental impact. It contributes to reducing emissions including those of Greenhouse Gas (GHG) and Nitrogen Oxide, and in eliminating Sulfur Oxide and Particulate Matter emissions. Due to this fact, the world is considering Methanol as an alternative fuel for ships and vehicles. China is one of these countries that is considering the development of Methanol vehicles in its industrial green development plan where it plans to replace the fossil fuel vehicles with the clean-burning Methanol vehicles<sup>3</sup>.

MTBE (Methyl tert-Butyl Ether) is a colorless, flammable liquid used as a common gasoline additive. MTBE has a low production cost and good blending characteristics, thus, using it most commonly as an oxygenate to gasoline to improve air quality<sup>4</sup>.

At QAFAC, we produce our MTBE from butane supplied by QatarEnergy which is then converted to isobutane through the isomerization reaction. The isobutane produced undergoes a dehydrogenation process, producing isobutene that is essential for MTBE synthesis. The isobutene is then reacted with Methanol that was already produced at our Methanol plant to obtain our MTBE.

Since our products are essential for many industries and many of our daily products, we ensure their alignment to the highest standards of quality, health, safety, and environmental protection, thus, reducing our negative impact at all aspects and at all stages of production.

Our Quality Management System (which is ISO 9001:2015 certified) assures our product quality through regular comprehensive checks on products to ensure we meet our customer needs and the regulatory requirements; thus, achieving the highest standards of quality.

<sup>&</sup>lt;sup>1</sup>Methanol Institute (https://www.methanol.org)

<sup>&</sup>lt;sup>2</sup> Green Fuels for Shipping (https://pubs.acs.org/doi/10.1021/cen-10008-cover)

<sup>3&#</sup>x27;Two sessions' 2022: Carbon neutrality high on agenda as delegates offer proposals on new energy vehicles, green Al and blue carbon | South China Morning Post (scmp.com)

<sup>&</sup>lt;sup>4</sup>Chapter13 MTBE (epa.gov)

Additionally, our Material Safety Data Sheets (MSDS), which are developed in line with the United Nations Globally Harmonized System of Classification and Labelling of Chemicals (GHS), assist us in ensuring the highest standards of safety when it comes to materials/products handling. The MSDS are publicly available on our website to be used by our customers and people who handle, transport, and use our products.

These MSDS inform our people and customers about our products' safety information including potential hazards and appropriate control measures that can be adopted such as using the dedicated emergency hotlines. Additionally, the MSDS include information about the product's physical and chemical properties to ensure the safe handling and storing of the product and the correct identification of potential hazards and first aid measures. The MSDS describe the appropriate measures to be taken in case of skin or eye contact with the product, inhale or digestion of the product, and firefighting measures to be taken in case of fire caused by any of the products.

Additionally, we conduct Health, Safety and Environmental (HSE) impact assessments for our products to mitigate our HSE impacts and protect our people and customers who handle, transport, and use our products. These assessments allow us also to identify any potential hazards and the required measures to be taken in case of exposure in addition to first aid measures.

To ensure safe production and highest quality standards are achieved, we continuously implement several measures through our production processes. For example, in our Methanol production process, we select the suitable coal gasifiers and optimize process conditions such as the temperature and pressure—which we monitor and control to obtain high conversion and high product quality. Additionally, we label our pipes and valves and indicate the flow direction and store our production above–ground in tank farms to avoid static discharges hazards.

In 2021, we upgraded our IA/UA compressors in our Methanol production process to obtain addition 20% of air capacity. We also replaced the annular plate and CP system of the tanks TK-3102-C and TK-3101-B. Additionally, we reviewed and revised the Methanol utility and Standard Operating Procedures.

In 2021, we did not face any incidents of noncompliance with regulations and voluntary codes concerning the health and safety impacts of our products.

We also intend to develop technical and market intelligence with the support of QatarEnergy and Muntajat where we will explore market potential of prioritizing brownfield expansions for Methanol derivatives including Methyl methacrylate (MMA) and Acetic Acid. We are keen on investing in this initiative due to brownfield expansion's environmental mitigation and cost efficiency as we would purchase or lease existing facilities opposed to the critical economic and environmental costs that would be suffered in building a new facility. From a product responsibility aspect, we are eager to invest in MMA specifically due to its positive environmental impact and high recyclability.





# © Ø Our Environment

This chapter discusses QAFAC's commitments to matters concerning environmental impacts: energy and emissions, resources and utilities. Using the following material topics as guidance, our management and performance is disclosed on the key focus areas.



# Introduction

In the past couple of years, dialogue on climate change has garnered immense traction, highlighting the increasing adversity and frequency of negative climate change impacts; being felt across regions. The simplification of climate change impacts, risks, vulnerabilities, etc., are transitioning into common knowledge at a gradual, yet impactful pace. A series of 2021 events such as the release of IPCC Sixth Assessment Report (AR) on Physical Risks in September 2021, the Glasgow Climate Pact at COP26 summit held in November 2021 and the more recent IPCC Sixth AR on climate change adaptation have collectively played a crucial role in underpinning the severity and urgency of climate change transition.

The recent IPCC publication on Climate Change 2022: Impacts, Adaptation and Vulnerability, provided insights on energy system transitions, which carry relevance and significance to the industry QAFAC operates in. Mega-disruptions to the energy sector are the de facto solutions to climate change, believed to enhance the feasibility of adaptation options available to industries. Amongst these solutions are- infrastructure resilience, reliable power systems and efficient water use for existing and new energy generation systems. Qatar's abundance in fossil fuels and its dependency on energy revenues place a strategic importance in implementing these solutions and internalizing the effects of climate change.

In addition to the existing frameworks for Qatar's sustainable development, the government released the Qatar National Environment and Climate Change Strategy (QNE) in 2021, providing a strategic framework reflecting Qatar's long-term sustainability ambitions and strengthening the urgency to respond effectively to the climate crisis. The QNE details the nation's commitment to tackle climate change by diversifying the economy, building capabilities, and optimising the use of natural resources, categorized under the five broad focus areas: GHG Emissions and Air Quality, Biodiversity, Water, Circular Economy & Waste Management, Land Use. QAFAC, being a downstream company, is not under an immediate

scrutiny to action the requirements established by QNE, as the strategy is currently being implemented for the upstream Oil & Gas companies in Qatar. However, QAFAC has received a directive to enhance its capabilities gradually to meet QNE's compliance requirements in eventuality. In consideration of these developments, we are being proactive and consistently adding further definition to QAFAC's environmental management. For instance, as described in the upcoming 'Climate Change' section, we are focused on strengthening out GHG Accounting and Reporting processes for robust GHG inventories and monitoring, as a crucial step towards emissions reduction.



We are motivated to transition into an environmentally conscious and responsible company within the State of Qatar and in order to translate this into a commitment, we have developed the QAFAC Environment policy, highlighting our role as a responsible steward of Qatar's natural resources. This policy sets out our commitments towards protecting our natural resources and complying with the associated regulations, while considering the best interests

of our employees, partners, and all external stakeholders. QAFAC's Environmental Policy is aligned to our Climate Change and Sustainability Policies and is expected to be published by end of 2022 or earlier 2023.

The steps we are taking towards environmental stewardship arise from our strategic priority of striving for "excellence in environmental protection" to prepare QAFAC for long-term sustainability.

Hence, our efforts towards this ambition are outlined in this environmental chapter, which provides a brief description of the approach, framework, drivers, and actions towards each environmental material topic. This year, we have realigned our environmental priorities through a materiality refresh exercise as stated in the preceding sections of this sustainability report, to arrive at the following 2021 material topics:

### Aligning our Material Topics to our Strategic Priorities and to Global and National Reporting Frameworks, Goals and Targets

Material Topio	Alignment to Global and National Reporting Frameworks, Goals and Targets				Key Enabler to Our Strategic Priority
Material Topic	QNV 2030	UN SDGs	GRI	QSE	"Prepare for Long-term Sustainability"
Resource Efficiency		8 IGENT TORIC AND LOCACION TO THE CONCLUSION AND ADDRESS AND PROJECTION AND PROJE	GRI 301	-	Strive for excellence in environmental protection
Climate Change	Environmental development	3 GROWGELERING 7 GERMANNERS 8 ECHNOLOGICAND 12 CHOCK AND	GRI 302, GRI 305	QSE E1-E7	Boost 'digitalization' to set a benchmark in our industry
Waste		3 GOODHEATH BY CAMPAGE B RECENT WORK AND ADDRESS TO BE CONCORDED TO BE CONCORD	GRI 306	QSE E9	,
Water	3.2.2.3pmont	6 MANAMITRIN 12 IRSPONSEE MANAMITRIN APPROUCHDIN APPROUCHDIN	GRI 303	QSE E8	
Biodiversity		6 AMBARITARIAN 14 UF BLOWWAITE 15 OF LIND	GRI 304	-	

# **Resource Efficiency**

The disruptions in supply and demand of energy resource availability and accessibility for the chemicals industry have been of geopolitical prominence for several decades. Considering the increasingly scalable and potentially equalizing power of renewable energies with traditional

fossil fuel sources, such as natural gas, it is vital for energy-intensive industries to continuously recalibrate and reorient. The introduction and seamless integration of circular economy or circularity principles with resource efficiency principles have helped companies in gaining

a broader understanding towards the positive impacts of efficient resource utilization. We have been able to implement projects and initiatives with co-benefits like optimized resource utilization, for example, Regenerate Gas Scrubber technology, further discussed in the subjective sections.

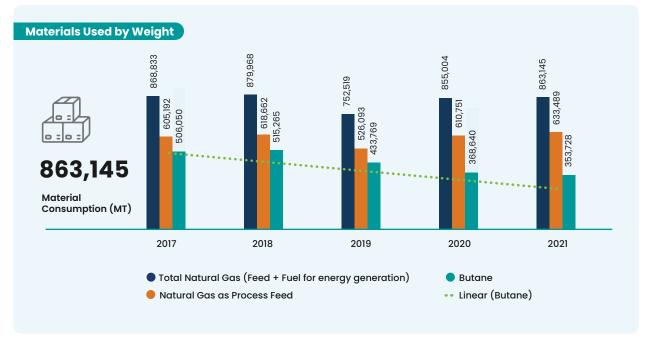
QAFAC is committed to diversifying its energy mix and ensuring an optimal utilization of its natural resources. Currently, there are no existing policies and strategies that guide QAFAC in achieving resource efficiency. However, considering the topic's material importance, we aim to develop and establish guidance efficient and effective use of resources, which guide our day-to-day operations.

In QAFAC's case, the production of Methanol and MTBE uses Natural Gas and Butane as primary raw materials. Natural gas utilization at QAFAC has dual purpose - as process feed for conversion into Methanol and MTBE, as well as fuel gas (comprising of natural gas and other fuels, further discussed in the Climate Change section). QAFAC's sole natural gas provider is QatarEnergy, also the field Butane is procured from QatarEnergy.



As we have reported last year, QatarEnergy, in collaboration with its partners located in the manufacturing hub of the Mesaieed Industrial City (MIC) has launched the Integrated Gas Supply to Mesaieed Industrial City (MIC) Consumers (IGSMC) project, with an objective to ensure uninterruptable natural gas supply to all QatarEnergy customers in MIC, including QAFAC. In addition to ensuring an uninterrupted supply, this project would eliminate the systemic inefficiencies of logistics, transportation, consumption measurement, losses of material, etc. By placing emphasis on the need for integrated, efficient, and optimized instrumentation systems, QatarEnergy and the participating companies can collectively establish concrete monitoring systems for key resource management and associated redundancies. One such highlight of the IGSMC project is its advanced ultrasonic flow metering installation, which ensures safe and accurate measurements of the gas flow, while eliminating the need for frequent cleaning since it has no moving parts. It also allows for frequent calibration or proving as well. This project is an improvement of existing method of resource and cost estimation using pressure differential flowmeters, which are prone to inefficacies. IGSMC supports our efforts to ensure continued operations and meet production targets, which eventually contribute towards meeting our customers' needs, enhancing our reputation, and retaining our market capitalization. In 2021, QAFAC has erected the tie-in line to the main network. The project is aimed to be completed in 2022.





### GRI 302-1, GRI 302-3, GRI 305, IQ-3, IQ-4, IQ-5, IQ-7, GPCA

# Climate Change



In 2021, we have revised our approach to managing the elements of energy and emissions. This is reflected in the 2021 materiality refresh wherein; our Energy and Emissions material topics have been consolidated into one topic of importance: Climate Change. We acknowledge and comprehend the deeply interrelated nature of energy reduction translating into emissions reduction. Considering the nature and intrinsic energy potential of hydrocarbons which QAFAC handles, we remain cognizant of the energy considerations and

the damaging potential of our raw materials, as well as our finished products. We constantly strive to manage our responsibility associated with harnessing efficient and effective process controls with direct and (or) indirect impacts on QAFAC's energy consumption to subsequently result in managing our environmental footprint. Our long-term goal is to invest in technologies and performance management processes that make our production processes as green and efficient as possible.

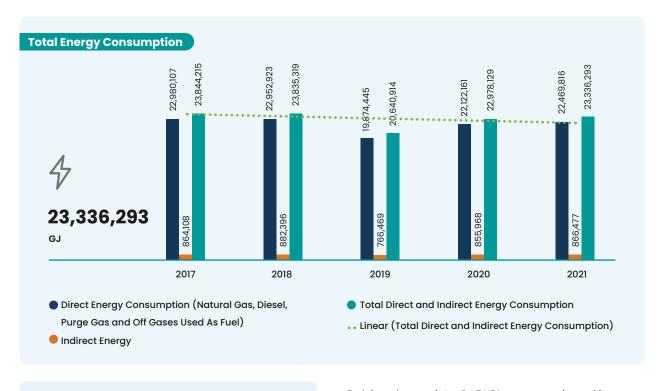
The management of topics like energy and emissions follows a thoroughly collaborative and coordinated approach at QAFAC. Under the aegis of QAFAC's Technical department and the Health, Safety, Security and Environment (HSSE) department, the responsibilities for managing the topics of energy and emissions are distributed. While the sponsorship and implementation of QAFAC's many projects may lie with the Projects, Technical and (or) Production departments, the aspects of monitoring, managing, evaluating, and reporting of these projects rest with the HSSE department. A symbiotic relationship amongst each of QAFAC's departments has been established in a robust manner which allows for successful outcomes of energy and emissions initiatives. Several such examples have been provided throughout this section.

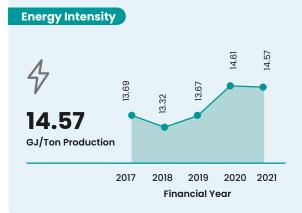
A foundational step QAFAC has taken towards better energy symbiosis, is to design and implement an organization-wise ISO 50001: Energy Management system (EnMS). We have reported the progress of implementation of the energy management standard in the 2020 sustainability report. While the project is in its final stages of completion and has made considerable progress in terms of development and modification of relevant policies and procedures, such as the Energy Management (EnMS) Guidebook, Energy Planning and Review, Energy Management Improvement.

In addition, as part of QAFAC's corporate policy refresh, we are currently developing a Climate Change policy, in alignment with QatarEnergy's climate change policy commitments. This policy highlights QAFAC's commitment to being a responsible steward in combating the risks of climate change. The policy is outlining the principles informing QAFAC's approach, defining the commitment to minimum compliance requirements, and to all stakeholders - employees, partners, local communities, and the world at large - as well as identifying the actions that we are taking to build resilience as an organization in the face of climate change. It is aligned to QAFAC's Sustainability and Environment Policies and supports the goals of the Paris Agreement.

In 2021, we have achieved a remarkable addition to QAFAC's energy mix. By virtue of the process optimization projects undertaken by QAFAC, we were able to add two new sources of energy, viz., MTBE Net Gas and MTBE PSA Tail gas, into our energy mix, already comprising of natural gas, MTBE offgases, MTBE Butamer scrubber off gas, purge gas and diesel. The MTBE Net Gas and MTBE PSA Tail gas are a result of the Regenerate Gas Scrubber (RGS) - QAFAC aims to further study the fuel potential attributes of these in the upcoming years. The direct energy generation by virtue of fuels is 96% of QAFAC's energy mix, whereas the remaining 4% is from electricity supplied by Qatar General Electricity and Water Corporation (KAHRAMAA). Further, the regenerated gas is used as a fuel in the major combustion units, i.e., methanol reformer and boiler.

There has been a minor increase of 2% in the QAFAC's energy consumption from 2020 to 2021. Considering the metric of energy intensity provides us with a more representative comparison of QAFAC's energy consumption, through its normalization against the annual production, we find the metric to be stable between 14.61 GJ per ton of production to 14.57 GJ per ton of production, with no effective or absolute change between 2020 and 2021 reporting years.





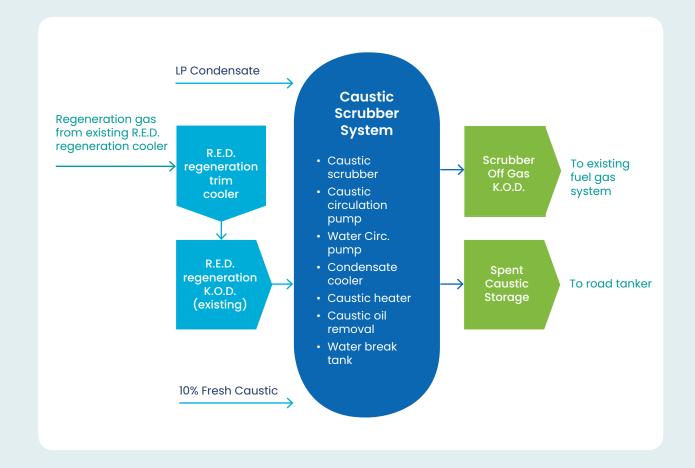
Delving deeper into QAFAC's energy mix and its emissions' implications, we present a detailed case study of the successful commissioning of the Regenerant Gas Scrubber (RGS) unit, which has led to the recycling of the MTBE regenerant gas, thus, generating the MTBE Net gas fuel as a result and contributing to a reduction in flaring. For the last two months of the 2021 reporting year, we have been able to add to the fuel sources. We aim to explore the true potential of the project and its favorable outcomes in 2022.

### **Regenerant Gas Scrubber Unit**

Regenerant Gas Scrubber Unit was commissioned in the last quarter of 2021. The purpose of installing RGS unit in the existing Oleflex unit of MTBE Plant is to remove H<sub>2</sub>S gas from Reactor Effluent Driers (RED) Regenerate gas (*In the Oleflex unit of MTBE plant*) by passing through circulating caustic scrubber and use regenerate gas as fuel in the existing gas network.

# (i) About the project

The Regenerant gas scrubber aids in the removal of H<sub>2</sub>S gas from the regenerant gas, which is typically used to regenerate the reactor effluent driers in the Oleflex Unit. The Regenerant effluent's H<sub>2</sub>S concentration lies between the range of 100 - 3000 mole ppm<sup>1</sup>. In the scrubber, the H<sub>a</sub>S is absorbed in 10% caustic solution, that further converts H<sub>2</sub>S to sodium di-sulphide (Na<sub>2</sub>S) and sodium sulphide (NaHS). These products from the scrubber typically contain <1 ppm of H<sub>o</sub>S and is water saturated. A Caustic Oil Removal Package is provided in the scrubber's caustic circulation system, to separate the entrained hydrocarbon from an aqueous stream of spent caustic, further reducing the concentration of entrained hydrocarbon from 100 - 5000 wppm<sup>2</sup> to <20 wppm. Once the spent caustic reaches 80% concentration in the final products, it is dumped in batches and sent to spent caustic storage tank, following which the solution is pumped to trucks for disposal.



# **Regenerant Gas Scrubber Unit**



# Outcomes

RGS Unit has enabled QAFAC to reduce the amount of gas flaring and recover regenerate net gas, which is suitable for reusing as fuel in the fuel network. The table presented below provides a comparison of the MTBE plant's flaring figures with and without RGS unit.



# The value generated

This RGS project is expected to deliver emissions reduction and minimise the consumption of natural gas in the fuel mix.

# Way Forward

As the project has been commissioned in October 2021, QAFAC is steadily monitoring and operationalizing the RGS unit to evaluate the performance against desired targets of flaring reduction and use of Hydrogen as a fuel gas.

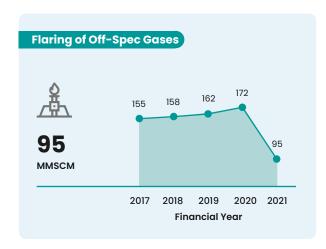
MTBE Plant Flare Red	
MIRE Plant Flare Pea	ILICTION WITH PC-S LIBIT

Flaring/ month without RGS	Flaring reduction with RGS				
Quantity	Quantity	Reduction (%)			
1,845 MT	1,265 MT	68.5%			
532 MMSCF	390 MMSCF	73.3%			

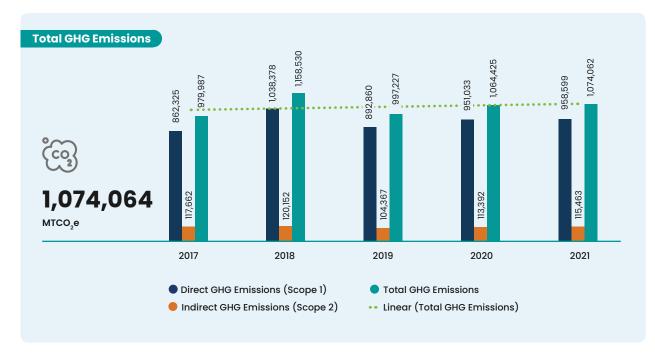


GRI 305-1, GRI 305-2

With respect to flaring off-spec gases, which are released or flared are processed in the RGS unit. We continue to monitor the data and incorporate effective management techniques. Operationalization of the RGS unit in 2021, led to a 45% reduction in the flaring of off-spec gases.



Having discussed the energy attributes at QAFAC broadly for the reporting year 2021, we, therefore continue to explore and establish the links of energy consumption to the resultant atmospheric emissions. With the help of the RGS Unit, we are able to reduce our flaring emissions and meet the compliance requirements established by regulatory authorities such as MoECC (for maintaining our Consent to Operate (CTO)) and controlling entities such as Industries Qatar and QatarEnergy's Flaring Reduction Strategy. Further, we are in a position to align ourselves with the broader frameworks and



recommendations provided by global regulatory bodies and associations with insights into gas flaring and venting practices in the gas industry.

QAFAC is cautiously driven by several regional and national forces to obtain a gradual decline in our Greenhouse Gas (GHG) emissions. To ensure better monitoring, tracking and verification of our data, we have established a set of Key Performance Indicators (KPIs) consolidated into a dashboard, which allows for real-time data monitoring and improves reporting practices on

the performance of GHG and air emissions. In addition, from an emissions reduction perspective, QAFAC has a Carbon Dioxide Recovery (CDR) unit, commissioned in 2014. This unit effectively reduces the GHG emissions by capturing carbon dioxide and converting it to Methanol within the production process. This operation is not limited to emissions reduction, but further, to optimized resource usage, elimination of product or resource loss, depicting an excellence in manufacturing processes. In 2021, QAFAC has successfully captured 175,122 metric tons of carbon dioxide and converted it into Methanol.

# Greenhouse Gas (GHG) Accounting & Reporting (A&R)

In 2020, we enacted the QatarEnergy directive to implement a Greenhouse Gas (GHG) Accounting & Reporting (A&R) program, which is aligned to QatarEnergy's approved GHG Accounting and Reporting Procedure. This follows the European Union (EU) and Intergovernmental Panel on Climate Change (IPCC) guidelines to ensure accurate emissions' reporting. QAFAC has made immense progress on this project in 2021, receiving high accolade and commendation from QatarEnergy.



# About the project

With the support of third-party vendor and QAFAC's own IT infrastructure, a Data Integration and Automation Application (DIA) software, had been implemented by QAFAC. This project has successfully established the integrated management system for GHG A&R. The software application communicates constantly with the plant information (PI) and Uniformance process history database (PHD) system and lab information management systems (LIMS). In 2021, we enhanced this program by setting a comprehensive mechanism with calibration systems, equipment, protocols, monitoring, and certification programs for GHG accounting, reporting and verification processes.



A high degree of automation had been achieved in emissions data management with the help of this software.



# The value generated

Strengthening of GHG monitoring and measurement tools with a direct net positive effect on GHG emissions management and reduction.

# Way Forward

Continue to strengthen our emissions management systems in alignment with QAFAC's Climate Change policy commitments.

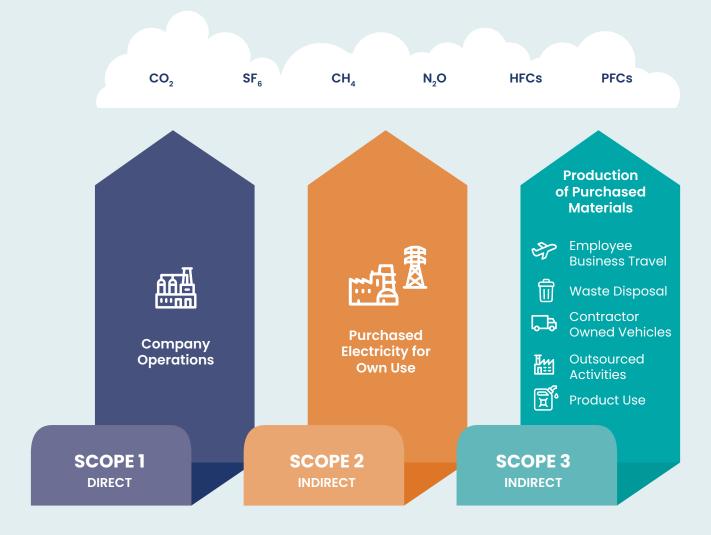
# GHG Scope-1 Emissions Inventory **Verification Certificate**



# **Inventory of Scope-2 Emissions Verification Certificate**



# **Categories of GHG Emissions**



Note: QAFAC reports only Scope 1 (CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O) and Scope 2 emissions.

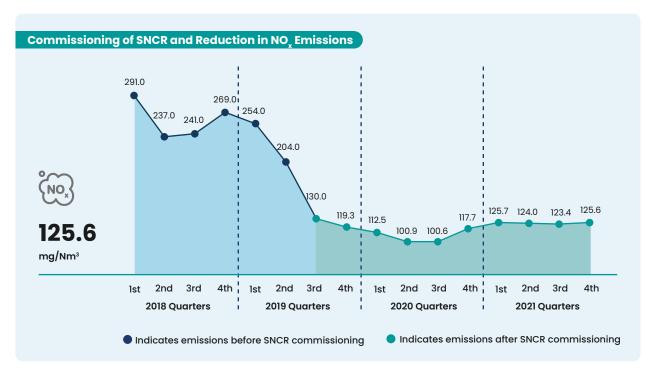
GRI 305-4, GRI 305-7

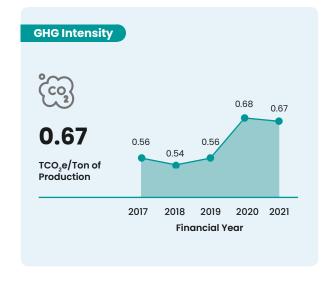
In the reporting year 2021, there was no significant difference in QAFAC's direct and indirect emissions compared to 2020. This is also reflected by the stable GHG intensity figure at 0.67 MTCO<sub>2</sub>e per ton of production. The trend outlines the gradual stability QAFAC is re-attaining, in light of the negative consequences of COVID-19.

In addition to GHG inventory development and emissions reduction motive, QAFAC tackles the release of harmful and toxic air emissions with a high level of importance. The commissioning of the selective non-catalytic reduction (SNCR) system in 2019, to meet the MoECC's directive to maintain

 ${
m NO}_{\chi}$  limits has led to a stable operating system for air emissions at QAFAC. As per the directive, the annual  ${
m NO}_{\chi}$  levels of an entity have to be limited at 125 mg/Nm³. The installation of new analyzers further enhanced the emission monitoring for the SNCR unit. The below mentioned data provides an insight into the  ${
m NO}_{\chi}$  emissions reduction since 2019. A vast reduction of approximately 58% in emissions has been recorded in a three-year period, owing to the  ${
m NO}_{\chi}$  emissions plummeting from approximately 260–280 mg/Nm³ to around 110–125 mg/Nm³. However, there has been a 12% increase in  ${
m NO}_{\chi}$  emissions from 2020 to 2021, primarily due to some planned and/or unplanned shutdowns in 2020, a result of the

pandemic. In addition to the projects and systems presented above, QAFAC has taken steps to curb the release of fugitive Volatile Organic Compounds (VOCs) and Hazardous Air Pollutants (HAPs). The adopted approach to achieve these reductions is through the Leak Detection and Repair (LDAR) program following QatarEnergy guidelines and in accordance with US EPA Method 21. In 2021, QAFAC started Methane emissions monitoring through LDAR program wherein the Toxic Vapor analysers (TVA) and Optical Gas imaging camera (OGI) will be used for carrying our LDAR activities. Activities related to site monitoring of are scheduled for 2022.





GRI 306-2, GRI 306-3, GRI 306-5, IQ-8, IQ-9, GPCA

# Waste



QAFAC recognizes the importance and the necessity to ensure responsible waste management to align with QNV 2030 and other national strategic objectives, such as the QNE. While waste generation continues to remain a material issue for 2021, our waste disposal processes have seen some improvements the past few year. By virtue of QAFAC's operations, we generate large amounts of hazardous and non-hazardous wastes, which have the potential to cause detrimental environmental impacts. Our waste composition is represented below:

### Hazardous waste

- Spent catalysts
- Spent resin
- Spent salt
- Oily sludge
- Activated carbon
- Spent oil filters

# Non-hazardous waste

- Domestic waste
- Electronic waste (100% recycled)

To ensure safe disposal of QAFAC's waste streams, we engage efficient waste management contractors; third parties who would ensure further responsibility for the handling, transportation, and disposal of different types of waste, which include hazardous waste, general waste, electronic waste, incinerable waste and medical waste.

We recognize that the engagement of contractors is insufficient in ensuring responsible waste management practices. Hence, we strengthened the targets of our existing KPIs and introduced new KPI(s) and targets at departmental and executive levels to ensure continuous improvement and compliance to the operational requirements established by the MoECC. Examples of waste disposal- related KPIs are:

The performance against these KPIs and parameters are tracked through our HSE dashboards. Under the ownership of QAFAC's HSSE department, the KPI related to the "Retention of hazardous waste in QAFAC storage to be under 90 days (%)", had been introduced as a new KPI for implementation and tracking in 2022 and forward.

Enabler: Strive for Excellence in Environmental Protection						
Category	KPI	2021 Target	2022 Target			
Waste Disposal/Spills	Collection of waste materials for recycling (%)	250	100			
	Retention of hazardous waste in QAFAC storage to be under 90 days (%)*	-	100			
	Significant spills (#)	0	0			

<sup>\*</sup>New KPI

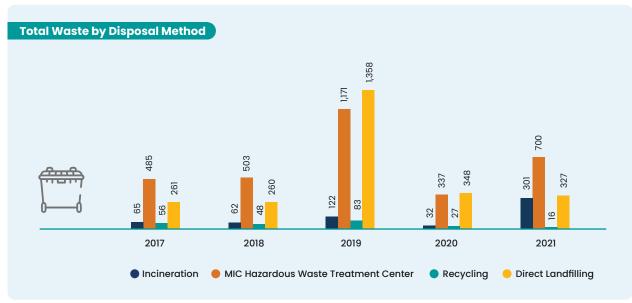
GRI 306-3, GRI 306-5

QAFAC has witnessed a staggering 81% increase in the total waste generation. The reasons for this are attributed to a partial unplanned shutdown, that has increased the quantity of waste. In addition, QAFAC's RGS plant commission in October 2021 has contributed to the increase in incinerable waste quantity.

The table provided below provides further insight into QAFAC's waste disposal pathways:

Nature of Waste Stream	Type of Waste	Disposal Pathway
	Industrial waste	Sent to Mesaieed Industrial City (MIC) Hazardous Waste Treatment Center
Hazardous waste	Amine waste	Incineration via waste management contractor
	Oil waste	Recycling via waste management contractor
Non- hazardous recyclable waste	Domestic waste, E-waste	Recycling via waste management contractor





GRI 306-1, GRI 306-2, GRI 306-3, GRI 306-4

Further, upon evaluation of QAFAC's environmental improvements in 2021, we recognize the holistic impact on our environment to be positive, as depicted below.

Trees



11.21

Air Pollution



39.54 lbs.

Landfill Space



2.90 m<sup>3</sup>

Oil



**371.72** gal.

Energy



3,657.76 kw

Water



9,613 gal.

Back in 2019, QAFAC's HSSE department and the Environment section launched the Recyclable Waste Management Program. In 2020, this program was further enhanced by placing several color-coded recyclable waste bins in the buildings for collection of empty plastic water bottles, aluminum cans and paper. Each bin has four compartments with different color codes. Each color corresponds to a specific waste category as stated below:

- Yellow: For plastic bottles (e.g., water bottles)
- Red: For aluminum cans (e.g., beverage cans)
- Blue: For paper
- Green: For non-hazardous general waste

Type of Waste	Weight (Kg)
Paper/Carton	659
Plastic Bottles	63
Aluminum Cans	47
Total	769

The recyclable waste is collected and stored in respective storage bins placed outside the buildings. An approved contractor collects the waste on call basis, which is then handed over to the recycling facilities for recycling of plastic, aluminum, and paper. Accordingly, monthly reports are submitted by the contractors to QAFAC. There have been no significant activities that occurred in 2021 with regards to this non-hazardous waste recycling project.

### GRI 303-1, GRI 303-2, GRI 303-4, GRI 303-5

# Water

Operating within one of the highest water-stressed regions comes with a set of challenges, Qatar is located in an arid climate and suffers from acute water stress round the year. The nation has no rivers or lakes, and the primary sources of freshwater are rainfall and ground water. Hence, to meet the country's water needs, the use of desalinated water is prevalent.

QAFAC purchases the water from Qatar General Electricity and Water Corporation (KAHRAMAA) and self-generates a portion of the remainder in the Carbon Dioxide Recycling (CDR) plant, which also recycles the recovered water vapor from flue gases. QAFAC's water usage is for the following main purposes:

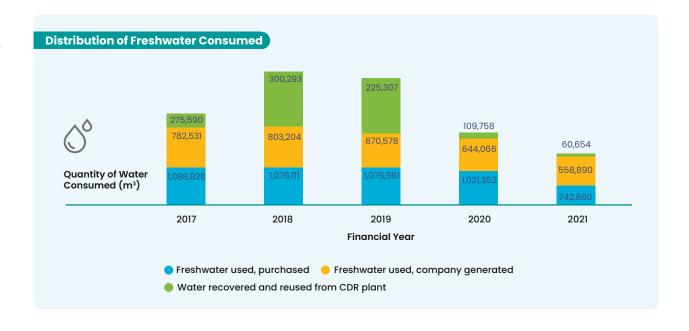
- Steam generation for process requirements
- Energy driver and non-contact coolant for mechanical equipment
- Use of treated recycled wastewater from our sanitary wastewater treatment plant for irrigation purpose
- · Use of water for water in offices

To ensure a balanced approach to water management at QAFAC, we have integrated water efficient measures into our environmental management approach. Water is currently not governed by any written policy within QAFAC;

however, our upcoming Environment policy outlines broad commitments towards water management. A broad policy commitment includes the development of solutions to conserve freshwater resources and restore ecological balance in marine environments to protect the essential resources. Hence, as part of our ongoing efforts towards water management, we closely monitor our water consumption with the help of key performance indicators included in our corporate scorecard and reviewed against objectives and targets.

In 2021, there was a noticeable reduction of approximately 22% of total water consumed compared to 2020. Our purchased water quantities have reduced 27% while our generated water quantities fluctuated at 13% between 2020 and 2021.

Similarly, there has been 45% reduction in the quantity of water recovered and reused from CDR plant in 2021, due to unenforceable reasons.



GRI 303-1, GRI 303-2, GRI 303-4

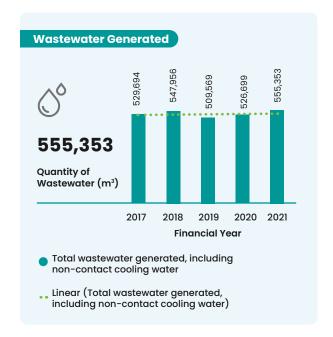
While QAFAC has witnessed a material decrease in water consumption, an increase in wastewater generation has been observed, although not of high significance or intervals. In 2020, QAFAC discharged a total of 526,699 m³ of wastewater, which was 3.4% higher in comparison to the previous year. Further in 2021, we observed the wastewater generation and discharge to have increased by 5% from 2020 levels to reach a quantity of 555,353 m³ owing to a multitude of reasons ranging from meter malfunction to process-related changes.

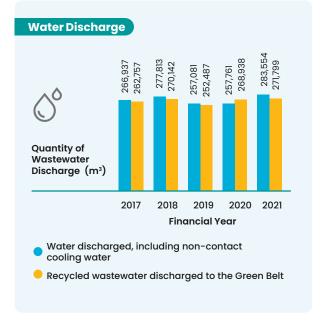
The effluents released as a result of QAFAC's operations are categorized as:

- 1. Oily wastewater
- 2. Process wastewater
- 3. Demineralized wastewater
- 4. Sanitary wastewater

In terms of our processes to ensure safe wastewater or effluent discharge, we ensure a large proportion of our wastewater is recycled. For the past five years, we have been consistently recycling approximately 51% of the wastewater being generated at QAFAC. This recycled water is used for irrigation purposes in our designate Greenbelt area.







# Near Zero Liquid Discharge (N-ZLD) Plant



QAFAC's effluents discharge has a detrimental impact on the environment, if unregulated. As a response to this, the N-ZLD project had been initiated to manage the disposal pathways and quality of effluents such as, oily wastewater, water, process wastewater and water, demineralized wastewater, etc. QAFAC has conceived the N-ZLD plant in compliance with the requirements of Ministry of Environment and Climate Change (MoECC) and the State of Qatar.

The objective of the project is to promote water conservation as well as gain commercial benefit by utilizing the treated effluent, resulting in a substantial annual saving of 604,440 m³ and 69 m³/hour load of water sourced from KAHRAMAA.

# (i) About the study

The N-ZLD plant is equipped with systems to treat the process wastewater streams (i.e., oily wastewater, process wastewater and demineralized wastewater) and upgrade them to potable water standards. The plant is equipped with advanced automation and is being implemented in three phases, following the format of Phase 1 Selecting the technology provider with its scope of supply. QAFAC awarded SUEZ Water Technology & Solutions for the supply of technology and its related skids and equipments. This phase of the project is ongoing and expected to be completed in early part of 2023. Phase 2 involve the detailed engineering to prepare the invitation to bid (ITB), tendering & award the PCIC (Procurement, Construction, Installation and Commissioning) contract. It includes the prerequisite documentation checklists, approvals, and permits, such as the Construction Environment Management Plan (CEMP). The CEMP, for instance, is carried out by a third party and approved by the Ministry of Environment and Climate Change (MoECC). The CEMP includes manpower planning, waste generation, impacts to groundwater tables, etc. and permits like Consent to Construct (CTC) and Consent to Operate (CTO). Phase 3 involve executing and completing the project through the PCIC contract.

Due to the pandemic, several operational delays and geopolitical conditions were witnessed during the past 2 years, pushing the estimated completion timeline to 2024. As part of the project handover, our employees will undergo training and awareness on the new systems and technology.

# Outcomes

The N-ZLD plant, once fully operational, will recover approximately 85% of QAFAC's wastewater for utilization as makeup water in our demineralization plant. The remaining 15%, which is mainly brine water, after treatment will be rejected to the sea.

# The value generated

Energy Efficient and circular processes with minimal impacts on land and marine ecosystems. Additional benefits of process efficiency and resource reduction through automation.

# **Way Forward**

The project construction will begin after successful award of construction contract. The N-ZLD plant is expected to be fully operational by the end of 2024.

# **Biodiversity**

The State of Qatar has been a party to the Convention on Biological Diversity (CBD) since 1996 and has been a party to the subsequent Cartagena and Nagoya protocols, by accession. The nation has established a Qatar National Biodiversity Strategy Action Plan (NBSAF), covering seven goals and associated targets proposed to be achieved by 2025. The implications and actions for QAFAC could be significant from a marine biodiversity perspective. Hence, we added provisions for biodiversity management in our upcoming Environment policy, committing to the protection, mitigation, and investment to minimize impact on biodiversity. With the material significance of biodiversity established at QAFAC through our 2021 materiality refresh exercise, we aim to explore the issue with greater seriousness in the upcoming years to meet our stakeholders' expectations and achieve an alignment with the anticipated national biodiversity targets.

Currently, our responsibility towards biodiversity is well-reflected in our chemical handling and transportation safety. QAFAC has a history of zero spills, unfalteringly driven by our constant endeavor for safety excellence. Further, in the suite of current initiatives and projects convened by QAFAC, our N-ZLD project's anticipated outcomes include environmental benefits, primarily, the reduction in disposal of effluents into the marine waterbodies.

In addition, the ongoing Environmental Impact Assessment (EIA) of the Mesaieed Industrial City (MIC) would aid us in taking the first steps towards understanding the current state and urgency for preservation of biodiversity elements in our operating environment. Similarly, performing the Construction Environmental Management Plan (CEMP) and related assessments like the benthic studies, hydrodynamic modellings for projects that

pose a considerable impact on the environment through effluent discharge, help QAFAC in sound decision-making and preparedness.

Moreover, with existing initiatives like the tree plantation drive, we relocated a few trees in 2021. We aim to expand the scope of such projects in the future.





# **Our Safety**

This chapter discusses QAFAC's commitments to matters concerning its health and safety impacts: occupational health & safety, process safety and emergency preparedness. Using the following material topics as guidance, our management and performance is disclosed on the key focus areas.



# Introduction

At QAFAC, personal health and safety is an indispensable part of the business. The health and safety of our people, as well as the safety of our operations are of utmost importance and priority, especially when faced with new challenges such as the COVID-19 pandemic. A challenging situation like the COVID-19 pandemic, calls for more robust and sustainable health and safety systems. As a responsible organization, we seek to ensure that our employees, contractors, visitors, customers, and shareholders can work and collaborate in a safe and healthy environment with zero-harm.

During the reporting year, QAFAC implemented many measures to prevent the spread of the pandemic and protect our employees and contractors. Some of the measures implemented include establishing protocols to manage individual health and safety (e.g., social distancing, wearing face masks, sanitizing, etc.), promoting virtual meetings wherever possible, with supporting infrastructure, changing shift timing, close monitoring of vaccination schedule, entry restrictions to authorized work areas, granting work-from-home and other flexible working setups. With respect to contractors and employees availing QAFAC's bus transportation, we ensured access to hand sanitizers and adhered to social distancing protocols in the seating arrangements. Additionally, we stringently followed all COVID-19 guidelines and protocols as instructed by the government entities like the Ministry of Public Health (MoPH) and closely followed the instructions of QatarEnergy.



Our health and safety principles are formulated in line with international frameworks and standards such as the Environment, Health, and Safety (EHS) Program of the Organization for Economic Co-operation and Development (OECD), the Occupational Safety and Health Convention and its accompanying recommendations by the International Labor Organization (ILO), and the safety standards of the American Petroleum Institute (API).

In addition to following international standards and best practices, we also pay close attention to national health and safety provisions. These include Qatar's Labor Law, the policies of its National Committee of Occupational Health and Safety within the Ministry of Administrative Development, Labor and Social Affairs, and the social development pillar of the Qatar National Vision (QNV) 2030.



This section outlines our performance during the reporting period on health and safety (occupational health and safety and process safety) and emergency preparedness. Our approach to managing our performance on these topics is disclosed in line with the GRI Standards.

# Aligning our Material Topics to our Strategic Priorities and to Global and National Reporting Frameworks, Goals and Targets

	Material Topic	Alignment	Alignment to Global and National Reporting Frameworks, Goals and Targets			Key Enabler to Our Strategic Priority
	Material Topic	QNV 2030	UN SDGs	GRI	QSE	"Prepare for Long-term Sustainability"
	Health and Safety	Social development	3 GOOD HEADY 8 ESCENT POWN AND AND AND HOLE THE POWN AND HOL	GRI 403, GRI OG 13	QSE \$14,15	<ul> <li>Sustain top quartile health and safety performance</li> <li>Boost 'digitalization' to become a reference in our industry</li> </ul>

# **Health and Safety**



Our leadership has always given utmost importance to the health and safety of our workforce, which includes both employees and contractors. As a testimony to that, QAFAC has achieved 18 million safe working hours without LTI for our employees and contractors by 27 January 2022. Our approach to safety includes identifying possible risks, implementing measures to prevent the same and educating our workforce with targeted and carefully designed health & safety and process safety programs. QAFAC's approach and principles toward health and safety are captured in our Quality, Health, Safety and Environment (QHSE) policy. It is a guiding document for our workforce on any matters that are related to health and safety issues.

Our health and safety priorities align with our corporate visions, mission, values, and overall strategy.

Our Corporate Alignment to
Our Health and Safety Priorities



#### Vision

• Being recognized for our reliability



#### **Mission**

 Maintaining the highest HSSE standard



#### Values

 Safety: We ensure safety in everything we do



#### Strategy

- Approach to winning in the market: maintaining high plant
- Key enablers to our long-term sustainability: sustaining top quartile health and safety performance

Our leadership is diligent and committed to sound and efficient health and safety governance at the organizational level. We hold meetings on health and safety at various organizational levels. The HSE Central Committee (Level 1) meetings are held quarterly and are chaired by our Chief Executive Officer (CEO). The meetings cover topics such as our performance and challenges related to environment, occupational health & safety, trainings conducted, security systems, and process safety. The Level 2 meetings chaired by our Chief Operating Officer (COO) are held on a bimonthly basis and have participation from managers and operational safety heads. Lastly, each QAFAC department has its own monthly safety committee (Level 3) meetings, chaired by the respective department's manager. These exclusive meetings are a forum to discuss key safety topics such as safety incidents, major projects with health and safety concerns and current health and safety performance.

Furthermore, the importance given to health and safety aspects by the leadership is evident in the formation of different committees which overlook various facets of health and safety governance. For instance, the Management of Change Committee and Quality Assurance Committee contribute to embedding health and safety aspects into everyday practices, and the Process Safety Management (PSM) Central Committee oversees process safety matters.

Our leadership took due care in mitigating the risks arising from the outbreak of the COVID-19 pandemic at the worksite and ensured that QAFAC employees and contractors are vaccinated. At the end of the second dose vaccination drive, 95% of QAFAC staff and 100% of long-term and permanent contractors were vaccinated. Under the guidance of Crisis Management Committee, we monitored the number of infected cases and adopted strategies to curb the spread of infection. Management introduced various measures to ensure employee safety which include:

- Shifted to virtual meetings instead of physical meeting
- Changed to 12-hour shift patterns to ensure availability of staff at all times
- Issued laptop and other required resources for virtual meeting and work-from-home setups
- Provided work-from-home facility to many employees
- Coordinated vaccination schedules for employees and their family members
- Regularly monitored contractor's vaccination drives
- Continuously monitored the workplace and rest areas to ensure compliance with COVID-19 protocols
- Encouraged adherence to social distancing requirements while travelling
- Facilitated regular follow-ups to employees by the Occupational Health Nursing (OHN) team
- Restricted and limited unnecessary external office visits

QAFAC interacts and collaborates on various health and safety topics with other companies in the oil and gas sector within the State of Qatar, for example QatarEnergy and companies within Mesaieed Industrial City (MIC). These collaborations provide a knowledge sharing platform where valuable insights and lessons learned can be circulated, benefiting all members, and assisting in their commitments to various health and safety requirements.

QAFAC is a leading producer of MTBE and Methanol, and the majority of health and safety related aspects are associated with the production of these chemicals. As we have the responsibility to drive health, safety, and reliability at the industry level, we are an active member of the Gulf Petrochemicals and Chemicals Association (GPCA) and a sponsor of the Mary Kay O'Connor Process Safety Center of Texas A&M in Qatar. GPCA is the voice of the chemical industry in the Arabian Gulf and being part of the GPCA helps us through learning from other member companies and sharing best practices in regard to process safety. As a member of GPCA, we are also part of the GPCA Process Safety Task Force Committee.

To uphold the highest health and safety standards at QAFAC, we have developed QAFAC's Health, Safety, Security and Environment (HSSE) principles as an additional commitment to our HSSE excellence. The HSSE principles provide an HSSE platform and foundation for all systems and activities at QAFAC.

Along with the HSSE principles, QAFAC implements nine Life-Saving Rules. These simple and powerful Life-Saving Rules establish QAFAC's intention to protect personnel against life threatening injury/illness and life-threatening accidents. Willful negligence of these rules will lead to disciplinary action and may result in employment termination.

To sustain excellent health and safety culture, continuous learning is imperative. Hence at QAFAC, we provide our employees with internal and external trainings covering diverse topics to improve their knowledge and awareness in the domain of health and safety. In 2021, we have provided our employees with 4,134 training hours with 97% achievement.



HSSE Training Conducted in 2021

Training Name	Туре	Description	Training Hours
ERT Training	Internal	Build the capacity of emergency responders and improve their preparedness, technical skills, making better coordination while performing emergency management and response effectively.	576
Confined Space Entry Program	Internal	Provide the necessary knowledge of the hazards for working in confined spaces, safe use of tools and equipment, control of hazards and understanding the emergency procedure.	26
Permit to Work (Awareness)	Internal	Explain the purpose of permits to work within QAFAC and what type of high-risk activities may require them, roles, and responsibilities of PTW key personnel and explain Job Hazard Analysis (JHA).	536
Permit to Work (Refresher)	Internal	Refresh the knowledge and understanding of the Permit to Work system in QAFAC and responsibilities when issuing and receiving permits.	206
Heat Stress Awareness	Internal	Refresh the knowledge and understand Heat Stress, identify symptoms of Heat Stress, actions to take if employee or co-worker suffers from Heat Stress and know how to prevent or minimize the effects.	158
Emergency Response Plan Awareness	Internal	Emergency Response Procedure is designed to provide an understanding of the planning and preparation of emergency response plans within QAFAC. Determine any gaps as the Emergency Response Team move through the course. Participants will collaborate in small groups to analyze scenarios using incident videos and case studies and apply critical thinking skills for prevention and to respond to emergencies	36
Radiation Protection Officer (RPO)	External	The objectives of this training course are to ensure participant gain detailed information and competency for safely managing radioactive sources and materials in the workplace.	40
Hydrogen Sulfide (H <sub>2</sub> S) and Breathing Apparatus (BA)	External	Gain the required knowledge and understanding of the hazards and properties of H <sub>2</sub> S, and appropriate emergency response actions to take should an H <sub>2</sub> S related incident arise. Also provide participants greater awareness and profound understanding for the practical use of BA especially for all personnel who are at risk from H <sub>2</sub> S and other toxic gas or for employees who may need to work in an immediately dangerous to life or health atmospheres.	04
Safety Induction (DVD) Employees/Trainees	Internal	Provide new employees with an overview of QAFAC work health, safety and environment principles, emergency response and QAFAC Lifesaving rules that will encourage them to work more safely.	23
Safety Induction (DVD) Contractors	Internal	Provide new contractors/vendors with an overview of QAFAC work health, safety and environment principles, emergency response and QAFAC Lifesaving rules that will encourage them to work more safely.	2,243
Root Cause Analysis (RCA)	Internal	The main objective of this Root Cause Analysis Training is to empower professionals with in-depth knowledge and understanding of root cause analysis.	12
Behavior Based Safety (BBS)	Internal	The Behavior Based Safety course is designed to help participants understand the science and research behind organizational behavior management and apply these principles to their own worksites, preventing accidents and injuries.	230
Energy Control (ECP-LOTO)	Internal	Energy Control (ECP-LOTO) training is a part of energy control program to avoid accidental release of energy during tie ups with existing systems and maintenance activities.	44

To assess our performance in health and safety management and to translate our commitments to quantifiable insights, our leadership established multiple key performance indicators (KPIs) and set respective targets. The prominent three KPIs that are continuously tracked and monitored by the management with zero-target are Total Recordable Case Frequency (TRCF), Lost Time Injury Frequency (LTIF) and Process Safety Total Incident Rate (PSTIR). To monitor our HSSE performance, leadership has established performance information dashboards at the executive level that provide monthly performance information and thus helping to focus on improvement areas, identifying best practices, etc.

As a recognition to our excellent HSSE performance, we participated in the Royal Society for the Prevention of Accidents (RoSPA) UK award competition 2021 and we are proud to mention that we won the prestigious RoSPA silver award for the second time in a row. This achievement highlights the kind of importance given to health and safety by QAFAC's leadership.

At QAFAC, we consider contractor safety to be on par with employee safety, and we make no distinction between the health and safety standards and protocols that we use to oversee both employees and contractors' safety performance. We continue to maintain the Contractor Safety Board, an initiative started in 2018 to visibly demonstrate our collaborative management commitment to encourage and improve contractor safety

performance. Based on the periodic monitoring and review of contractor safety performance, the Board develops contractor safety improvement strategies with action plans to enhance their health and safety performance. QAFAC has initiated regular meetings/ interactions with contractors to discuss safety issues and relevant trainings. This involves the participation of contractors in emergency exercises, reward and recognition programs, safety and health campaigns, and a weekly safety moment to be conducted at the beginning of every meeting.

We also have a structured contractor management program governed by QAFAC leadership. Daily and monthly contractor management meetings are held wherein challenges, advice and action plans are discussed. During these meetings, QAFAC representative presents their findings, lessons learned, trainings/training needs, observations, etc. on contractor's health and safety performance. In addition to this, half yearly meetings are held amongst the contractor's top management and QAFAC's top management. These meetings are chaired by the CEO and COO of QAFAC alternatively and discuss high-level performance reviews and associated topics. Lastly, our contractor management program ensures that HSE clauses are included in our tenders and submitted proposals to ensure that all people working with QAFAC conform to our health and safety standards.



During the COVID-19 outbreak, we have taken prominent measures to manage contractor health and safety and we continue to follow appropriate COVID-19 protocols for our contractors. As part of our continued response to the pandemic, we ensured the implementation of the measures we undertook in 2020 -as required- to manage our contractors' health and safety. For example, we continued to implement the 'COVID-19 guidelines for contractors' with protocols for worker camps and provided awareness trainings on the precaution and safety measures to every contractor engaged with QAFAC. We also communicated with various contractor management entities to ensure that QAFAC's quidelines as well as the protocols from QatarEnergy and the directions from MoPH were followed.

We also implemented several initiatives to manage contractors' health and safety at our facilities, including checking the status on the EHTERAZ app before they enter the plant, temperature checks, minimal staffing of contractors (including authorizing only one focal person to enter the buildings in order to obtain the permits and avoid frequent entries), provision of soaps and sanitizers at all prominent locations, sanitization of contractor fleet and ensuring only 50% occupancy in the buses, etc.

Furthermore, we continued to conduct meetings as part of the contractor management program to share COVID-19 updates, new guidelines, awareness, and precautions.

We continued to enforce protocols wherein, if any contractor was identified as a positive case of COVID-19, they were required to quarantine and submit medical reports for having completed the treatment until becoming COVID-19 negative. In addition, our QAFAC nurses also conducted follow up discussions about the health conditions as well as checked the medical certificates before the contractors resume their duty to ensure the safety of our entire workforce.

During lockdowns, we also faced challenges in managing the health of some of our contractors who were critical to our business operations.

Therefore, we closely coordinated with QatarEnergy to transfer these business-critical contractors to the safe concession camps in Mesaieed Industrial City (MIC) that were managed and controlled by QatarEnergy. The concession camps were sanitized regularly and administered with stringent controls and measures including frequent medical assistance and temperature checkups to manage the contractor health and safety.



QAFAC's achievements and milestones related to health and safety are the result of prominent and effective involvement of our leadership in overall health and safety management. Our leadership comprehends that health and safety management is a continuous journey and thus requires us to remain focused, vigilant, and compliant to ensure zero harm to our people at all times.

GRI 403-1, GRI 403-4, GRI 403-6

## Occupational Health and Safety

At QAFAC, we prioritize the health and safety of our employees and contractors. Our occupational health and safety management system, as well as our 'Bill of Safety Rights and Duties,' ensure effective actions and preventive measures are implemented.

We have successfully transitioned from OHSAS 18001 to the ISO 45001 occupational health and safety standard in 2020 and upgraded our systems and procedures. In the process, we developed new procedures and updated several exiting procedures to comply with the requirements of the ISO 45001 standard.

Additionally, our procedures for safe operations and excavation are in place, including the establishment of responsibilities and safety requirements for excavation activities such as working in several types of soil, conducting deep excavation pursuits, side wall collapse, falling of person or equipment, shoring, etc. Furthermore, aligning with QatarEnergy requirements, we have mandated a Smart Watch Policy that prohibits non-intrinsically safe smartwatches and earbuds in the plant and process areas, as these may be sources of ignition that may pose hazardous risks to our people and plants.

After launching 'HSSE kickoff meeting' program last year to engage contractors with QAFAC, we have upgraded our HSSE observation program, and included HSSE criteria for the selection of contractors. The objective of the HSSE kickoff meeting program is to ensure contractors are prepared in advance for any safety requirement, thus avoiding safety violations. We also conduct periodic meetings with contractor safety officers and discuss HSSE concerns, safety focus areas, planned work and any other safety-related issues that require attention.

We also conduct regular audits on our occupational health and safety management system through annual internal and external audits for the purpose of affirming the sound implementation of our protocols. QAFAC's internal audit function is co-sourced with an external service provider and reports to the Audit and Risk Committee, a subcommittee of the QAFAC Board of Directors. In 2021, our internal audits focused on enhancing our capabilities for ISO recertification and an external surveillance audit by TUV for ISO recertification. During these audits, zero legal non-compliance was identified.

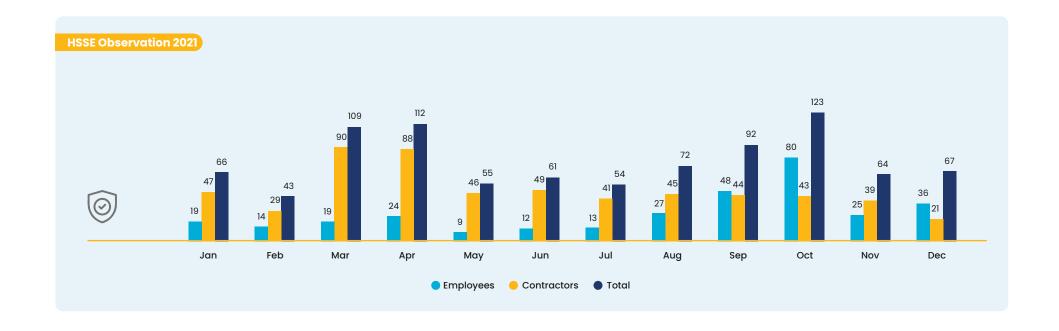


GRI 403-1, GRI 403-4, GRI 403-6

We have implemented a comprehensive Hazard Identification and Risk Analysis (HIRA) process, along with a well-established risk database, to identify and manage any associated risks. Risk analyses are reviewed periodically by our risk owners, and a dynamic risk assessment is carried out consistently, where elimination, substitution, and engineering control measures are emphasized.

Despite the existence of our HIRA process and other safety measures, our workers might still encounter additional hazards and unexpected risks on-site. We therefore encourage all our workers to report any unsafe conditions through our HSSE observations program. In 2021, we had a total of 908 HSSE observations recorded – 326 by employees and 582 by contractors. On average, we had 75 observations

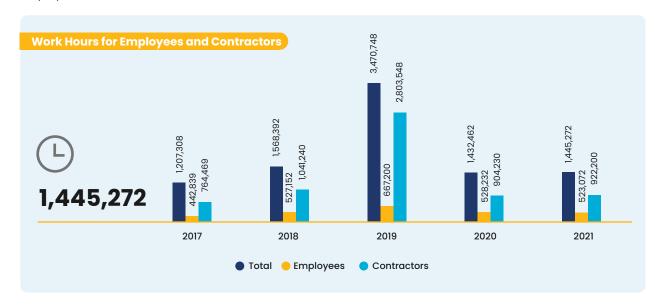
per month. As part of this program, we have set a target for us to achieve a total of 950 observations in 2022 (by both employees and contractors) in order to continue to work on enhancing our safety performance and embedding a culture of safety across the workforce.



Safety Performance Statistics					
Indicator	2017	2018	2019	2020	2021
Number of employee fatalities	0	0	0	0	0
Number of contractor fatalities	0	0	0	0	0
Employee lost time injuries	0	0	0	0	0
Contractor lost time injuries	0	0	0	0	0
Employee total recordable injuries	0	0	1	0	0
Contractor total recordable injuries	1	1	2	1	0
Employee occupational illnesses	0	0	0	0	0

GRI 403-9

During the reporting period, a total of approximately 1.4 million working hours were completed by our employees and contractors.



Our comprehensive Heat Stress Management Program, along with our well-defined safe working principles, help us manage and mitigate heat stress related incidents throughout the summer months. As part of this program, we regularly perform fatigue checks. Moreover, our contractors undergo Heat Stress trainings, which cover topics such as identifying symptoms of heat stress and taking necessary safety precautions. One of QAFAC's key achievements include zero heat stress incidents in 2021, similar to previous years.

We have always strived to bring changes in safety culture through introducing various HSE programs, and consistently upgrading them.

### Occupational Health Program

We execute our Occupational Health Program through QatarEnergy clinic. Each QAFAC employee undergoes regular medical checkups wherein, employees above 50 years of age undergo annual consultations, employees between 40 and 50 years undergo bi-annual medical checkups, and those under 40 years undergo a medical check-up once every three years. The fire crew undergoes periodic medical consultation with physical medical tests to assess their fitness.

In addition to the COVID-19 Vaccination Program conducted in 2021, QAFAC organized several health awareness campaigns:

- 1. Heat Stress Management Program
- 2. Managing Stress During Pandemic
- 3. Prevent the Spread of Flu
- 4. Eye Health
- 5. Diabetes



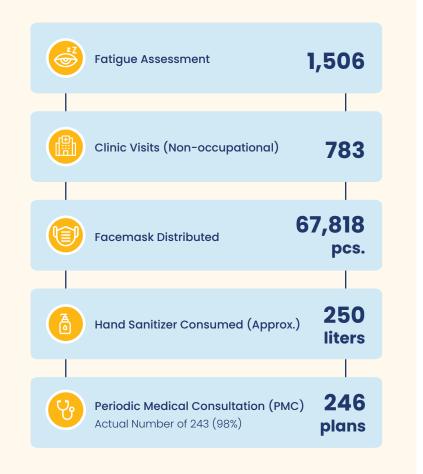










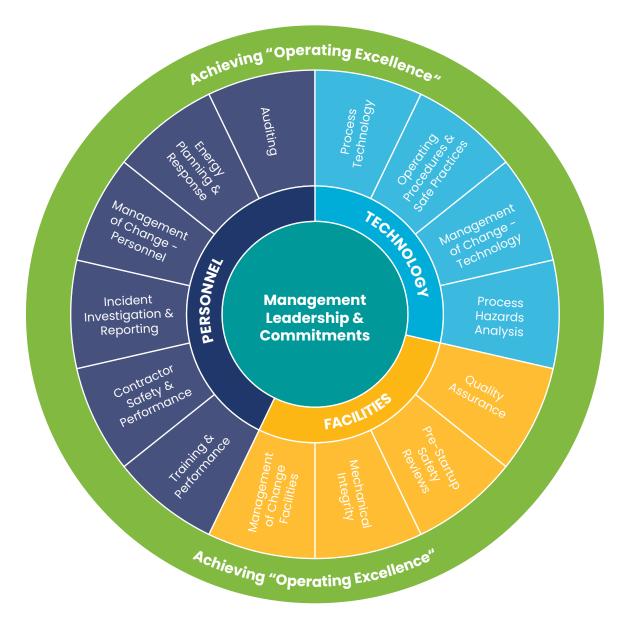


## **Process Safety**

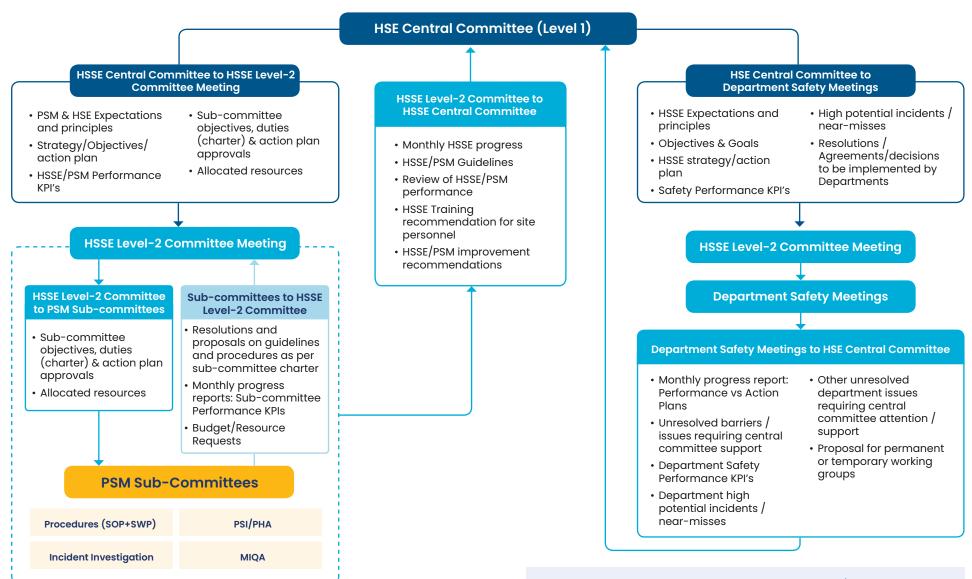
QAFAC is a producer of Methanol and MTBE, and we are mindful of the process safety incidents due to our operations and nature of products and their impacts on our workforce, the larger environment, and society. Accordingly, we are aware of our responsibility to operate our plants safely and in a reliable manner.

QAFAC initiated the AMAN program a few years ago, embarking on a journey to implement a comprehensive Process Safety Management (PSM) Program to improve employee and process safety performance to World-Class levels. The primary goal of the AMAN Program was to ensure that each one of QAFAC's employees will go home safely to their families. We are committed to ensure continued incident-free operation by enhancing the capabilities and strengthening the process safety culture of the entire organization.

In recognizing the crucial role of governance and management of PSM at QAFAC, the oversight of process safety matters lie with the HSSE Central Committee central committee, chaired by our CEO. The committee also establishes process safety guidelines, and recommends process safety trainings for personnel on-site. The committee also audits the performance in all the essential elements of PSM, to ensure continual improvement in our safety systems and performance. In 2021, we constituted an integrated structure for process safety management, aligning closely to the health and safety protocols at QAFAC.



#### **QAFAC PSM Integrated Governance Structure**



Note: The presented QAFAC PSM Integrated Governance Structure (HSSE Central Committee Structure) has come into effect in 2022, during the preparation of this report.

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As members of QatarEnergy's process safety committee under the QatarEnergy Risk Management Forum, all PSM matters are discussed, including any relevant directives and mandates from QatarEnergy. We set annual targets, review implementation of the PSM, and discuss any significant incidents including causes, outcomes, mitigation actions and lessons learned - as part of the committee proceedings.

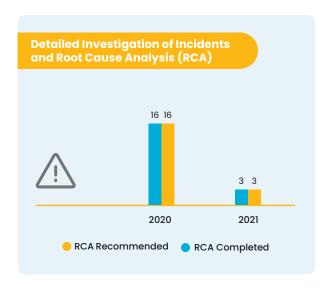
Our integrated HSSE and PSM procedures and process safety information management procedure help provide a directive to manage PSM implementation. Moreover, our Process Hazard Analysis (PHA) standard and sub-procedures provide comprehensive requirements for implementing our process hazard analysis program. This program comprises of several techniques to evaluate and control hazards and risk levels respective to the process operations, which further helps us in assessing the suitability and effectiveness of the current safety barriers. These procedures also indicate whether additional barriers or risk mitigation measures are needed.

Additionally, our incident management module, safety management system, incident investigation module, and the SAP system help to provide guidance with regards to process safety. Through those, we identify trends with our HSSE data, including insights to the types of injuries and number

of injuries. QAFAC had completed a cycle of 18 PSM elements that were audited on a three-year cycle. 2021 had been the first such completion of a full cycle.

In case of an incident, priority is always given to human life. Our emergency pre-plans enumerate emergency response systems and provide information on data regarding the type of PPE (Personal Protection Equipment) equipment used, any associated hazards, the response of Hazardous Materials (HAZMATs), and environmental clean-ups. Our Mechanical Integrity and Quality Assurance (MIQA) manual guides our practices in managing process Safety Critical Equipment (SCE) and associated critical tasks. QAFAC also follows the OHSA 1910.119 Management of Highly Hazardous Chemicals model to analyze safety practices, identify gaps, and implement recommended process safety improvements that will help achieve excellence in HSSE practices.

QAFAC employs a PSM system audit procedure and a suite of protocols that ensure tracking and monitoring of process safety requirements. Simultaneously, we also maintain several programs that support us in upholding excellence in reliability and process safety. As part of our PSM, we also conduct detailed investigation of incidents (RCA) related to equipment and processes.

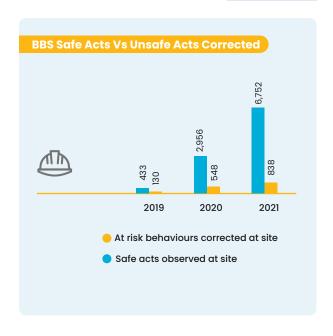




GRI 403-2, OG-13



In 2021, there were no cases of Tier-1 and Tier-2 process safety incidents. Our process safety incident rate (PSTIR) for Tier-1 and Tier-2 remained zero as per the set target. Our Behavioral-Based Safety (BBS) program, which is an integral part of QAFAC's entire safety culture, aim to motivate employees to work safely, rectify unsafe acts and behaviors, and advise employees on safer ways to perform a job. In view of this, we have committed BBS procedures in place that create a systematic approach to addressing any unsafe acts in the workplace, where a dedicated observer will conduct a BBS observation of a personnel carrying out a task and will engage with those personnel to discuss acts that are safe and unsafe, practices or conditions, and whether those can be planned. During the year 2021, we observed 6,752 safe acts and 838 at-risk acts that were corrected, at site.



Key Highlights for Process Safety Management (PSM) in 2021:



QAFAC completed a cycle of 18 PSM elements audited on a three-year cycle. 2021 had been the first completion of a full cycle.



Alignment with MIC PSM strategy completed



Zero Tier-1 or Tier-2 incidents



MTBE - PHA planning completed



PSM sub-committee meetings completed on schedule



Achieved RoSPA Silver Award for HSSE System Audit

## **Emergency Preparedness**

To protect our workforce, the environment we operate in, and our business operations, an effective emergency preparedness and management framework is integral and crucial to our safe operations. We continuously seek to mitigate anticipated and unanticipated risks, including those that arise from external sources such as natural disasters and accidents resulting from activities such as hydrocarbon spills. We employ every measure to ensure that we can respond to those risks effectively through our dynamic emergency response plans.

We update our emergency plans and develop new plans to brace and respond to any critical situation, whenever there are major changes in work processes or equipment. This readiness is a part of our approach to emergency response management.

We display our responsibility and leadership towards emergency preparedness management through our effective participation in several relevant committees. We are part of QatarEnergy's Emergency Preparedness Committee, which provides mutual aid and assistance for emergencies that affect any industries within MIC. As members of this committee, we are required to share any information about resources, equipment, and



fire engines. This ensures the readiness of all members in case of an emergency. We also retain membership in the MIC Emergency Response Forum, which meets quarterly to strategically plan for emergency response within the MIC community and industrial areas.

Our emergency pre-plans help us in preparing for any emergencies by covering all scenarios,

consequences, and measures taken into consideration available resources and other external mutual assistance. As the safety hazards are dynamic, QAFAC revised its emergency pre-plans based on the changes in hazards and ensured that all emergency response personnel are trained and familiar with all relevant scenarios.

The pre-plans include, but not limited to, the following types and level of emergency:



The Boiling Liquid Expanding Vapor Explosion (BLEVE) type



Fire Hazards explosion type such as generation of toxic combustion products



Chemical spills of hazardous solids and liquids



Gas leaks that are flammable, toxic, pressurized or refrigerated liquids



Emergencies pertaining to structural failures of buildings, plants and other operating facilities



Natural disasters, including floods, earthquakes, storms, storm tides



Events caused from high impacts, such as collision between vehicles or during transportation



Other subversive activities including bomb threats, vandalism, sabotage, etc.



Medical emergencies



Based on these pre-plans, we had conducted 12 emergency exercises to hone the skills of our emergency responders to diligently respond to any such unforeseen situation. These exercises included a Tier-2 level exercise which required (external) assistance from Port Authority and QatarEnergy emergency response team. QAFAC understands the necessity of having skilled emergency responders to manage safety incidents and will therefore implement further exercises in the future.

#### Tier-2 Emergency Exercise - QAFAC and MIC

### i About the study

A Tier-2 exercise was undertaken in November 2021 with mutual aid from Port Authority and QatarEnergy QAFAC Jetty. The primary objective of this activity was to test the responders' ability and preparedness to respond effectively to an emergency scenario related to Hazardous Materials (HAZMAT). The joint exercises serve to sustain and reinforce emergency response

readiness. Observers were appointed at the emergency scene to observe the actions taken by the Emergency Response Team (ERT) members and MIC team during the emergency exercise. The members were required to comment on the response actions taken, and critically identify areas of improvement. The exercise simulated methanol leak during loading and the associated casualties to the workers caused by gas inhalation.

#### Outcomes

From the emergency exercise performed emerged some areas of improvement relating to non-availability of proper radio communication with Port authorities and emergency team and relating to the vehicle staging area at the Jetty. The identified problem areas were communicated to the relevant teams with specific action items to be addressed and resolved.







On behalf of QAFAC, QatarEnergy and Ras Laffan Port authorities undertook an emergency response program, through which in 2021, the teams conducted a ship fire rescue exercise (which is classified as Tier-2) and scheduled a rescue exercise to take place in 2022. These exercises aim to obtain uniformity in emergency preparedness with the manufacturing plants located in Mesaieed Industrial City (MIC), Ras Laffan and Offshore services. The program also constituted delivering a number of trainings that comply with National Fire Protection Association (NFPA).

In addition, in 2020, we completed two projects as part of our QAFAC Support Services Amenities (QSSA) initiative. The QSSA project encompasses the extension of fire water network hydrants, commissioning of an eco-friendly security/ amenity building for staff and visitors and the development of a petrochemical laboratory building. The purpose of the Firewater Network Extension project is to provide the firewater coverage to the QAFAC warehouses, scrap yard, cylinder yard, contractors' area, and the entire support services area through provision of hydrants, firehose boxes and complete cathodic protection (CP) system. In 2021, QAFAC has initiated processes to obtain the final completion certificate and the approval of General Directorate of Civil Defence, State of Qatar to begin occupying the buildings.



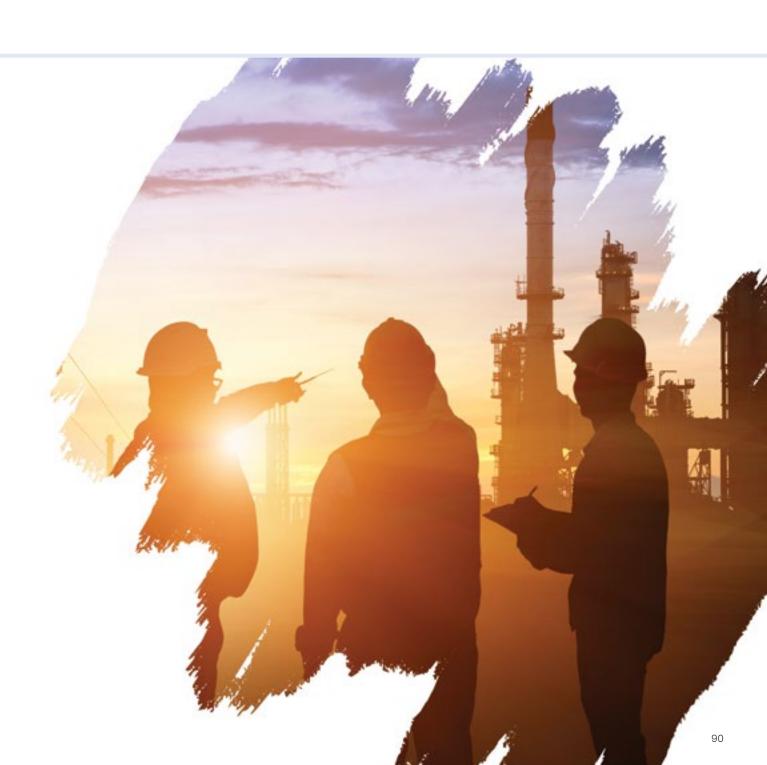
Our plants have strategically placed toxic and combustible gas detectors to ensure the detection of any leaks, and if the detectors are activated, the panel indicates the exact location of the activated detector prompting our fire-fighting team to respond effectively. We also have cameras on-site that enable any of the emergency responders to see the area that needs support and comprehend the emergency faster. Additionally, manual call-points are located throughout the plants that can be activated physically by anyone, and all operators and technicians also carry radios to alert the control room personnel in case of an emergency.

Besides our plants, we also extend our emergency controls to our nearby buildings, as part of our extensive measures for emergency preparedness. We have gas detectors at our buildings, inspected quarterly by an external third party to ensure their functionality.

QAFAC shall strive to continually uphold its commitments to strengthen and upgrade its health and safety practices. Aligning our actions with our strategic direction, we aim to leverage digital transformation as a key enabler to operate in a socially responsible manner. Please refer page 41 for some of our digitalization initiatives.

# Spa Our People

This chapter discusses QAFAC's commitments to matters concerning our key stakeholders: contractors, employees and communities. Using the following material topics as guidance, our management and performance is disclosed on the key identified focus areas.



#### Aligning our Material Topics to our Strategic Priorities and to Global and National Reporting Frameworks, Goals and Targets

Matavial Tania	Alignment to Global and National Reporting Frameworks, Goals and Targets				Key Enabler to Our Strategic Priority	
Material Topic	QNV 2030	UN SDGs	GRI	QSE	"Prepare for Long-term Sustainability"	
Human rights and labor standards	Human development	8 SECSAT WORK AND  ATTEMPT OF THE PROPERTY OF	GRI 409	QSE S 16, 17, 18	<ul> <li>High Performing         Organization, focus on         talent management,         Qatarization and</li> </ul>	
Employee engagement, attraction, and retention		3 GOOD READING 5 GROUNS COMMITTEE  8 DECENT WORK AND PROJURITES  COMMITTEE  10 REDUCED  10 REQUIRITES  COMMITTEE  11 REQUIRITES	GRI 401 GRI 404-1	QSE S 10, 11, 12	<ul> <li>succession planning</li> <li>Boost 'digitalization' to become a reference in our industry</li> </ul>	
Learning and development		4 COUNTY 5 GROWER 8 DECENT WORK AND 10 REQUESTED STATE OF THE PROPERTY OF THE	GRI 404	QSE S 13	<ul> <li>Strengthen stakeholder alignment</li> </ul>	
Diversity and equal opportunity		5 GENGER 8 IECENT WORK AND ECONOMIC CONVENT	GRI 405	QSE S 19		
Community engagement and investment	Social development	1 NO 2 ZERO REMAIRS  (作家中市市)	GRI 413	QSE S 21		
Qatarization	Human development	8 DECANT HORSE AND 9 DECANTE MONORTHAN AND TRAINE AND TRAINE AND TRAINE INCIDITURES  AND TRAINE AND TR	-	QSE S 20		

QAFAC's corporate culture is defined by our leaders who lead by example, adopting the company values and encouraging colleagues to do the same. We conduct business in an ethical manner, ensure safety of people, promote trust, foster mutual respect and empowerment, and continuously improve our processes.

In a continuous effort to embody our values, we strive to make our business a wonderful place to work – everyday. We intend to foster an attractive and rewarding environment by offering exciting opportunities and wide-ranging careers. Every aspect of how we treat our employees is rooted in our desire to carve a purpose and value to an individual's professional life, reflected through our diverse and inclusive workforce. While we recognize the importance of our employee's satisfaction, we are cognizant of the fact that this can happen only at the outset of healthy and lively workforce. The health and well-being of our employees, including our contractors, is our priority. We respect and encourage all our employees and value their potential and contribution regardless of race, ethnicity, gender, national origin, religion, gender identity, sexual orientation, age, and different abilities, leaving no one behind.

We made significant progress in 2021, organizing various initiatives that create a more structured and inclusive employee engagement environment.

#### **QAFAC's Corporate Values**

Safety	"We ensure safety in everything we do"	We place the highest priority on health and safety of all the employees, the contractors, their families and the communities around us. We strive for incident free workplace.
People	"We care about people"	We promote trust, respect, empowerment and teamwork to leverage our collective strengths.
Excellence	"We strive for continuous improvement in all dimensions"	We always seek to enhance our processes and systems to achieve greater efficiency, productivity and performance.
Integrity	"Focus on performance, deliver what we promise. Clear objectives."	We govern our actions by honesty, ethics, transparency and fairness.
Responsibility	"We care deeply for the environment and all the communities we impact"	We commit to operate in a sustainable and socially responsible manner.

We have committed to contribute to various national and international objectives on sustainability such as the Qatar National Vision (QNV) 2030's social development goals, the United Nations Sustainable Development Goals (UN SDGs). To promote decent work for all our men and women employees while protecting their human rights, we have adopted the guidelines of the International Labor Organization (ILO). While QAFAC is not subject to Qatar's Labor Law, we are guided by its principles as a minimum and we go beyond the legal requirements to create an ethical environment for empowering

our employees to play an equally important role in making sustainable business decisions.

We also understand that our activities have potential social, cultural, environmental, and human rights impacts. To make a positive contribution to the social and economic wellbeing of the communities where we operate, it requires long-term partnerships based on respect, transparency, and trust. Our actions and approach to community engagement, social investment, cultural heritage, and working with locals are governed by our commitment.

This section provides insights on our sustainability performance during the reporting period, focusing on the material topics such as employee engagement, attraction, and retention, Qatarization, human rights and labor standards, diversity, and equal opportunity, learning and development and community engagement and investment. We undertook a materiality refresh in 2021 in consideration of the broader sustainability trends impacting us and our industry at large. This analysis helped us identify an additional topic of importance which is human rights and labor standards.



We are cognizant of the fact that Companies earn the trust of their stakeholders by operating with high standards of business ethics. We conduct business in an ethical and principle-based manner. QAFAC is committed to developing a workplace that encourages learning inclusion, diversity, and well- being for all employees. The leadership at QAFAC values its employees' trust above everything else and ensures every employee is respected, valued, and encouraged to make their fullest contribution.

We have various policies and mechanisms in place for ensuring transparency in governance. Each policy elaborates the expectations from QAFAC's employees and required compliance towards ensuring fair treatment of all employees and prevention of workplace discrimination. We abide by our Ethical Code of Conduct, covering a wide range of topics related to anti-bribery, conflict of interest, fraud, corruption, and compliance. An annual declaration on Ethical Code of Conduct is provided by all our employees, signifying their compliance towards the code. However, as part of our policy revamp, we are developing standalone policies, such as: Respectful Workplace Policy, Anti-Bribery Policy, Anti-Fraud Policy, and Anti-Money Laundering Policy.

Our employees are encouraged to live by our values and voice their concerns in relation to personnel administration, equality, and diversity. Our HR Policy guides us on matters pertaining to human resources and holds all components of policies and procedures in relation to human resources' management, including the Employee Relations Policy. Developed in accordance with the Qatar labor law, QAFAC's Employee Relations Policy is the go-to resource for employee management related practices, prospects, and rights of all QAFAC employees. The purpose of the policy is to ensure that the relationship between employees and management is in harmony and cooperation and that there is mutual respect and consideration in achieving the common goals of the Company. The

policies on Work Schedule and Diversity are also included in this as interdependent set of policies. Additionally, it also has sections on discipline and scheme for rapid reporting and resolution of grievances. To address employees' concerns, we have a grievance mechanism and a progressive problem resolution procedure which form a part of our Personnel Policy Manual. Employees are urged to speak up on issues of unfair handling, including unscrupulous employment, workplace discrimination, sexual harassment, concerns about wages as well as other relevant issues without fear of retaliation. The high-level resolution process is depicted in the figure below. In the 2021 reporting period, no such concerns were raised.

#### **Escalation Level**



To manage our workforce, QAFAC has formed separate policies, committees, and divisions, each with a specific role to fulfil commitments towards our people. The detailed responsibility of each is highlighted below.

#### Workforce Management under QAFAC Leadership



#### **DIVISIONS**



Policy and Compensation Division
Responsible for employee's
performance reviews



**Training and Nationalization Division**Responsible for employees leadership programs, trainings and awareness



**Personnel Administrations Division**Responsible for the recruitment



Training and Nationalization Division Responsible for identifying any gaps in current competencies and how to elevate those in collaboration



**Performance Management Division**Responsible for maintaining a highly skilled workforce

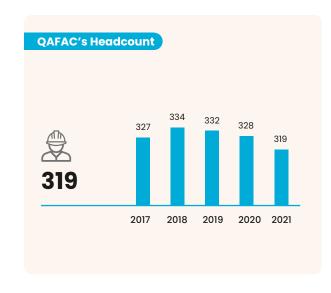
At QAFAC, we systematically manage our workforce performance data using a robust digital system which allows our Personnel Administration division to monitor and manage our staff performance and KPIs. The division is also responsible for handling many other vital functions such as talent acquisition, onboarding, employee relations, labor law compliance, record keeping, compensation and handling specific performance issues.

Managed by the Personnel Administration department, the SAP Fiori Mobile application allows our employees to access all work-related procedures such as leave applications, pay slips, training, work mails, employee lookup, team calendar and other useful work items through their mobile phones, easing the challenges arising from our employees working from home. In addition to the administrative work streams, technical applications such as Behavioral Based Safety (BBS) program can also be accessed for data management. For enhanced dissemination of information, strengthening teamwork and enriching companywide processes, QAFAC uses the Manarah2 application which serves as the company's intranet, enabling unified access to the company's policies and procedures, employees' profiles, and QAFAC's most recent developments.

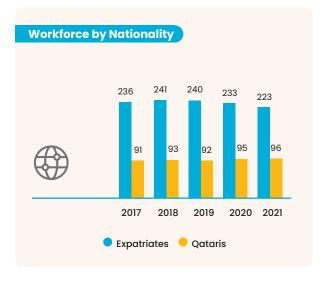
Another initiative aimed towards digitalization and personnel management is the use of SAP Human Capital Module (HCM) by the Personnel Administration department. This module helps with crucial data related to human resources such as salaries, grades, demographics, reports, employee performance management and other relevant personal information. We ensure that privacy and confidentiality of such information is maintained at the highest level. Additionally, following our learnings from the pandemic, we implemented an expanded our Flexible work scheme, empowering employees to have more flexibility in how and where they work. In 2021, QAFAC's Information technology team has made further improvements to the

existing IT infrastructure for seamless flexible working experience. Please refer the section Digitalization on page 39 for further information on this.

We hire permanent as well as temporary employees depending on business requirements. In 2021, our total workforce had a headcount of 319 including both types of employment. The 3% decrease in headcount is attributed to cases of retirement, manpower optimization steps. The Mesaieed Plant at Mesaieed Industrial City (MIC) serves as the center of our operations where the majority of QAFAC's workforce is located, while the corporate office in Doha constitutes the remainder of our workforce-the Corporate and support teams.







GRI 409-1, GRI 412-1

# **Human Rights and Labor Standards**



We ensure that all our employees and contractors are treated fairly, and all their rights are preserved. We also perform regular audits on our contractors' premises to ensure compliance with human rights.

A standalone human rights policy is undergoing development as part of the 19 policies mentioned in the earlier sections of the report. The policy is inspired by the Universal Declaration of Human Rights and guided by the constitution of Qatar. The policy reinforces our commitment to treat those working for and with us, fairly and with dignity and respect; to not discriminate based on race, age, disability, gender, political or religious

beliefs; to comply with applicable human rights laws; to not work with business partners involved in human trafficking or forced labor; and to provide safe, healthy, and secure working conditions. The organizational culture at QAFAC has an underlying norm of respecting human rights. Several occurrences in the past are proof that QAFAC is a compassionate organization, built on a strong ethos of respecting lives and futures. We ensure that every individual present on our premises remain satisfied and in good mental health. Owning to the hazardous nature of its operations, it is highly important for every employee and worker to stay mindful and alert at all times.

In addition, we take the responsibility to protect and promote human rights by aligning to a number of international frameworks such as the International Labor Organization (ILO) and the United Nations, which promote decent work for all women and men. With respect to human rights and labor management, we are proud to mention that there have been no incidents or grievances in relation to human rights issues, discrimination against employees as well as forced or compulsory labor during the reporting year and ever since the establishment of our organization.

# Employee Attraction, Retention, and Engagement

At QAFAC, we strive to focus on growth and talent development where each employee is provided safe, secure, and engaging work environment. Everyone is valued, uplifted, and advanced in their careers.

Improved talent management elements have helped us to achieve this by identifying gaps in current training initiatives and employee's skill sets, learning and development programs, engagement, and retention mechanisms, altogether resulting in attraction of new pool of talent. To be at par with our competitors, employees are offered on job trainings, vocational trainings, and skill development, which results in current employees' improvement as well as retention to satisfy company needs.

To attract a diverse set of employees we have Recruitment, Placement and Selection Policy. This policy highlights our commitment to maintain and retain diversity at our workplace. We also have the Talent and Career Progression Policy which ensures that right talent is selected for the right job.

Our Work Schedule Policy is the guidance document for all work shift related matters and is in line with Qatar Labor Law. Originally, our shifts used to be divided into two types: firstly, the general shift that includes 8-hours of work over a consecutive period of 5-days a week and the shift schedule that includes three shifts for a period of 8 hours over a consecutive period of 6-days a week. But the pandemic in 2020 brought about a shift in our working styles and the shifts were altered in line with government restrictions. The new shift timings we have adopted in 2021 are listed below.

Work Schedules (2021)			
Shift	Timing		
General Shift	8 Hours daily - 5 days a week		
Shift Work	12 Hours (4 consecutive days work and 4 days off)		

#### Talent Acquisition and Retention Policies at QAFAC



RECRUITMENT POLICY



ALLOWANCES AND BENEFITS POLICY



**EMPLOYEE RELATIONS POLICY** 



TALENT AND CAREER PROGRESSION POLICY



TRAINING POLICY



END OF SERVICE POLICY



GRI 401-1, GRI 401-2

To provide opportunities to young minds, we roll out a graduate engineering program each year, which was first introduced in 2015. Each year, the program receives a proactive participation and numerous resumes in our human capital database. Under this program, students from Qatari universities join QAFAC and are exposed across multiple production and maintenance functions. During this period, they learn from the finest minds in the industry and are exposed to cutting-edge technologies. Upon successful program completion, the graduates may even be hired by QAFAC as permanent employees. The graduate/developee works with QAFAC for a brief period and gains work experience and derives an overall understanding of the industry and OAFAC's role in the value chain.

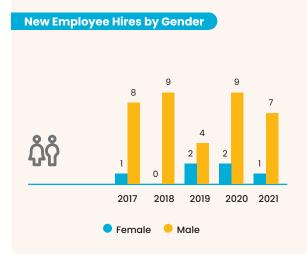
# During 2021, we were able to confirm 2 of our developees as fulltime employees.

To enhance workforce retention, we emphasize on appreciating our employees. We also have programs in place that provide employee benefits amongst others, such as:



Most of our employee turnover is amongst the age group of 51-60 which can be related to the retirement age of our employees. For employees ending their tenure at QAFAC, company deploys bonus- scheme as a token of appreciation for their committed period in the organization. Aforementioned is a part of the End of Service Policy, where employees are benefitted with bonus calculated based over their total years of service to the company.



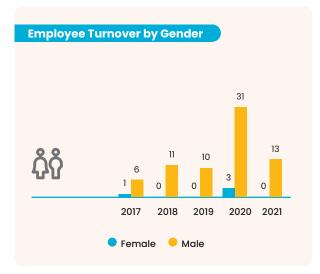










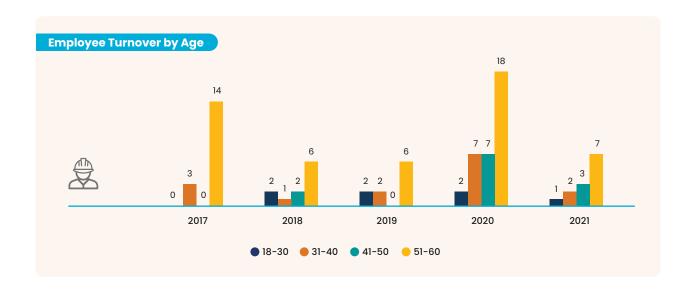




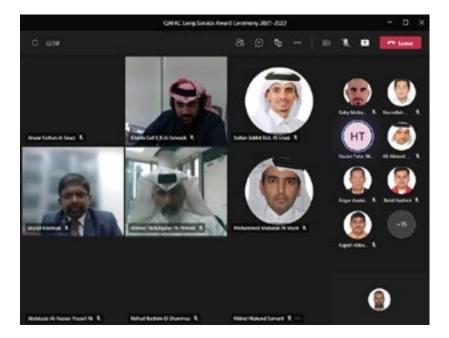
QAFAC takes due care in providing opportunities towards employee engagement as part of its employee retention efforts. Celebrating Qatar National Day is one among such activities which not only invoke the national pride but also contribute to preserving the country's culture and heritage.

Commitment, loyalty, and dedication are always recognized and rewarded at QAFAC. We appreciate our long serving employees through our Annual Long Service Awards program, employees are rewarded on completion of 5, 10, 15 and 20 years of their service

To ensure a seamless business continuity it is a business imperative to have a progressive succession plan for all critical roles. Over 40% of QAFAC's workforce is above the age of 50 years, hence our succession plan program focuses to revamp our succession planning strategies across all divisions. We work effectively on the identification of prime senior roles that can pose a significant risk to our business, that will not be easy to fill quickly through external hiring. The program helps the organization to forecast the retirement of a large section of workforce over the coming years and prepare accordingly. We follow a systematic approach for selecting motivated and talented individuals suitable for development and through this program, we strive to develop their capabilities for the identified critical roles in succession planning.



In 2021, the event was conducted virtually, wherein a total of 22 employees were awarded for their long service to QAFAC.



# **Learning and Development**



To ensure continuous learning of our employees we invest in their growth development and enhanced competencies. Throughout an employee's career, QAFAC supports them in their personal and professional development through providing training, diplomas, graduation programs and employee engagement activities.

Additionally, we have policies for professional development under Learning and Development Department, one such policy is the training policy.

The training policy depicts the training programs, materials and hours required to accomplish the organization's objectives throughout the year. This policy helps employees to build the right skill sets, expand their knowledge, become competitive and ultimately contribute to the company's success.

The policy also supports the employees by offering a range of development and training programs to choose from. Eight new policies were introduced under learning and development department in 2020, addressing topics such as:



GRADE PROGRESSION FOR QATARIS



SUCCESSION PLANNING



INTERNSHIP PROGRAMS



TALENT CAREER PROGRESSION



TRAINING PROCESSES & PROCEDURES



PERSONAL DEVELOPMENT PROGRAM FOR QATARI DEVELOPEES

Disparities among current training initiatives and employee skill sets are identified by the training need assessment performed by the Personal Administration Division and this marks the starting point for our training development process. Training need assessments help in bridging the gap between the current and desired employee performance, aided by the development of various training programs. Training and Nationalization division monitors and manages the training programs and ensures that employees complete their designated trainings in alignment with their competency development requirement. Upon completion of the training, a Training Feedback form is filled by employees. This assists in the evaluation of the effectiveness of our training programs and in identifying the necessary changes required for improvement of the overall program. We support employees with their career growth as well as nominate them for newer and higher roles. Our Talent and Career Progression Program and Shadowing Program are aimed at preparing them for future roles. We also ensure that employee performance and career development reviews and interactions are organized periodically.

Our e-learning platform called 'Percipio', which was launched in 2020 is a one-stop solution for all learning related requirements within QAFAC. This virtual learning platform has helped in accelerating learning during the COVID-19 pandemic. We also use e-learning platforms such as Adobe Captivate, Phishme & National Agency trainings for creating awareness on sustainability topics.

As part of continuous training efforts during the year and despite the challenges of COVID-19, we provided a total of 6,262.1 hours of training to all QAFAC employees while the training hours per employee averaged at 19.6 hours in 2021 as compared to 15.1 hours in 2020.

Our Learning and Development Department received the Alumni Awards Qatar 2020-21, which celebrate the outstanding achievements of alumnus who pursued an education in the UK and showcases the impact and value of a UK higher education.

The awards are organized by the patronage of Her Majesty's Foreign Affairs- British Embassy and were presented as a token of appreciation for QAFAC's constant support to the academic community in Qatar.

#### Personnel Development Plan (PDP)



Personnel Development Program is a career development program that is designed to improve the skills and abilities of the developees which can help them achieve greater success in targeted position in a structured manner.

### (i) About the project

QAFAC's IT department has developed a digital platform on SAP to define, monitor, improve and review personnel development program which is led by HR learning & development division.

#### Outcomes

The digitized platform has enhanced the applicability and merit of this PDP program.

The automation and simplification of several tasks has enriched the experience of QAFAC employees further, by reducing the required manual effort. The listed features are reflected as the updates to the PDP program execution:

- Defining task templates for positions
- Assigning task templates to respective developees (PDP)
- Developee self-review and acceptance
- Department review & approval
- HR learning & development review & approval

## The value generated

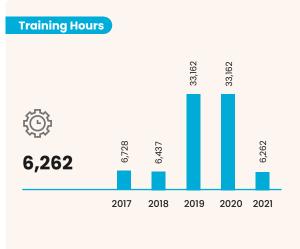
The nature of developments encourages and motivate QAFAC employees to engage and have a focused approach towards building their careers.

#### Way Forward

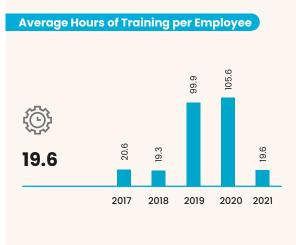
QAFAC will continue to explore the available avenues to ensure its employees remain satisfied, exuberant, and prepared to develop their careers at the Company.

#### GRI 404-1, GRI 404-2











# **Diversity and Equal Opportunity**

We aim to have a diverse workforce with people of different cultural backgrounds, employable age groups, gender, religion, race, and nationalities working together towards the common goals of the company. We look for individuals who are not just the best fit but who also bring a unique value proposition, skills, and technical knowhow into the organization.

We believe in promoting a progressive and inclusive work culture that encourages everyone to grow. We are guided by the ambition to build a high performing organization by offering competitive benefits, developing policies that protect employees, while maintaining a diverse workplace and ensuring the satisfaction of our employees. That commitment is even stronger today as we encourage employees

to explore new ideas and bring improved perspectives to day-to-day work. We believe that embracing diversity, inclusion and a global mindset is a key enabler of our success as an organization.



GRI 405-1

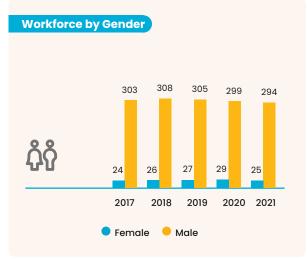
Our Diversity Policy has guided us to identify programs that recognize and nurture a diverse and inclusive workforce. These efforts include programs and policies that promote equity and inclusion, training, and career development opportunities for women as well as address the challenge of youth unemployment through the different initiatives we have put in place. We also believe additional improvements are necessary and attainable to drive further innovation and success. We intend to enable our employees to bring their unique selves to work each day, to allow them to stay motivated and continuously contribute to the success of our organization. Additionally, our Employee Relations Policy, along with the Allowances and Benefits

Policy warrants that all employees are provided equal opportunities, enjoy benefits, are treated, and compensated fairly and are always protected from discrimination, harassment, and abuse.

During the past couple of years, improving gender diversity has been a focus area for QAFAC. We have taken several initiatives to empower our female employees and make sure that diversity and inclusion are components of all the decisions we make. As of 2021, female employees account for 7.8% of our total staff and middle management workforce, which we plan to increase in the coming years.







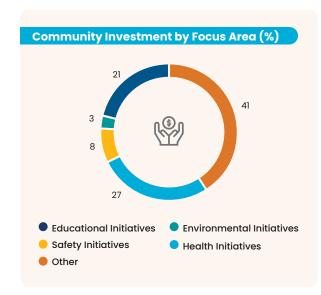
# Community Engagement and Investment

We understand that our responsibility further extends towards contributing positively to Qatari society and address the needs of the local communities that we operate in. To support our commitment to the Qatar National Vision (QNV) 2030 and take active steps towards sustainability and well-being of our community, we have a long standing Corporate Social Responsibility (CSR) policy and a CSR Committee which guides and drive our contributions to the local communities.

The main objective of our Corporate Social Responsibility Committee is to screen CSR initiatives under our four core objectives to support our local community, i.e., Health, Education, Environmental awareness, and Sports. The CSR committee screens all the proposals which falls under QAFAC's CSR objectives to check if they can be aligned with QNV 2030 and UN SDGs to address the needs of all segments of society. Upon close examination of the proposals, priority is given to those with the highest potential to improve lives within the communities.

Our community investment in the reporting year is lower compared to 2020, however, QAFAC is dedicated towards helping the local community even after experiencing two challenging years consecutively due to COVID-19 pandemic.





QAFAC also organizes educational presentations and trainings at community level to spread information on waste management and guidance on how local communities can practice environmentally sustainable living.

Due to uncertainty and pandemic, the social investment target was set lower than previous years, however, QAFAC is committed to continue its contributions in a manner that positively impact the community. We expect to exceed the current target in the coming years.

## **Qatarization**

Qatarization is a government initiative devised to increase the number of Qatari citizens employed in public and private sectors. While the expatriate population has rapidly grown since the late 20th century, the Qatari population has increased only at a marginal rate. Therefore, as a means to decrease dependence on foreign labor, the Qatari government has heavily prioritized Qatarization in recent years.

In line with our commitment to the Qatar National Vision (QNV) 2030, we provide job opportunities for Qatari nationals, which backs our growth, and helps in the preservation of our cultural identity as a Qatari organization.

QAFAC has commitment towards sustaining a growing base of Qatari employees by maintaining an annual average Qatarization rate of approximately 28% for the past several years.

QAFAC is committed towards sustaining a growing base of Qatari employees by maintaining an annual average Qatarization rate of approximately 28% for the past several years.

To promote and track our Qatarization efforts, we have an internal Qatarization Committee headed by our CEO and consisting of senior management representatives. Our Qatarization plans include conducting annual career fairs to attract Qatari high school and university students to join QAFAC. To improve the effectiveness of our Qatarization efforts, various training programs are designed that aid in increasing Qataris in the workforce and enhance local employment in line with UN SDG 8 - Decent Work and Economic Growth. Our Training and Nationalization division monitors and manages the training programs for increasing the participation of Qataris in the workforce. In 2021, we provided 39 trainees an opportunity to join us and learn from our experienced team of professionals.



## **Developing Qatari Talent** Number of Qatari students sponsored to study in universities abroad 2017 2018 2019 2020 2021 Number of Qatari students sponsored to study in universities and technical schools in the State of Qatar 2018 2019 2020 2021 2017 Number of QAFAC employees supported to complete their education 31 2018 2019 2020



We further deploy our digital technologies a selection of SAP systems to ensure that our Qatarization metrics are updated and monitored against our Qatarization objectives. This digital system is operated by our HR department and tracks parameters like total number of national employees, national trainees, and the required Qataris to be employed to reach our objectives.

In 2021, we provided support to 7 young Qatari students pursuing higher education at national and foreign educational institutions. After completion, we provided 2 developees with a fulltime employment prospect at QAFAC. Also, in 2021 through our Field Development Program, we supported 32 developees.

In 2021, there was a 0.1 percent increase in the Qatarization rate, moving from 30% to 30.1% in 2021. Due to our Qatarization initiatives in 2021, out of total workforce of 319 employees, Qatari nationals constituted 96 employees of our workforce. A total of 73% of QAFAC's senior management positions are held by national talent.







## GRI 102-55

## **GRI Content Index**

This report has been prepared in accordance with the GRI Standards: core option, and the table below provides a reference for GRI content in the report. For the Materiality Disclosures Service, GRI Services reviewed that the GRI content index is clearly presented and the references for Disclosures 102-40 to 102-49 align with appropriate sections in the body of the report. For the SDG Mapping Service, GRI Services reviewed that the GRI disclosures included in the content index are appropriately mapped against the SDGs. The services were performed on the English version of the report.





GRI Standard	Disclosure	Page and/or Direct Answers	Sustainable Development Goal
GRI 101: Foundation 2016	GRI 101 does not include any dis	sclosures	
General Disclosures			
GRI 102: General Disclosures 2016	102-1 Name of the organization	12	
	102-2 Activities, brands, products and services	12, 17	
	102-3 Location of headquarters	12	
	102-4 Location of operations	12	
	102-5 Ownership and legal form	12	
	102-6 Markets served	4, 13	
	102-7 Scale of the organization	12	
	102-8 Information on employees and other workers	96	SDG 8, SDG 10
	102-9 Supply chain	16-17	
	102-10 Significant changes to the organization and its supply chain		
	102-11 Precautionary principle or approach	21	
	102-12 External initiatives	107	

GRI Standard	Disclosure	Page and/or Direct Answers	Sustainable Development Goal
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	102-14 Statement from senior decision-maker	8, 10	
	102-15 Key impacts, risks and opportunities	21, 25-26	
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	102-17 Mechanisms for advice and concerns about ethics	27-28	SDG 16
	102-18 Governance structure	19-20	
	102-40 List of stakeholder groups	31	
	102-41 Collective bargaining agreements	94	SDG 8
	102-42 Identifying and selecting stakeholders	30, 32	
	102-43 Approach to stakeholder engagement	30, 32	
	102-44 Key topics and concerns raised	32	
	102-45 Entities included in the consolidated financial statements	4	

GRI Standard	Disclosure	Page and/or Direct Answers	Sustainable Development Goal
GRI 102: General Disclosures 2016	102-46 Defining report content and topic Boundaries	4	
	102-47 List of material topics	32	
	102-48 Restatements of information	38	
	102-49 Changes in reporting	4	
	102-50 Reporting period	4	
	102-51 Date of most recent report	4	
	102-52 Reporting cycle	4	
	102-53 Contact point for questions regarding the report	4	
	102-54 Claims of reporting in accordance with GRI Standards	4	
	102-55 GRI content index	110, 111-117	
	102-56 External assurance	This report has not been externally assured.	
Material Topics			
Economic Performance	)		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundary	37-38	
	103-2 The management approach and its components	37-38	
	103-3 Evaluation of the management approach	37-38	
GRI 201: Economic Performance 2016	201-1 Direct economic value generated and distributed	38	SDG 8, SDG 9

GRI Standard	Disclosure	Page and/or Direct Answers	Sustainable Development Goal
Sustainability in Supply	Chain		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundary	46-47	
	103-2 The management approach and its components	46-47	
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GRI 204: Procurement Practices 2016	204-1 Proportion of spending on local suppliers	47	SDG 8
Anti-Corruption			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundary	27-28	
	103-2 The management approach and its components	27-28	
	103-3 Evaluation of the management approach	27-28	
GRI 205: Anti- Corruption 2016	205-3: Confirmed incidents of corruption and actions taken	28	SG 16
Operational Reliability			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundary	43-45	
	103-2 The management approach and its components	43-45	
	103-3 Evaluation of the management approach	43-45	
Disclosure: KPI	Plant Reliability of Methanol and MTBE	43-45	SDG 8, SDG 9

GRI Standard	Disclosure	Page and/or Direct Answers	Sustainable Development Goal
Business Continuity			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundary	43-45	
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	103-3 Evaluation of the management approach	43-45	
Disclosure: KPI	Development of a BCM strategy including De- escalation and Re-escalation plan	26, 43	SDG 8, SDG 9
Materials			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundary	53-54	
	103-2 The management approach and its components	53-54	
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GRI 301: Materials 2016	301-1 Materials used by weight or volume	54	SDG 8, SDG 12
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GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundary	55-56	
	103-2 The management approach and its components	55-56	
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GRI 302: Energy 2016	302-1 Energy consumption within the organization	55-56	SDG 7, SDG 8, SDG 12, SDG13
	302-3 Energy intensity	55-56	SDG 7, SDG 8, SDG 12, SDG 13

GRI Standard	Disclosure	Page and/or Direct Answers	Sustainable Development Goal
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GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundary	66-68	
	103-2 The management approach and its components	66-68	
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GRI 303: Water and Effluents 2018	303-1 Interactions with water as a shared resource	66-68	SDG 6, SDG 12
	303-2 Management of water discharge related impacts	66-67	SDG 6
	303-4 Water discharge	66-67	SDG 6
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GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundary	69	
	103-2 The management approach and its components	69	
	103-3 Evaluation of the management approach	69	
GRI 304: Biodiversity 2016	304-2 Significant impacts of activities, products and services on biodiversity	69	SDG 6, SDG 14, SDG 15
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GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundary	59	
	103-2 The management approach and its components	59	
	103-3 Evaluation of the management approach	59	

GRI Standard	Disclosure	Page and/or Direct Answers	Sustainable Development Goal
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	59, 61	SDG 3, SDG 12, SDG 13, SDG 14, SDG 15
	305-2 Energy indirect (Scope 2) GHG emissions	59, 61	SDG 3, SDG 12, SDG 13, SDG 14, SDG 15
	305-4 GHG emissions intensity	62	SDG 13, SDG 14, SDG 15
	305-7 Nitrogen oxides (NO <sub>x</sub> ), Sulfur Oxides (SO <sub>x</sub> ), and other significant air emissions	62	SDG 3, SDG 12, SDG 14, SDG 15
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GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundary	63-65	
	103-2 The management approach and its components	63-65	
	103-3 Evaluation of the management approach	63-65	
GRI 306: Waste 2020	306-1: Waste generation and significant waste-related impacts	65	SDG 3, SDG 6, SDG 11, SDG 12
	306-2: Management of significant waste-related impacts	63-65	SDG 3, SDG 6, SDG 8, SDG 11, SDG 12
	306-3 Waste generated	63-65	SDG 3, SDG 6, SDG 11, SDG 12, SDG 15
	306-4: Waste diverted from disposal	65	SDG 3, SDG 11, SDG 12
	306-5: Waste directed to disposal	63-64	SDG 3, SDG6, SDG 11, SDG 12, SDG 15

GRI Standard	Disclosure	Page and/or Direct Answers	Sustainable Development Goal
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GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundary	98-101	
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	401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	98-99	SDG 3, SDG 5, SDG 8
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GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundary	78-80	
	103-2 The management approach and its components	78-80	
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GRI Standard	Disclosure	Page and/or Direct Answers	Sustainable Development Goal
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	403-2 Hazard identification, risk assessment, and incident investigation	84-85	SDG 8
	403-3 Occupational health services	81	SDG 8
	403-4 Worker participation, consultation and communication on occupational health and safety	78-79	SDG 8, SDG 16
	403-5 Worker training on occupational health and safety	74-75	SDG 8
	403-6 Promotion of worker health	78-79	SDG 3
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	86-87	SDG 8
	403-9 Work-related injuries	80	SDG 3, SDG 8, SDG 16
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GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundary	82-85	
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GRI Oil & Gas Sector Disclosure	OG-13 Number of Tier-1 process safety events	85	SDG 3, SDG 9
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GRI Standard	Disclosure	Page and/or Direct Answers	Sustainable Development Goal
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GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundary	102-103	
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GRI 404: Training and Education 2016	404-1 Average hours of training per year per employee	102-104	SDG 4, SDG 5, SDG 8, SDG 10
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	103-3 Evaluation of the management approach	105-106	
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GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundary	97	
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	103-3 Evaluation of the management approach	97	
	management approach	· ·	

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GRI Standard	Disclosure	Page and/or Direct Answers	Sustainable Development Goal
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	103-3 Evaluation of the management approach	48-49	
GRI 416: Customer Health and Safety 2016	416-1 Assessment of the health and safety impacts of product and service categories	48-49	
	416-2 Incidents of non- compliance concerning the health and safety impacts of products and services	48-49	SDG 16

## **Glossary of Abbreviations**

Abbreviations	Long Form
A&M	Texas A&M University
A&R	Accounting and Reporting
ACFA	Asian Clean Fuels Association
AEF	Alberta Envirofuels Inc
AGT	Authorized Gas Tester
Al	Artificial Intelligence
APC	Advanced Process Control
API	American Petroleum Institute
AR	Accounting and Reporting
ВА	Breathing Apparatus
BBS	Behavioral Based Safety
BMI	Body Mass Index
CA	Competent Authority
CAER	Community Awareness and Emergency Response
CAM	Center of Advanced Materials
CAO	Chief Administration Officer
CDR	Carbon Dioxide Recovery
CEO	Chief Executive Officer
CFO	Chief Financial Officer
CH <sub>3</sub> OH	Methanol
C00	Chief Operating Officer
coso	The Committee of Sponsoring Organizations of the Treadway Commission
CPC	Chinese Petroleum Corporation
СРО	Chief Procurement Officer
CSE	Confined Space Entry
CSR	Corporate Social Responsibility

Abbreviations	Long Form			
CV	Curriculum Vitae			
DCS	Distributed Control System			
DIFOTIC	Delivered in Full and On Time, and Invoiced Correctly			
EHS	Environment, Health and Safety			
EMS	Environmental Management System			
EnMS	Energy Management System			
EPC	Engineering, Procurement and Construction			
EPCA	The European Petrochemical Association			
ERM	Enterprise Risk Management			
ERP	Enterprise Resource Planning			
ERT	Emergency Response Team			
ESG	Environmental, Social, and Governance			
EU	European Union			
FSO	Fire and Safety Operators			
GDP	Gross Domestic Product			
GHG	Greenhouse Gas			
GHS	Globally Harmonized System of classification and labelling of chemicals			
GJ	Giga Joule			
GPCA	The Gulf Petrochemicals and Chemicals Association			
GRI	Global Reporting Initiative			
GWP	Global Warming Potential			
HCM	Human Capital Management			
HIRA	Hazard Identification and Risk Analysis			
HPO	High Performance Organization			
HR	Human Resources			
HSE	Health, Safety, and Environment			

HSSE Health, Safety, Security and Environment  IASB International Accounting Standards Board  IFRS International Financial Reporting Standards  IGSMC Integrated Gas Supply to Mesaieed Consumers  ILO International Labour Organization  IMO International Maritime Organization  IMO International Octane ILC  IOT Internet of Things  IPCC Internet of Things  IPCC Intergovernmental Panel on Climate Change  IPIECA International Petroleum Industry Environmental Conservation Association  IQ Industries Qatar  ISMS Information Security Management System  ISO International Organization for Standardization  IT Information Technology  ITB Invitation to Bid  JHA Job Hazard Analysis  JV Joint Venture  KAHRAMAA Qatar General Electricity and Water Corporation  KPI Key Performance Indicators  L&D Learning and Development  LCA Life Cycle Assessment  LLC Limited Liability Company  LCYMEC LCY Middle East Corp.  LDAR Leak Detection and Repair  LMS Lab Information Management Systems  LMS Learning Management Systems  LMS Learning Management Systems  LOPC Loss of Primary Containment  LTA Lost-Time Accident	Abbreviations	Long Form				
International Financial Reporting Standards  IGSMC Integrated Gas Supply to Mesaieed Consumers  ILO International Labour Organization  IMO International Maritime Organization  IOLLC International Octane LLC  IOT Internet of Things  IPCC Intergovernmental Panel on Climate Change  IPIECA International Petroleum Industry Environmental Conservation Association  IQ Industries Qatar  ISMS Information Security Management System  ISO International Organization for Standardization  IT Information Technology  ITB Invitation to Bid  JHA Job Hazard Analysis  JV Joint Venture  KAHRAMAA Qatar General Electricity and Water Corporation  KPI Key Performance Indicators  L&D Learning and Development  LCA Life Cycle Assessment  LLC Limited Liability Company  LCYMEC LCY Middle East Corp.  LDAR Leak Detection and Repair  LIMS Lab Information Management Systems  LMS Learning Management System  LOPC Loss of Primary Containment	HSSE					
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ILO International Labour Organization  IMO International Maritime Organization  IOLLC International Octane LLC  IOT Internet of Things  IPCC Intergovernmental Panel on Climate Change  IPIECA International Petroleum Industry Environmental Conservation Association  IQ Industries Qatar  ISMS Information Security Management System  ISO International Organization for Standardization  IT Information Technology  ITB Invitation to Bid  JHA Job Hazard Analysis  JV Joint Venture  KAHRAMAA Qatar General Electricity and Water Corporation  KPI Key Performance Indicators  L&D Learning and Development  LCA Life Cycle Assessment  LLC Limited Liability Company  LCYMEC LCY Middle East Corp.  LDAR Leak Detection and Repair  LIMS Lab Information Management System  LOPC Loss of Primary Containment	IFRS	<u> </u>				
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IPIECA  International Petroleum Industry Environmental Conservation Association  IQ  Industries Qatar  ISMS  Information Security Management System  ISO  International Organization for Standardization  IT  Information Technology  ITB  Invitation to Bid  JHA  Job Hazard Analysis  JV  Joint Venture  KAHRAMAA  Qatar General Electricity and Water Corporation  KPI  Key Performance Indicators  L&D  Learning and Development  LCA  Life Cycle Assessment  LLC  Limited Liability Company  LCYMEC  LCY Middle East Corp.  LDAR  Leak Detection and Repair  LIMS  Learning Management System  LOPC  Loss of Primary Containment	IOT	Internet of Things				
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KAHRAMAA Qatar General Electricity and Water Corporation  KPI Key Performance Indicators  L&D Learning and Development  LCA Life Cycle Assessment  LLC Limited Liability Company  LCYMEC LCY Middle East Corp.  LDAR Leak Detection and Repair  LIMS Lab Information Management Systems  LMS Learning Management System  LOPC Loss of Primary Containment	JHA	Job Hazard Analysis				
KPI Key Performance Indicators  L&D Learning and Development  LCA Life Cycle Assessment  LL.C Limited Liability Company  LCYMEC LCY Middle East Corp.  LDAR Leak Detection and Repair  LIMS Lab Information Management Systems  LMS Learning Management System  LOPC Loss of Primary Containment	JV	Joint Venture				
L&D  Learning and Development  LCA  Life Cycle Assessment  LL.C  Limited Liability Company  LCYMEC  LCY Middle East Corp.  LDAR  Leak Detection and Repair  LIMS  Lab Information Management Systems  LMS  Learning Management System  LOPC  Loss of Primary Containment	KAHRAMAA	Qatar General Electricity and Water Corporation				
LCA  Life Cycle Assessment  LLC  Limited Liability Company  LCYMEC  LCY Middle East Corp.  LDAR  Leak Detection and Repair  LIMS  Lab Information Management Systems  LMS  Learning Management System  LOPC  Loss of Primary Containment	KPI	Key Performance Indicators				
LL.C Limited Liability Company  LCYMEC LCY Middle East Corp.  LDAR Leak Detection and Repair  LIMS Lab Information Management Systems  LMS Learning Management System  LOPC Loss of Primary Containment	L&D	Learning and Development				
LCYMEC  LCY Middle East Corp.  LDAR  Leak Detection and Repair  LIMS  Lab Information Management Systems  LMS  Learning Management System  LOPC  Loss of Primary Containment	LCA	Life Cycle Assessment				
LDAR Leak Detection and Repair  LIMS Lab Information Management Systems  LMS Learning Management System  LOPC Loss of Primary Containment	L.L.C	Limited Liability Company				
LIMS Lab Information Management Systems  LMS Learning Management System  LOPC Loss of Primary Containment	LCYMEC	LCY Middle East Corp.				
LOPC Loss of Primary Containment	LDAR	Leak Detection and Repair				
LOPC Loss of Primary Containment	LIMS	Lab Information Management Systems				
	LMS	Learning Management System				
LTA Lost-Time Accident	LOPC	Loss of Primary Containment				
	LTA	Lost-Time Accident				

Abbreviations	Long Form				
LTI	Lost time injuries				
LTIF	Lost Time Injury Frequency				
MERI	Minimum Essential Receiving Inspection				
MESD	Maritime Energy and Sustainable Development				
MI	Methanol Institute				
MIC	Mesaieed Industrial City				
MIQA	Mechanical Integrity and Quality Assurance				
MKOPSC	Mary Kay O'Connor Process Safety Center				
ММА	Methyl methacrylate				
MME	Ministry of Municipality and Environment				
MMSCM	Million Metric Standard Cubic Meters				
МОРН	Ministry of Public Health				
MRR	Monitoring and Reporting Regulation				
MSDS	Material Safety Data Sheets				
MT	Metric Ton				
MTBE	Methyl-Tertiary-Butyl-Ether				
MTPD	Metric Tons Per Day				
N/A	Not Applicable (Not Available)				
NIA	National Information Assurance				
NFPA	National Fire Protection Association				
NZLD	Near Zero Liquid Discharge				
O&G	Oil and Gas				
OE	Operational Excellence				
OECD	Organisation for Economic Co-operation and Development				
OEE	Overall Equipment Efficiency				
OGI	Optical Gas Imaging				
OHS	Occupational Health and Safety				
OMEC	OPIC Middle East Corp.				

Abbreviations	Long Form				
OPIC	OPIC Middle East Corp.				
OSHA	Occupational Safety and Health Administration				
OTS	Operator Training Simulator				
PAGA	Public Address and General Announcement				
PCIC	Procurement, Construction, Installation and Commissioning				
PDP	Personal Development Program				
PHA	Process Hazard Analysis				
PHD	Uniformance Process History Database				
PII	Process Safety Institute				
PHS	Process Hazard Analysis				
PI	Plant Information				
PLC	Programmable Logic Controller				
PM	Particulate Matter				
PMC	Periodic Medical Check-Ups				
PMS	Performance Management System				
PPE	Personal Protective Equipment				
PPM	Parts Per Million				
PSA	Pressure Swing Adsorption				
PSM	Process Safety Management				
PSTIR	Process Safety Total Incident Rate				
PTW	Permit To Work				
QCDD	Qatar Civil Defense Department				
Q.P.J.S.C.	Qatar Chemical and Petrochemical Marketing and Distribution Company				
QAFAC	Qatar Fuel Additives Company				
QAFCO	Qatar Fertiliser Company				
QAPCO	Qatar Petrochemical Company				
QHSE	Quality, Health, Safety and Environmental				

Abbreviations	Long Form			
QNV	Qatar National Vision			
QP	Qatar Petroleum			
QSE	Qatar Stock Exchange			
QSSA	QAFAC Support Services Area			
RCA	Root Cause Analysis			
RGS	Regenerate Gas Scrubbing			
SAP	Systems, Applications, and Products			
SASB	Sustainability Accounting Standards Board			
SCE	Safety Critical Equipment			
SDG	Sustainable Development Goals			
SNCR	Selective Non-Catalytic Reduction			
TA	Turnaround			
TRCF	Total Recordable Case Frequency			
TVA	Toxic Vapor Analyzer			
UAE	United Arab Emirates			
UK	United Kingdom			
UN	United Nations			
UNFCCC	United Nations Framework Convention on Climate Change			
UOP	Universal Oil Products			
US	United States			
US EPA	United States Environmental Protection Agency			
USD	United States Dollar			
VDI	Virtual Desktop Infrastructure			
VOC	Volatile Organic Compounds			
WAH	Work At Height			
WHB	Waste Heat Boilers			
WHO	World Health Organization			





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