



ESG Report 2023



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A large-scale construction site featuring a multi-story building under construction with a prominent green steel frame. In the foreground, two workers wearing white hard hats and blue work clothes are looking towards the structure. One worker is pointing towards the building. The scene is set against a clear sky.

Introduction

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2023 ESG Highlights

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ABOUT THE REPORT

This report showcases Qatar Fertiliser Company (QAFCO)'s commitment towards sustainability, illustrating how its strategy is designed to drive continuous improvement across all facets of the business. With Environmental, Social and Governance (ESG) principles at the core, QAFCO is embedding sustainability into every layer of its operations, shaping business activities to support both national and global sustainability goals.

Prepared in accordance with Global Reporting Initiative (GRI) Standards, this report offers a transparent and comprehensive view of QAFCO's environmental, social, and governance performance for 2023. By aligning with Qatar National Vision 2030 and the United Nations Sustainable Development Goals (UN SDGs), QAFCO underscores its role in fostering sustainable growth that resonates with its stakeholders, including investors, regulatory bodies, government authorities, suppliers, customers, employees, and local communities.

Reporting Boundary

The report covers all the operations located within Qatar, including Gulf Formaldehyde Company (GFC) and Qatar Melamine Company (QMC). QAFCO engaged with a wide range of internal and external stakeholders on ESG matters, leading to a reassessment of its material topics. Based on the feedback received, QAFCO has updated its list of material topics and its corresponding priorities. The modifications to the list of material topics and priorities are detailed and disclosed in this report.

Board Responsibility Statement

The report underscores management's accountability by clearly defining the roles and responsibilities of key stakeholders, as well as the internal management and governance frameworks. This transparency strengthens accountability and fosters a culture of continuous improvement. QAFCO's dedication is evident in its proactive management and oversight of sustainable practices, driving these efforts in alignment with its broader sustainability objectives.

Safe Harbor Statements

Acknowledging the dynamic nature of the industry and the influence of external factors, QAFCO includes Safe Harbour Statements within its report. These forward-looking statements aim to provide insight regarding anticipated performance, while emphasizing the importance of considering evolving conditions as stakeholders interpret future expectations.

Reporting Period and Cycle

This annual ESG Report outlines QAFCO's Environmental, Social, and Governance performance for the period from January 1 to December 31, 2023, aligning with the reporting period of its annual financial report.



Feedback

QAFCO values and encourages stakeholder feedback, inviting suggestions and engagement through a dedicated channel at esg@qafco.com.qa. This approach demonstrates QAFCO's commitment to transparency and openness in its reporting process.

Leadership Messages

Message from QAFCO's Chairman

Reflecting on 2023, QAFCO is pleased to report that Qatar's journey toward economic diversification and sustainable development is progressing with impressive momentum. As part of this journey, addressing challenges like climate change and food security remains a key focus. The company's strategy centers on innovative projects and sustainable practices designed to strike a balance between combating climate change and ensuring a steady, reliable supply of urea to meet global agricultural needs.

In 2023, QAFCO produced 3.72 million metric tons of ammonia and 5.67 million metric tons of urea, contributing to the global urea market, which is a key agricultural nutrient essential for global food security. These achievements align with Qatar National Vision 2030, creating value for both its stakeholders and the broader global community. QAFCO's strategy centers on providing a reliable supply of urea while achieving strong financial performance and prioritizing sustainability. The company is committed to reducing carbon emissions, enhancing energy efficiency, ensuring health and safety, fostering diversity, and maintaining a responsible supply chain. This integrated approach enables QAFCO to meet shareholder expectations and deliver value through sustainable business practices and operational excellence.

QAFCO is particularly proud of its progress in reducing carbon emissions. Since its baseline year of 2021, QAFCO has achieved a 4% reduction in overall GHG emissions. QAFCO's commitment to sustainability is reflected in its 2025-2029 sustainability action plan, designed to fulfill its 15 QAFCO Sustainability Goals (QSGs). These efforts

not only mitigate QAFCO's environmental impact but also support the United Nations Sustainable Development Goals (UN SDGs) and support global food security.

Aligned with Qatar National Vision 2030, QAFCO continues to invest in initiatives that empower individuals, and promote sustainable economic growth. Furthermore, QAFCO prioritizes its employees' well-being through ongoing training, health and safety programs, and a supportive work environment.

In line with QAFCO's commitment to high standards of ESG governance, the company follows best practices in transparency, accountability, and ethics, reinforcing its dedication to responsible and sustainable business operations.

On behalf of the QAFCO Board of Directors, I would like to extend my sincere gratitude to its valued shareholders for their ongoing support, and to its dedicated management and staff for their steadfast commitment to driving QAFCO's progress and growth.



Ahmad Helal Al-Mohannadi

Chairman

QAFCO Board

Leadership Messages

Message from QAFCO's CEO CEO's Statement for 2023

Reflecting on the past year, QAFCO is proud to highlight the substantial progress it has achieved in its journey towards sustainability and operational excellence. This report marks a significant milestone as it is the first prepared in full accordance with the Global Reporting Initiative (GRI). QAFCO is dedicated to ESG principles, supporting global sustainability goals and Qatar's National Vision 2030.

QAFCO is pleased to introduce its 5-year Sustainability Action Plan for 2029, which is aligned with Qatar's National Vision 2030 and the UN Sustainable Development Goals (SDGs) and QAFCO ESG material topics. This plan focuses on reducing greenhouse gas emissions, improving air quality, managing water consumption and discharge, enhancing process plant efficiency, managing waste, promoting the efficient use of fertilizers, respect for the natural environment, promoting sustainable infrastructure, ensuring health, safety, and security, strengthening the academic sector, supporting food security, improving corporate governance, contributing to Qatar's economy, and encouraging sustainable local spending. The sustainability approach centers on 15 QAFCO Sustainability Goals (QSG) aligned with 11 UN SDGs, outlining the company's goals, metrics, targets and initiatives.

As the world's largest single-site producer of ammonia and urea, QAFCO recognizes its unique role in addressing global challenges. Renowned for its reliable, high-quality urea production, the company is dedicated to actively contributing to global food security by providing vital agricultural inputs. QAFCO's vision is to set benchmarks in environmental stewardship, social responsibility, and ethical governance, ensuring its operations prioritize both the people and planet.

Abdulrahman M. Al-Suwaidi

MD & CEO

QAFCO Board

Pioneering Sustainable Operations

This year, QAFCO achieved several milestones in its environmental efforts. In terms of water management, the company advanced the Zero Liquid Discharge (ZLD) project at the QAFCO 1-4 site, aiming to eliminate liquid discharge from the production process by 2025. Regarding digital transformation, in 2023, QAFCO achieved a 23% reduction in printed paper usage, promoting a more sustainable and paperless work environment. For decarbonization, the company's QAFCO 7 Project has made significant progress, underscoring its focus on reshaping the ammonia value chain. In waste management, through its recycling initiatives, QAFCO proudly achieved 100% recycling of hazardous waste.

Empowering Our People and Communities

QAFCO has invested in initiatives that support farmers, enhance food security, and promote the wellbeing of employees and communities. QAFCO provided support to a number of farms in Qatar promoting agricultural best practices. QAFCO's success is powered by its people. In 2023, it reached a Corporate Qatarization target of 25.20%, demonstrating its commitment to developing local talent. QAFCO also celebrated a safety milestone with zero Lost Time Injuries (LTIs).

Evolving with Transparency and Integrity

Reflecting on its achievements in 2023, QAFCO looks forward to the promising milestones ahead in 2024. QAFCO is set to make a lasting impact, shaping a more sustainable and resilient future.



QAFCO's Profile

QAFCO's growth over more than half a century reflects its enduring value creation and commitment to excellence, solidifying its reputation as a trusted global supplier of high-quality urea. Since its founding in 1969, QAFCO has been a cornerstone of Qatar's industrial landscape, playing a pivotal role in the nation's economic diversification beyond oil and gas. Today, as the world's largest single-site exporter of urea, QAFCO stands as a testament to Qatar's ambitious vision for industrial growth.

Evolving from a single ammonia plant into a world-class ammonia and production complex making Qatar the 2nd largest urea exporter in 2023,, QAFCO is now fully owned by Industries Qatar (IQ) and strategically aligned with QatarEnergy. This partnership highlights

QAFCO's integral role in Qatar's industrial strategy, providing enhanced resource access and strengthening its global presence. Beyond ammonia and urea, QAFCO has expanded into melamine and urea formaldehyde production, with a 70% stake in Gulf Formaldehyde Company (GFC) and full ownership of Qatar Melamine Company (QMC).

Looking forward, QAFCO, on behalf of QatarEnergy, is undertaking a significant expansion with the development of the QAFCO-7 Project. This facility, set to be the world's largest blue ammonia plant, will be located in Mesaieed Industrial City and is expected to start operations by the second quarter of 2026. This project is a key part of QAFCO's efforts to enhance sustainability and reduce the carbon intensity of its

products. By incorporating advanced carbon capture and storage (CCS) technologies, the QAFCO-7 plant will significantly cut CO₂ emissions, supporting global energy transition goals and environmental protection.

Direct Economic Value Generated and Distributed:

QAR 7.48 billion

urea producer by 2030, advancing sustainable agriculture and working towards a greener, more resilient planet.

The foundation of QAFCO's success lies in its core values, which shape every action and decision. Excellence fuels its drive for continuous improvement and operational efficiency. Safety is embedded in every aspect of their work, reflecting a profound respect for both people and the environment. Integrity guides every action, ensuring

transparency, honesty, and fairness in all interactions. And, through teamwork, QAFCO fosters an inclusive, collaborative environment where respect and shared goals unite their teams as one.

These principles form a cohesive path forward for QAFCO, pushing the company towards its ambitious goals while positively impacting communities and the world.

Mission

QAFCO aims to operate its assets safely, efficiently and in an environmentally responsible manner to produce high-quality Ammonia and Urea.

Vision

QAFCO aspires to be the world's leading Urea producer by 2030, contributing towards a greener earth.

Values

QAFCO is driven by four core values:

- **Excellence:** Continuous improvement to enhance efficiency.
- **Safety:** Committed to safety in all aspects of life.
- **Integrity:** Actions based on transparency, honesty and fairness.
- **Teamwork:** Respect, empowerment and work together as one family to achieve shared goals.

Mission, Vision and Values

QAFCO's story is one of purpose and ambition, anchored in a mission, vision, and values that reflect its deep commitment to sustainability, excellence, and global impact.

Guided by a mission to operate safely and efficiently, QAFCO produces top-quality ammonia and urea, while staying deeply committed to environmental responsibility. This mission is part of a greater vision: to become the world's leading



Milestones and Achievements

1969: Journey Begins

QAFCO was established as Qatar's first large-scale petrochemical initiative, setting the stage for the country's industrial diversification.

1973: First Fertiliser Milestone

QAFCO'S first fertilizer plant, QAFCO-1 began production, laying the foundation for future growth

1979 - 1997: Expanding Horizons

QAFCO expanded its operations with QAFCO-2 in 1979 and QAFCO-3 in 1997, significantly increasing production capacity.

2003 - 2011: Diversification and Innovation

2003: GFC, a subsidiary that diversified QAFCO's portfolio was formed.

2004: QAFCO-4 was inaugurated.

2011: QMC was incorporated and QAFCO-5 was launched.

2012 - 2019: Reaching New Heights

2012: QAFCO-6 inaugurated.

2019: QAFCO marks a golden milestone - 50 years of manufacturing and supplying high-quality urea.

2020 - 2026: Today and Beyond:

2020: QAFCO became a 100% subsidiary of IQ, and acquired 100% ownership of QMC.

2022: QAFCO 7 Project - the world's largest 'Blue Ammonia' initiative - announced, with operations expected to start in 2026

2023 ESG Highlights

Environment

Transforming Effluents into Resources

QAFCO's ZLD Project at the QAFCO 1- 4 site will recover 142 m³/hr of effluents, producing 129 m³/hr of demineralized water and 12 m³/hr of irrigation water, and boosting environmental and operational efficiency. The construction of the ZLD began in 2023 and has made significant progress, with completion on track for August 2025.

142 m ³ /hr	129 m ³ /hr	12 m ³ /hr
Total Effluents Recovered	Demineralized Water Produced	Irrigation Water Produced

Towards a Paperless Future

QAFCO has successfully achieved a remarkable 23% reduction in paper usage.

23%
Paper Usage Reduction



Enhancing Agriculture with Precision

QAFCO supported more than 10 farms in conducting water testing and implementing precision fertilization.



+10
Farms Supported

100% Hazardous Waste Recycling in 2023

QAFCO recycled **100%** of its hazardous waste.



Tree Planting

QAFCO planted **2,100** trees.



2023 ESG Highlights

Environment

Launching the World's Largest Blue Ammonia Facility in Qatar

QAFCO is advancing the QAFCO-7 Project, a blue ammonia facility with a production capacity of 1.2 million tons per year, set to begin operations in early 2026. The Blue Ammonia Project incorporates CCS technology to capture and store 1.4 million tonnes of CO₂ annually. Key benefits of this project include environmental impact reduction, economic growth through job creation, and digital efficiency gains, such as 65% reduction in paper usage.

65%

Paper Usage Reduction



AVON Project's Environmental and Efficiency Gains

The AVON Project was handed over in June 2023. The change of the driver reduced environmental emissions.



Launch of Diesel Exhaust Fluid (DEF)

In 2023, QAFCO trialed Diesel Exhaust Fluid (DEF), a 32.5% urea solution that lowers emissions by converting nitrogen oxides (NOx) into harmless nitrogen and water through Selective Catalytic Reduction (SCR). Meeting ISO standards and compatible with Euro V and VI vehicles, DEF is set for a local launch in 2024.

32.5%

urea solution



Reduction in GHG Emissions

QAFCO reduced its GHG emissions by 4%.

4%

GHG Emission Reduction



2023 ESG Highlights

Social

Advancing Qatarization Goals

QAFCO achieved a Corporate Qatarization target of 25.20%

25.20%

Qatarization target



Achieving Zero LTIs in 2023

QAFCO reached a safety milestone with zero Lost Time Injuries (LTIs).

0

Lost Time Injuries



Synergilife: Digital Health and Safety

In 2023, QAFCO implemented the Health, Safety, Environment, and Quality (HSEQ) Synergilife system to manage health and safety. This system enabled the reporting of 5297 proactive incidents and behavior-based safety observations, registered 31 audit findings, and facilitated 484 safety inspections and walks.



484

safety inspections and walks

Process Safety Management

In 2023, QAFCO transitioned its Process Safety Management (PSM) from OSHA to CCPS standards, implementing Process Safety Culture, Competency Matrix, and Operational Discipline elements. This ongoing effort aims for PSM excellence in the coming years.



Exceptional Process Safety Performance

QAFCO achieved a process safety incident rate of

0.10, below the 0.36 threshold.



Total training hours per employee

QAFCO recorded an average of 16.9 hours of training per employee. The Training Satisfactory Rate reached 92.74% against 80% target.



92.74%

satisfaction rate

2023 ESG Highlights

Governance

Logistics and Certification Achievements

QAFCO had no customer concerns or complaints regarding product or shipment logistics. QAFCO also earned the AQIS Level-1 Gold Certification following its Annual Audit.



0
complaints

Digitalization Enhances Financial Planning Efficiency

In 2023, QAFCO initiated a strategic digitalization project to automate financial planning processes, including budgeting, rolling forecasts, financial analysis, and corporate reporting. The project demonstrated significant efficiency gains, with an average 24% reduction in planning time and an IRR of 36%. In 2024, the financial process is planned to take place and the automation is expected to enhance process efficiency and output, contributing to a sustainable and agile operating model.



24%
time saved



36%
IRR

Code of Conduct Compliance

QAFCO has zero tolerance to any form of corruption, fraud, or trading in influence. Notably, QAFCO achieved zero corruption incidents.



0
corruption incidents

Procurement Budget Spent on Local Suppliers

In 2023, 92.20% of QAFCO's procurement spending was allocated to local suppliers.



92.2%
local spend

E-Signatures for Sustainability

To enhance sustainability efforts, QAFCO introduced the Digital Signatures Project across all departments in June 2023, engaging 1,100 employees. The adoption of AdobeSign, integrated with SAP and Microsoft Products, reduced paper usage by 60% and improved document processing times. QAFCO plans to expand this initiative by incorporating automated workflows and analytics, further supporting sustainability and operational efficiency.



60%
Paper Usage Reduction

Employee Engagement Survey

In 2023, QAFCO conducted the third iteration of its Employee Engagement Survey (EES), achieving a 91% participation rate. The survey plays a crucial role in shaping a strong employee value proposition by gathering valuable feedback on the company's strengths and areas of improvement.

91%
participation rate

Transition to SAP S/4 Hana

In 2023, QAFCO initiated the SAP S/4 Hana, significantly enhancing operational efficiency, real-time data insights, and integration with other solutions. Key results include reduced operational costs, improved sustainability metrics, faster month-end closing (from 10 days to 5), automation of 1800 business processes, and training for 870+ employees.

870+
Employees trained

Driving Sustainability Forward

IN THIS SECTION

QAFCO's Sustainability
Action Plan

QAFCO's Materiality
Assessment

Corporate Governance
and Compliance

02

QAFCO's Sustainability Action Plan

QAFCO is committed to sustainability, recognizing the importance of environmental, social, and economic impacts. As the world's largest single-site producer of ammonia and urea, QAFCO plays a vital role in global food security by supplying essential agri-nutrients.

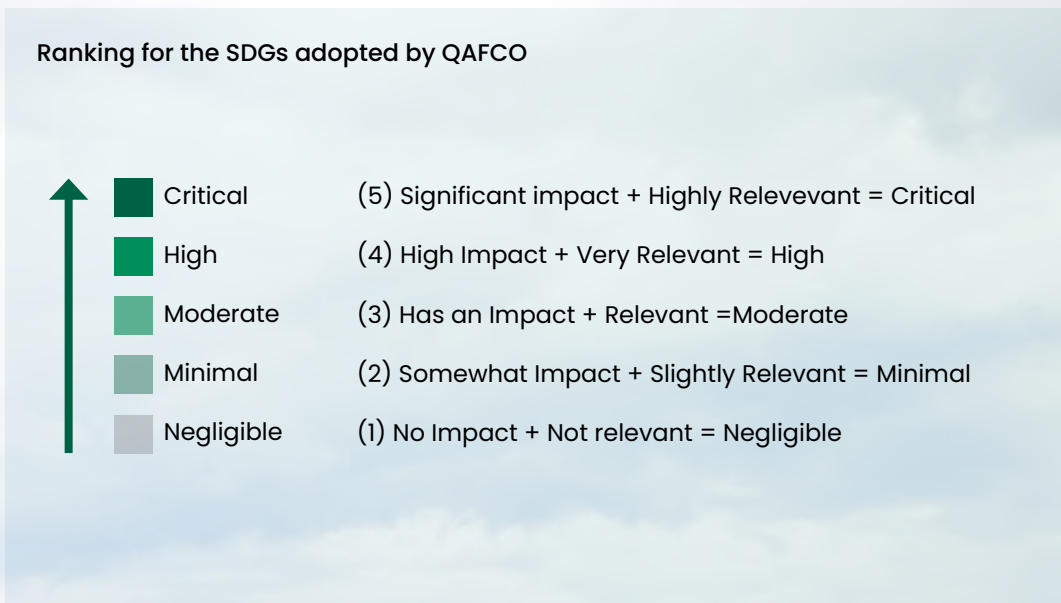
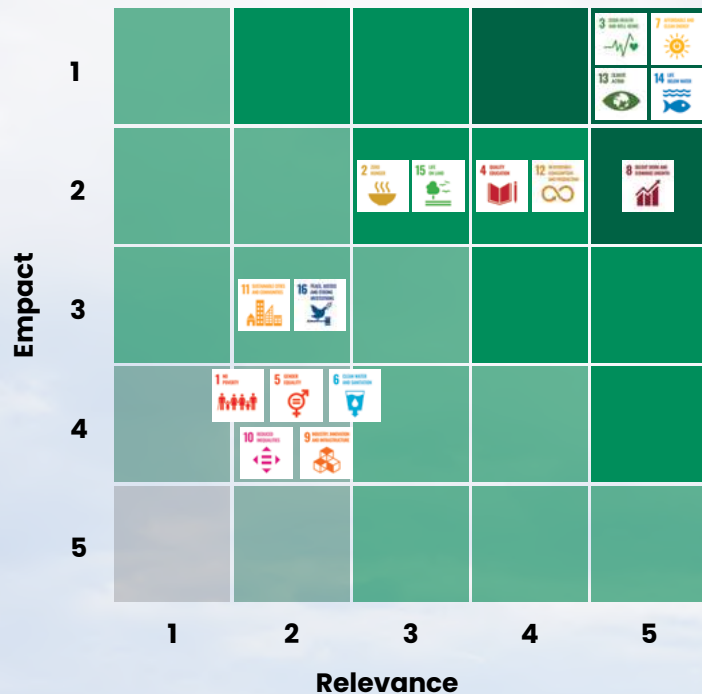
QAFCO's 5-year Sustainability action plan for 2025-2029, aligned with Qatar's National Vision 2030 and the UN SDGs, focuses on reducing greenhouse gas emissions, improving air quality, managing water consumption and discharge, restoring marine life, enhancing plant efficiency, managing waste, using fertilizers more efficiently, restoring land in Qatar, promoting sustainable infrastructure, ensuring health, safety, and security, strengthening the academic

sector, securing food supplies, improving corporate governance, supporting Qatar's economy, and encouraging sustainable local spending.

By prioritizing the UN SDGs through an in-depth assessment, QAFCO has closely integrated these targets with the company's core ESG material topics, covering all areas essential to its operations. These targets comprehensively cover all material ESG areas relevant to QAFCO, addressing issues such as energy and emissions management, product stewardship and health, safety and wellbeing that are essential to the company's long-term impact and success. QAFCO is mobilizing its resources across topics such as technology, human resources, capital, and

financial investments toward achieving these goals, ensuring that every department and operational unit contributes to the broader sustainability vision. With well-defined targets, actionable initiatives, and strong enablers in place, QAFCO's approach embeds sustainability into every aspect of its business model.

An assessment evaluated the UN SDGs based on impact and relevance to the organization and stakeholders. The methodology involved ranking the UN SDGs based on these criteria, considering both relevance and impact, and categorizing them into five levels: critical, high, moderate, minimal, and negligible.



QAFCO's Materiality Assessment

Stakeholder Engagement

QAFCO conducts a materiality assessment to identify and prioritize key ESG topics, ensuring the company focuses on the most impactful issues for its operations and stakeholders.

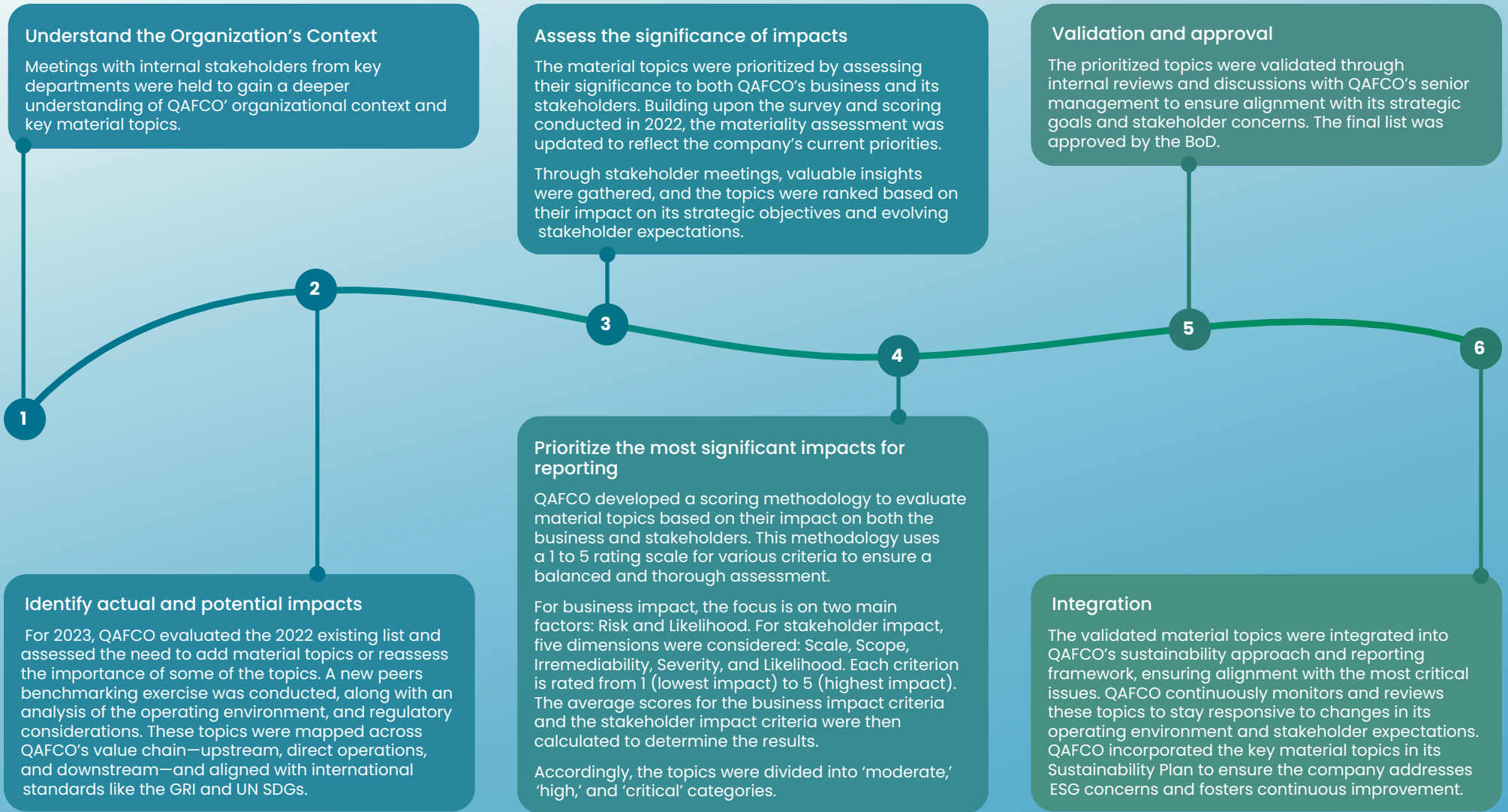
In 2022, QAFCO conducted a materiality assessment through surveys and stakeholders' engagement meetings to understand those that are most important to its internal and external stakeholders. Internal stakeholders included key departments within QAFCO, and external stakeholders included departments

from QatarEnergy, Muntajat, and Industries Qatar, with a total of 30 departments and 93 respondents.

For this report, QAFCO conducted further stakeholder engagements, which resulted in the re-evaluation of the 2022 topics. More than 18 meetings were held with stakeholders across key departments to update the material topics for 2023, which have been aligned with external stakeholders from QatarEnergy.

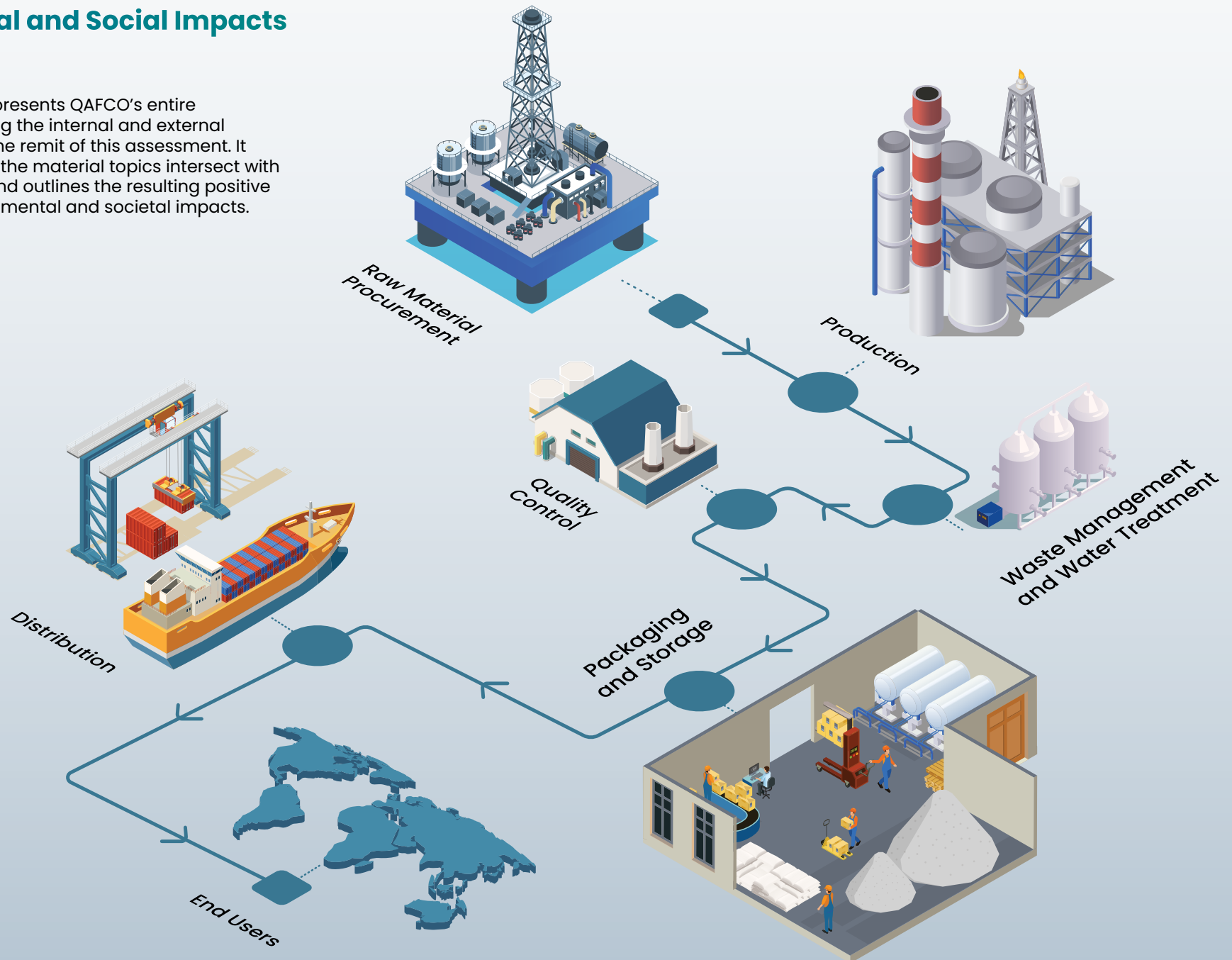
Materiality Assessment Approach

QAFCO's revised materiality assessment for this report was based on the following steps:



QAFCO's Value Chain: Environmental and Social Impacts

The following graph presents QAFCO's entire value chain identifying the internal and external stakeholders within the remit of this assessment. It demonstrates where the material topics intersect with these stakeholders and outlines the resulting positive and negative environmental and societal impacts.



QAFCO's Value Chain: Environmental and Social Impacts



Raw Material Procurement

Impacts on Environmental and Social Receivers



Environment

- Marine ecosystem disturbance is managed through distinct processes and management systems.



Social

- + Economic development, wealth, job creation.
- Interference with livelihood marine activities.

Impacted Stakeholders

- QatarEnergy

Types of Impact

QAFCO obtains natural gas, the main ingredient for ammonia production, from QatarEnergy, which supplies lower carbon intensity gas for its operations.



Production

Impacts on Environmental and Social Receivers



Environment

- + Energy efficiency, emission control.
- Emissions, resource use.



Social

- + Economic growth, job creation.
- Workers safety and health concerns.

Impacted Stakeholders

- Employees (specifically technicians and engineers)
- QMC
- GFC

Types of Impact

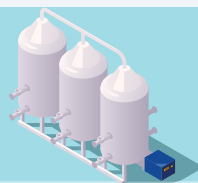
QAFCO's production capacity is sustained by six ammonia and urea plants, with essential steam and other utilities provided by the QAFCO Utility Plant. Additionally, power and water are supplied by KAHRAMAA.

QAFCO's production process begins with natural gas being converted into ammonia in its ammonia plants. This ammonia is then transformed into urea, which is the main product. A portion of the urea is used by Qatar Melamine Company to produce melamine for laminates and adhesives, while another portion is directed to Urea Formaldehyde Concentrate (UFC) plants. A portion of the urea is utilized by Qatar Melamine Company to produce melamine, which is essential for laminates and adhesives. Another portion is directed to Urea Formaldehyde Concentrate (UFC) plants. The Gulf Formaldehyde Company produces UFC, which is crucial for making urea and is also used to produce formaldehyde for various industrial applications.

Additionally, QAFCO produces aqueous ammonia, which is used primarily for nitrogen oxide (NOx) reduction. Energy management prioritizes efficiency and heat recovery to reduce environmental impact, while advanced emission control technologies minimize greenhouse gases and pollutants.

QAFCO's Value Chain: Environmental and Social Impacts

Waste Management and Water Treatment



Impacts on Environmental and Social Receivers



Environment

- + Proper disposal of hazardous waste, recycling efforts, compliance with regulations.
- Energy-intensive, residual waste.



Social

- + Positive: Community health and safety.
- Operational risk from handling and treatment of waste.

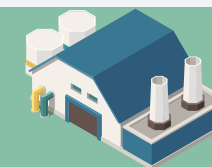
Impacted Stakeholders

- Environment Team
- Community
- Regulatory Bodies
- MIC

Types of Impact

The Mesaieed Industrial City (MIC) Hazardous Waste Treatment Center manages and treats hazardous waste generated by QAFCO's operations. Additionally, QAFCO treats wastewater before its release.

Quality Control



Impacts on Environmental and Social Receivers



Environment

- + Product safety and compliance.
- Increased time and resource use.



Social

- + High-quality products, consumer trust.
- Failure to comply with quality standards may lead to potential reputational damage, in adherence of the relevant laws and regulations.

Impacted Stakeholders

- Employees (specifically Quality Control for the final product is conducted by Laboratory Section)
- Surveyors
- Regulatory bodies
- Customers

Types of Impact

QAFCO implements quality control measures throughout the production process to ensure their products meet international standards.

QAFCO's Value Chain: Environmental and Social Impacts

Packaging and Storage



Distribution



End Users



Impacts on Environmental and Social Receivers



Environment

- + Use of high quality material.
- Waste generation.



Social

- + Safety standards, job creation.
- Potential safety risks for workers in loading areas.

Impacted Stakeholders

- Employees
- Suppliers
- Customers

Types of Impact

Most of the finished products are sold and stored in bulk until distribution, with only %3.13 being sold in bags. Environmental aspects and risks are addressed through the organization's established systems and procedures.

Impacts on Environmental and Social Receivers



Environment

- + Efficient logistics to reduce overall fuel consumption and emissions.
- Emissions from transportation, risk of spills.



Social

- + Job creation, economic growth.
- Health risks due to transportation emissions.

Impacted Stakeholders

- QatarEnergy
- Shipping Companies
- Customers

Types of Impact

Products are transported to domestic and international markets using ships and trucks. QatarEnergy is responsible for selling QAFCO's products through distributors. QAFCO implemented controls for emission management and has ongoing and planned projects to mitigate and control these issues.

Impacts on Environmental and Social Receivers



Environment

- + Agricultural efficiency, industrial applications.
- Potential water pollution, air pollution, GHG emissions, soil degradation.



Social

- + Food security, economic growth.
- Health risks on communities.

Impacted Stakeholders

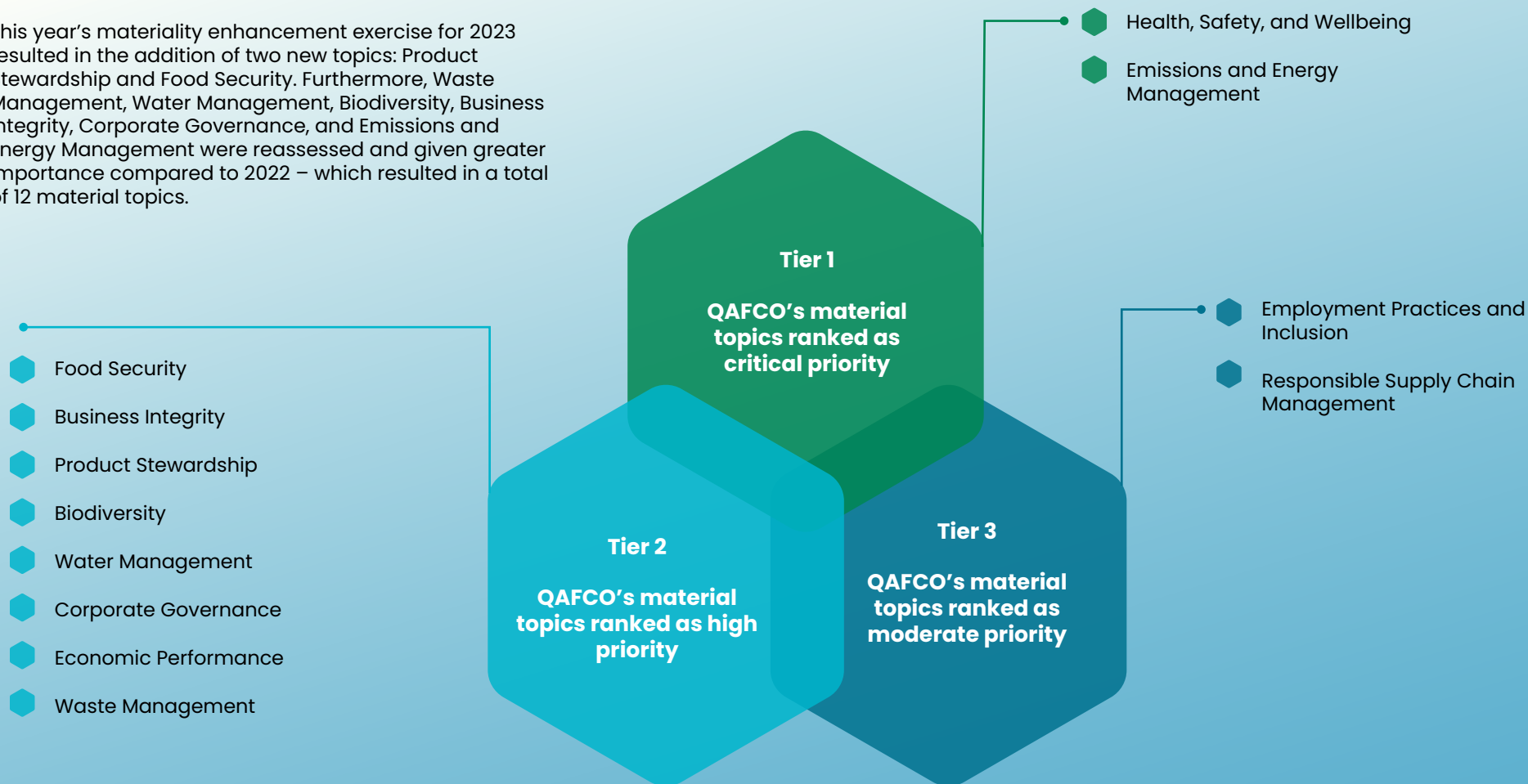
- Customers
- QatarEnergy
- Industries Qatar

Types of Impact

Ammonia and urea are used in agriculture as fertilizers, and in various industrial applications. Melamine produced by QAFCO is used in the production of laminates, adhesives, and other industrial products. Additionally, QAFCO produces aqueous ammonia, which is primarily used for nitrogen oxide (NOx) reduction, and urea formaldehyde concentrate, which is an additive used to the urea product to improve its strength.

Materiality Assessment Results




This year's materiality enhancement exercise for 2023 resulted in the addition of two new topics: Product Stewardship and Food Security. Furthermore, Waste Management, Water Management, Biodiversity, Business Integrity, Corporate Governance, and Emissions and Energy Management were reassessed and given greater importance compared to 2022 – which resulted in a total of 12 material topics.








For a comprehensive understanding of QAFCO's approach and initiatives undertaken in 2023 to manage material topics, including the associated risks and opportunities, please refer to the specific sections outlined in this report. The sections provide a detailed account of QAFCO's strategies and actions aligned with its ESG commitments.

Aligning QAFCO's Sustainability Action Plan to the UN SDGs and to its Material Topics





QAFCO's ESG approach for 2025–2029 emphasizes key UN SDGs, detailing our sustainability goals, metrics, targets, projects, and initiatives. The company uses the UN SDGs as a primary reference, with 15 QAFCO Sustainability Goals (QSG) aligned with 11 UN SDGs. The table below shows the way its ESG action plan aligns with the UN SDGs and materiality topics.

QSG	SDG	QAFCO's Contributions	Material Topic Mapping
<p>QSG 1 – Reduce GHG Emissions:</p> <p>QAFCO's goal is to cut Scope 1 and Scope 2 GHG emissions from processes, combustion and electrical import, aiming for a total of 5.44 million metric tonnes by 2030.</p>		<p>QAFCO is executing on behalf of QatarEnergy the Carbon Capture & Sequestration (CCS) Project, which will permanently store underground all the process CO₂ generated in the Ammonia-7 Plant. Ammonia-7 has an ammonia production capacity of 1.2 million tons per annum and is designed to capture and permanently store 1.5 million tons of CO₂ annually. The site preparation began in April 2023, and the plant is expected to begin operations in the second quarter of 2026.</p> <p>The Ammonia-7 Plant shall be supplied with 35 MW power from renewable sources (solar).</p> <p>The Carbon Capture & Sequestration (CCS) facility is planned to commence operations approximately one year after Ammonia-7.</p>	Emissions and Energy Management
<p>QSG 2 – Enhance Ambient Air Quality:</p> <p>QAFCO is committed to reduce and control fugitive emissions to protect health and wellbeing. The company reduced total fugitive emissions to 92,123 kg/year in 2023 and aims for 74,352 kg/year by 2029.</p>		<p>Current initiatives include monitoring and addressing sources of fugitive emissions, phasing out Ozone-Depleting Substances (ODS) per the Montreal Protocol, and preparing for the Kigali Amendment to phase down hydrochlorofluorocarbons (HFCs).</p> <p>QAFCO is also conducting a feasibility study that will be completed by 2025.</p> <p>In 2023, QAFCO tested Diesel Exhaust Fluid (DEF) for Euro V and VI engines; it is expected to launch locally in 2024.</p>	Emissions and Energy Management
<p>QSG 3 – Reduce Operations Water Consumption & Eliminate Water Discharge to Sea:</p> <p>QAFCO is reducing operational water consumption and eliminating water discharge of process wastewater to the sea to enhance overall environmental sustainability.</p>		<p>QAFCO aims to achieve zero liquid discharge (ZLD) for processed wastewater to the sea by 2025.</p> <p>The ZLD project recovers 142 m³/hr of effluents, producing 129 m³/hr of demineralized water and 12 m³/hr of irrigation water at QAFCO 1-4 site.</p>	Water Management


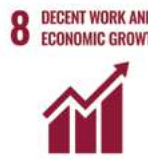
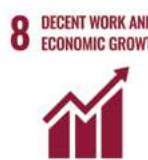
Aligning our Sustainability Action Plan to the UN SDGs and to our Material Topics

<p>QSG 4 – Restore Marine Life</p> <p>QAFCO aims to support the restoration of biodiversity by making biodiversity a priority for the future.</p>		<p>QAFCO identified biodiversity as a priority item that it shall explore and prepare a plan to mitigate in the following years. In 2023, QAFCO collaborated with Qatar University to provide waste urea fertilizers for research on microalgae development, promoting sustainable practices and marine biodiversity. This study shows how reusing waste materials can enhance microalgae growth, a vital part of the marine ecosystem.</p>	<p>Water Management</p>
<p>QSG 5 – Ensure Plant Efficiency</p> <p>QAFCO is dedicated to enhancing energy efficiency in its operations through various projects, including the AVON replacement. The AVON replacement project, while achieving a net reduction in emissions, also involves a transfer of emissions.</p>		<p>QAFCO ensures plant efficiency through continuous improvements in energy management. In 2023, QAFCO replaced the outdated AVON Gas Turbine with a more efficient electric motor for the Urea 2 CO₂ compressor train.</p>	<p>Emissions and Energy Management</p>
<p>QSG 6 – Improve Waste Management</p> <p>QAFCO aims to improve waste management and recycling.</p>		<p>QAFCO is enhancing its environmental practices sustainability efforts by evaluating its waste management system spractices. QAFCO aims to identify and implement more effective waste reduction and recycling processes. By analyzing the types and sources of waste generated, QAFCO can implement targeted measures to reduce waste at the source, enhance recycling processes, and find innovative ways to reuse materials.</p>	<p>Waste Management</p>
<p>QSG 7 – Develop Higher Efficiency Fertilizers</p> <p>QAFCO aims to assess higher efficiency fertilizers to improve Nutrient Use Efficiency.</p>		<p>Fertilizers are crucial for mitigating biodiversity impact and preventing soil degradation. QAFCO is assessing the different operations of Enhanced Efficiency Fertilizers (EEF) with biodegradable coatings . The study, expected to be completed by 2025, will guide further EEF development.</p>	<p>Food Security</p>
<p>QSG 8 – Restore Qatar’s Life on Land</p> <p>QAFCO aims to increase biodiversity conservation initiatives for the State of Qatar’s life on land. The company aims to explore and identify potential opportunities in 2024.</p>		<p>QAFCO is evaluating production of high-efficiency fertilizers to reduce nitrogen pollution, enhance crop yields and prevent soil degradation.</p>	<p>Biodiversity</p>

Aligning our Sustainability Action Plan to the UN SDGs and to our Material Topics

<p>QSG 9 – Promote Sustainable Infrastructure QAFCO is committed to optimizing resource use in our buildings, aiming to reduce electricity consumption from 18,605 MWh in 2023 to 17,677 MWh by 2029, and water consumption from 17,998 cubic meters in 2023 to 17,378 cubic meters by 2029.</p>		<p>QAFCO focuses on energy improvement by identifying areas of improvement to reduce energy and water consumption and initiating projects to capture these opportunities. Additionally, QAFCO is committed to enhancing greenery, integrating sustainable practices into their operations, increasing green spaces while reducing water consumption, and ensuring cleaner air for employees working on its premises.</p>	<p>Emissions and Energy Management</p>
<p>QSG 10 – Ensure and Improve Health, Safety, and Security of Our People and Assets QAFCO strives to ensure an injury-free workplace, healthy staff, and secure assets. The company achieved a total lost time injury rate (LTIR) of 0 and aims to maintain this target.</p>		<p>In 2023, QAFCO achieved a Process Safety Total Incident Rate of 0.10 and a Total Recordable Injury Rate of 0.39. QAFCO is also enhancing practiced and implemented organization safety through initiatives like a safety case study, safety culture maturity assessment, and PSM competency training, with milestone targets in 2025 and 2027. To promote employee wellbeing, QAFCO offers occupational health services, formed a Wellness Committee, and organizes health awareness campaigns and activities to encourage healthy habits.</p>	<p>Health, Safety, and Wellbeing</p>
<p>QSG 11 – Strengthen Qatar’s Academic Sector QAFCO supports Qatar’s academic sector by offering development opportunities, promoting research, and fostering Qatari potential to develop world-class leaders. The Sustainable Fertilizers Academy is scheduled for completion in 2024.</p>		<p>QAFCO’s current initiatives include internships through different memorandum of understandings (MoUs) with colleges and universities, such as Qatar University, and enhancing recruitment via scholarships and sponsorships. In 2023, a new initiative was signed that involves collaborating with the International Fertilizer Association (IFA) Sustainable Fertilizer Academy to promote sustainable use of fertilizers through virtual training and materials, targeted for completion by 2025. The academy will be offered free of charge to all university students and will be accessible to QAFCO employees.</p>	<p>Employment Practices & Inclusion</p>
<p>QSG 12 – Support Qatar’s Food Security QAFCO collaborates with agriculture, academic, and governmental sectors to address food security in Qatar.</p>		<p>QAFCO is committed to promoting and participating in initiatives to support SDG 2 on zero hunger, including raising local food production awareness, supporting academic research and providing free irrigation water analysis for farmers. In 2023, QAFCO conducted 45 water irrigation tests, and supported HBKU to publish an agriculture research paper related to controlled environment agriculture. QAFCO also prepared an observation report for an air-conditioned greenhouse that was built in QTFA farm for summer vegetable production, studying the feasibility of year-round fresh vegetables farming and supporting Qatar’s national food security goals.</p>	<p>Food Security</p>

Aligning our Sustainability Action Plan to the UN SDGs and to our Material Topics

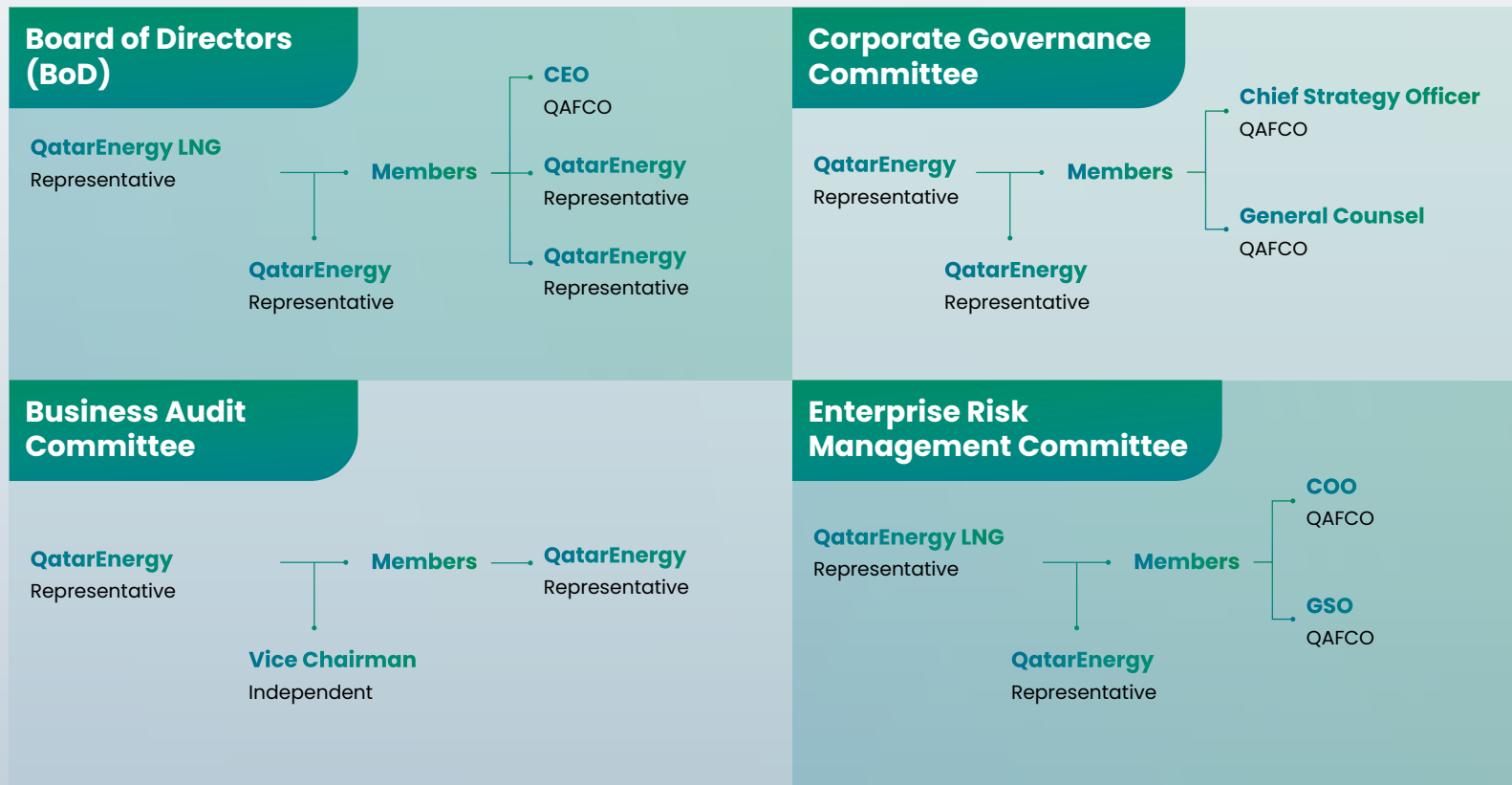
<p>QSG 13 – Enhance Corporate Governance</p> <p>QAFCO ensures that all business decisions are reviewed by the appropriate governance body to uphold ethical practices, achieve its sustainability goals, and create value for shareholders.</p>		<p>QAFCO aims to drive sustainable economic growth in Qatar by providing knowledge transfer revenue, and career opportunities for Qatari Nationals. In 2023, QAFCO achieved a Qatarization rate of 25.2% and focused on attracting, developing, and retaining Qatari talent through recruitment campaigns, sponsorships, and on-the job development programs.</p>	<p>Corporate Governance</p>
<p>QSG 14 – Support Qatar’s Economy</p> <p>QAFCO aims to support Qatar’s sustainable economic growth through knowledge transfer, revenue, and career opportunities. QAFCO plans to achieve a Qatarization Rate of 28.9% by 2029.</p>		<p>We aim to provide a sustainable source of knowledge transfer, revenue, and careers in the State of Qatar to ensure its sustainable economic growth.</p>	<p>Economic Performance</p>
<p>QSG 15 – Promote Sustainable Local Spending</p> <p>QAFCO supports Qatar’s economy through local procurement strategies and community investments. Currently, its local procurement spending is 92.20%, and the company aims to increase it to 94% by 2029.</p>		<p>QAFCO is aligning with QatarEnergy to ensure local spending by requiring In Country Value (ICV) for competitive tenders and ensuring a standard of living and work for contractors through the Contractor Welfare Procedure, which involves random audits. In 2023, QAFCO spent 92.20% on local procurement, demonstrating its commitment to local economic growth.</p>	<p>Responsible Supply Chain Management</p>



Corporate Governance and Compliance

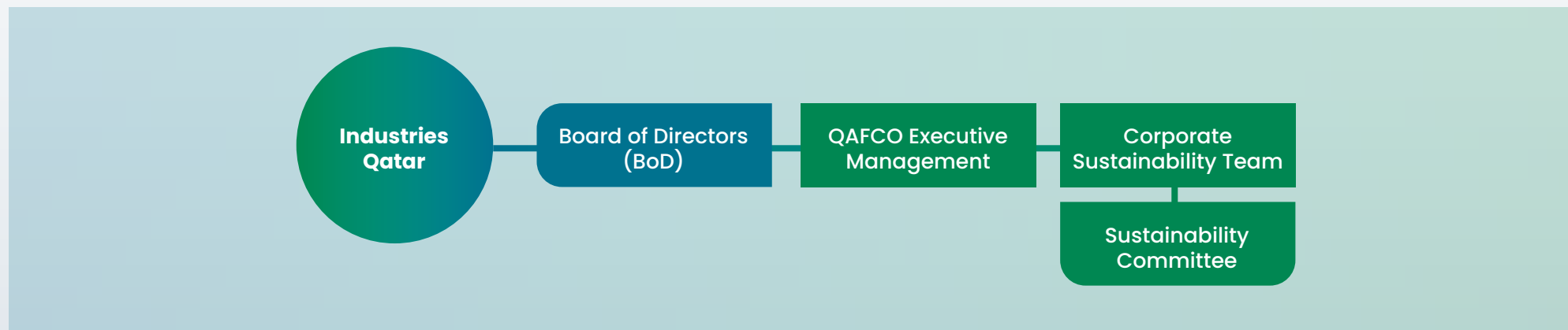
Corporate Sustainability Governance is crucial for successfully implementing and continually improving QAFCO's Sustainability Action Plan. This commitment to enhancement will manifest in heightened transparency and accountability to QAFCO's shareholders and stakeholders concerning its ESG objectives and commitments.

Our governance Bodies and Committees are comprised of:



QAFCO understands that engaging all levels of the organization is vital for the governance and execution of the Sustainability Action Plan. To ensure this engagement, the company refined its governance framework to structure how sustainability is overseen throughout the organization.

Corporate Governance and Compliance



QAFCO's BoD holds ultimate accountability for the governance of its sustainability agenda, approving the action plan, monitoring its progress, and providing high-level strategic oversight. Complementing this governance framework, the Corporate Governance Committee ensures the implementation of robust governance structures, evaluates the performance of the Board, and facilitates capacity building through targeted training.

Concurrently, the Board Audit Committee is charged with ensuring the integrity of financial reporting, conducting comprehensive audits, including those related to ESG, and ensuring compliance with all regulatory frameworks. The Enterprise Risk Management (ERM) Committee plays a critical role in integrating ESG risks into QAFCO's enterprise-wide risk management framework, assessing potential threats, and providing counsel on the effectiveness of risk mitigation strategies.

QAFCO's Executive Management team, operating under the directives of the BoD, is responsible for driving the execution of its sustainability objectives, performing quarterly reviews of progress, and resolving any operational challenges. The Corporate Sustainability Team serves as the central authority

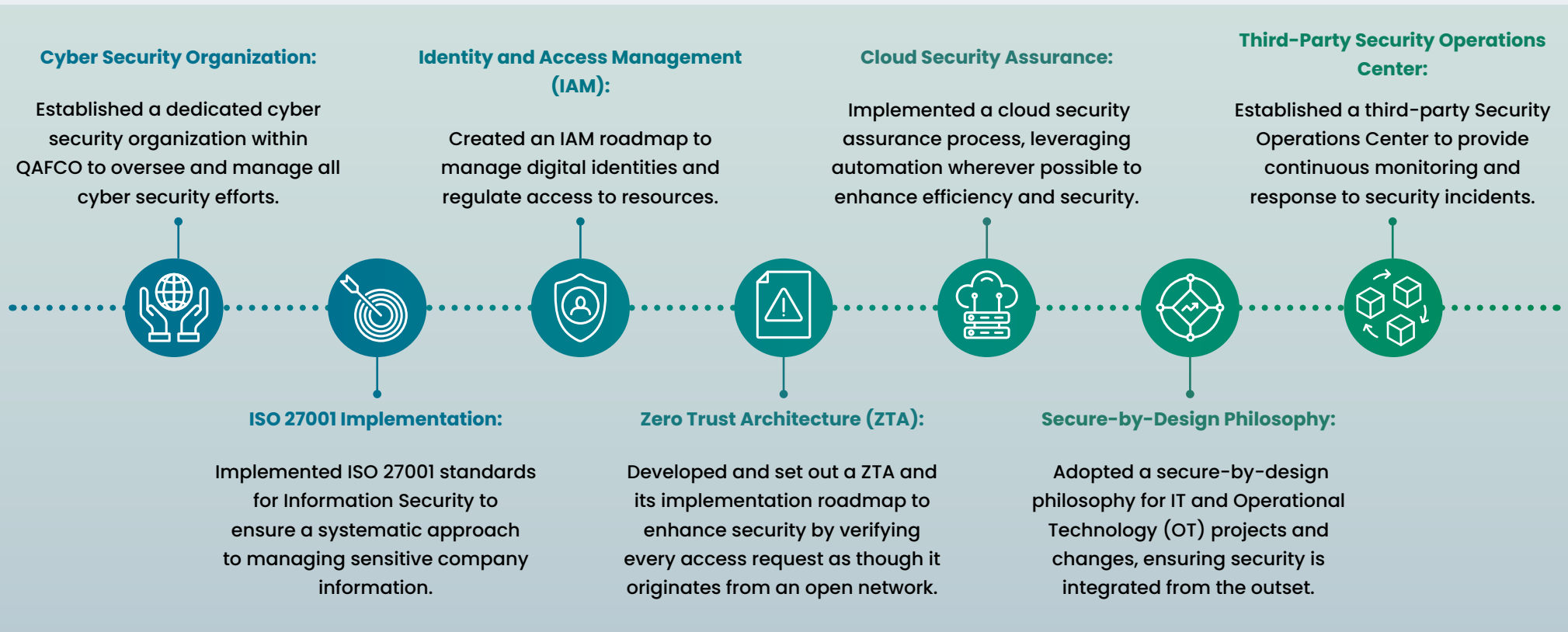
for developing, updating, and overseeing the execution of the Sustainability Action Plan, setting strategic goals, targets, and initiatives. The Sustainability Committee further enhances this governance by enabling new initiatives and tracking their progress to ensure alignment with corporate sustainability objectives.

Across the organization, QAFCO employees are directly engaged in the operationalization of sustainability projects within their respective areas, ensuring that the company's sustainability governance mechanisms drive continuous improvement and align with broader ESG commitments.

QAFCO is also planning on establishing a Sustainability Committee in 2024 to oversee and guide the company's efforts in integrating sustainable practices.

Cybersecurity

QAFCO has complied with all applicable Qatar cyber security requirements, as confirmed by a previous assessment from the National Cyber-Security Agency (NCSA). As QAFCO’s digital presence and connectivity continue to expand, it is crucial to establish robust governance to safeguard information, data, and physical assets (including production assets) from cyber-based threats. To this end, QAFCO has undertaken several key initiatives including the following:



These initiatives reflect QAFCO’s commitment to maintaining a secure digital environment and protecting its assets from cyber threats.



Environmental Compliance

Aligned with the Qatar National Vision (QNV) 2030, QAFCO is dedicated to sustainable operations spanning Human, Social, Economic, and Environmental Development. In 2023, QAFCO achieved 89% compliance with the Consent to Operate (CTO) requirements issued by the Ministry of Environment & Climate Change (MoECC), which regulates environmental practices and enforces national standards. Steps were taken to improve the company's performance, preparing for better results in 2024.

QAFCO rigorously monitors process wastewater quality to meet MoECC standards. Through on-site treatment and regular analysis of parameters such as pH, Biochemical Oxygen Demand (BOD), Chemical Oxygen Demand (COD), and heavy metals, QAFCO ensures that the process wastewater discharged into the sea remains within regulatory limits underscoring commitment, demonstrating QAFCO's commitment to environmental responsibility.



Business Ethics and Code of Conduct

QAFCO places a strong emphasis on business ethics, integrating values of Excellence, Teamwork, Safety, and Integrity into all its activities. These values foster a respectful environment and underpin QAFCO's future goals.

QAFCO's Code of Conduct reflects its commitment to human rights and high ethical standards, supported by the Board of Directors and CEO. This Code is accessible online to employees, suppliers, and customers, ensuring widespread compliance. Regular training sessions are conducted to keep employees informed about the Code's provisions.

QAFCO has also established a reporting channel for any deviations from the Code, such as fraud or misconduct. This channel ensures concerns are investigated, and those reporting are fully supported and protected.



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Certifications

QAFCO demonstrates its commitment to quality, safety, and environmental responsibility through internationally recognized certifications, reflecting its adherence to industry standards, including:

- ISO 9001:2015 for Quality Management
- ISO 14001:2015 for Environmental Management
- ISO 45001:2018 for Occupational Health and Safety
- ISO 50001:2018 for Energy Management
- ISO/IEC 17020:2012 for Conformity Assessment
- ISO/IEC 17025:2017 for laboratory competence
- RC 14001:2015 for Responsible Care
- IFA Protect & Sustain Product Stewardship Program Certification
- IS 15623:2005 for Melamine (2,4,6 Triamino 1,3,5 Triazine)



Whistleblowing

QAFCO has a dedicated whistleblowing initiative to ensure ethical practices within the organization. They provide a Whistle Blowing Form that allows employees and stakeholders to report any known or suspected violations anonymously and confidentially. This form is specifically for reporting unethical work practices among contractors or staff associated with QAFCO, QMC, or GFC.

The process involves detailing the misconduct, identifying the individuals involved, and providing any evidence to support the claims. All information received is treated with strict confidentiality.



Protecting Earth, One Step at a Time

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Energy, Emissions and Air
Quality Management

Water Management

Waste Management

Biodiversity

03

Energy, Emissions and Air Quality Management

QAFCO has a comprehensive and structured approach to managing energy and emissions. This approach encompasses various levels of the organization, from the BoD to operational practices.

At the highest level, QAFCO's BoD is actively involved in overseeing the company's energy and emissions management strategies. The BoD ensures that sustainability goals are aligned with the company's overall strategic objectives. Regular updates and reports on energy and emissions performance are presented to the Board on a quarterly basis, facilitating informed decision-making and strategic oversight.

To ensure best practices in energy and emissions management, QAFCO pursues various certifications and adheres to international standards. The company is ISO 14001 certified, demonstrating its commitment to environmental management. Additionally, QAFCO complies with the ISO 50001 standard for energy management, which helps the company systematically improve its energy performance and reduce greenhouse gas emissions.

Energy Management

Building on QAFCO's commitment to operational excellence and sustainability, QAFCO has prioritized energy efficiency through a series of ongoing initiatives designed to reduce consumption and enhance production.

The total energy consumption initially increased by approximately 0.8% from 2021 to 2022, before decreasing by around 1.5% in 2023. This fluctuation indicates variability in energy usage patterns. Concurrently, energy intensity has shown a steady rise, suggesting a gradual increase in the energy required per tonne of production.

Examining specific plant categories, the Q1-6 Ammonia Plants experienced a slight increase in energy consumption, while the Q1-6 Urea Plants showed minor fluctuations, with a decrease in 2022 followed by an increase in 2023. Notably, the Urea-2 plants demonstrated a consistent reduction in energy consumption, reflecting improvements in energy efficiency.

Indicator	2021	2022	2023
Total Energy Consumption (GJ)	185,274,458	186,753,166	183,917,051
Energy Intensity (GJ/Tonne)	29.10	29.16	29.22

Indicator	2021	2022	2023
Q1-6 Ammonia Plants (GJ/MT)	39.37	39.38	39.58
Q1-6 Urea Plants	5.16	5.12	5.20
Urea-2 (GJ/MT)	6.34	5.90	5.42

The AVON Project, launched in 2021 and completed in 2023, aimed to enhance the efficiency of the Urea 2 CO₂ compressor train by replacing the outdated and unreliable AVON Gas Turbine with a more dependable and efficient electric motor. This initiative, aligned with QAFCO's vision and ambitions, required the acquisition of environmental requirements from MOECC.

Building on this, QAFCO's Operational Excellence Framework focuses on digitizing work processes, maximizing asset value, and developing personnel.

Looking ahead to 2024-2026, initiatives will target energy and emissions management, aiming to optimize consumption and reduce emissions.

In addition to these efforts, QAFCO conducted an Energy Diagnostic study that identified several energy-saving opportunities. Key results include addressing a passing relief valve on the natural gas fuel line in Ammonia-1, leading to fuel energy savings, and utilizing condensate heat from Urea 5 and 6 for pre-heating boiler feedwater in Cogen2. The implementation of Advanced Process Control

(APC) has optimized production and energy use. Additionally, steam network optimization efforts, such as running stream turbine generators on lower condensing load and monitoring steam traps, have further enhanced efficiency.

QAFCO has launched multiple initiatives to boost energy efficiency and cut emissions. The AVON Project upgraded old equipment with a more efficient electric motor, while the Operational Excellence Framework has leveraged digitalization and partnerships to improve productivity.



SPOTLIGHT

Energy Consumption Minimization through Closed-Loop Process Optimization

In June 2023, QAFCO started using an APC system at their Ammonia 3, 4, 5, and 6 plants to improve production and reduce energy use. The project, expected to finish in April 2024, has already shown benefits in increasing ammonia production and optimizing energy consumption.

Deploying closed-loop process control to minimize energy consumption aligns with QAFCO's Sustainability Plan, particularly in environmental performance and energy management. This initiative supports QAFCO's commitment to the Qatar National Vision 2030 and the UN SDGs.

This solution has provided tangible benefits in maximizing ammonia production and optimizing energy use.



Key energy optimization areas identified include:

- Automatically adjusting auxiliary boiler load to **stabilize header pressure** and minimize venting.
- **Reducing natural gas** consumption from the auxiliary boiler.
- **Reducing excess CO₂** at the reformer section.



Results and Impacts:

- Energy **minimization** of **1-2.30%** across Ammonia 4 and 6 plants.
- Venting **reduction** of **1.60% (2.2 tons/hr)** at Ammonia 4.
- Overall production volume **increase** of **0.70%** across Ammonia 4, 5, and 6.

Greenhouse Gas (GHG) Emissions

QAFCO's Scope 1 emissions include natural gas, while its Scope 2 emissions come from purchased electricity. A key component of QAFCO's environmental strategy is to reduce GHG emissions. The company's Sustainability Plan emphasizes reducing Scope 1 GHG emissions, particularly those from production processes and combustion sources.

In 2023, QAFCO achieved a 4.61% reduction in Scope 1 emissions compared to the 2021 baseline. However, the company experienced an 11.71% increase in Scope 2 emissions. Despite this, the overall GHG emissions saw a 4.01% decrease from the base year.

QAFCO's efforts to support this strategy include:

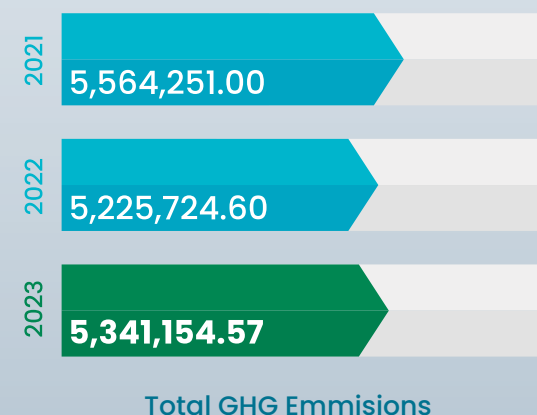
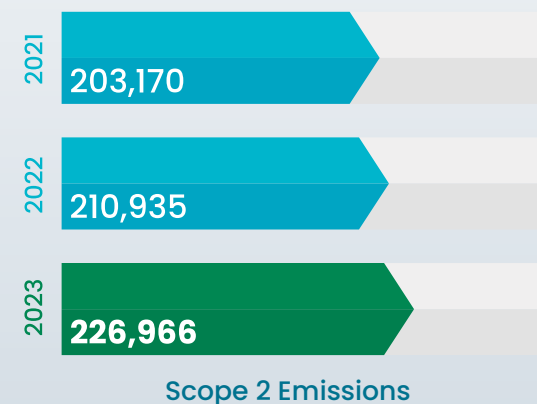
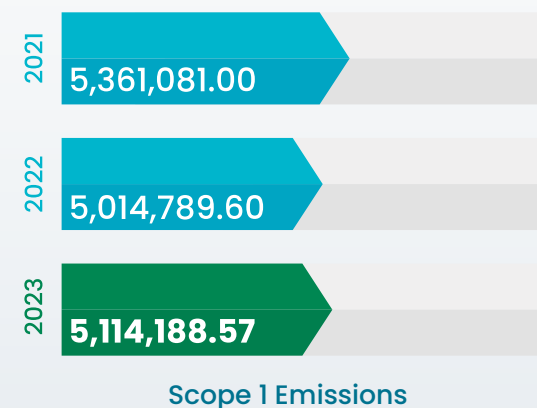
- **Setting GHG Intensity Reduction Targets:** QAFCO aims to reduce CO₂ intensity by 15% by 2035.
- **Commitment to Transparent Environmental Management:** QAFCO is committed to ensuring transparency and accountability in environmental management by providing comprehensive ESG performance reports. These reports include detailed data on GHG emissions and set clear targets for reduction.

Managing NoX and SoX Emissions

From 2021 to 2023, there was a consistent reduction in emissions, with Nitrogen Oxides (NOx) decreasing by 11.88% and Sulfur Oxides (SOx) by 29.49%.

Total Quantity of Emissions (Metric tons)	2021	2022	2023
Nitrogen Oxides (NOx)	2,465	2,420	2,172
Sulfur Oxides (SOx)	1,424	1,332	1,004

In 2023, QAFCO reduced total fugitive emissions to 92,123 kg/year and aims for 74,352 kg/year by 2029.



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SPOTLIGHT

Blue Ammonia Innovation

In partnership with QatarEnergy, QAFCO is constructing a blue ammonia facility with an annual production capacity of 1.2 million tons. QatarEnergy has a solid track record in Carbon Capture and Sequestration (CCS) due to its expertise in upstream subsurface development and liquefied natural gas (LNG) gas processing. Newly installed solar power facilities will provide energy to QAFCO-7 and the high-pressure CO₂ compressor. Located in Mesaieed Industrial City, the project is expected to begin operations in early 2026. The contract for this project was signed in August 2022, with site preparation starting in April 2023.

The facility is designed to capture and permanently store 1.4 million tons of CO₂ annually. It also incorporates renewable energy, with Kahramaa supplying over 35 MW of renewable electricity from a photovoltaic (PV) solar power plant. The project includes interconnections to existing plants at both Q1-4 and Q5-6 sites, enabling seamless integration and efficient production. The project incorporates CCS, where CO₂ generated at the plant is captured and sequestered, excluding CO₂ from reformer fuel.

The facility is designed to capture 70% of the CO₂ emissions through an amine-based system. The captured CO₂ will be compressed and injected into a secure underground formation at depths exceeding 7,500 feet.

Economically, the project supports job creation and strengthens Qatar's position in the global efforts towards the production of low carbon ammonia. Through this partnership, QAFCO aims to provide innovative and environmentally responsible solutions.

Leak Detection & Reporting (LDAR)

QAFCO is working with a specialist to identify and address all sources of fugitive emissions within its operations. The contractor systematically locates these emissions sources and implements measures to close them on a year-by-year basis. Looking forward, QAFCO is committed to enhancing air quality through targeted initiatives and advanced technologies.



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Water Management

QAFCO utilizes water primarily for cooling processes, drawing from various sources to ensure efficient and sustainable operations. The main water body is seawater and there are 2 other sources from third-party providers.

Seawater: Between 2021 and 2023, there was a slight increase of approximately 0.75% in seawater withdrawn, highlighting its continued role as the primary source. This increase may be attributed to fluctuations in production levels and temperature variations, which necessitated additional cooling water.

Third-Party Providers: Water sourced from third-party providers increased by about 25.53%, indicating a growing but still minor contribution from alternative sources.

QAFCO optimizes water use by focusing on cooling water that is returned to the sea. This highlights the importance of precise water management. The goal is to achieve sustainability and reliability, supporting long-term operational goals while minimizing environmental impact.

QAFCO is dedicated to achieving zero discharge of processed water into the sea, thereby safeguarding the marine environment.

Indicator (Million M3)	2021	2022	2023
Water Withdrawn from the Sea	1,296.30	1,327.20	1,306.00
Water Withdrawn from Third-party	0.94	0.98	1.18
Total Water Withdrawn	1,297.30	1,328.10	1,307.60
Water Discharged to the Sea	1,279.00	1,309.80	1,288.80
Water Consumed (M3)	18.30	18.30	18.80



Water Usage and Compliance

QAFCO utilizes seawater as the primary cooling medium and for producing desalinated water. The majority of water withdrawal in QAFCO is dedicated to cooling purposes. The desalinated water is fully recycled and reused within operations. Additionally, QAFCO made significant strides in improving the performance of our cooling water systems, ensuring they meet stringent environmental standards.

To ensure environmental compliance, QAFCO continuously monitors process wastewater quality against Ministry of Environment and Climate Change standards. Key parameters including pH, Biochemical Oxygen Demand (BOD), Chemical Oxygen Demand (COD), Total Suspended Solids (TSS), Ammonia Nitrogen (NH₃-N), free residual chlorine, and heavy metals (including chromium, lead, and sulfides) are regularly monitored. Moreover, the company conducts separate monitoring for cooling water to ensure it meets quality standards.

Effluents Management

QAFCO has implemented operational modifications during plant startup and shutdown phases, which have significantly reduced water discharge into the sea. In addition, treated sanitary wastewater from its facilities is reused as irrigation water for the greenbelt within its premises, reinforcing the company's commitment to water conservation.



SPOTLIGHT

Journey to Zero Liquid Discharge (ZLD)

QAFCO initiated the ZLD Project to align with the Ministry of Environment and Climate Change (MoECC) regulations, which ban the discharge of treated industrial effluents into the sea. This project not only complies with the Consent to Operate Permits issued by the MoECC, which set a specific discharge target, but it will also exceed these requirements by completely eliminating the discharge. In 2023, QAFCO advanced their ZLD Project, achieving **40% progress** in the plant's construction while focusing on timely completion and continuing the efforts initiated that year.

The goal of this project is to eliminate process wastewater discharge into the sea and achieve Zero Liquid Discharge for process wastewater by 2025 at the QAFCO 1-4 site. Once completed, the ZLD plant will recover 142 m³/hr of effluents, producing 129 m³/hr of demineralized water and 12 m³/hr of irrigation water, thus reducing

QAFCO's dependence on external water sources.

The ZLD project is a collaborative effort involving multiple departments, over 100 employees, and external contractors and technology providers. The project is on track, with Package 1 expected to be completed by March 2025 and Package 2 by December 2025, leading to full operation by August 2025. Achieving ZLD by the target date will set a new industry standard for environmental initiatives, improve operational efficiency, and reduce water consumption.

This project is a significant part of QAFCO's sustainability goals, helping to lower operational costs through innovative technologies. Ongoing reviews and collaboration with stakeholders will ensure the plant meets all standards, setting a benchmark for future environmental efforts.



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Waste Management

Managing waste efficiently is a key part of QAFCO's commitment towards operating its assets in an environmentally responsible manner. The company continuously improves its waste management and treatment processes to minimize the need for disposal and maximize reuse and recycling. QAFCO's efforts align with regulatory requirements, and all non-hazardous waste shipments are reported to the Ministry of Environment and Climate Change regularly. Hazardous waste is managed with care, stored at approved hazardous waste facilities.

From 2021 to 2023, QAFCO saw a 26% increase in waste generation, while the waste diverted from disposal saw a rise of around 103%. QAFCO is working to mitigate the impacts of waste through various initiatives, including the elimination of waste where possible, recycling, and digitalization, among many others. Despite these improvements, the total waste directed to disposal also increased by about 27%, highlighting a continued focus area for QAFCO to further enhance sustainable waste practices. This increase underscores the significant bottleneck posed by the market's limited capacity to recycle waste.

Waste Generated and Disposed (Tons)

Indicator	2021	2022	2023
Total Waste Generated	5,210.00	5,561.00	6,572.00
Total Waste Diverted from Disposal	588.00	945.00	1,192.00
Total Waste Directed to Disposal	4,402.70	4653.00	5,611.00

QAFCO has consistently recycled 100% of the hazardous waste generated, ensuring compliance with environmental standards and reinforcing its commitment to sustainable waste management practices.

Hazardous Waste Generated and Recycled (Tons)

Indicator	2021	2022	2023
Hazardous Waste Generated	588.00	945.00	1,000.00
Hazardous Waste Recycled	588.00	945.00	1,000.00



Recycling of Hazardous Waste

QAFCO prioritizes the safe handling, storage, and disposal of hazardous waste to ensure compliance with environmental standards. In 2023, 302.88 MT of hazardous waste was processed offsite through incineration and landfilling. The company is committed to increasing the recycling of hazardous materials to minimize landfill use, reducing its environmental footprint, and aligning with best practices in waste management.

Office Sustainability Initiatives

Launched in 2023, the Paper Reduction Campaign was designed to conserve natural resources by minimizing paper usage through the removal of unnecessary photocopiers from offices. With around 1,100 active participants, the program included third-party efforts to reduce paperwork through digital document reviews and digital signatures, compelling employees to shift to digital platforms. This led to a measurable reduction in paper consumption, supporting QAFCO's environmental goals and fostering a sustainable office culture.

The PrintSmart Initiative, also introduced in 2023, aligned with QAFCO's goal of reducing paper waste and enhancing operational efficiency. Implemented organization-wide, the initiative engaged around 1,100 employees, aiming to reduce printing by 40% and promote digital documentation practices. The program optimized printer usage by replacing individual printers with network printers in each building. QAFCO is committed to further advancing this initiative by offering training sessions and awareness campaigns to promote responsible printing practices. Future plans include collaborating with technology providers to explore advanced printing solutions that align with QAFCO's ongoing sustainability efforts.

Digitization for Sustainability

To further enhance QAFCO's waste management efforts, QAFCO is also embracing digital transformation initiatives. By integrating digital tools, QAFCO enhances efficiency, reduces its environmental impact, and supports sustainable business practices.

The digital transformation efforts include the following:



SAP Integration for business agility

As part of this initiative, QAFCO successfully implemented the SAP system, conducting 1,140 sessions of user acceptance testing and delivering 320 instructor-led training sessions, ensuring smooth adoption. The integration of digital systems not only improves internal processes but also reduces paper usage, aligning with its goal to transition toward more sustainable and resource efficient operations.



E- Signature Platform (AdobeSign)

In June 2023, QAFCO launched the Digital Signatures Project to improve document management and reduce paper usage. Approximately 1,100 employees were trained to use AdobeSign for secure electronic signatures on contracts and agreements. This initiative integrates with both SAP and Microsoft products, reducing paper consumption by 60%. Looking ahead, QAFCO plans to expand the platform by introducing automated workflows and analytics to further optimize its document management processes.



Smart Note Initiative

To further minimize paper consumption, QAFCO introduced the Smart Note Initiative in 2023. This initiative, involving 200 chief officers and managers, replaces traditional paper notes with digital notepads, improving communication and collaboration across teams. This platform has helped reduce paper usage by 50%. QAFCO aims to expand the initiative's adoption across departments by integrating it with other tools and providing continuous training.

Biodiversity

In 2023, QAFCO identified biodiversity as a material topic, reflecting its commitment to preserving ecosystems and promoting sustainable agricultural practices. The company actively engages in environmental studies and collaborative projects with universities to align its operations with ecological conservation goals.

As part of its sustainability efforts, QAFCO is focused on the development of high-efficiency fertilizers designed to improve nutrient use efficiency and reduce nitrogen pollution. These fertilizers help reduce nitrogen pollution while supporting sustainable agriculture by promoting healthier crop yields and preventing soil degradation.

QAFCO is dedicated to enhancing Qatar's biodiversity on land and in marine environments. By 2025, QAFCO plans to start a study to assess changes since its 2009 research, addressing the most pressing challenges. Additionally, the company aims to support the Global Biodiversity Framework through restoration projects, research, and developing efficient fertilizers, and ensuring a sustainable future for the region's ecosystems.

Looking ahead, QAFCO plans to initiate a Coral Reef Study, reinforcing its commitment to environmental preservation and sustainable practices.





Empowering People Enriching Lives

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Economic performance

Employment Practices

Empowering communities

04

Supply Chain

QAFCO's supply chain strategy focuses on quality and responsible procurement, ensuring that every aspect of operations aligns with international standards, sustainability principles, and Qatar's economic development goals.

As part of QatarEnergy's Tawteen Program, QAFCO is dedicated to developing sustainable local suppliers and maximizing in-country value (ICV).

In 2023, 92.20% of QAFCO's procurement spending was allocated to local suppliers, reflecting a 10.2% increase from 2022, when 82.00% of the procurement budget was directed toward local suppliers. However, while many local supplier representatives are Qatari, some represent international companies. QAFCO is also actively working on enhancing their in-country value, further strengthening their local economic impact. Although 80% of QAFCO's operations are based in Qatar, sourcing specialized materials like turbines locally remains a challenge. To address this, QAFCO imports such items only when local alternatives are unavailable and works closely with QatarEnergy to align with ICV targets and enhance local sourcing.

Measure	2021	2022	2023
Percentage of the procurement budget spent on local suppliers.	82.00%	88.00%	92.20%

QAFCO's supplier screening process includes environmental and social assessments to ensure compliance with global standards and Qatar's Ministry of Environment requirements. The Supply Chain Policy and tender documents outline the minimum environmental and social standards for suppliers, promoting employee welfare and labor rights. In 2023, QAFCO used third-party assessments, audits, and health and safety inspections to verify supplier adherence to labor welfare, human rights, and environmental management requirements. QAFCO is working on establishing a contractor welfare procedure which will allow QAFCO to inspect and audit contractor accommodations.

QAFCO embeds sustainability requirements into all tender, contract, and procurement processes, prohibiting child labor and protecting human rights. With suppliers across Europe, North America, China, Singapore, Japan, and the GCC, QAFCO monitors and evaluates compliance with these sustainability requirements. QAFCO aims to achieve a procurement budget target of 94% by 2029 from local suppliers.

To ensure responsible, sustainable, and efficient procurement practices, QAFCO's Supply Chain Framework integrates risk management and continuous improvement. Adhering to its HSSE Policy and Code of Conduct, QAFCO establishes a foundation for responsible consumption throughout the supply chain. The Supply Chain Department collaborates with suppliers to address HSSE and sustainability risks, fostering proactive risk management and continuous improvement through effective contract management. Newly identified risks are documented to support informed decision-making and future strategies. This adaptive approach reflects QAFCO's commitment to building a sustainable and responsible supply chain aligned with its values and long-term environmental and social goals.

In addition to this, QAFCO has implemented a quality management program with real-time monitoring and measurement of production processes, supported by advanced laboratory analysis. The company is committed to high customer satisfaction by reliably supplying high-quality products sustainably. In 2023, QAFCO had zero complaints regarding product or shipment logistics and received Level-1 Gold Certification from the Australian Quarantine Inspection Survey (AQIS) after a successful audit. QAFCO also operates in certified ports and underwent a third-party Customs–Trade Partnership Against Terrorism (C-TPAT) audit in December 2021, ensuring supply chain security and compliance. C-TPAT certification allows QAFCO to be considered low risk, leading to expedited cargo processing and fewer customs examinations. In 2023, QAFCO ensured their suppliers remained minimal risk to the global supply chain to maintain certification.

Furthermore, QAFCO’s management systems ensure compliance with international standards, reflecting its dedication to quality, environmental responsibility, and workplace safety.



Certifications include:

- Quality Management: ISO 9001:2015
- Environmental Management: ISO 14001:2015
- Occupational Health and Safety: ISO 45001:2018
- Energy Management: ISO 50001:2018
- Conformity Assessment: ISO/IEC 17020:2012
- Laboratory Competence: ISO/IEC 17025:2017
- Responsible Care: RC 14001:2015
- Product Stewardship Program Certification: IFA Protect & Sustain
- Melamine Production: IS 15623:2005 for Melamine (2,4,6 Triamino 1,3,5 Triazine)

In 2023, QAFCO’s Internal Audit (IA) team conducted an Environmental Compliance Review, confirming compliance with all environmental regulations and identifying no major non-compliance issues.



SPOTLIGHT

Digital Transformation with SAP

In 2023, the IT department launched the SAP Transition Project to enhance operational efficiency and sustainability, successfully implementing it in 2024. This project streamlined business processes and reduced operational costs using SAP’s advanced ERP solutions, achieving a 30% reduction in processing time and a 20% decrease in resource consumption.

The implementation involved a full-scale deployment of all modules, focusing on system integration, data migration, and business continuity, with minimal disruption. Training programs were rolled out across the organization to prepare users for the immediate shift to the new system. Key results and impacts include the following:



Reduction in operational costs through cloud-based infrastructure.



Improved sustainability metrics with **decreased paper usage** due to digitization of processes.



Faster month-end closing processes, reduced from **10 days to 5 days**, due to real-time data availability.



Automation of **1800 business** processes.



Training participation: **870+ out of 1165** employees attended the SAP Foundation online course.

Looking ahead, the IT department aims to expand SAP analytics integration and implement automated workflows. Training programs will continue to equip employees with the skills needed to maximize the new system’s benefits.



Customer Satisfaction

QAFCO is dedicated to building long-term customer relationships by delivering high-quality products and exceptional service. This commitment extends beyond product delivery, ensuring that every interaction reflects QAFCO's values of reliability, transparency, and sustainability. Through real-time monitoring and stringent quality control processes, QAFCO maintains high product standards, from production to delivery.

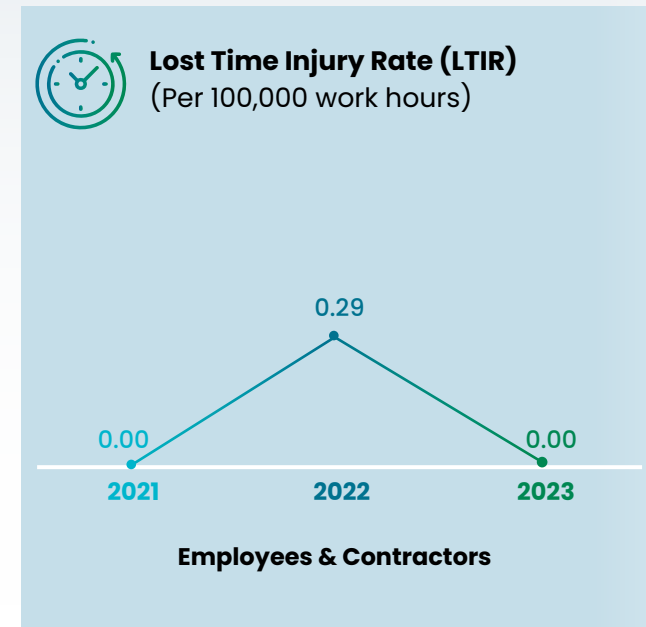
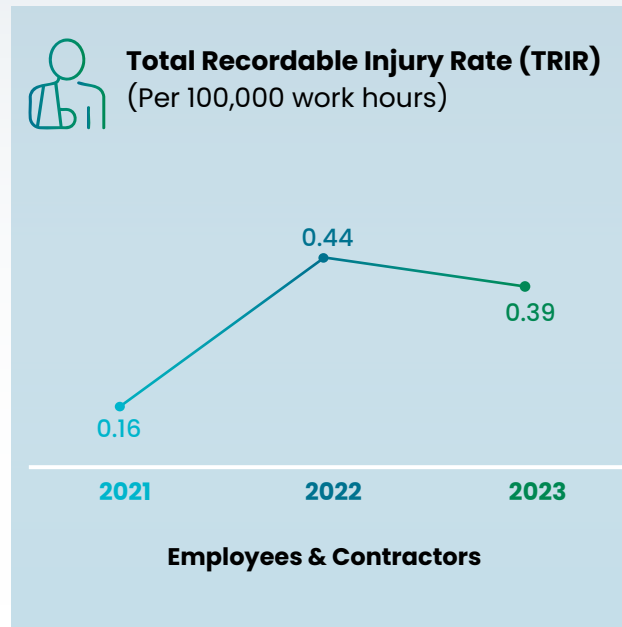
QAFCO is committed to meeting customer expectations by providing reliable product support responding promptly to inquiries or challenges. In 2023, the company maintained zero complaints related to product quality or shipment logistics, highlighting its quality management system. Moreover, QAFCO gathers regular feedback from customers to align with their evolving needs and enhance its services.

QAFCO's customer-centric approach is further reinforced by efforts to operate in an environmentally responsible manner, ensuring that products and services contribute positively to both the market and the broader community. By building strong relationships with its customers, QAFCO positions itself as a trusted partner for sustainable growth and development.



Health, Safety and Wellbeing

QAFCO prioritizes health, safety, and the environment (HSE), ensuring a secure and sustainable workplace for all employees, contractors, and stakeholders. In 2023, QAFCO strengthened its safety culture and operational efficiency through digital initiatives, training programs, and enhanced process safety measures. The company continues to prioritize HSE improvement by tracking safety performance and learning from incidents and observations.



Workplace Safety

QAFCO prioritizes workplace safety through innovative systems, continuous process safety improvements, and training programs aimed at accident prevention and risk reduction. Ensuring a secure workplace that prioritizes employee health and wellbeing is crucial to QAFCO's impact on society.

In an ongoing effort to enhance health, safety, and wellbeing, QAFCO has identified several key occupational hazards. These include:



Chemical Exposure:

Can cause respiratory issues and skin burns.



Spills and Leaks:

Pose environmental and health threats.



Machinery Hazards:

Risks associated with operating machinery.



Inadequate Training:

Leads to various safety risks.



Fire and Explosion Risks:

Due to flammable materials.



Physical Injuries:

From slips, trips, and falls.



Ergonomic Issues:

From repetitive tasks.

By recognizing these hazards, QAFCO ensures comprehensive safety measures and continuous training to protect everyone involved.

Supporting these efforts, QAFCO's Health Safety Risk Management process ensures effective hazard identification and control through assessments, registrations, and studies. Competency assessments help ensure employees are trained to follow best practices. Regular reviews of registered risks, follow-up actions, and key performance indicators (KPIs).

Additionally, QAFCO offers general and specialized training in areas such as the transportation of dangerous goods, Permit to Work, Fire Watch, Confined Space, process safety, and isolation (lock out tag out). This training is complemented by internal audits to verify that the risk management process is followed correctly.

HSEQ Digital Portal Implementation

In 2023, QAFCO advanced its safety initiatives by implementing a digital portal and platform for HSE processes to digitize health, safety, environment, and quality processes, aiming for zero recordable injuries. Key features include incident management, behavior-based safety reporting, audit tracking, inspection management, and safety walk documentation.

The Deployment phases began in February 2023 with incident management and audit reporting, followed by environmental reporting and waste management in November 2023, and will continue with process safety and emergency response tools in January 2024. Training sessions were conducted to boost employee proficiency and foster a proactive safety culture by encouraging the reporting of minor incidents and ensuring prompt hazard resolution.

Process Safety Management (PSM) Enhancements

In addition to these technological advancements, QAFCO transitioned from the OSHA PSM framework to the more advanced Center for Chemical Process Safety (CCPS) model in 2023. This shift included implementing three critical elements: establishing a strong process safety culture, developing a competency matrix to ensure employees have the necessary skills for safety-critical processes, and fostering operational discipline through clear procedures and accountability.

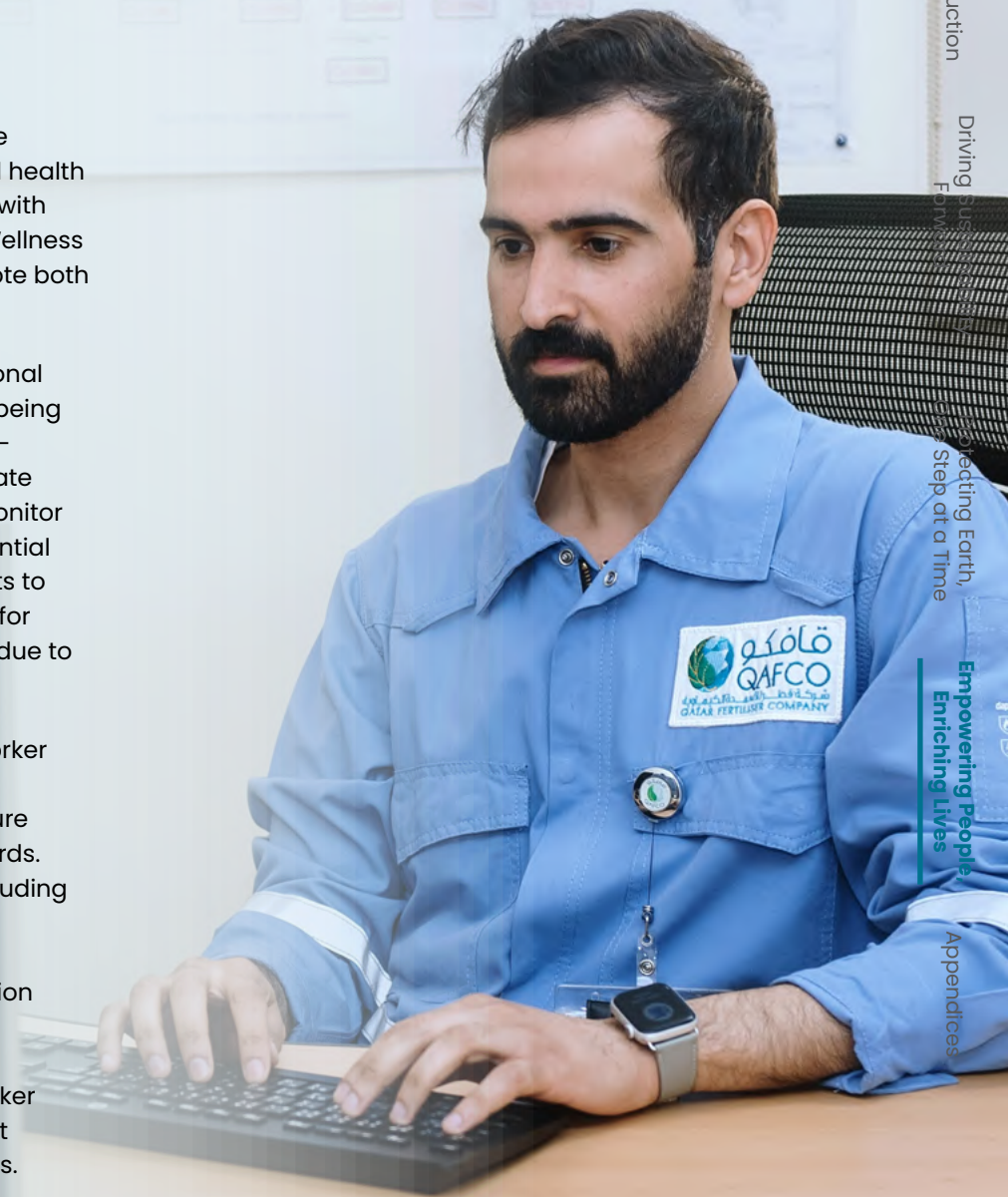
To support this transition, QAFCO developed a comprehensive improvement plan. This plan includes Process Safety Leadership Workshops for management, refresher training for frontline operators, and technical workshops such as HAZOP (Hazard and Operability Study), LOPA (Layers of Protection Analysis), ALARP (As Low As Reasonably Practicable), and Incident Investigation Training for engineers and operators. Additionally, QAFCO focused on developing guidelines and benchmarking efforts to align with industry best practices.

Employee Wellbeing

QAFCO is committed to fostering employee wellbeing through a range of occupational health services and wellness initiatives that align with national and global health priorities. The Wellness Committee organizes activities that promote both mental and physical wellbeing.

QAFCO provides comprehensive occupational health services to ensure the physical wellbeing of its workforce. These services include pre-employment health assessments to evaluate new hires, routine health surveillance to monitor ongoing employee health and detect potential risks early, and return-to-work assessments to facilitate a gradual and safe reintegration for employees following long-term absences due to illness or injury.

In 2023, QAFCO launched the Managed Worker Accommodation Program to enhance the living conditions of its employees and ensure compliance with health and safety standards. Through comprehensive assessments, including sanitation checks, safety inspections, and amenities evaluations, QAFCO improved living conditions, boosting worker satisfaction and morale. QAFCO plans to continue these quality checks and expand efforts to incorporate sustainability measures in worker accommodations, such as energy-efficient facilities and waste management practices.



Economic Performance

Urea is 46% nitrogen, which is an essential nutrient required by crops annually to maintain yields and avoid nutrient mining of soils. QAFCO revenues are significantly impacted by fertilizer prices which are market driven. Price fluctuations are driven by supply, energy costs, crop prices, weather, and trade.

QAFCO balances profitability with environmental and social responsibility, consistently returning capital to shareholders through dividends. The company complies with Qatar’s tax laws, with financial statements audited annually and approved by the general assembly. Tax issues are reported to relevant authorities.

QAFCO Direct Economic Value generated in 2023 was 7,479,854,405.00 while the economic value distributed amounted to 9,303,948,926.00.

In 2023, QAFCO implemented several key initiatives to enhance its economic performance and operational efficiency:

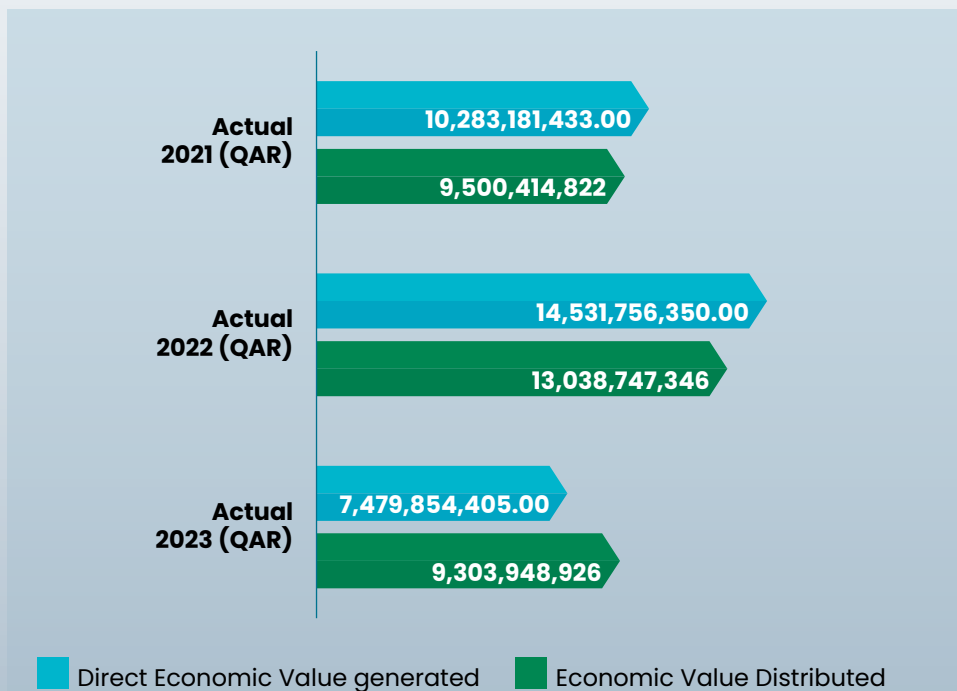
Streamlining Budget Preparation: In April 2023, QAFCO launched a program to reduce the time spent on annual budget preparation. Key measures included removing the ABB template in OPEX collection, focusing on main tickets, increasing activity split thresholds, multiskilling the team, and introducing a Budget Expectation letter. These steps streamlined the process, reducing the lead time for capital expenditure budget assumptions and simplifying staff cost data collection. The initiative resulted in a 49% reduction in budget preparation time compared to 2022, saving QAR 3.2 million.

Implementing Online Banking: In December 2023, QAFCO activated Online Banking to enhance fund transfer efficiency. Previously, manual letters were used for transfers, taking 2-3 working days. The new system, based on the current Power of Signatories, eliminated manual inputs and reduced paper usage. This initiative enabled same-day fund transfers and minimized the risk of typographical errors, significantly improving operational efficiency.

Digital Transformation in Financial Planning: QAFCO made significant strides in digitalizing its financial planning processes, aligning with its 2024-28 strategic plan to enhance operational agility, collaboration, and productivity. The initiative focused on automating budget management, rolling forecasts, financial analysis, and corporate reporting.

The Budgeting Section, with support from the IT department and Digital Office, assessed various financial planning software solutions. Key vendors were selected based on Gartner’s December 2022 report, and demo sessions were conducted to evaluate their effectiveness. The assessment revealed substantial improvements, with an average time reduction of 24% across five vendors and an average IRR of 36%.

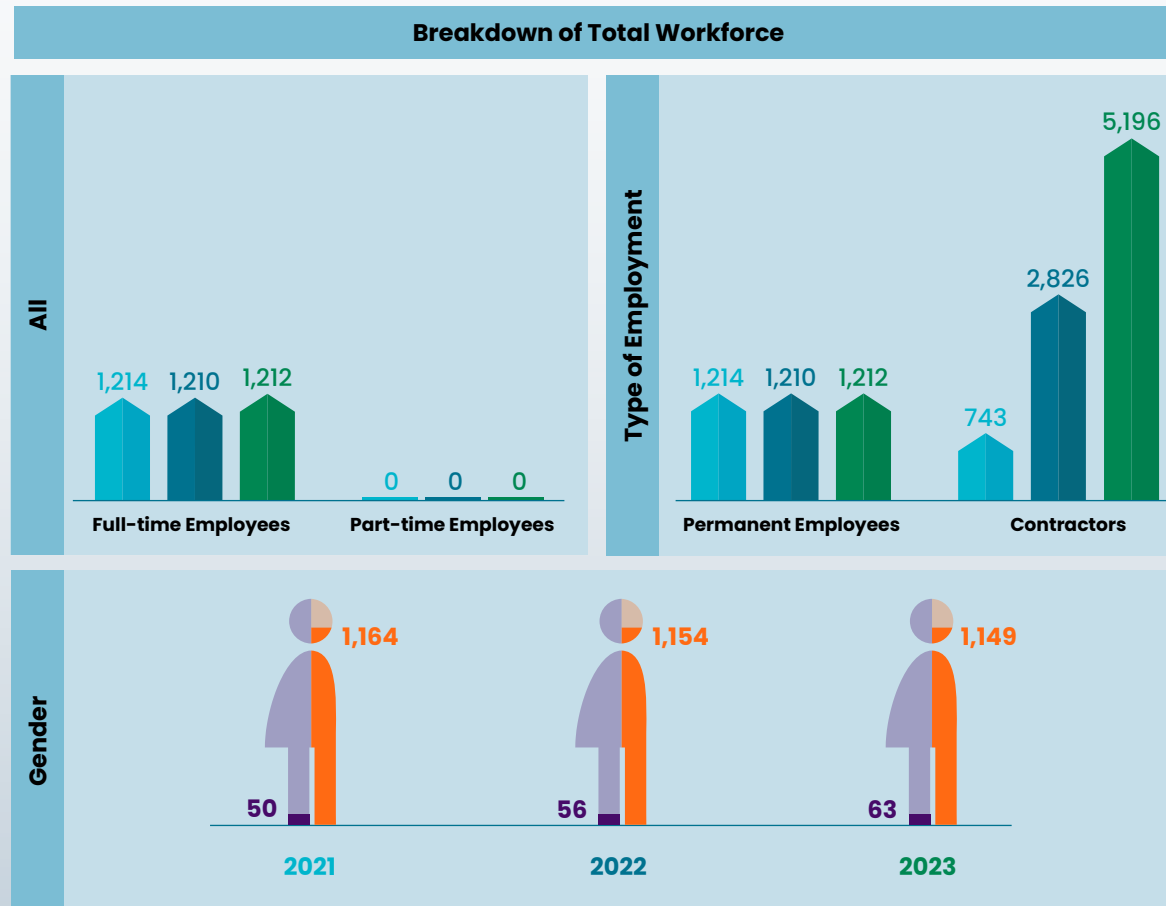
This stood out with a 38% time reduction, including 50% in data collection, 25% in review, 70% in data population and outcome production, and 20% in analysis. Financial metrics included an IRR of 79%, NPV of QAR 1.4 million, and a payback period of 1.4 years.



Employment Practices

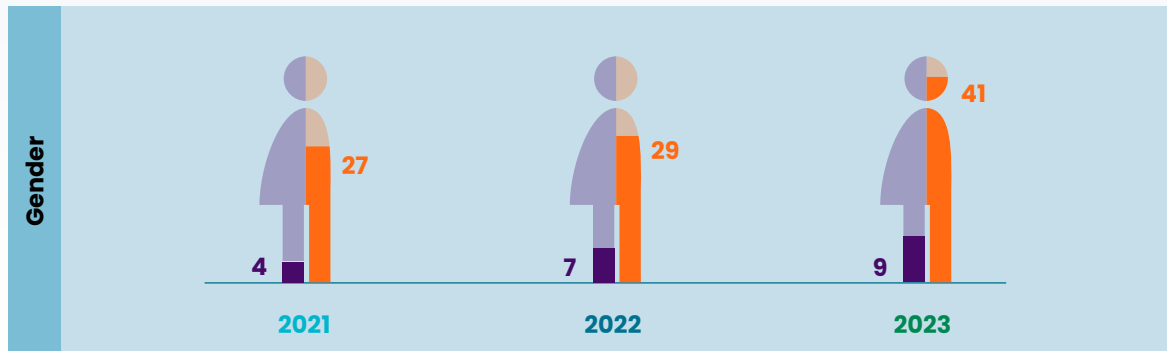
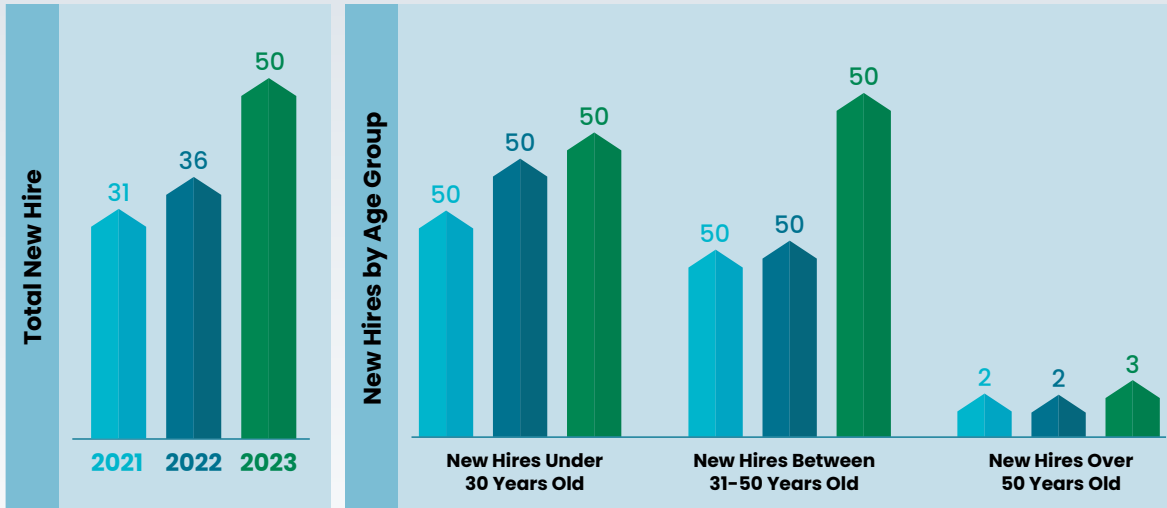
In 2023, QAFCO took a comprehensive approach to improving its workplace environment. This included focusing on human rights and labor practices, promoting diversity and inclusion, implementing a competency framework, and enhancing succession management and talent programs. Additionally, the company conducted an employee engagement survey to gather feedback and improve overall employee satisfaction and engagement.

From 2021 to 2023, the company's workforce composition remained stable, with full-time and permanent employees consistently making up the entire workforce. Notably, the proportion of female employees increased by **26%** over this period.



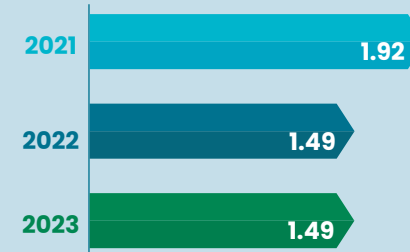
From 2021 to 2023, the company saw an increase in new hires, with a 61% rise overall. The proportion of female new hires grew by 125%, reflecting a commitment to gender diversity. Additionally, there was a notable increase in new hires under 30 years old, up by 38%, and those between 31-50 years old, up by **92%**.

Breakdown of New Hires



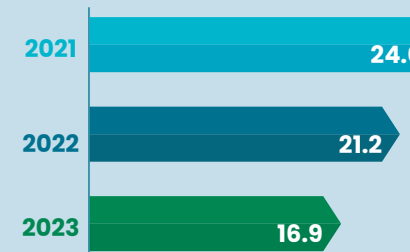
Between 2021 and 2023, QAFCO's employee turnover rate increased by approximately **1.43 percent**.

Employee Turnover Rate (Percentage)



QAFCO emphasizes a culture of development, continuous improvement, integrity, and compliance through its investment in employee training and development programs. In 2023, employees completed 18,872 training hours, achieving a Training Satisfaction Rate of **92.74%**, surpassing the **80%** target.

Average Training Hour Per Employee



QAFCO strictly adheres to the applicable laws and regulatory requirements regarding employees' working hours, vacations, and rest periods aligned with legal standards. QAFCO's Code of Conduct serves as a comprehensive guide, emphasizing the highest ethical standards and compliance with labor laws.

QAFCO is committed to upholding human rights and ethical standards across its operations. This commitment is reinforced through QAFCO's Code of Conduct, endorsed by the BoD and CEO, and accessible online to employees, suppliers, and customers. In 2023, each employee received 1 hour of code of conduct training. Regular training sessions ensure employees are well-informed of the Code's provisions and expectations.

QAFCO has established a secure reporting channel for any deviations from the Code, such as fraud or misconduct. This channel ensures thorough investigation of concerns and supports those who report issues, fostering a culture of accountability and transparency. Committed to fostering a diverse and inclusive work environment, QAFCO offers fair compensation based on an internally approved salary structure and supports its employees through recognition programs. In 2022 and 2023, QAFCO maintained a record of zero incidents of discrimination, underscoring its commitment to providing equal opportunities for all employees.

The company has conducted leadership assessments targeting Department Managers, Heads of Section, and selected High Potential Employees (HPEs). These assessments provided critical insights into leadership capabilities and areas for improvement. During the year, QAFCO established the Talent Management Governance Structure, initiating Talent Management and Succession Planning processes. These processes facilitated leadership discussions for talent identification and development, supporting succession planning efforts and helping grow the talent pool.

Following the establishment of QAFCO's Competency Framework and Job Competency Models, the company introduced a technical competency assessment process for all employees, starting with the Administration and Finance divisions as a pilot project. This process has since been expanded across the organization, enabling QAFCO to implement targeted development programs that address skill gaps and foster continuous growth. In 2023, QAFCO launched the Talent Development Program to support HPEs in enhancing their leadership capabilities and preparing for growth. The program includes module-based classroom attendance, action learning projects, and individual and group coaching. Additionally, a mentorship program was introduced, where participants are mentored by Chief Officers. The Employee Welfare Committee was also established in 2023 to enhance employee wellbeing.

QAFCO is also committed to advancing Qatarization objectives by attracting, developing, and retaining Qatari nationals. Various activities, including recruitment campaigns, sponsorships, and on-the-job development programs, were implemented to support these objectives. Qatari nationals are provided with career advancement opportunities through further studies. Partnerships with the Education Sector and local communities were also established to support Qatarization goals.

The third iteration of the Employee Engagement Survey (EES) was conducted this year, achieving a high participation rate of **91%**. The survey provides valuable feedback on the company's strengths and areas for improvement.



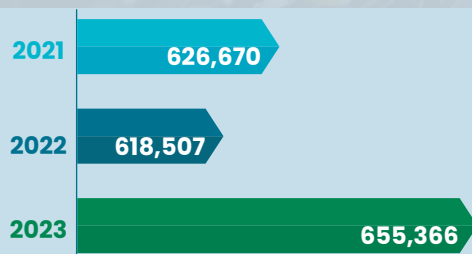
Empowering Communities

QAFCO is committed to supporting sustainable growth in Qatar's communities through initiatives that enhance local agriculture, environmental stewardship, and food security. By collaborating with academic institutions, providing direct support to farmers, and undertaking environmental initiatives like tree planting, QAFCO aims to create a lasting positive impact. As an advocate for sustainable agricultural practices, QAFCO focuses on raising awareness, conducting research, analyzing irrigation water, training farmers, and supporting innovative, high-tech farming with weekly visits and free consultancy.

Additionally, QAFCO is focusing on maintaining "Markhiyat Mesaieed," a park in Mesaieed developed by the Ministry of Municipality and the Ministry of Climate Change. The goal is to transform the park into a hub for the collection, genetic identification, and propagation of native trees.

QAFCO is expanding its community engagement initiatives which involve partnerships with local organizations to address social and environmental challenges, support education, and promote economic empowerment. In 2023, QAFCO spent QAR 655,366 on total community investment.

Community Investments and Programs



Local and Global Food Security

QAFCO is dedicated to advancing sustainable agriculture in Qatar and supporting local food production through innovative methods tailored to the region's unique climate. In 2023, QAFCO introduced an air-conditioned system for vegetable production during the summer months, ensuring year-round farming despite Qatar's harsh climate. This technology helps ensure a stable food source for the community by allowing continuous cultivation despite extreme temperatures.

To further support sustainable agricultural practices, QAFCO prepared a detailed report on the costs of vegetable production, providing insights to scale sustainable practices in the agricultural sector. This resource equips farmers and industry stakeholders with practical knowledge to enhance productivity in a sustainable manner.

In parallel, QAFCO is advancing the development of eco-friendly urea through innovative processing. This includes applying specialized coatings to urea to ensure slower digestion and better absorption by the soil, improving nutrient efficiency. Additionally, QAFCO incorporates chemical inhibitors, making urea more eco-friendly and further aligning its fertilizer products with environmentally responsible agriculture.

QAFCO extends its commitment to biodiversity by empowering local farmers through expert consultation, field visits, and free water testing services. In 2023, QAFCO assisted over 10 farms by offering free water testing and conducting 50-60 water analyses. Based on these tests, QAFCO provided recommendations on fertilizer application to minimize pollution and prevent overuse through precision fertilization.

Agronomists from QAFCO conduct on-site assessments, addressing specific challenges faced by farmers and recommending sustainable techniques, including efficient fertilizer use. By supporting local agriculture, QAFCO fosters sustainable farming practices, contributing to Qatar's food security and agricultural productivity. QAFCO plans to expand its agricultural support programs, with additional farm visits and water assessments to further enhance sustainable farming practices and boost productivity across Qatar.

Farmers Training Sessions

QAFCO conducts training sessions for farmers, covering topics like hydroponic systems, efficient irrigation techniques, and the effective use of fertilizers. QAFCO agronomists provide hands-on demonstrations and interactive workshops, allowing farmers to apply what they learn in real-world scenarios.

The training sessions offer a platform for farmers to share their experiences, challenges, and successes. The impact includes improved agricultural practices, better crop yields, and enhanced water conservation. Additionally, the sessions raise awareness of sustainable practices and the importance of hydroponic farming.

Through these initiatives, QAFCO supports the agricultural community and contributes to sustainable development and food security in Qatar. The outcomes of these training sessions highlight QAFCO's commitment to fostering a sustainable agricultural sector.



SPOTLIGHT

University Collaboration for Water Testing and Precision Fertilization

In 2023, QAFCO initiated collaborative projects with Qatar University, Hamad Bin Khalifa University (HBKU), and University of Doha to develop an agricultural model tailored to Qatar’s unique environmental conditions.

These collaborations exemplify the synergy between academic expertise and industrial resources, advancing innovation in agriculture and sustainability:



Microalgae Research with Qatar University:

QAFCO supported Qatar University on microalgae by providing waste urea fertilizers, which significantly boosted microalgae growth. The study, titled “Pilot-scale crossflow ultrafiltration of four different cell-sized marine microalgae to assess the ultrafiltration performance and energy requirements,” was published, showcasing the effective collaboration.



Greenhouse Transpiration Models with HBKU:

QAFCO supported HBKU’s research on advanced predictive models for transpiration in CO₂-enriched greenhouses by providing resources and agricultural experts. The study, “Hyperspectral-physiological based predictive model for transpiration in greenhouses under CO₂ enrichment,” highlights significant benefits for water conservation and crop yield improvement in arid regions. This research, which earned first place at the 2024 GPCA Innovation Competition, offers water-saving solutions for dry climates and promotes agricultural productivity.



SPOTLIGHT

Planting 2,100 Trees Around Factories

In 2023, QAFCO launched a tree-planting initiative to enhance environmental sustainability and increase green cover around its operational areas. A total of 2,100 trees were planted along the QAFCO 5 /6 fence line, aimed at creating a greener, healthier environment around its facilities. This initiative not only contributes to carbon reduction and improved air quality but also supports local biodiversity and enhances the visual landscape of QAFCO’s industrial areas. Additionally, QAFCO’s participation in Qatar’s national “1 Million Tree Planting” initiative underscores its dedication to contributing positively to the local ecosystem and supporting Qatar’s environmental goals. Moving forward, QAFCO plans to monitor the growth and health of these trees and expand green spaces around other facilities.



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ESG Data Tables

Environmental

GRI Disclosure Number	Indicator	2021	2022	2023
GRI-306-2	Hazardous Waste Generated	588	945	1,000
GRI-306-2	Total Waste Diverted from Disposal	588	945	1,192
GRI-306-2	Hazardous Waste Recycled	588	945	1,000
GRI-306-2	Total Waste Generated	5,210	5,561	6,572
GRI-306-2	Total Waste Directed to Disposal	4,402.70	4,653	5,611
GRI-305-1	Scope 1 Emissions	5,361,081	5,014,789.60	5,114,188.57
GRI-305-2	Scope 2 Emissions	203,170	210,935	226,966
GRI-305-7	Nitrogen Oxides (NOx)	2,465	2,420	2,172
GRI-305-7	Sulfur Oxides (SOx)	1,424	1,332	1,004
GRI-303-5	Water Consumed (M3)	18.30	18.30	18.80
GRI-303-4	Water Discharged to the Sea	1,279	1,309.80	1,288.80
GRI-303-3	Water Withdrawn from the Sea	1,296.30	1,327.20	1,306
GRI-303-3	Water Withdrawn from Third-party	0.94	0.98	1.18
GRI-303-3	Total Water Withdrawn	1,297.30	1,328.10	1,307.60
GRI-302-3	Energy Intensity (GJ/Tonne)	29.10	29.16	29.22
GRI-302-1	Urea-2 (GJ/MT)	6.34	5.90	5.42
GRI-302-1	Q1-6 Urea Plants	5.16	5.12	5.20
GRI-302-1	Q1-6 Ammonia Plants (GJ/MT)	39.37	39.38	39.58
GRI-302-1	Total Energy Consumption (GJ)	185,274,458	186,753,166	183,917,051



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GRI Disclosure Number	Indicator	2021	2022	2023
GRI-405-1	Female Employees	50	56	63
GRI-405-1	Male Employees	1,164	1,154	1,149
GRI-403-9	Number of Fatalities - Employees & Contractors	0	0	0
GRI-403-9	Total Recordable Injury Rate (TRIR) (Per 200,000 work hours)	0.16	0.44	0.39
GRI-403-9	Lost Time Injury Rate (LTIR) (Per 200,000 work hours)	0	0.29	0
GRI-401-1	Female New Hires	4	7	9
GRI-401-1	Male New Hires	27	29	41
GRI-401-1	Total New Hire	31	36	50
GRI-102-8	Full-time Employees	1,214	1,210	1,212
GRI-102-8	Part-time Employees	0	0	0
GRI-102-8	Permanent Employees	1,214	1,210	1,212
GRI-102-8	Contractors	743	2,826	5,196
GRI-404-1	Average Training Hours per Employee	24	21.20	16.90
GRI-401-1	New Hires Between 31-50 Years Old	13	14	25
GRI-401-1	New Hires Over 50 Years Old	2	2	3
GRI-401-1	New Hires Under 30 Years Old	16	20	22
GRI-203-1	Total Community Investment (QAR)	626,670	618,507	655,366

Governance

GRI Disclosure Number	Indicator	2021	2022	2023
GRI-102-8	Full-time Employees	1,214	1,210	1,212
GRI-102-8	Part-time Employees	0	0	0
GRI-102-8	Permanent Employees	1,214	1,210	1,212
GRI-102-8	Contractors	743	2,826	5,196
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Introduction

Driving Sustainability Forward

Protecting Earth, One Step at a Time

Empowering People, Enriching Lives

Appendices

Definitions of Material Topics

Environment

Emissions and Energy Management

Emissions and energy management involve strategies to monitor, reduce, and control pollutants, particularly greenhouse gases, while managing energy consumption. This approach improves air quality, reduces environmental impact, and supports sustainability goals. For QAFCO, effective emissions and energy management are critical due to their significant business impact and stakeholder importance. It ensures regulatory compliance, environmental sustainability, and help avoid penalties and disruptions. Addressing climate risks like severe weather and sea level rise is essential for long-term viability.

Biodiversity

Biodiversity management involves strategies to protect and enhance plant and animal species, genetic diversity, and ecosystems. For QAFCO, biodiversity is highly ranked due to its significant impact on both internal and external stakeholders. Protecting biodiversity, especially marine ecosystems and farmland, maintains ecosystem balance, crucial for marine species and sustainable agriculture. This commitment enhances QAFCO's reputation, ensures compliance with environmental regulations, and supports global sustainability goals.

Product Stewardship

Product stewardship involves managing the entire lifecycle of products to minimize environmental impact and promote sustainability. For QAFCO, product stewardship enhances operational efficiency and regulatory compliance, building trust with stakeholders. It supports the company's positive reputation and long-term sustainability goals. Any failure in this area could significantly impact QAFCO, making it a high priority.

Water Management

Water management refers to the strategies and practices implemented to efficiently use and protect water resources, including monitoring and reducing water consumption, treating and recycling wastewater, and protecting water quality. For QAFCO, water management is crucial due to its reliance on desalination. Mismanagement of effluents and brine discharge can disrupt operations, increase costs, and cause regulatory issues. Proper water management ensures operational stability and compliance, protecting marine environments and maintaining water quality. This makes it a high-impact area for QAFCO.

Waste Management

Waste management refers to the strategies and practices implemented to reduce, recycle, and responsibly dispose of waste to minimize environmental impact. For QAFCO, waste management is highly ranked due to its significant impact on stakeholders. Effective waste management reduces pollution, protects public health, ensures regulatory compliance, and enhances QAFCO's reputation. It also leads to cost savings and improved productivity. Responsible waste management minimizes environmental and regulatory risks, ensuring compliance. Failure in this area could result in financial penalties and reputational harm, justifying its high rating.

Social

Health, Safety, and Wellbeing

This topic covers health, safety, and wellbeing, recognizing safe work conditions as a human right. It includes preventing physical and mental harm, promoting worker health, ensuring process safety, and addressing global diseases and pandemic preparedness like COVID-19. For QAFCO, health and safety are critical due to their impact on operational continuity and employee welfare. Incidents can cause severe delays, legal issues, and reputational harm. This makes health and safety a top priority.

Responsible Supply Chain Management

This topic pertains to the organization's process for procuring products and services. It encompasses the impacts related to procurement practices and how the organization manages these impacts. For QAFCO, responsible supply chain management is important but has a moderate impact on external stakeholders compared to core operations. It supports sustainability and operational efficiency but has a limited effect on direct revenue or critical operations since QAFCO does not import raw materials. Issues are more likely to cause delays rather than major disruptions. Additionally, QAFCO avoids importing from countries with human rights violations.

Food Security

This topic focuses on food security within an organization's supply chain. It covers efforts to ensure access to safe, nutritious, and sufficient food, as well as strategies to enhance sustainable agricultural practices, improve food distribution, and mitigate risks related to supply disruptions. Additionally, it addresses initiatives to support long-term food resilience and combat hunger in vulnerable communities. For QAFCO, food security is highly relevant to stakeholders, reinforcing confidence in its contributions to global food stability. As a fertilizer producer, ensuring a stable food supply aligns with QAFCO's core business and market relevance. This makes food security a high-impact area for business sustainability and reputation. Balancing climate impact with efficient fertilizer production is crucial for national and international food security.

Employment Practices and Inclusion

Employment practices and inclusion cover job creation, working conditions, training, performance reviews, and transition assistance. For QAFCO, these practices impact workforce retention and productivity. While they may increase hiring costs, the effects are generally internal and do not pose significant risks to business continuity. Stakeholders value fair employment practices and inclusivity for workforce satisfaction and social responsibility. However, the direct impact on stakeholder trust and loyalty is moderate, as these factors primarily influence internal dynamics rather than external stakeholders.



Governance

Business Integrity

This topic addresses the organization's business policies and practices, including its approach to anti-competitive behavior. It also covers adherence to governance codes, standards, and internal controls to ensure transparency, accountability, and good governance. Business integrity is crucial for QAFCO due to its significant impact on both business operations and stakeholders. It ensures compliance, enhances operational efficiency, and protects the company's reputation, which is vital for long-term viability. For stakeholders, it builds trust, attracts investors, and strengthens customer confidence, enhancing QAFCO's reputation in the community. This dual focus on integrity supports sustainable success and stakeholder satisfaction.

Corporate Governance

This topic covers the organization's governance structure, including its composition, roles, and remuneration. It also addresses how the organization manages its impacts and integrates them into its strategy and operations. For QAFCO, corporate governance is highly impactful for both business operations and stakeholders. It fosters a culture of integrity and compliance, leading to better decision-making and operational efficiency. Robust governance practices enhance QAFCO's reputation, attract investors, and ensure regulatory compliance. Effective governance is essential for maintaining accountability and strategic direction, preventing management issues that could affect the business's integrity and sustainability.

Economic Performance

This topic focuses on the company's creation and distribution of wealth. It includes the economic value generated and distributed, defined benefit plan obligations, government financial assistance, and the financial implications of climate change. For QAFCO, economic performance is crucial for investing in growth and sustainability initiatives. Strong financial health ensures resilience and competitiveness, making it vital for long-term viability. It impacts both internal and external stakeholders by ensuring job security and growth opportunities for employees, and attracting and retaining investors through demonstrated financial stability and potential growth.

Abbreviations

Terms	Definitions
ALARP	As Low As Reasonably Practicable
APC	Advanced Process Control
AQIS	Australian Quarantine Inspection Survey
BBS	Behavior-Based Safety
BoD	Board of Directors
BOD	Biochemical Oxygen Demand
C-TPAT	Customs–Trade Partnership Against Terrorism
CBP	Customs and Border Protection
CCPS	Center for Chemical Process Safety
CCS	Carbon Capture and Sequestration
CEMS	Continuous Emission Monitoring System
CEO	Chief Executive Officer
COD	Chemical Oxygen Demand
CSO	Chief Strategy Officer
CTO	Consent to Operate
DEF	Diesel Exhaust Fluid
EEF	Enhanced Efficiency Fertilizers
EES	Employee Engagement Survey

Terms	Definitions
ERM	Enterprise Risk Management
ERP	Enterprise Risk Planning
ESG	Environmental, Social and Governance
EV	Electric Vehicle
GCC	Gulf Cooperation Council
GFC	Gulf Formaldehyde Company
GHG	Greenhouse Gas
GRI	Global Reporting Initiative
HAZOP	Hazard and Operability Study
HBKU	Hamad Bin Khalifa University
HFC	Hydrochlorofluorocarbon
HPEs	High-Potential Employees
HSE	Health, Safety and Environment
HSEQ	Health, Safety, Environment, and Quality
IA	Internal Audit
IAM	Identity and Access Management
ICV	In Country Value
IFA	International Fertilizer Association

Terms	Definitions
IQ	Industries Qatar
ISO	International Organization for Standardization
KPI	Key Performance Indicator
LOPA	Layers of Protection Analysis
LTIR	Lost Time Injury Rate
LNG	Liquefied Natural Gas
LTIs	Lost Time Injuries
MIC	Mesaieed Industrial City
MoECC	Ministry of Environment & Climate Change
MoU	Memorandums of Understanding
NCs	Non-conformities
NH3-N	Ammonia Nitrogen
NOx	Nitrogen Oxides
ODS	Ozone-Depleting Substances
OSHA	Occupational Safety and Health Administration
OT	Operational Technology
pH	Potential Hydrogen
P2P	Purchase-to-Pay

Terms	Definitions
PSM	Process Safety Management
PSTIR	Process Safety Total Incident Rate
PV	Photovoltaic
QAFCO	Qatar Fertiliser Company
QMC	Qatar Melamine Company
QNV	Qatar National Vision
QSG	QAFCO Sustainability Goals
SCR	Selective Catalytic Reduction
SOC	Security Operations Center
SOx	Sulfur Oxides
TGU	Technical Grade Urea
TRIR	Total Recordable Incident Rate
TSS	Total Suspended Solids
TTS	Total Suspended Solids
UFC	Urea Formaldehyde Concentrate
UN SDGs	United Nations Sustainable Development Goals
ZLD	Zero Liquid Discharge
ZTA	Zero Trust Architecture



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