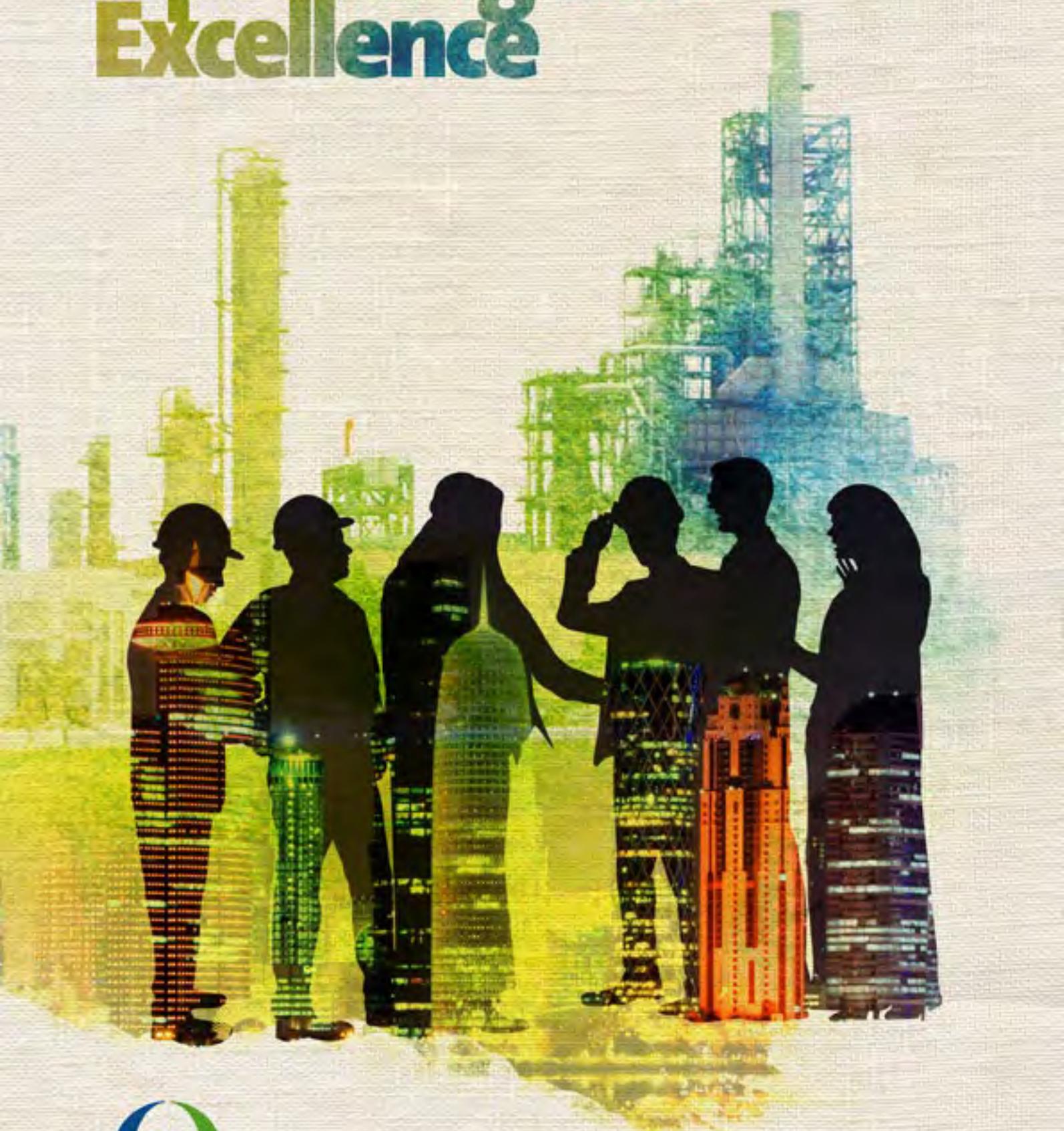


# Operating with Excellence



شركة قطر الإضافات البترولية المحدودة  
Qatar Fuel Additives Company Limited

**Sustainability Report 2015**

[www.qafac.com.qa](http://www.qafac.com.qa)

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شركة قطر للإضافات البترولية المحدودة  
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# About This Report

Every year since 2011, QAFAC has voluntarily reported on its economic, environmental and social impacts, and disclosed sustainability initiatives on an annual basis. Reporting in this way provides the public with a better understanding of the approaches behind QAFAC's sustainability efforts.

This 2015 Sustainability Report covers the period of 1 January to 31 December 2015, and is based on GRI G4 Guidance 'in accordance' option core. It focuses on identifying, understanding and addressing the most important issues to us and our stakeholders, while highlighting our sustainability commitments, strategies and insights. As part of QAFAC's commitment to reporting excellence, the Company has successfully gone through the Materiality Disclosures Service from GRI.

QAFAC's 2015 Sustainability Report has not been verified by a third party based on previous experience from 2013 where this did not add considerable value to the assurance process at the time. However, QAFAC may reconsider this in the future depending on the methodology that will be offered for the assurance process.

#### Contact Information:

The opinions of our stakeholders are important to us and we look forward to feedback on the information and insights presented in this report. Please contact us with any questions or suggestions using the following channels:

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#### Cautionary Statement:

This report contains certain "forward-looking statements" that express the way in which QAFAC intends to conduct its activities. QAFAC has made every effort to ensure the report is as accurate and truthful as possible, however, forward-looking statements are based on assumptions made using currently available information that is subject to a range of uncertainties that could cause actual results to differ materially from these projected or implied statements. Such statements are subject to risks that are beyond QAFAC's ability to control and therefore do not represent a guarantee of future conduct or policy. QAFAC assumes no obligation to publicly update any statements made in this sustainability report and does not guarantee the appropriateness, accuracy, usefulness or any other matter whatsoever regarding this information.

# 2015 Success Stories

RELIABILITY LEVEL

96%

BIGGEST EXTERNAL EMERGENCY **RESPONSE EXERCISE** CONDUCTED, INVOLVING GOVERNMENTAL AUTHORITIES AND HAMAD HOSPITAL

FIRST **FULL YEAR OPERATION** OF CARBON DIOXIDE RECOVERY PLANT

METHANOL PRODUCTION INCREASED BY

29%

**LDAR:**  
**214** SOURCES OF LEAKS WERE REPAIRED

MTBE PRODUCTION INCREASED BY

15%

**PROCESS SAFETY MANAGEMENT PROGRAM** INITIATED

7,500,000

MAN HOURS WITH ZERO LTA

26% QATARIZATION

9.4% FEMALE EMPLOYMENT



## Chairman's Foreword

As QAFAC's incoming Chairman, I am delighted to be introducing our latest Sustainability Report, which continues to profile QAFAC's sustainability journey over the years, our latest achievements, and our plans to take the organization to new levels of world-class performance.

Even during tough times for the oil and gas industry, we managed to achieve a stable financial performance, reliable and safe operations, and significant production growth. This demonstrates QAFAC's aim to be a sustainability leader regardless of any circumstances.

Our success has been possible through adoption of a corporate management approach based on the principle of Operational Excellence. We have introduced numerous initiatives over the years, constantly increasing the efficiency of our operations, demonstrating solid financial performance and reducing our impact on the environment. Our focus on Operational Excellence started years ago, during stronger economic times. Now we are able to reap the benefits of long term planning, which contribute to the sustainability of our business and the communities, environments and economies in which we operate.

A perfect example of this approach is the installation of the Carbon Dioxide Recovery (CDR) plant, which is enabling us to be self-sufficient in generating CO<sub>2</sub> gas that is used as the input material for methanol production. This new approach reduces overall demand for CO<sub>2</sub> on the industrial level in Qatar, saves money and resources, and reduces our environmental footprint.

I am also very proud that 2015 marked a year of significant progress for QAFAC's occupational health and safety performance by reaching over 7.5 million man-hours without a Lost Time Accident (LTA) affecting either our employees or our contractors. Also, initiatives such as "Gadan" which we started rolling out last year, will allow us to produce a pool of talented and qualified young individuals to support our Qatarization targets.

These examples clearly demonstrate that we are actively working to contribute to the sustainable development of our country in alignment with the Qatar Energy and Industry Sector Sustainability (QEISS) program priorities, Qatar's National Development Strategy 2011-2016, and the Qatar National Vision 2030.

I would like to thank the dedicated management team and Board members at QAFAC for all their efforts in sustaining success throughout these challenging years in our industry, and look forward to continuing this journey together.

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**Abdulaziz J. Al Muftah**  
Chairman of the Board

# Chief Executive Officer's (CEO) Foreword

I am pleased to welcome you to our fifth annual Sustainability Report, which serves as a valuable opportunity to celebrate our triumphs, share our achievements and review our performance on our journey “toward sustainability leadership”.

Through our Operational Excellence program, we are committed to innovative ways of working that integrate world-class practices to increase efficiency, reliability and performance. Since the launch of this program, we have been able to improve our production performance year on year, and decrease downtime in our plants.

With the growing number of initiatives around the world aiming to make methanol more accessible to consumers, our production of methanol increased by 29% in 2015. MTBE and pentane production increased by 15% and 35% respectively, making MTBE's production levels our best since 2006. The production increase is also attributed to the fact that there were no shutdowns in 2015 and this was the first full year of operation for the Carbon Dioxide Recovery (CDR) plant and Isothermal Methanol Converter (IMC).

Our world-class CDR plant captures and reuses 500 tonnes of CO<sub>2</sub> per day, contributing to additional production of 250 MT of methanol per day. The plant is also able to save atmospheric emissions equivalent to that generated by 32 million cars per year. Implementation of this, the world's largest commercial scale CO<sub>2</sub> utilization facility, serves as the perfect example of sustainable growth where business productivity and environmental impacts reduction can be achieved at the same time.

In 2015, we continued to demonstrate our commitment to reliable and safe operations that are not just environmentally sound but also financially viable. For instance, we have now started the expansion of the Support Service Area in accordance

with green building standards, which will help us to reduce energy demand and water consumption, and improve material disposal among others.

QAFAC also achieved excellent reliability levels with no process interruptions during the reporting year. This is attributed mainly to the improvements we continuously make to our operations. For example, in 2015 we successfully completed the Risk Based Inspection (RBI) System for evaluation of equipment damage or failure and operational excellence.

The safety of our people is our top priority at QAFAC and we align our safety procedure with the world's best industrial practices. Last year, QAFAC embarked on a journey to implement a comprehensive Process Safety Management (PSM) Program to ensure continuity of business operations, safeguard healthy and safe work conditions for our employees and contractors and minimize impact of production activities on the environment.

I am proud of all the hard work and dedication of our people in upholding our commitment to sustainability of our company and society. Without their determination, leadership and unwavering support, our success would not be possible. That's why attracting and retaining the best people from Qatar and around the world is of great importance to us. After all, our accomplishments are only as strong as our people.

Thank you for following our progress and supporting us in our sustainability leadership quest.

**Nasser Jeham Al-Kuwari**  
Chief Executive Officer

# About QAFAC

## Vision of 2015/ Values

In 2015 we started the process of elaborating a new Vision, moving from growth-oriented values to a performance-oriented strategy. Our new Vision, approved in 2016, states:

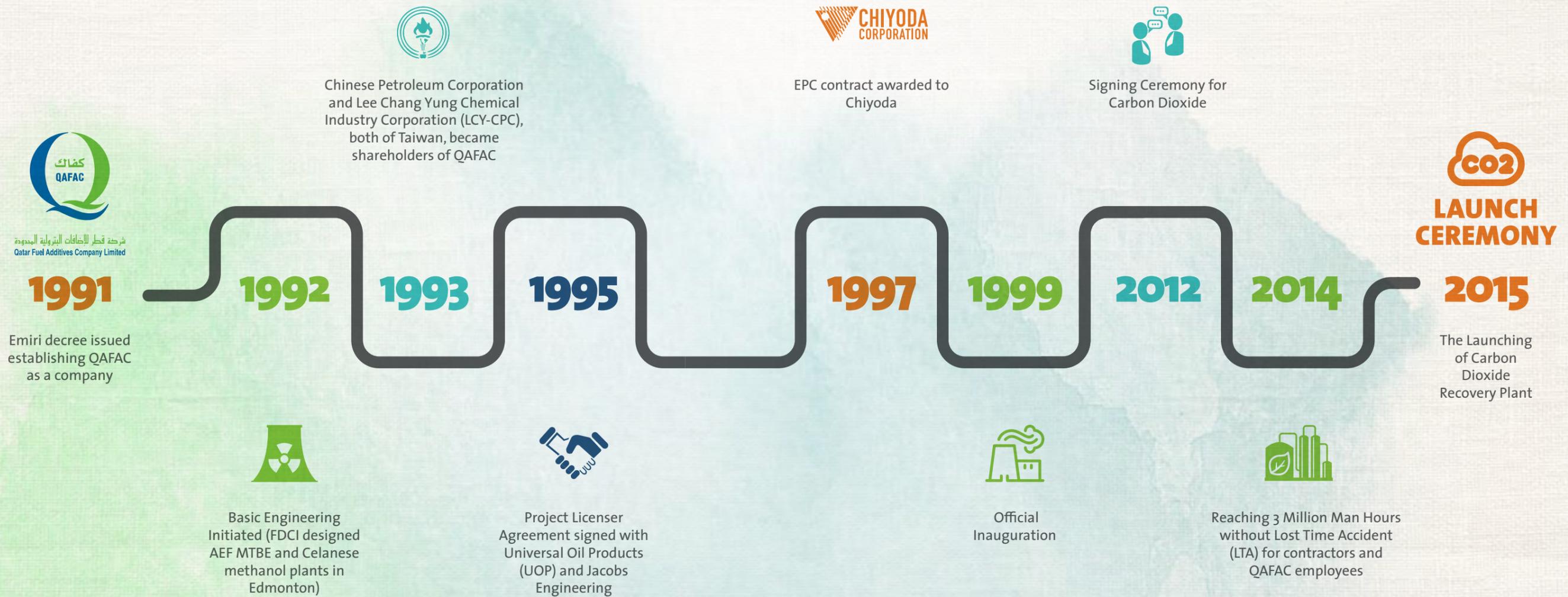
**‘By 2020, to become a world-class producer of Methanol and MTBE’**

The new Vision moves away from the former Vision that was focused on bringing QAFAC among the top five methanol producers, its high value derivatives and butane sub-products by 2020. The new Vision has been dictated by the need to adjust to changes in the feedstock supply and consequent economic feasibility of purely quantitative growth. QAFAC, being resilient to external market circumstances, has subsequently adopted the new Vision, which aims to see the Company’s performance excel in all areas related to its business.

In accordance with the new Vision, QAFAC is updating its corporate strategy. During 2015, however, QAFAC operations were still based on the corporate strategy related to its previous Vision, so the current report refers to the Company’s existing corporate strategy.

## Corporate Profile

Qatar Fuel Additives Company (QAFAC) was established in 1991 as a joint venture between Industries Qatar, OPIC Middle East Corporation, International Octane LLC and LCY Middle East Corp. The company started its operational activities in 1999.



## Our Shareholders



### Industries Qatar (IQ)

IQ is a limited liability company registered and incorporated in the State of Qatar as a Qatari Shareholding Company (Q.S.C). Qatar Petroleum (QP) transferred all its shares in QAFAC to IQ in 2003.



### OPIC Middle East Corporation (OMEC)

OMEC is a wholly owned subsidiary of the Overseas Petroleum and Investment Corporation (OPIC), which in turn is beneficially owned by the Chinese Petroleum Corporation (CPC) of Taiwan.



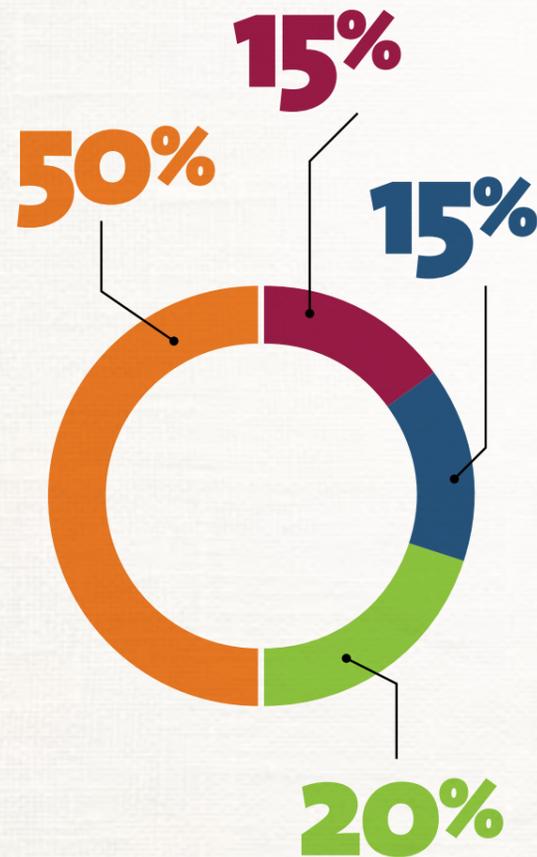
### International Octane LLC (IOLL)

IOLL is part of the DUTCO Group of Companies that has interests in civil engineering, manufacturing, hotels, real estate and other fields both within the UAE and globally.



### LCY Middle East Corp. (LCYMEC)

LCYMEC is the wholly owned subsidiary of LCY Investments Corp. (LCY) that in turn is the wholly owned subsidiary of the Lee Chang Yung Group of Taiwan, one of the major suppliers of petrochemical products.



Industries Qatar (IQ) 50%

OMEC (CPC Corporation, Taiwan) 20%

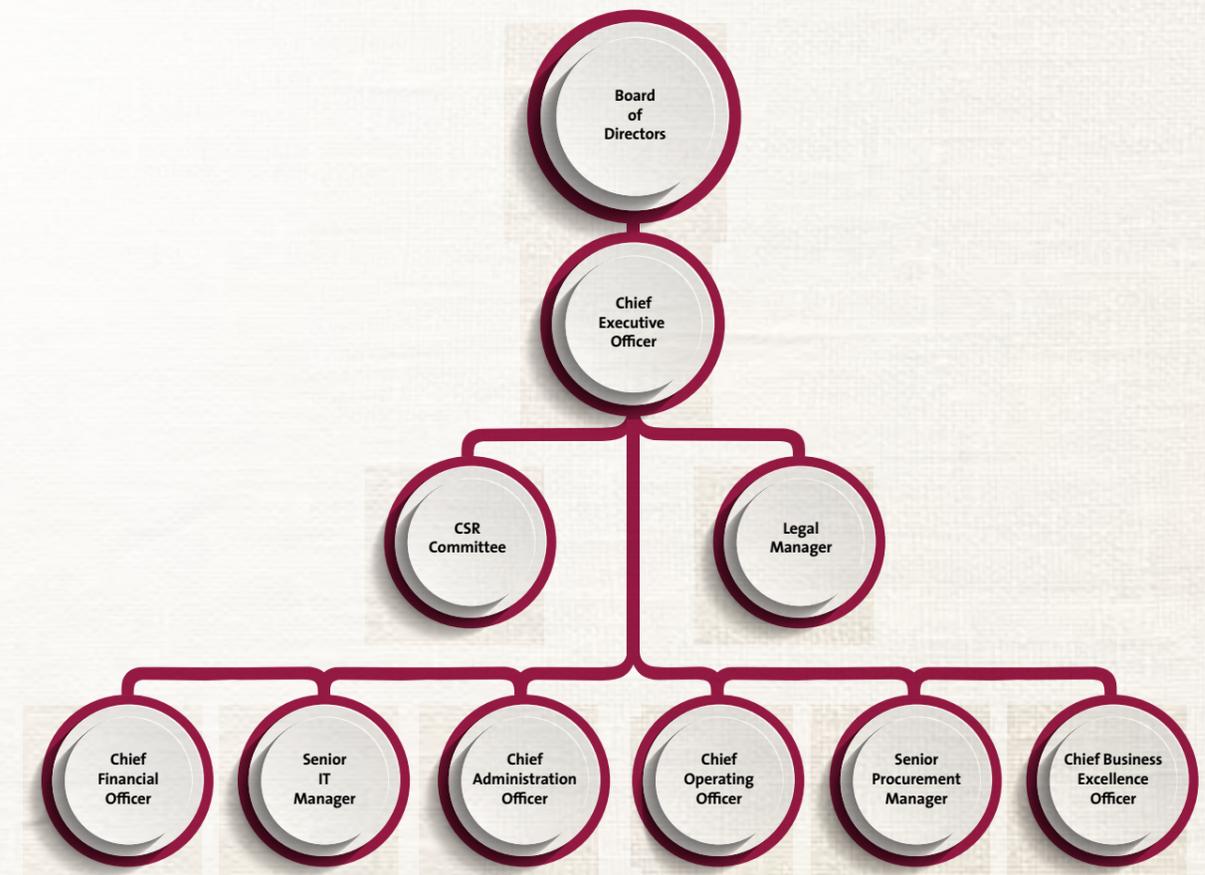
LCYMEC (LCY Group) 15%

International Octane LLC (IOLL) 15%

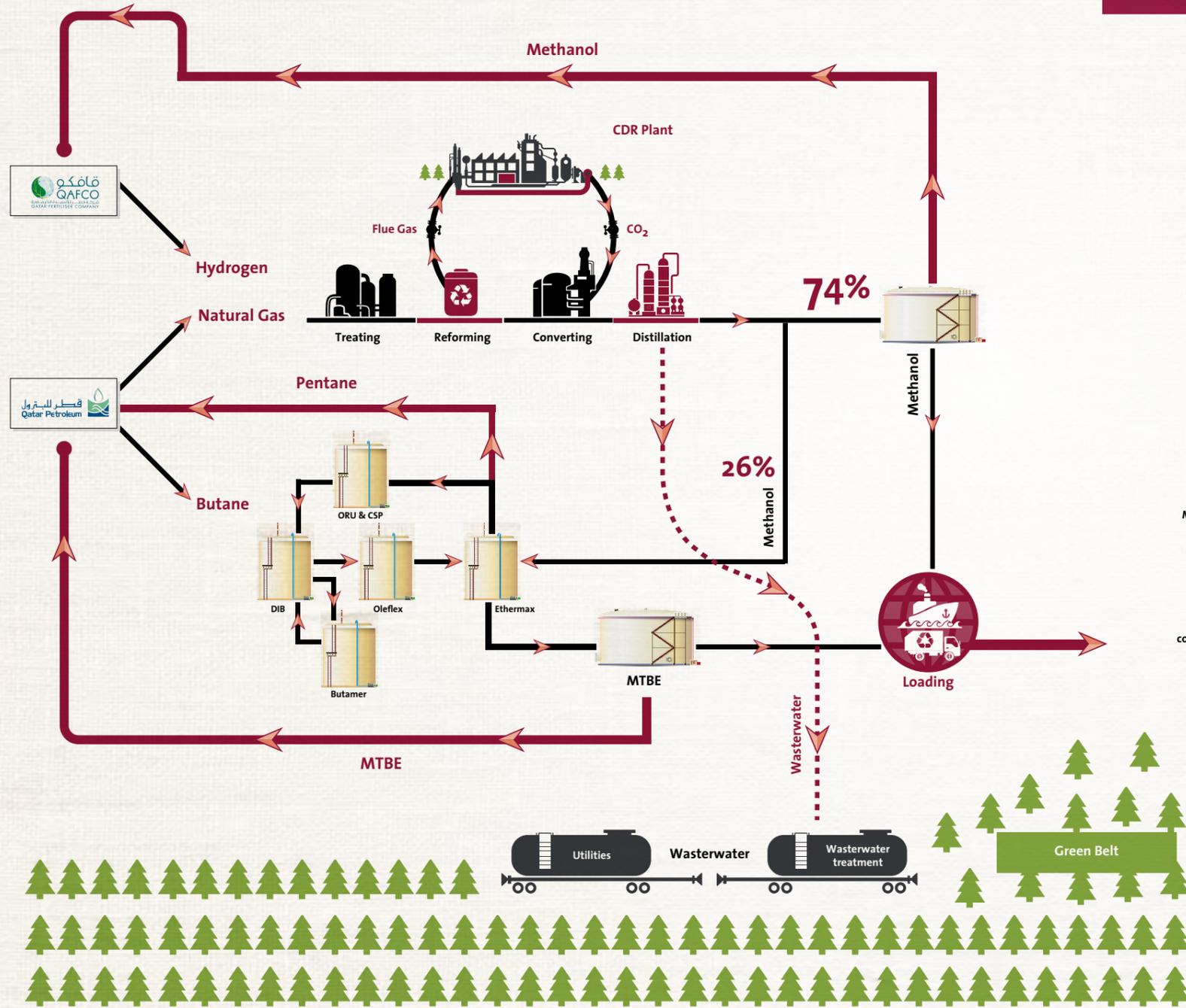
## Governance Structure

The Board of Directors is the highest governance body at QAFAC, consisting of eight members. The Board manages sustainability at QAFAC, and the CEO directly oversees Senior Management.

### Organizational Structure



# Value Chain of QAFAC



QAFAC is a unique standalone integrated facility (i.e. not connected directly to a refinery), where MTBE production is not situated in an integrated refinery as is typical in other parts of the world.

## Uses of Methanol and MTBE in everyday life



## Membership of Associations and Participation in International Events

QAFAC is an active member of the following associations:

- AWMA
- ROSPA
- GPCA
- MKOPSC
- ACS
- Institution of Methanol
- Asian Clean Fuel Association

In 2015, we participated at the following International conferences:

- Sponsored the IPTC (International Petroleum Conference) and Exhibition in Doha (6-9 Dec 2015), and had an exhibition stand at the exhibition.
- Attended the Gastech Conference and Exhibition in Paris, France as a delegate.
- Attended the GPCA Forum in Dubai (17-19 Nov 2015) as a delegate.
- Attended the 8th GCC Quality Conference (10 Nov 2015).



8th GCC Quality Conference

## Ethics and Conflict of Interest Policy and Management

We are committed to responsible business conduct and uphold the highest ethical values. Our strong Code of Ethics governs and guides the actions of QAFAC management and employees. All our employees are required to act in accordance with the guidelines on professional behavior contained in the Code of Ethical Conduct. This Code helps us eliminate any incidences of corruption, bribery or other misconduct, which are strictly prohibited by the company. In 2015, we integrated our Conflict of Interest policy into the Code of Ethics.

Employees are required to make an annual Code of Ethical Conduct Declaration and statement to declare any conflicts of interest.

There were no cases of corruption or ethical violations throughout the reporting period.



IPTC Conference

# Managing Sustainability

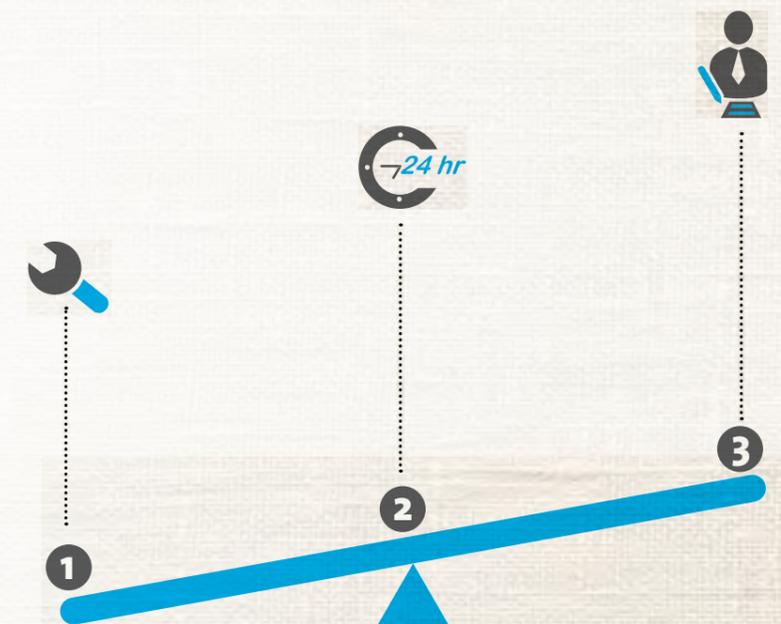


QAFAC is progressively moving from a growth-oriented strategy to the corporate strategy structured around the core principle of Operational Excellence.

## Operational Excellence at QAFAC

In late 2013, QAFAC began the Operational Excellence (OE) program to reinforce its leadership position in the Industry, and to transform working procedures through the introduction of world-class tools and practices that increase performance, efficiency and reliability.

The main goal of the program is to further strengthen QAFAC's position as a leading methanol and MTBE producer.



The OE program focuses on improving performance and efficiency through three main levels:

1. State-of-the-art operations and equipment;
2. Continuous and effective performance monitoring and management;
3. A culture of innovation, ownership, accountability, and self-improvement at all levels of the organization.



Operation Excellence Session for Management

The program aims not only to unlock additional value, but also to ensure sustainable excellence in QAFAC operations through building capability, developing employees' talent and enhancing retention of the Company's highly qualified professionals.

The OE program was launched with a high-level diagnostic that identified the strengths and the potential areas for improvement of the Company's core functions. During this initial phase, a dedicated task force, together with QAFAC plant managers and technicians, analyzed the plant main operations, and identified a comprehensive list of initiatives targeted on enhancing operational excellence in the Production, Maintenance, and Supply Chain departments.

As of May 2016 the program has successfully completed Waves 1 and 2, where the program has mainly focused on the improvement of operations,

and on establishing an effective performance monitoring system in the core functions of the Company. Wave 3 is currently in progress, with the majority of initiatives either implemented or on-going. This part of the program is focusing on the development of new capabilities, and on building the basis for a culture of excellence and continuous improvements throughout the organization.

Ultimately, QAFAC seeks to change the mindsets and behaviors of employees by embedding the culture of operational excellence in everything they do through continuous training and the requirement to adhere to OE standards.



Workshop on Operational Excellence



### Mr. Anwar Farhan Al-Enazi

Position: A/Chief Financial Officer

Working in QAFAC since March 2015

Nationality: Qatari

#### What attracted you to start working at QAFAC?

I had been recommended to look into the opportunity of joining QAFAC as a company that offers great support in a career path, while providing a family like environment to its employees. And that is indeed what I have found here after joining over a year ago.

#### What do you particularly like about your everyday work at QAFAC?

As QAFAC places particular accent on Qatarization, I have met various outstanding opportunities for my individual development here. The CEO has great faith in the employees of QAFAC and he gives everyone an opportunity to prove themselves by encouraging us to assume challenging responsibilities. This trust from management provides high motivation and determination to contribute to the success of the company to the maximum of a person's abilities.

#### What is the QAFAC's principal initiative that directs the company on a sustainability path?

Since the start of its activities QAFAC has adopted numerous important initiatives focused on enhancing the Company's sustainability performance. Many of them demonstrate world-class achievements in the petrochemical industry, which is the ultimate goal of the company. However, the Operational Excellence project could be named as the core of QAFAC's sustainable performance, as it is focused on transforming the company's operation approach in a holistic way in order to integrate sustainability in each and every aspect of it production, maintenance and operational support activities.

## Sustainability in Corporate Management

QAFAC's Corporate Strategy is aligned with the company's Sustainability Framework and Sustainability Strategy, establishing the link between corporate goals and objectives and their implementation in accordance with the principles of sustainable development. Through the process of continuous stakeholder engagement, QAFAC constantly reviews the issues that are material to the company and its stakeholders, and implements corresponding actions in each of its sustainability focus areas via programs, initiatives and dialogue.

## Sustainability Strategy and Corporate Strategy

Our corporate strategy identifies the directions and processes for reaching our goals and targets. Our sustainability framework is structured around the central focus of working "Toward Sustainability Leadership". This focus overarches the ultimate goal of QAFAC's corporate strategy and is implemented via Operational Excellence principles integrated within every aspect of QAFAC's activities.

Each area of sustainability strategy represents our goals in reaching Sustainability Leadership. Reaching these sustainability goals depends on effectively addressing issues that are material for QAFAC and its stakeholders.

The goals of our Sustainability Framework are aligned with our corporate goals and objectives. Three pillars of the Corporate Strategy: 'Operational Excellence', 'Growth' and 'Value for All the Stakeholders' are aligned with five areas of the Sustainability Framework through internal processes and supported by enablers responsible for implementing the Outcomes of the Corporate Strategy.

As a company rooted in Qatar, our Corporate and Sustainability Strategies are oriented on objectives, goals and targets established by the Qatar National Vision 2030 and National Development Strategy 2011-2016. The alignment of the strategies and policy is demonstrated in the diagram.



## Sustainability Policy and Sustainability Strategy with Targets and Progress

QAFAC's main principles for following our journey "Toward Sustainability Leadership" are outlined in our Sustainability Policy. It is the roadmap to fulfilling our commitment to adopt sustainability management practices up to the best national and international standards, and developing internal management systems, policies, procedures and tools that support the company in achieving its objective of Operational Excellence. The sustainability policy expands on our sustainability framework and describes the high level approach of addressing, implementing and evaluating our progress across each pillar of the framework.

The Sustainability Strategy of 2013 established goals to be reached in four years (by 2017) linked to Sustainability Policy commitments. QAFAC reviews its targets on an annual basis and establishes initiatives focused on fulfilling those targets. The table below lists the targets we set for ourselves for 2015, and our progress towards each and every one of them, and clarifies whether we have achieved or partially achieved them, are on-track or need improvement.

Sustainability Framework	Towards Sustainability Leadership	Sustainable Growth	Caring for the Environment		
Sustainability Policy Commitments		<ul style="list-style-type: none"> <li>Expanding its market presence and operations, and improving its economic performance while contributing to Qatar's economic diversification.</li> <li>Building strong relationships with both suppliers and customers in order to reach new levels of quality through process and product innovation.</li> </ul>	<ul style="list-style-type: none"> <li>Producing cleaner fuel and fuel derivative products, which will generate a reduced amount of emissions;</li> <li>Managing the environmental impact of its operations through a world-class Environmental Management System (EMS) that addresses environmental issues such as energy consumption, fugitive emissions and flaring, water management, and waste management effectively.</li> </ul>		
Corporate Objectives	Ensure profitability and dividend distribution; Establish new production lines; Deliver social value to the community; Strengthen the relationship with stakeholders.	Maximize production volume; optimize costs; manage portfolio of growth opportunities.	Lead CO <sub>2</sub> recovery and other sustainability practices.		
SD Elements and Issues	Sustainability Management	Reliable Production	Maintaining Product Quality and Improving Sales	CDR Plant	GHG Emissions
2013-2017 Targets	Improve management of QAFAC's sustainability related material aspects through our Sustainability Policy and Sustainability Committee.	Minimizing unexpected shutdown, with the target of 96% reliability.	To become a world-class producer of Methanol & MTBE.	Operate CDR plant to reduce total emissions.	Formalize GHG emissions measurement.
2015 Targets	The committee will continue to meet and oversee the refinement of strategic goals and implementation of the Sustainability Policy.	New target.	Continue the upward trend in production and sales.	Capture 100% of the budgeted amount of CO <sub>2</sub> from the plant and maximize capture by using the full capacity of the CDR plant.	QAFAC will continue to track progress in its actual CO <sub>2</sub> emissions and avoided CO <sub>2</sub> emissions due to the capture by the CDR plant.
Progress During 2015	QAFAC's Sustainability Committee continued meetings during 2015; over 20 representatives of internal stakeholders provided inputs on issues of material importance, including senior management.	96% reliability.	Methanol production increased by 29%; MTBE production increased by 15%. Pentane production increased by 35%.	QAFAC reached self-sufficiency in CO <sub>2</sub> , increasing its production by 250MT/day and decreasing water consumption by 10%.	Avoided CO <sub>2</sub> emission through CDR capture are measured.
2016 Targets	Conduct benchmarking of sustainability indicators against peer companies on regional and international level and against Energy and Industry sector of Qatar.	Maintain or exceed the 96% target in reliability.	Achieve maximum possible production levels in accordance with reliability target.	Keep the level of CO <sub>2</sub> capture at the level of 2015.	Enhancement in tracking the energy consumption and related GHG emissions from QAFAC operational activities.
NDS 2011-2016	<ul style="list-style-type: none"> <li>Improved governance and outcomes;</li> <li>Regulation and efficiency;</li> <li>Strengthening evidence-based policy-making;</li> <li>Managing resources and protecting opportunities for future generations;</li> <li>Improved governance and regional and international cooperation;</li> <li>Performance management;</li> <li>Reduced economic volatility;</li> <li>Managing resources and protecting opportunities for future generations.</li> </ul>	<ul style="list-style-type: none"> <li>Expanding the productive base;</li> <li>Enhancing economic stability;</li> <li>Enhancing technical and economic efficiency;</li> <li>Enhancing market efficiency;</li> <li>Fostering cross-sectoral links;</li> <li>Growth with balance;</li> <li>Enhancing technical and economic efficiency.</li> </ul>	Expanding the productive base.	<ul style="list-style-type: none"> <li>Cleaner air and effective climate change responses;</li> <li>Launch two environmental projects involving private sector participation: CDR Plant, being the world's largest commercial-scale CO<sub>2</sub> capture facility in methanol production, represents nationally significant project directed on GHG emission reduction.</li> </ul>	Effective climate change responses (that require accurate measurement of GHG emissions in order to provide their efficient management).
QNV 2030	<ul style="list-style-type: none"> <li>Promoting sustainable prosperity;</li> <li>Reasonable and sustained rates of economic growth that secure a high standard of living for current and future generations.</li> </ul>	Long-term maintenance of strategic reserves of oil and gas to meet the needs of national security and sustainable development.	A business climate capable of attracting foreign funds and technologies and encouraging national investments.	<ul style="list-style-type: none"> <li>Preserving and protecting the environment including air, land, water, and biological diversity;</li> <li>Sustaining the environment for future generations.</li> </ul>	

Sustainability Framework	Developing our Workforce		Strengthening our Society		
Sustainability Policy Commitments	<ul style="list-style-type: none"> <li>QAFAC is committed to invest in the development of its most valuable asset – workforce – to support its development and wellbeing while maintaining equal opportunities for all.</li> </ul>		<ul style="list-style-type: none"> <li>Promoting Qatarization;</li> <li>Developing a responsible supply chain with a focus on the local supply chain;</li> <li>Investing in the community and promoting various sponsorship initiatives.</li> </ul>		
Corporate Objectives	Achieving Operational Excellence through: <ul style="list-style-type: none"> <li>Implementing Talent Management System;</li> <li>Improving Employee Motivation;</li> <li>Ensuring Knowledge Transfer.</li> </ul>		Contribute socially to Qatar's community.		
SD Elements and Issues	Human Rights	Support Workforce Professional Development	Qatarization	Community Investment	Local Procurements
2013-2017 Targets	Protect and uphold all employees' human rights.	Organizing and financing workforce training.	Attract talented local professionals and developing young local specialists.	Strategically invest in the development of Qatar society.	Continue to prioritize sourcing goods and services from locally based suppliers.
2015 Targets	Reassess Human Rights Policy implementation.	New target.	New target.	Define the priority areas for investment and 2015 looking at achieving the plan: education, health, sports and sponsorship.	At least 60% spending on local suppliers and services.
Progress During 2015	0 human rights violations reported.	2.3 million QAR invested in supporting education of Qatari students and of QAFAC employees.	26% Qatarization.	QAFAC continued to participate and support financially local education and research organizations, support sports and health initiatives, and promote environmental awareness.	We have exceeded our target by reaching 77% spending on local suppliers and services.
2016 Targets	0 human rights violations reported.	Complete the second round of selecting participants for the Leadership and Development Program 'Gadan'.	Maintain or exceed Qatarization rate.	Establish a community investment and CSR strategy and policy.	Keep the share of local suppliers in our procurement budget.
NDS 11-16	<ul style="list-style-type: none"> <li>Implement a corporate responsibility framework suited to the country's economic, political and social context, including a monitoring system.</li> </ul>	<ul style="list-style-type: none"> <li>Nurturing and managing human resources;</li> <li>Fostering a capable and motivated workforce;</li> <li>Expanding high-quality training opportunities for Qataris;</li> <li>Optimize the skill mix;</li> <li>Educated workforce and institutional development plan.</li> </ul>	<ul style="list-style-type: none"> <li>Increase the proportion of Qataris in the private sector from 5% to 15%;</li> <li>Expanding high-quality training opportunities for Qataris.</li> </ul>	<ul style="list-style-type: none"> <li>Enable private sector collaboration in public investment projects within a coherent frame-work that delivers development benefits to the state, including knowledge and skill transfers.</li> <li>Increase participation in sports and physical activity by Qatari men, women and children.</li> </ul>	<ul style="list-style-type: none"> <li>More competitive, productive and dynamic economy;</li> <li>Expanding the productive base;</li> <li>Planned investment spending;</li> <li>Enhancing economic stability.</li> </ul>
QNV 2030	<ul style="list-style-type: none"> <li>Establish a secure and stable society operating on the principles of justice, equality, and the rule of law;</li> <li>Protecting the rights of expatriate labor.</li> </ul>	<ul style="list-style-type: none"> <li>High quality training opportunities for all citizens, corresponding to their ambitions and abilities;</li> <li>Recruitment of the right mix of expatriate labor.</li> </ul>	<ul style="list-style-type: none"> <li>Incentives for Qataris to enter professional and managerial roles;</li> <li>Taking and integrated approach to sound social development;</li> <li>A vigorous oil and gas sector that generates advanced technological innovations and contributes to the development of human resources and economic capacity throughout Qatar.</li> </ul>		

Sustainability Framework	Operating Reliably and Safely	
Sustainability Policy Commitments	<ul style="list-style-type: none"> <li>Continually fine-tuning operations and investing in efficient advanced technologies;</li> <li>Continually improving our health and safety management systems, while focusing on process safety and personnel safety of our employees and contractors.</li> </ul>	
Corporate Objectives	Optimize assets availability; enhance safety practices.	
SD Elements and Issues	World-class Standards in Process Safety and Asset integrity	Employee Health and Safety
2013-2017 Targets	Continuously enhancing process safety and asset integrity.	Maintain a high level of safety and health for all employees.
2015 Targets	New target.	For 2015 we will commit to achieve our target of employees attending QAFAC's general HSE training; We will also aim to maintain our zero harm record.
Progress During 2015	We have started large-scale Process Safety Management program.	We have maintained our zero harm record with zero lost time injuries and zero reportable injuries among employees and contractors. 7.5 mln LTA free man-hours milestone reached.
2016 Targets	Complete Phase 1 of the Process Safety Management Program.	Reach or exceed 8 mln LTA free man-hours.
NDS 11-16	<ul style="list-style-type: none"> <li>Reduce the rate of injuries lasting more than three days to 3,000 or less per 100,000 workers. Ensure the quality of healthcare professionals;</li> <li>Ensure the quality of healthcare products and protect the public's safety.</li> </ul>	<ul style="list-style-type: none"> <li>Reduce the rate of injuries lasting more than three days to 3,000 or less per 100,000 workers. Ensure the quality of healthcare professionals;</li> <li>Ensure the quality of healthcare products and protect the public's safety.</li> </ul>
QNV 2030	<ul style="list-style-type: none"> <li>A skilled national workforce capable of providing high quality health services.</li> <li>Protecting the safety of expatriate labor.</li> </ul>	<ul style="list-style-type: none"> <li>A skilled national workforce capable of providing high quality health services.</li> <li>Protecting the safety of expatriate labor.</li> </ul>

## Stakeholder Engagement

QAFAC engages in ongoing dialogue with its stakeholders to understand their different perspectives and respond in an adequate manner. We consider stakeholder engagement as the basis of our reporting which is defined by the intersection of what matters most to our stakeholder groups and the sustainability framework.

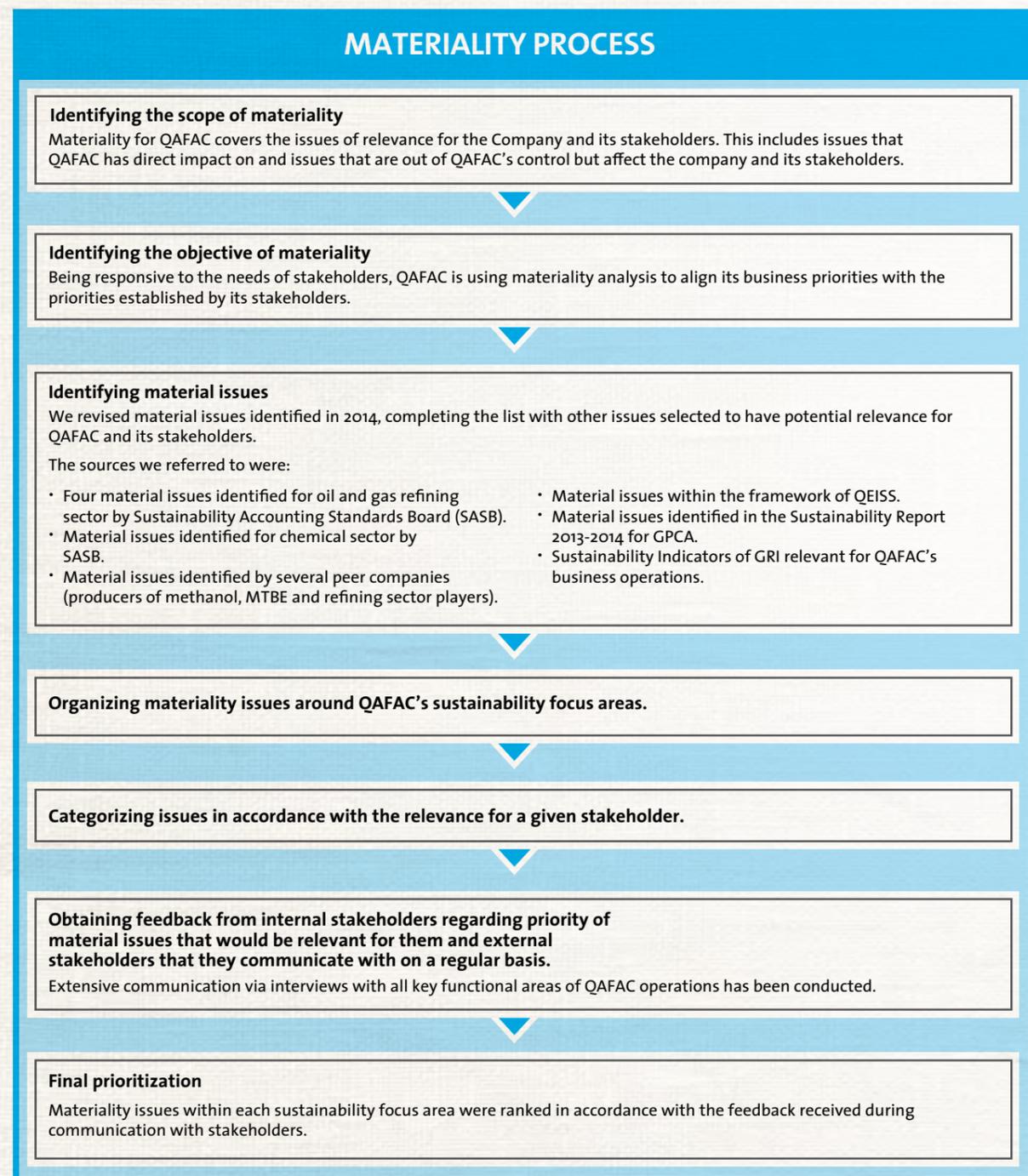
The table below summarizes methods of engagement, needs of the stakeholders and the ways in which QAFAC responds to stakeholders' needs. [G4-24, G4-25, G4-26, G4-27]

Main Stakeholders	Methods of Engagement	Stakeholder Needs	How We Respond to Them
Our Shareholders & Investors	<ul style="list-style-type: none"> <li>Quarterly board meetings.</li> <li>Active participation in QAFAC's Management Team.</li> <li>Annual and sustainability reporting.</li> </ul>	<ul style="list-style-type: none"> <li>Financial targets and economic growth.</li> <li>Legal compliance.</li> <li>Governance.</li> <li>Transparency and accountability.</li> <li>Shareholders' sustainability mandate.</li> <li>Ethics.</li> <li>Operational innovation and efficiency.</li> </ul>	<ul style="list-style-type: none"> <li>Board committees.</li> <li>Monitoring of and ensuring compliance through Internal Audit Department and Ethics Committee.</li> <li>Initiation of sustainability management policies and guidelines.</li> <li>Participation in the SDIR Program.</li> </ul>
Our Customers & Muntajat	<ul style="list-style-type: none"> <li>Participation in conferences and exhibitions. Open communication and dialogue. Monthly meetings with Muntajat.</li> </ul>	<ul style="list-style-type: none"> <li>Production and business continuity.</li> <li>Product responsibility.</li> <li>Mutual aid and collaboration.</li> <li>Supply chain management.</li> <li>Service excellence.</li> <li>Open and effective communication.</li> </ul>	<ul style="list-style-type: none"> <li>Regular dialogue with Muntajat and partners.</li> <li>Membership in industry associations.</li> </ul>
The Environment	<ul style="list-style-type: none"> <li>Open and full communication with the Ministry of Municipality and Environment.</li> <li>Continual monitoring and assessment of our impact on the environment.</li> <li>Sustainability reporting.</li> </ul>	<ul style="list-style-type: none"> <li>Climate change mitigation.</li> <li>Efficient water consumption.</li> <li>Resource management and optimization.</li> <li>Efficient energy consumption.</li> <li>Waste management.</li> <li>Compliance with environmental regulations.</li> <li>Product impact and responsibility.</li> <li>Supply chain impact.</li> <li>Biodiversity.</li> </ul>	<ul style="list-style-type: none"> <li>Investment in the CDR (Carbon Dioxide Recovery) Program.</li> <li>Implement Flare Loss Monitoring Program.</li> <li>Implement waste and environmental management systems.</li> <li>Regular reporting of environmental performance.</li> </ul>
Qatari Society	<ul style="list-style-type: none"> <li>Open dialogue and collaboration with government agencies.</li> <li>Career fairs.</li> <li>Interaction with families of employees.</li> <li>Participation in exhibitions and conferences.</li> <li>Educational/HSE awareness sessions.</li> </ul>	<ul style="list-style-type: none"> <li>Compliance with all regulations.</li> <li>Recruitment and development of local talent.</li> <li>Preparation of local community for the job market.</li> <li>Job opportunities.</li> <li>Community engagement.</li> <li>Community contribution.</li> <li>Awareness of our products' significance and impact.</li> <li>Local sourcing.</li> </ul>	<ul style="list-style-type: none"> <li>Development of community engagement strategy.</li> <li>Contribution to community needs.</li> <li>Improvement of Qatarization rates.</li> </ul>
Our Employees	<ul style="list-style-type: none"> <li>Employee satisfaction surveys (every four years).</li> <li>"Town Hall" style meetings with the GM.</li> <li>Informal career planning.</li> <li>Intranet.</li> <li>Email communications.</li> <li>Training.</li> <li>Educational/HSE awareness sessions.</li> </ul>	<ul style="list-style-type: none"> <li>Workforce capacity and training.</li> <li>Engagement and open communication.</li> <li>Transfer of knowledge and succession planning.</li> <li>Employee satisfaction.</li> <li>Safety in all operations.</li> <li>Career and personal development planning.</li> <li>Employee wellbeing.</li> <li>Occupational health and fitness.</li> <li>Rewards and recognition.</li> <li>Emergency preparedness and trained safety staff.</li> <li>Diverse and inclusive work atmosphere.</li> </ul>	<ul style="list-style-type: none"> <li>Recognition and awards.</li> <li>Employee/community activities.</li> <li>Development and training.</li> <li>Heat stress campaigns.</li> <li>Periodic baseline medical examinations.</li> <li>Strong emergency preparedness measures.</li> <li>Achievement of OSHAS 18001 certificate.</li> <li>Adoption of international safety standards and best practices (e.g. RoSPA).</li> </ul>

# Materiality Assessment

To ensure we identify the topics that are most material to our stakeholders, and of particular relevance to the Company's long-term and sustainable success, we conducted the materiality analysis in line with best practices for materiality assessment for this report.

The framework focuses on areas that we should manage, invest in, improve and communicate about in order to deliver better value to all our stakeholders. Defining what is material for the company and our stakeholders helps us to set a course for business operations and prioritize which areas of the corporate strategy to focus on.



Accordingly, we combined the stakeholders' insights and updated our Materiality Matrix presented below. 19 material aspects stood out as highly relevant to both our business and stakeholders. [G4-19]

As a result of the materiality identification process, the results are summarized in the diagram.

Moving forward, we seek to maintain on-going engagement with our key stakeholders and update our materiality analysis on a regular basis.



# **Sustainable Growth**



Volatile global economic conditions over the past few years coupled with falling oil prices have presented major challenges for the oil & gas and petrochemical industry, adding significant risks and uncertainties to our business. We have sought to make sustainable choices to show resilience and withstand price competition and volatile market conditions, and continued to focus on the quality and reliability of our products as we contribute toward more sustainable growth.

## High Value Products

Production Broken Down by Main Products	2011	2012	2013	2014	2015
Methanol	1,021,872	843,543	940,963	869,271	<b>1,118,210</b>
MTBE	654,549	610,985	648,022	600,342	<b>688,450</b>
Pentane	7,903	7,492	8,513	8,194	<b>11,035</b>

QAFAC's operations consist of the production and sale of methanol, a cleaner alternative to conventional fuel produced from natural gas supplied by QP, and Methyl-Tertiary Butyl Ether (MTBE), a gasoline component that is processed from the generated methanol and butane.

Methanol is a translucent colorless liquid chemical, degradable, and the most versatile compound developed used in thousands of products that drive modern life. Methanol can be used in several applications that transform it into different products and commodities. It can be used as chemical feedstock or converted to products such as olefins and gasoline. Methanol can also be used by itself in a number of other applications such as transportation fuel, wastewater, denitrification, fuel cell hydrogen carrier, biodiesel generation and electricity generation.

Methanol is also used as an input material for production of MTBE, which is used in gasoline as an octane booster and oxygenate, and as an additive to enhance the combustion efficiency, reduce air pollution and enhance engine performance. Applications of MTBE include use in preparation of pharmaceutical chemicals, and use in lead-free, high-octane and high-clean gasoline.

Methanol is ideal for fuel transportation applications because of its efficient combustion and low cost when compared to other fuels. Replacing reformulated gasoline with methanol will reduce a number of harmful and toxic by products, making it an environmentally friendlier fuel. When consuming methanol fuel, emissions of unburned carbons and carbon monoxide are lower, less reactive, create less ground-level ozone and smog and less NO<sub>x</sub> emissions.

### Production

**29%** increase in Methanol production in 2015



Launch of CDR Plant

In 2015, the production of methanol increased by 29% due to the growing number of uses for methanol and its derivatives which in turn led to an increase in demand. This boost in production represents a record, however this record is not new to QAFAC. In 2009, we saw similar levels in production when MTBE and pentane production increased by 15% and 35%, respectively. MTBE production levels in 2015 are the second best since 2006. The production increase is also attributed to the fact that there were no shutdowns in 2015, and to the success of the new Carbon Dioxide Recovery (CDR) plant and Isothermal Methanol Converter (IMC).

All materials imported by QAFAC are checked and inspected for quality standards and maintenance by the Ministry of Environment (MoE) to make sure material specifications correspond to Qatar's HSE standards..

**15%** increase in MTBE production in 2015

**35%** increase in pentane production in 2015

## Economic Performance

Economic Performance	2011	2012	2013	2014	2015
Revenue (USD 000's)	921,244	927,768	984,547	816,702	<b>685,861</b>
<b>Indirect Economic Value Generated (USD 000's)</b>					
Employee wages and benefits	34,735	44,983	45,260	55,678	<b>57,276</b>
Contractors paid amount – total	7,917	16,059	18,455	19,769	<b>26,542</b>
Suppliers paid amount – total	1,502	5,540	13,262	16,150	<b>9,679</b>

The drop in oil and gas prices has challenged the industry, nonetheless we managed to maintain healthy revenue and significantly reduce costs in order to achieve an acceptable net profit for the year 2015. The most recent available benchmarking based on 2013 data ranks QAFAC in the first quartile of operators. Even when removing the effect of the gas subsidy on the cost of production, QAFAC's position remains highly competitive.

In 2015, QAFAC conducted a study to propose the different possibilities for increasing MTBE plant production capacity through various modifications (so called 'Debottlenecking study'). Currently, we are evaluating different options and the technical and economic feasibility of each proposed option, in order to be ready for plant capacity enlargement when economic circumstances are favorable.

 **Data Ranks**

**1<sup>st</sup>**  
quartile of  
operators

 **Production**

**Debottle-  
necking  
Study**

suggests possible increase in MTBE production capacity

## Managing Risk Wisely and Proactively

In our line of business, we are subject to risks that require prudent risk management. We seek to identify and proactively manage different forms of risk at the appropriate level in QAFAC.



Receiving Business Continuity Management System (BCMS) Award

In 2015, we completed a two-year preparation process and were the first among the petrochemical companies of Qatar to receive the ISO 22301 certification and Business Continuity Management System (BCMS) Award. As part of the preparation process, we introduced numerous enhancements into the risk management processes for all departments that have allowed us to better understand the issues facing our business and our approach to risk management. A strong emphasis was placed on updating our recovery plans for all departments with the aim of preventing any business disruption and developing recovery strategies for critical activities, such as recovery of IT systems. An annual audit will be conducted from now on to pave the way for continuing compliance.

To standardize our operations and management systems and validate that QAFAC is operating in a safe and reliable manner, we seek to meet the strict requirements of several ISO certifications. QAFAC holds the following certifications:

- ISO 9001:2008 Quality Management System
- ISO 14001:2004 Environmental Management System
- BS OHSAS 18001:2007 Occupational Health and Safety Management System
- ISO/IEC 27001:2013 Information Security Management System (ISMS)
- ISO 22301 Business Continuity Management system

## Support of IT System

Information Technology (IT) support is a key enabler toward delivering strategic business objectives and driving further integration of core risk control processes across the company.

Building a strong IT governance and security system is our priority. The Information Security Management System (ISMS) provides QAFAC with a management framework that enables us to minimize risks, protect the confidentiality of information, and establish business continuity plans. Back in 2013, QAFAC obtained the ISO 27001 certification for the ISMS. We seek to maintain our certification and are currently going through the re-certification inspection process.

We have several robust systems in place to help achieve high performance and excellence across our operations. Our web-based real-time Enterprise Resource Planning (ERP) system implementation, based on SAP software, has been a crucial step in our business process development. It enables decision makers to take informed and intelligent decisions, by allowing easy online access to all the information required, in a customized format, and with information on various parameters provided in a unified and comparable single format. Report and dashboard extracts can be generated in a format customized for use by senior management, mid-management and personnel responsible for specific operational functions.

### Certification



QAFAC obtained for the ISMS

### Data management



Modules Implemented

The Business Intelligence/Business Warehouse (BIBW) tool allows our teams to make better informed and timely decisions, and determine target-oriented activities. BIBW provides data warehousing functionalities that enable better reporting, analysis and interpretation of business data. Other relevant applications and modules are integrated and consolidated into the system to provide further flexibility and a single place of data availability derived from several sources. Thus, the BIBW system automatically extracts daily production reports, previously manually generated, from the Distributed Control System (DCS) and the laboratory.

We are also in the process of revamping our network by converting to the latest CISCO technologies that will, in turn, increase reliability of the network through redundancy provision. The new network will be in compliance with the latest operational, safety and environmental standards.

To date, we have successfully implemented 15 of the 16 SAP modules, corresponding to strategic objectives (SO) of IT management in alignment with the company's corporate objectives:

Strategic Objective	Definition	SAP Modules Implemented
SO 1: Manage cost and increase efficiency.	Informed, intelligent and timely decision making to effectively manage corporate, strategic and operational effectiveness and efficiency.	 <b>Financial Accounting</b>
SO 2: Improve user IT experiences.	Ensure knowledge transfer among all users of IT systems and applications through continuous training, and enhancement of applications in addressing current and evolving business requirements.	 <b>Controlling</b>
SO 3: Enable business with new value added technologies.	Switching to ERP solution based on SAP was related to a comparatively larger base of functional applications, allowing automatization of a wider range of corporate functions.	 <b>Sales &amp; Distribution</b>
SO 4: Unify and transform IT across QAFAC.	With the implementation of SAP, Business Intelligence (BI) gets data from SAP and non-SAP Applications, and transports them to the Business Warehouse (BW). Keeping the data from all applications at a single place allows any type of reports and dashboards required by the corporate management and functional operators to be generated, and thus enables an informed, intelligent and timely decision making process.	 <b>Material Management</b>
SO 5: Elevate, optimize and align IT infrastructure with evolving business needs.	IT infrastructure is being elevated, optimized and aligned with business requirements and evolving technologies continually, to keep abreast of latest technologies, provide effective and efficient business solutions and ensure compliance with the latest international standards.	 <b>Production Planning</b>
SO 6: Enhance IT availability and reliability.	IT availability and reliability are being enhanced both in terms of hardware and software. Hardware's availability and reliability are enhanced by upgrading the network, server relocation, virtualization, access and surveillance system revamp. Software's availability and reliability is enhanced through ERP upgrade to SAP, establishment of SAP Center of Excellence with the aim of providing timely, effective and reliable solutions to the business.	 <b>Quality Management</b>
SO 7: Build strong IT governance and security.	Strong IT governance and security system is implemented through the 'Governance, Risk & Compliance System' SAP module, adjusting to the ISO 27001 requirements of the ISMS, complying with ICT Qatar regulations and approving QAFAC IT policies and procedures.	 <b>Plant Maintenance</b>
SO 8: Establish strong and motivated IT organization.	The hallmark of IT organizational strength is related to team work and effectively addressing the Company's needs. IT staff are set clear and well defined objectives, linked to the performance appraisals conducted within a framework of regular monitoring.	 <b>Human Capital Management</b>
		 <b>Project System</b>
		 <b>Business Planning &amp; Consolidation</b>
		 <b>Funds Management</b>
		 <b>Supplier Relationship Management</b>
		 <b>Environment, Health, and Safety</b>
		 <b>Document Management System</b>
		 <b>Governance, Risk, and Compliance</b>

# Operating Reliably and Safely

TK-3102

Operating reliably and safely has always been an integral part of how we do business at QAFAC. We seek to pioneer new technologies at our facilities while investing in measures to renew our existing infrastructure to improve our performance, reliability, safety and resource-efficiency.

We continue to demonstrate our commitment to reliable and safe operations that are not just environmentally sound but also financially viable.

## Sustainable Expansion of our Infrastructure

We seek to update our infrastructure based on the latest green building requirements. In 2015, we commenced an expansion of our business through the QAFAC Support Service Area (QSSA) construction project that is due to be finalized by 2018. Construction of the building for the new support services will include a state-of-the-art laboratory, warehouse, amenities, administration and HE building. All new buildings will be constructed in accordance with the Gulf Sustainability Assessment System (GSES)<sup>2</sup>, which takes into account factors associated with the urban environment including but not limited to energy demand of buildings, water consumption, land conservation, material disposal and cultural conservation and support of the national economy. Old buildings will be refurbished

and reused for other purposes. Construction permits for the new green buildings have been received. The first phase of the project includes building the new laboratory as one of the requirements for obtaining ISO 17025 accreditation.

By the end of 2nd Quarter 2017 QAFAC will be completing installation of a special stand-alone industrial elevator, attached to the 68-meter high Continuous Catalyst Regeneration tower (CCR). This elevator will enhance work conditions for everyone accessing the CCR from ergonomic point of view, and will offer more effective transportation of materials. The elevator will be having a specific connection requirement to the CCR tower.



<sup>2</sup>Formerly known as Qatar Sustainability Assessment System (QSAS).

## Reliable and Efficient Operations

Our business is dependent on the safety and reliability of our operations, assets, and the wellbeing of our people, customers, contractors and all stakeholders.

### Monitoring Production

Efficient production ranks amongst our top priorities. We closely monitor our production through daily and monthly dashboard meetings that have become the core of our operational management at both plants. Performance improvements are constantly tracked and reviewed at all levels from shift engineers to Plant Manager, Senior Production Manager and COO.

The daily dashboard shows plant performance against production and operational parameters, and includes several environmental parameters. A daily 15-minute meeting is conducted to analyze the dashboard parameters in relation to operational targets, linked to the final production target of the company. The analysis shows the materials used, losses, and the impact on target production.

The night shift plant engineers' meetings are conducted regularly to discuss standard methanol plant operating procedures and parameters and related issues. After each dashboard meeting, the plant manager discusses the issues with the shift engineers and other shift crew members.

We managed to increase our production efficiency in 2015 by monitoring every change in input parameters and adjusting production back to the optimum level with a swift and prompt intervention to the source of production process misalignment. This efficient management of the plant operation processes helped us exceed 2015 targets for production and to minimize the losses.

### Continuous Competency Management Program (CCMP)

The high competence of personnel operating the MTBE plant meant that it ran for numerous years in a stable manner, with above the design capacity production levels. Operational Excellence, however, requires a system focused on maintaining personnel capabilities and competency. The CCMP is intended to sharpen the skills of the MTBE staff team for responding to plant upsets and emergency situations. At the same time, the Program improves communication within the shift group. By providing continuous programs of assessment, training and competence development for all ranks, the program helps to maintain the competency that allows successful operation of the MTBE plant and achievement of business goals.

The system is designed to keep the plant operators' knowledge up-to-date. Operators meet four times a month to discuss critical parameters, plant shutdown points, possible incident scenarios and corresponding necessary interventions, and to share their practical experience learned from peer companies. All suggested improvements are recorded, analyzed, and implemented when necessary. The CCMP contributes to process safety and business continuity, and strengthens team spirit among the operators.

The CCMP was first initiated back in 2009. A trial of the program took place in 2015, with its further full launch planned for 2016.



**Mr. Mansur A. Malek**, MBA, BE, PMP

Position: MTBE Plant Manager

Working in QAFAC since July 2002

**What made you stay in QAFAC for almost 14 years?**

I have been working in the current position for all these years, having received twice CEO Award for Long Service to the company. The company culture provides excellent conditions to exercise professional skills of its employees, encouraging them to continuously overcome new challenges. Everyone has a chance to have their voice heard, to come up with initiatives that will be analyzed and duly implemented for the benefit of the company.

**How does sustainability enhancement of QAFAC's operations impact the success of its business?**

Growing competition in the petrochemical sector increases the pressure to lower down production cost. In order to leverage QAFAC's production capacity while moving at the pace of the international market development, we need to upgrade production technology of the relatively aged plant assets. The integration of advanced technologies in our production cycle will result in a more efficient use of input material, bringing economic and environmental advantages and, as a result, social benefits. To further optimize the use of the expensive catalysts and reduce specific consumption of butane, QAFAC's MTBE plant has been equipped with an online performance monitoring computerized tool (called OpaWare), where the plant performance is monitored on continuous basis round the clock. To stay up-to-date with the technological innovation process, QAFAC holds annual Technical Exchanger meeting with the Process Licensor (UOP). As a step forward in sustainability enhancement, QAFAC MTBE plant is currently installing an Advance Process Control (APC) tool to reduce the energy and butane consumption and enhance production volume by reducing fluctuations affecting the plant operation.

## Enhancing Plant Reliability

In 2015, plant operations resulted in 96% reliability, thus exceeding its reliability target, demonstrating uninterrupted process operation and outstanding production levels.

Over the years, we have made continuous improvements to our operations leading to enhanced reliability of our plant. In 2015, we successfully completed **Risk Based Inspection (RBI) study** for evaluation of equipment damage or failure, thus increasing reliability, availability and maintainability of plant operation. RBI Study of Static Equipment and Piping Corrosion Loop was successfully completed at the end of 2015, covering 850 items of Static Equipment and piping corrosion loops. As a result, the time period required to conduct an average inspection has increased from four years to eight years, **saving over USD 5.7 million of cost avoided due to the extension of inspection interval.**

We are currently planning further initiatives focused on optimization of the production process. Thus, an automation performance controller, due to be implemented in 2017, will reduce steam consumption and butane losses, while increasing MTBE production. We are currently working on optimization of catalyst use that will decrease energy consumption and prolong the catalyst's lifetime.



## Process Safety

Process Safety Performance	2011	2012	2013	2014	2015
Loss of containment (LOC) /process safety incidents	0	0	2	0	1
Emergency response drills	4	4	8	12	12
Safety incident investigation initiated	1	0	0	2	2
Safety incident investigation completed	1	0	0	2	2

Another critical focus area at QAFAC is process safety. A process safety system is focused on preventing high impact to low likelihood incidents such as leaks, spills or fires. We make sure that operation of all our production and non-production facilities are well maintained, safely operated, and regularly inspected. We learn from any incident that happens, while inspections' results help us to prevent similar incidents from occurring again.

In 2015, the pipeline supplying sea water for cooling was ruptured causing an uncontrolled water leak. Even though it was not an environmental spill as it was non-contact water, this incident nevertheless could have provoked an interruption in the production process and subsequently led to a shutdown. The leak was repaired with no health and safety issues, thanks to the swift efforts of our maintenance team.

### Process Safety Management (PSM) Improvement Program "AMAN"

Process safety and assets integrity is QAFAC's top priority, as it ensures continuity of business operations, safeguards healthy and safe working conditions for QAFAC employees and contractors, minimizes impact of production activities on the environment, and results in greater acceptance among local society. In order to align our safety procedure with the world's best industrial practices, we have invited DuPont to assist us in adapting its successful, effective and well-known DuPont Integrated Process Safety Management System model. The model is based on OSHA 1910.119 (Management of Highly Hazardous Chemicals) Compliance Guidelines and Recommendations for Process Safety Management. By using this model to analyze QAFAC's safety practices, identify the gaps and implement recommended process safety improvements, QAFAC is aspiring to achieve excellence in its HSE practices.

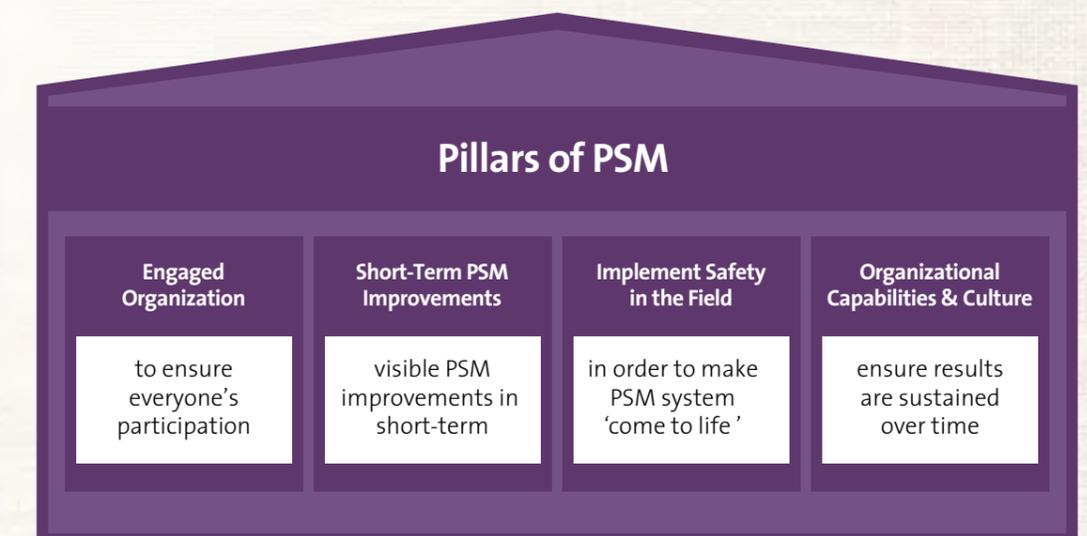
With this aim, QAFAC has embarked on a journey to implement a comprehensive Process Safety Management (PSM) Program, the 'AMAN' Program. The Program is sponsored

and championed by our Chief Executive Officer, Mr Nasser Al-Kuwari and our Chief Operating Officer.

Before launching the 'AMAN' Program, DuPont experts conducted a safety culture perception survey, as part of the Safety Culture and Process Safety Management system evaluation. They interacted at all levels with QAFAC employees (including contractors), and identified strengths and areas for improvements in current safety procedures as perceived by the Company's personnel. 300 people participated in the survey, which represents 71% of the QAFAC workforce.

The consultant has analyzed survey results against best practices of safety management and has identified existing gaps in QAFAC's Leadership, Organization and areas of Process Safety management. Benchmarking of survey results against best practices has shown a good safety record, but also identified room for enhanced leadership visibility and improvements to the safety culture.

The program will be based on four key pillars:



The AMAN program will consist of 13 focus areas, identified following the risk-based approach, and will be implemented over a period of three years.

Phase 1 of the AMAN Program began in March 2016 and will last until February 2017. It will be implemented via a collaborative “Integrated Organization” approach involving a large and relevant spectrum of the organization across different levels. Following this approach, six multi-disciplinary task teams, involving 30 of our employees, have been established to lead the implementation of Phase 1 activities in the corresponding six work streams, described below:

**Competency Development:** focused on developing a comprehensive PSM competency framework that identifies PSM critical roles and required knowledge and skills across all levels of the organization. The PSM competency framework will lead to defining a learning curriculum program that aims at developing the PSM capabilities of the organization.

**Process Safety Information / Process Hazard Analysis:** focused on increasing awareness and common understanding of PSI/PHA and developing PSI Management Guidelines and Critical PSI checklist to drive structured management of all Process Safety Information.

**Standard Operating Procedures:** focused on upgrading a set of selected SOPs that includes schematics and that are linked to Health & Safety aspects, ensuring efficient recognition and management of the risks by personnel.

**Safe Work Practices:** focused on upgrading a set of selected safe work practices (SWPs) through training and coaching on procedure writing, to ensure that they meet generally accepted good engineering practices.

**Incident Investigation:** focused on updating Incident Investigation Procedure that provides guidelines on when an incident should be investigated and the way related evidence should be collected. The relevant training within QAFAC, focused on PSM incidents, will enhance the ability to analyze root causes and trends of incidents.

**Performance Management:** focused on developing a procedure that ensures the integrity and accuracy of key performance indicators across the different functions and departments of QAFAC.

PSM Excellence Model requires strong leadership and governance, and a risk-based approach to manage risk exposure effectively, and sustain

### The PSM Improvement Program’s Focus Areas Will Include:

-  Leadership and Culture
-  Management of Change/PSSR
-  Process Safety Information/ Process Hazard Analysis
-  Performance Management
-  Mechanical integrity & Quality
-  Operational Discipline
-  Incident Investigation
-  Competency Development
-  Audits
-  Contractor Safety
-  Integrated Organization
-  Emergency Response
-  Standard Operating Procedures & Safe Work Practices

continuous improvements. The set of strategic goals and objectives, cascaded down from senior management to the entire organization would provide full engagement at all the levels with the establishment of two-way communication channels. The risk-based approach involves identification of risks and optimal allocation of resources to risk mitigation and prevention. The PSM improvement approach is based on a continuous process of risk identification, analysis, communication and implementation of corresponding actions.



The effective leadership role in enhancing management of risk areas through a top down approach is established by continuous leadership coaching. Under the PSM Leadership Program, three ‘visible felt leadership’ workshops for 30 top executives and managers were conducted, where senior management is learning about the role of leaders in establishing PSM culture, and the importance of management visibility among the workforce in order to provide direct encouragement for integration of the safety culture.

Ensuring mechanical integrity of the production processes is tightly related to the behavioral component of establishing workforce safety competency. Thus, the Behavior Based Safety (BBS) program is initiated as part of the PSM program, with the aim of fully integrating health and safety culture among the workforce in line with world-class safety standards. Continuous observation and correction of people’s behavior at work is the key precondition for establishing safety culture. A robust strategy

and implementation plan for the BBS program has already been developed, and the program is due to be launched in 2016.

Contractors, involved in large numbers during maintenance and upgrade work at the industrial facilities, are an inalienable part of QAFAC’s workforce. Thus, it is equally important to establish the same safety culture for everyone involved in the operational process. The PSM program will analyze the HSE management procedure currently used for contractors, and recommend further actions focused on enhancing contractors’ safety performance.

QAFAC is planning to fully implement the PSM program by the next large shutdown of 2018, by which time it aims to achieve world-class ‘Process Safety Excellence’.

## Emergency Management

Emergency response exercise, involving QP, Hamad Hospital, Civil Defense and Crisis Response Team



New Ambulance Vehicle Purchased in 2015

Our biggest external emergency response exercise yet involved participants from Qatar Petroleum, the Hamad Hospital, Civil Defense and the Crisis Response Team (CRT). The CRT consists of QAFAC's senior management, chaired by the CEO, aiming to provide adequate and timely responses to any significant emergency situations that could pose as major threats to the continuity of the business. CRT has been specifically trained in Emergency Response and Communication (through internal training) and Business Continuity Management

(BCM) (through external training) to be able to take strategic decisions that ensure business continuity and provide emergency response in line with best industrial practice. This exercise was the first direct involvement of the CRT in an emergency situation since its inception. The exercise tested QAFAC's emergency plans, communication and interaction among all participants. The exercise proved to be a great learning experience and best practice sharing event, allowing the CRT to build upon lessons learned from previous emergency response exercises.

In total 13 emergency response exercises (12 internal and 1 major external) were performed in 2015. Each month, one internal emergency exercise was practiced based on credible emergency scenarios developed for QAFAC. In the course of emergency exercises, personnel involved are trained to react in an organized and effective way to respond to the emergency scenario.

Month	Exercise
January	Diesel generator fire
February	Road tanker MTBE spillage
March	Security simulation exercise
April	Medical simulation exercise involving hypothetical multiple workers injured
May	Fire from pressurized flange leak with jet flame
June	Tank fire
July	Use of Automated External Defibrillation devices for cardiac arrest scenario
August	Emergency exercise in the kitchen
September	Simulation of accident at the main power substation
October	Simulation of damage caused by the spill of hazardous material
November	Simulation of accident from welding activity
December	Security exercise for reacting to unexpected intruder



QAFAC Emergency Response Team and Resources

One of the significant infrastructural developments focused on improving safety at QAFAC premises was the construction of the new blastproof shelter in 2015. It provides an operation station for plant operators aligned with the highest safety standards of protection from eventual process emergencies, including blasts.

## Occupational Health and Safety

Health and Safety Performance	2011	2012	2013	2014	2015
Work hours (employees)	460,056	496,234	469,968	542,016	496,408
Work hours (contractors)	515,974	891,832	940,120	2,819,236	559,160
Employee fatalities	0	0	0	0	0
Contractor fatalities	0	0	0	0	0
Employee lost time injuries	1	0	0	0	0
Contractor lost time injuries	0	0	0	0	0
Employee total reportable injuries	1	0	0	0	0
Contractor total reportable injuries	1	0	0	1	0
Employee occupational illnesses	0	0	0	0	0
Heat stress events	0	0	0	0	0

In every area of activity in our operations we place paramount importance on achieving the highest occupational health and safety standards. Operating according to these standards is a core principle for occupational health and safety management in all our facilities.

2015 marked another milestone in QAFAC's exemplary track record of occupational health and safety performance by reaching over **7.5 million man-hours without a Lost Time Accident (LTA)** among our employees and contractors. Numerous training events and persistent integration of safety culture among our employees and contractors contribute to daily implementation of safety principles in our professional and private lives.

 **Safety**

**7.5 million man-hours**

without a Lost Time Accident (LTA)



## Safety Programs

Given the diversity of the work operations that our people do - from working in plants, laboratories and offices to operating vehicles - we have designed several safety programs to ensure a safe and healthy workplace for all employees.

### Behavior Based Safety (BBS) Program

BBS is a program aimed at increasing operational safety at QAFAC by positively influencing the behavior of employees through observing, correcting, and coaching peoples' behavior that in turn will develop a culture of safety among employees. A robust strategy was developed to implement the BBS program, which will be launched in 2016 as a part of PSM program. By encouraging everyone to immediately stop unsafe procedures in order to prevent injuries, we enhance peoples' understanding of safety as a priority above anything else.

campaign with informative videos and other promotional material to encourage employees' active participation in these observations.

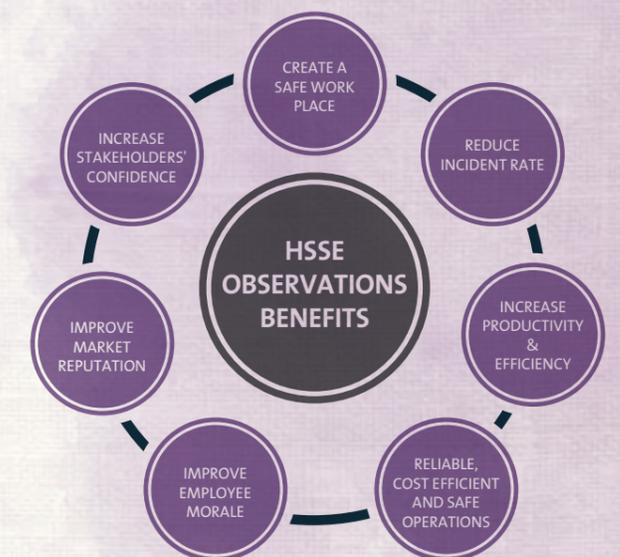
In 2015, 155 observations were raised (101 from employees and 54 from contractors), some of which were outstanding as they contributed to creating a better and safer work environment for all employees. One of the observations that was recognized and awarded related to a proposed initiative focused on saving energy by installing motion sensors to automatically switch off lights in the offices.

### Health, Safety, Security, Environment (HSSE) Observations

Contractors and employees are encouraged to provide observations on HSSE issues during their work. These observations help to identify job site hazards, controls, conditions, and manage and reduce exposure to risks, and thereby reduce injury rate.

HSE Department analyses reported observations and adopts corrective actions. Employees and contractors are encouraged to provide observations, highlighting particularly beneficial practices from safety perspective. To encourage their participation, awards are presented for the best quality of observation on a monthly basis and for the highest observation number submitted on an annual basis. HSSE Observations are a key component in identifying issues before they translate into an injury or incident.

We are currently in the process of replacing manual procedures and developing a platform through which observations can be submitted electronically, to make HSSE observations faster and more efficient. We are also rolling out a HSSE Observation awareness





**Mr. Ahmed Essa**

Position: HSE Trainer  
 Working in QAFAC since September 2015  
 Nationality: Egyptian

**What attracted you to start working at QAFAC?**

Given the smaller size of QAFAC's team, I had the opportunity to implement my initiatives focused on increasing efficiency in the process of safety culture development. It is easier to reach everyone in order to enhance their ability to integrate safety behavior in their daily lives.

**What do you like about working at QAFAC so far?**

The spirit of real team work in the HSE Department provides me with a great working experience. Everyone is very supportive working as one gear focused to achieve a common goal.

**What does 'sustainability' mean for you in QAFAC operation? What is the key component for sustainable operation?**

Sustainability requires efficient use of resources, human and operational alike, in order to improve the company's economic performance. A safe environment is the precondition of efficient 'functioning' from the side of human capital. In order to ensure safe performance by employees and contractors it is important to instill safety culture from the point of entry to QAFAC premises. The key to success in reaching top safety results is preventing any potentially harmful behavior, as prevention is more efficient than cure.

**HSSE OBSERVATIONS 2015**



**Health and Safety Training**

Health and Safety training plays an important role in establishing a culture that prevents risk and promotes safe behavior in QAFAC. Both internal and external training are provided. In 2015, 6,137 hours of HSE training were provided to employees, of which almost 73% were given internally.

During the reporting year, we have conducted several HSE trainings, including Emergency Response Team (ERT) training, Permit to Work (PTW), Fire Marshal training, First Aid, and Authorized Gas Tester (AGT). We have also conducted sessions on previously initiated trainings such as radioactive sources awareness, handling rotating equipment, and handling of level measurement operations. All employees at the plant receive awareness sessions on safe handling of chemicals at the workplace.

To reduce the risk of injury to workers, all new employees go through a HSE Induction training which includes information on risk assessment, waste management, environmental awareness, and emergency response plan.

**HSE Training (External and Internal)**

**HSE Training (Internal)**

**6,137** hours

**73%**

Year 2015 (January to December) HSE Training				
Training Name	# of Trainees Planned	# of Trainees Attended	Training Duration	Total Hours
ERT Training	268	218	8	1,744
Confined Space	11	11	2	22
Height Safety	11	11	2	22
Permit To Work	40	40	8	320
Heat Stress	101	101	1	101
Mutual Aid Familiarization	14	14	3	42
Advanced First Aid	10	8	12	96
Incident Commander Training	5	5	24	120
Graduate Trainee Training	11	11	40	440
Authorized Gas Tester - AGT	40	34	8	272
Emergency First Aid	287	216	6	1,296
Safety Induction (DVD) Employees / Trainees	31	31	2	62
Safety Induction (DVD) Contractors	800	800	2	1,600
<b>Yearly Total Training Hours</b>	<b>1,629</b>	<b>1,500</b>		<b>6,137</b>

## Occupational Health Heat Stress

As the weather becomes more hot and humid, outdoor workers are at the risk of heat-related illnesses. Ongoing efforts are in place to constantly remind workers to proactively manage the effects of heat.

We have implemented a system of colored flags, which indicate the level of danger due to heat stress, at six locations on the QAFAC site. The weather is monitored on a daily basis and the flags are updated accordingly. The heat index is yet another useful tool to measure temperature more effectively than air temperature alone because it takes both temperature and humidity into consideration.

From the start of the hot season we commence a risk campaign that involves update of Heat Index on Intranet which is accessible by all employees. Each worker has a heat card that indicates the precautions to take at certain temperatures, recommended water intake, and the perfect balance between rest time and work time.

### Qafac General Heat Stress Index



Severity	Heat Index	Heat Syndrome	
IV. Extreme Danger	>54	Heatstroke or sunstroke imminent	
III. Danger	39-53	Sunstroke, heatcramps, or heat exhaustion likely. Heatstroke possible with prolonged exposure and physical activity.	
II. Extreme Caution	32-38	Sunstroke, heatcramps, or Heatexhaustion possible with prolonged exposure and physical activity.	
I. Caution	27-31	Fatigue possible with prolonged exposure and physical activity.	
* Note: Degree of heat stress may vary with age, health, and body characteristics			
Preventative Heat Stress Work Practice to Minimize the Effect of Heat Exposure			
Heat Index	Work:Rest Period (minutes)	Work Requirement (1 Cup=1/4 Litre)	Controls
27-31	50:10	1 cup every 20 minutes	Continuous visual monitoring of worker in direct sun and heavy work.
32-38	40:10	1 cup every 20 minutes	No working alone.
39-49	30:10	1 cup every 15 minutes	Work under shade.
50-53	20:10	1 cup every 10 minutes	Work at height / ladders would normally stop. EXTREME CONTROLS MUST BE TAKEN - REFER TO QAFAC SAFETY DEPT.
>54	All work would normally STOP unless EXTREME CONTROL MEASURES ARE TAKEN - REFER TO QAFAC SAFETY DEPT.		

		How To Calculate Heat Index								
		Relative Humidity								
		10%	20%	30%	40%	50%	60%	70%	80%	90%
Air Temperature (°C)	50	44	52	54	>54	>54	>54	>54	>54	>54
	49	43	51	54	>54	>54	>54	>54	>54	>54
	48	43	50	53	54	>54	>54	>54	>54	>54
	47	42	48	52	54	>54	>54	>54	>54	>54
	46	41	47	50	54	>54	>54	>54	>54	>54
	45	41	46	50	54	>54	>54	>54	>54	>54
	44	40	45	49	54	>54	>54	>54	>54	>54
	43	39	44	48	54	>54	>54	>54	>54	>54
	42	38	43	46	54	>54	>54	>54	>54	>54
	41	38	41	45	52	54	>54	>54	>54	>54
	40	37	40	43	49	54	>54	>54	>54	>54
	39	36	38	42	47	52	54	>54	>54	>54
	38	35	37	41	43	49	54	>54	>54	>54
	37	34	36	38	41	43	54	54	>54	>54
	36	33	35	37	40	42	49	53	54	>54
	35	32	34	36	39	42	46	52	54	>54
34	32	34	35	38	41	44	50	53	54	
33	31	32	33	36	38	41	46	50	53	
32	29	31	32	33	36	38	41	46	50	
31	28	30	31	32	34	35	38	41	46	
30	27	29	29	31	32	33	36	38	43	
29	26	27	28	29	30	32	33	35	37	
28	25	26	27	27	29	30	32	33	35	
27	24	25	26	26	27	28	29	30	32	
26	22	24	25	26	26	27	27	26	29	

Example: The temperature stands at 34 °C and the RH is now 62%. The heat index is 44 in the danger area.

## Medical Check for QAFAC Employees

We seek to prevent inherent occupational health risks, and require all our employees to undergo periodic medical checks in the Mesaieed Clinic. These periodic checks allow us to carefully monitor and manage any health risks. The goal of the pre-employment examination is to determine whether an employee is fit to perform his/ her job without risks.

## Managing Safety and Wellbeing of Contractors

When it comes to safety, we at QAFAC draw no distinction between our own employees and contractors. We have an elaborate procedure in place to ensure that all contractors meet the best industrial practices and international standards, and that they adhere to our own health and safety standards during any involvement in our operations.

accomplishing Permit-to-Work (PTW) training, QAFAC's HSE Department certifies contractors as being able to receive PTW for the type of work they were trained in. It is also foreseen that a safety induction is needed at the beginning of contractors' work, and the annual training matrix suggests the required training that should be provided for contractors.

Previously, QAFAC has been managing contractors' safety as part of its HSE management. During the PSM survey, contractor management was identified as a separate element that requires attention as part of the overall safety improvement process. The PSM process will be focused on enhancing QAFAC's HSE management process and introducing the missing elements to align it with the best contractor management practices. Thus, contractors are invited to attend PSM Awareness sessions for technicians on the shop floor.

We seek to ensure that the highest safety standards are fulfilled in all our operations, including contractors HSE and labor standards. To that end, we inspect labor accommodation and evaluate how they correspond to other HSE requirements for the top suppliers with the largest Purchase Order (PO) value, and the top suppliers that have the most number of awarded contracts. During the tender stage, potential contractors are informed about the HSE standards they are expected to comply with in order to gain a contract with QAFAC.

Our current HSE management practices include participation of contractors in the HSSE Observation program, bi-monthly meetings, and training. After



Emergency exercises are conducted on a monthly basis in QAFAC

# Developing Our Workforce



At QAFAC, we recognize the vital importance of a committed, diverse and skillful workforce. We are focused on attracting, developing and retaining the best talent and supporting them in their professional growth.

## Diversity of our Workforce

Workforce	2011	2012	2013	2014	2015
Total workforce	300	291	329	364	<b>382</b>
By employment level					
Senior management	8	10	13	13	<b>13</b>
Middle management	27	8	21	21	<b>21</b>
Staff	265	273	295	364	<b>348</b>
By nationality					
Expatriates	246	241	254	266	<b>284</b>
Qatari nationals	54	50	75	98	<b>98</b>
Qatarization (% of Qatari employees in the total workforce of QAFAC)	18%	17%	23%	27%	<b>26%</b>

Workforce Age Profile	2011	2012	2013	2014	2015
Workforce by age 18-30	47	28	59	72	<b>78</b>
Workforce by age 31-40	65	55	67	79	<b>77</b>
Workforce by age 41-50	135	116	126	124	<b>117</b>
Workforce by age 51-60	53	92	77	88	<b>110</b>

Female Employment	2011	2012	2013	2014	2015
Number of female employees	9	11	24	33	<b>36</b>
Female employment rate	3%	3.6%	7.3%	9.1%	<b>9.4%</b>
Females in senior management				1	<b>1</b>

We seek to foster a culture that embraces diversity within QAFAC to attract talented people with a wide range of backgrounds and skills to leverage combined knowledge and experience and contribute different perspectives that help us improve our business.

By the end of 2015, young people between the ages of 18 and 30 comprised 20% of our total workforce. You can learn more about our efforts to build a pool of qualified national youth engineers in the **Attracting Human Resources** section of the report.

Qatari nationals make up 26% of our team and women account for 9.4% of the total workforce. We provide equal opportunities for female employment at all levels of the organization. Over the past five years, female employees have grown three times with a rise from nine in 2011 to 36 in 2015. Our female colleagues are taking several roles in middle and senior management too.

## Attracting Human Resources

We seek to attract the best talent and focus on attracting newly graduated candidates by offering the opportunity to apply their knowledge and acquire practical skills.

In 2015, we introduced a new two-year Graduate Engineering Program through which engineers, freshly graduated with Bachelor's and Master's degrees, can join QAFAC. Applicants need to be born and educated in Qatar, however may not need to be of Qatari nationality.

By the end of the reporting year, 13 engineers had joined the program and gone through awareness and mentoring sessions across different positions in maintenance, HSE and production departments. Each graduate was provided with a "task book" that acts as the Personal Development Program (PDP) for this initiative. The task book states the qualifications that need to be acquired to perform the full time job. After two years, and with the consent of all parties, the applicant will officially become part of QAFAC's workforce.

## Developing our Human Capital

The development of human capital at QAFAC incorporates initiatives focused on the development of local human resources, succession planning, and attracting newly graduated candidates. For more details on our Qatarization plans, please refer to the **Strengthening our Society** chapter of this report.

### Talent Management in QAFAC – the "Gadan" initiative

Talent management begins with attracting, developing and retaining talent. It includes providing development opportunities, effective employee engagement, and creating an inclusive culture.

At QAFAC, talent management is a key part of our strategic planning. Some time ago, QAFAC announced the bringing together of many standalone practices into a new function called "Talent Management". The responsibilities of the new Talent Management function include addressing issues of attracting, retaining and developing talent as well as the important issue of Succession Planning. Talent Management strives to increase individual employee motivation as well as helping to reach Qatarization targets.

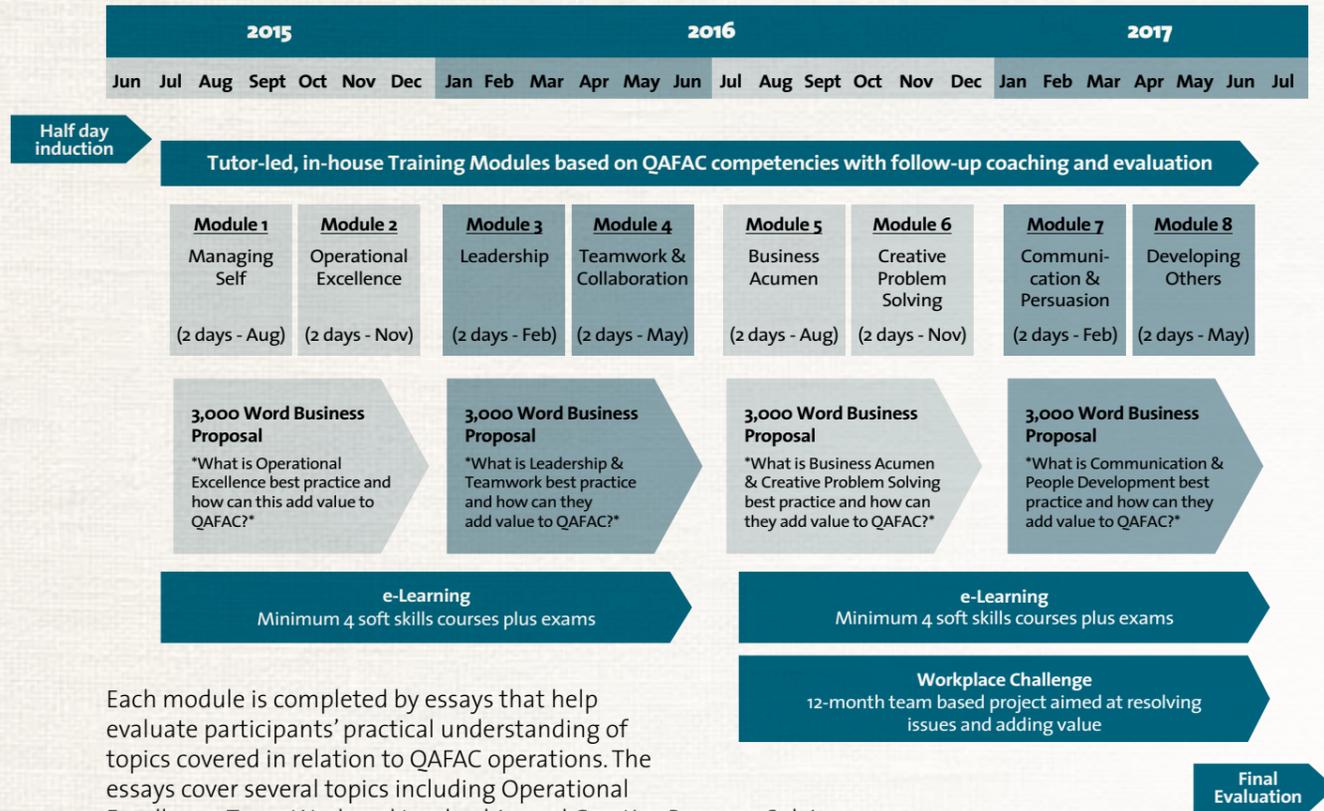
Given that 28% of employees are in the age category of 51-60, it is necessary to prepare a new workforce to replace QAFAC's specialists in the leadership positions that they will be leaving upon reaching retirement age. Thus, an important talent management initiative was established called "Gadan" which is an Arabic word for "Tomorrow". The objective of the program is to support the aspirations of our employees whilst meeting the future talent requirements of the Company.



The "Gadan Initiative" is a Leadership and Development program that has been designed to impact and support the "Team" enablers within the QAFAC Strategy map, and ensure that the talent pipeline at QAFAC is filled with the best talent, prepared for management opportunities. The objective of the program is to continuously produce a pool of highly motivated, talented and focused individuals who will, through leadership, development and training initiatives, be developed to a point where they can be included on the company Succession Plan – at all levels of the organization. This initiative differs from the traditional company training and development in its focus on producing QAFAC leaders of tomorrow throughout the organization. This helps to address QAFAC's succession needs and ensures continuous availability of highly qualified personnel within the Company.

The Talent Management Committee is responsible for running the entire Gadan process, with the Talent Manager facilitating the selection process and development of program participants. To date, over 40 employees have volunteered to take part in the qualifying tests required to evaluate their suitability to become part of the program. Participants selected in the first round of qualifications have already completed the first module of the two-year learning and development program.

## The Gadan Initiative - 2 Year Program Schedule for Cohort 1



Each module is completed by essays that help evaluate participants' practical understanding of topics covered in relation to QAFAC operations. The essays cover several topics including Operational Excellence, Team Work and Leadership, and Creative Program Solving.

Alongside tutor-led classroom training for each module, Gadan participants will be completing self-study through e-learning courses and will receive individual coaching and on-the-job learning by attending business meetings and undertaking secondment with fellow participants in order to better understand other business areas. Every six months each participant will submit a 3,000 word business proposal related to applying best practices learned during the courses in their area of responsibility in QAFAC. The program will be completed by a project focused on resolving an actual business issue related to QAFAC activity. The second round of qualifications for the Gadan Program will take place in mid-2016.



## Training

To develop our employees' careers, we provided 2,681 hours of training in 2015. This does not include 6,137 hours of HSE training, which are reported in the section 'Occupational Health and Safety'.

Workforce Age Profile	2011	2012	2013	2014	2015
Total number of training hours for total workforce	2,353	3,920	4,176	4,452	<b>2,681</b>
Average hours of training per year per employee	7.8	13.5	12.7	12.2	<b>28</b>
Average hours of training per employee for nationals	3	17	24	780	<b>30</b>
Total cost of training (QR)	3,729,510	5,411,264	14,184,346	10,930,711	<b>15,912,657</b>
Average cost of training per employee (QR)	12,431	18,595	43,113	30,029	<b>41,656</b>

## Retaining Human Resources

Historically QAFAC has a very low turnover rate. In 2015, a considerable proportion of employees leaving was due to retirement. The issue of preparing qualified replacements for people leaving is tackled via the Gadan initiative, described above, and with the preparation of the succession plan.

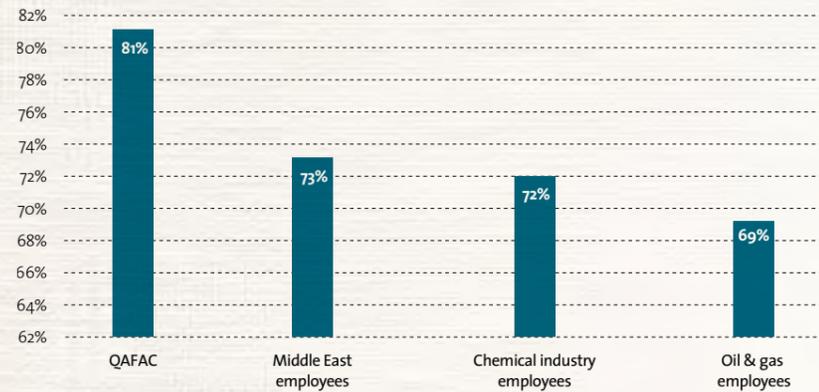
Turnover Profile	2011	2012	2013	2014	2015
Turnover rate	5%	0.3%	2.7%	1.1%	<b>4.7%</b>
Total number of employees who left the organization	15	1	9	4	<b>18</b>
<b>Turnover by employment level</b>					
Senior management	3	0	2	0	<b>1</b>
Middle management	2	0	3	1	<b>3</b>
Staff	10	1	4	3	<b>14</b>
<b>Turnover by gender</b>					
Female	0	1	1	0	<b>2</b>
Male	15	0	8	4	<b>16</b>
<b>Turnover by age</b>					
Workforce by age 18-30	3	0	0	3	<b>2</b>
Workforce by age 31-40	3	0	2	0	<b>5</b>
Workforce by age 41-50	7	1	4	1	<b>2</b>
Workforce by age 51-60	2	0	3	0	<b>9</b>

We are eager to ensure that everyone is satisfied by the work conditions offered at QAFAC. We ask our employees to participate in an employee engagement survey on a biannual basis in order to gain insights into their overall satisfaction with QAFAC, their jobs, their management, and any other aspects concerning their workplace experience. Employees are encouraged to participate on an anonymous voluntary basis. The results of this survey are very important to us as they can be ultimately tied to the retention of our employees. The survey is analyzed by a third party and benchmarked against oil and gas industry, petrochemical peers, and QAFAC's own performance in previous surveys.

### Employee engagement survey and benchmarking of employee satisfaction level on international level

The employee engagement survey was conducted at the end of 2015, covering 67% of QAFAC employees. The survey focused on employee engagement and employee enablement, with the questions structured around employee perception of the business and their daily approach to work. Employee engagement and employee enablement areas were scored at the levels of 81% and 79%, respectively.

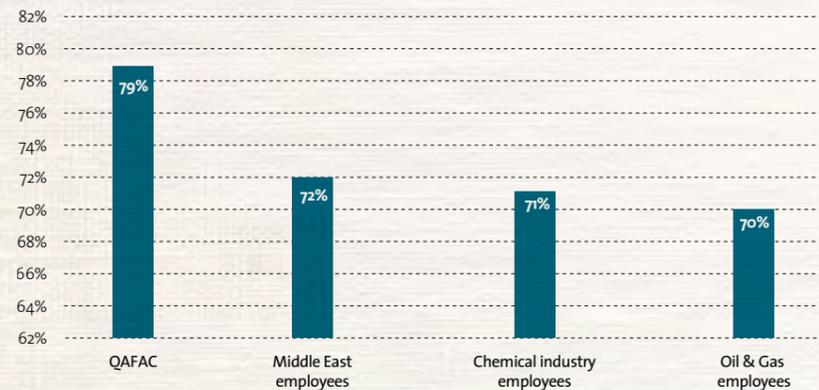
#### Employee engagement level of satisfaction



The results of the survey were benchmarked against a global database of 6.7 million employees' surveys, and classified by surveys presented by Middle East employees, oil and gas sector employees and chemical industry employees. As a result, 81% employee engagement score place QAFAC is 8% above Middle East employees' survey results, 9% above chemical industry and 12% above oil and gas sector employees' engagement level. 79% employee enablement score places QAFAC 7% above Middle East employees' survey results, 8% above chemical industry and 9% above oil and gas sector employees' enablement level.

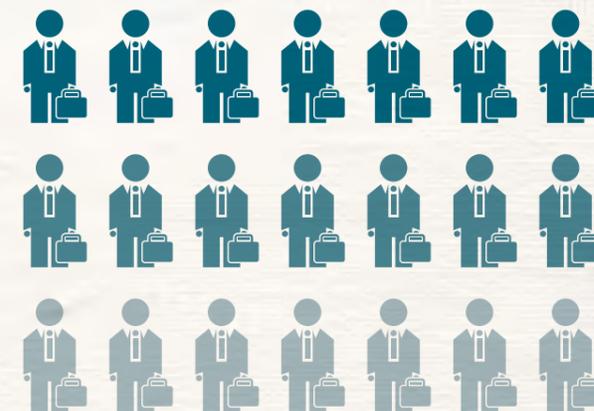
Employee engagement score in the latest survey went up by 7% relative to the score of the previous survey, while employee enablement score went up by 5%. In general, employees expressed high pride in the products and services that we provide to customers, as well as pride in working for QAFAC and willingness to recommend the Company as an employer of choice. Results also indicated that employees feel that the Company is ethical in its dealings and fosters a positive culture.

#### Employee enablement level of satisfaction



### Acknowledging Long Serving Employees

We recognize the loyal service of our long serving employees who have dedicated many years of service to QAFAC. In 2015, 31 employees were awarded for five, 10 and 15 years of continuous service with the Company. The General Manager presented them with commemorative gifts in recognition of their loyal service.



**Long Service Award**  
**31** Employees were awarded  
 for 5, 10 and 15 years of continuous service with the Company.

# Caring for the Environment



Taking care of the environment is one of the three basic pillars of sustainability. QAFAC, in its efforts to operate sustainably, implements numerous projects and initiatives focused on minimizing the impact of our operations on the environment. Some of the projects stand out as best practices in the industry and have attracted attention from numerous companies trying to share QAFAC's experience in implementing environmental protection measures.

## Climate Change and Energy Efficiency

The environmental issue of climate change affects everyone on the globe. Human impact related to greenhouse gas emissions is scientifically proven to influence change in global temperatures. By commissioning the Carbon Dioxide Recovery (CDR) plant in 2014, QAFAC has demonstrated a world-class example of achieving sustainable growth of production, i.e. utilizing production resources for maximum efficiency whilst simultaneously avoiding significant emissions of greenhouse gas CO<sub>2</sub> into the atmosphere.

With the installation of the CDR plant, QAFAC became self-sufficient in generating CO<sub>2</sub> gas, which is used as input material for methanol production<sup>3</sup>. Replacing purchased CO<sub>2</sub> with its internally generated gas, it reduces demand for CO<sub>2</sub> on an industrial level and helps to avoid CO<sub>2</sub> generation by other Qatari industries by 500 tonnes per day. In addition to increasing methanol production by 250 MT/day, CDR plant also reduces water consumption by 10% by recycling recovered water vapor from flue gases and reduces NO<sub>x</sub> emissions.<sup>4</sup>

Energy Consumption	2011	2012	2013	2014	2015
Energy intensity (GJ/tonne production)	13.63	13.67	13.68	13.27	<b>13.46</b>
Direct energy consumption (diesel) (GJ)	22,057,736	19,158,500	20,964,690	18,761,283	<b>23,442,665</b>
Indirect energy consumption (electricity) (GJ)	786,701	727,906	771,782	739,512	<b>874,080</b>
Total direct and indirect energy consumption (GJ)	22,847,568	19,886,406	21,736,472	19,500,795	<b>24,316,745</b>



**CDR Plant**

**500** CO<sub>2</sub> t/day  
emissions avoided

**250** MT/day  
increased

**10%** water consumption  
decreased

<sup>3</sup> CO<sub>2</sub> used as input material is not taken into account in the calculation of GHG emissions, where only emissions from the use of fuel are accounted for. For this reason, avoided CO<sub>2</sub> emissions are not reflected in the statistics GHG emissions.

<sup>4</sup> More detailed information on CDR plant is provided in QAFAC Sustainability Report 2014.

GHG Emissions	2011	2012	2013	2014	2015
Direct GHG emissions (diesel and fuel gases, scope 1) (tonnes)	882,373	769,195	823,722	806,967	<b>871,937</b>
Indirect GHG emissions (electricity, scope 2) (tonnes)	107,122	99,116	105,285	100,696	<b>119,020</b>
Total GHG emissions (tonnes of CO <sub>2</sub> e)	989,495	868,311	929,007	907,663	<b>990,957</b>
GHG intensity (GHG/tonne production)	0.59	0.60	0.58	0.62	<b>0.55</b>
SO <sub>x</sub>	120	93	103	94	<b>108</b>
NO <sub>x</sub>	1,329	1,235	1,363	1,254	<b>1,371</b>
Flaring (MMSCM)	150.2	138.0	152.0	151.0	<b>150.7</b>

Increase in the production of methanol and MTBE, following CDR plant installation, has increased the total use of natural gas as a fuel. However, IMC installation has increased efficiency in the use of natural gas by reducing the use of natural gas as feed-in material. Consequently, the ratio of natural gas used as feed-in material to the amount of natural gas used as a fuel has increased, as demonstrated in the graph.<sup>5</sup>



<sup>5</sup>The use of natural gas as feed-in material is not taken into account during the calculation of the energy consumed, and only natural gas as a fuel is taken into account. Thus, with the total increase in the use of fuel due to higher levels of production, the level of energy used is increased, as well as the energy intensity level. While the use of natural gas as feed-in material is reduced, this is not reflected in the statistics of energy consumption.

## Leak Detection and Repair (LDAR)

In 2015, QAFAC implemented a full scale Leak Detection and Repair program to screen all accessible and inaccessible sources.

This project has been performed by a world renowned contractor, The Sniffers. The Leak Detection and Repair (LDAR) campaign, focused on monitoring fugitive emissions of Volatile Organic Compounds (VOC) and hazardous air pollutants.

A grand total of 110,298 sources have been inventoried. Complete monitoring and measurement of 104,621 accessible sources was done by means of a TVA-FIDC, and screening of 5,677 inaccessible sources was conducted by an OGI-camera. All leaks with a concentration above repair definition all sources that have undergone a repair attempt have been re-measured.

LDAR is implemented in accordance with the US EPA Method 21. The standard EPA Correlation "SOCMI" Approach, United States Environmental Protection Agency Code of Federal Regulations) was used to calculate the emission loss.

The campaign has helped to reduce the environmental impact of QAFAC's operations, to improve process safety performance, and to save costs due to preventing the loss of chemical components used in the production process.

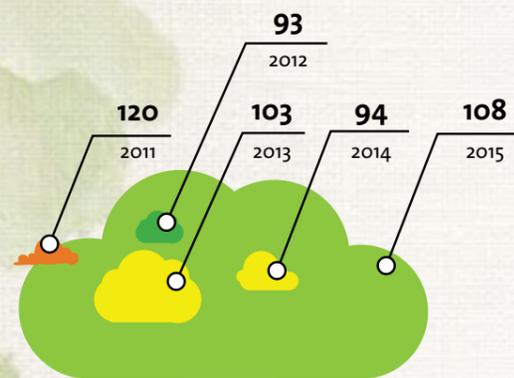
As a result of LDAR campaign implementation, 214 sources of leaks were repaired, reducing emissions by 22% and preventing the loss of over 86 MT of product.



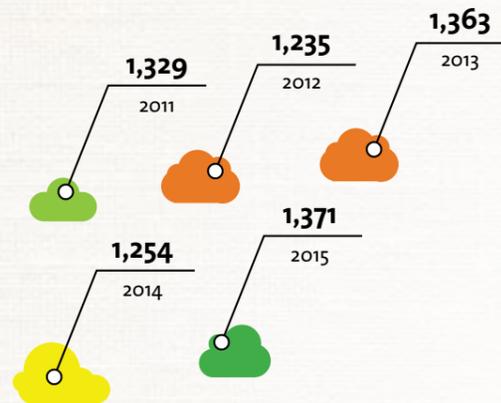
## Air Emissions

The increase in absolute emissions of SO<sub>x</sub> and NO<sub>x</sub> is due to the significant growth of production experienced in 2015. However, due to emission reduction projects such as Leak Detection and Repair (LDAR) and CDR plant, the growth is significantly lower than it would have been without any initiatives taking place.

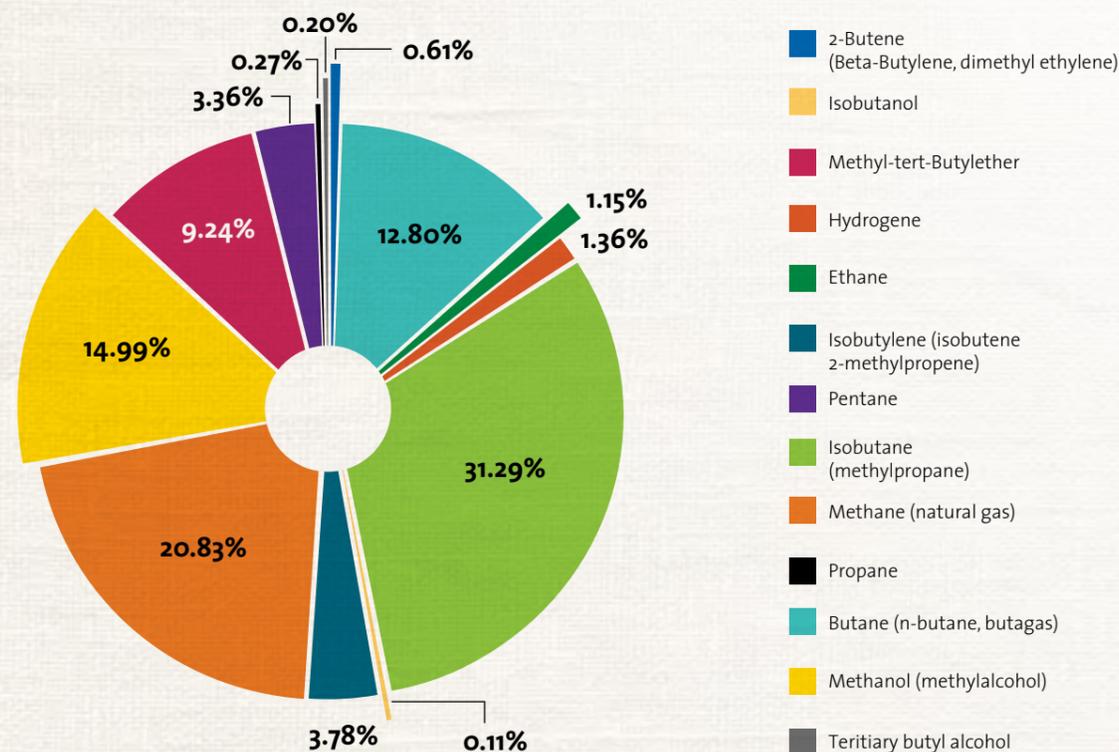
### SO<sub>x</sub>



### NO<sub>x</sub>



### Emission Distribution for all Chemical Products (%)



## Flaring

Due to the specifics of production processes in QAFAC, a certain degree of flaring is necessary to ensure the safety and reliability of operations. Flaring is a necessary practice in our line of business to dispose of waste gas (off-spec gas) that poses hazardous risks for anyone nearby. Most importantly, flaring is used as a safety measure to depressurize a process unit or eliminate the risk of a combustive incident. However, we recognize the environmental hazard posed by flaring of waste gases and, to that end, we seek to minimize it to as low as reasonably practical for safe operations.

During a plant turnaround back in 2014, we installed flow meters for each flare header of the methanol and MTBE plants, and a third flow meter in the common flare header. Since then, we have been able to measure the quantity of gas being flared from each plant and periodically report on it to the MME.

Flaring Performance	2011	2012	2013	2014	2015
Flaring of off-spec gases (MMSCM)	150.2	138.0	152.0	151.0	150.7

One of the approaches to minimize flaring is through hydrogen recovery. Through this approach, hydrogen is injected instead of being flared, not only reducing the likelihood of flaring but also saving the use of raw materials. We are currently cooperating with UOP (a licenser for MTBE plant) to research optimal and cost efficient solutions for hydrogen recovery, making sure the technology we adopt will be compliant with Qatar regulations.

## Indoor Air Quality

With indoor air quality identified as a public health risk, we at QAFAC seek to maintain healthier, more sustainable indoor spaces for our dedicated workforce that spends a considerable amount of time indoors.

In order to better understand and improve the indoor air quality at QAFAC, we are installing the latest state-of-the-art portable monitoring equipment that measures 16 air parameters in accordance with the highest standards. This measurement has been carried out in the administration buildings, warehouses, control rooms, laboratories, workshops and safety buildings under the HSE team supervision.

In 2015 we continued to monitor air parameters. Data analysis and results are done on a biannual basis.



Indoor Air Quality Monitoring Equipment

### Air Quality

**16** air parameters  
are measured by monitoring equipment

## Water and Wastewater Management

In line with the Qatar national water management strategy QAFAC is committed to implement near-Zero Liquid Discharge Program regulation. QAFAC has completed the FEED study for secondary and tertiary wastewater treatment system. It is expected that 80% of process wastewater will be recovered after Ultra Filtration and Reverse Osmosis techniques are installed in the new plant.

In the meantime, QAFAC is implementing measures focused on recycling water use. In 2015, 51% of recycled sanitary wastewater was focused on irrigation of trees at the plant facilities and main road leading to QAFAC, known as the Green Belt. In the same year we were able to reduce our total water consumption by 7%, and internally generate 39% of water by recovering water vapor from flue gases at the CDR plant.

Water Consumption and Wastewater Discharge	2011	2012	2013	2014	2015
Fresh water used, purchased (m <sup>3</sup> )	1,289,819	1,405,222	1,563,951	1,219,204	<b>1,132,829</b>
Fresh water used, company generated				125,615	<b>814,680</b>
– of which water is recovered and reused from CDR plant (m <sup>3</sup> )				125,615	<b>315,360</b>
Total wastewater generated, including non-contact cooling water (m <sup>3</sup> )	521,323	575,947	720,960	484,961	<b>567,859</b>
Water discharged, including non-contact cooling water (m <sup>3</sup> )	288,223	312,669	317,724	258,463	<b>276,744</b>
Recycled wastewater discharged for the Green Belt (m <sup>3</sup> )	233,100	263,278	403,236	226,498	<b>291,115</b>
Share of wastewater recycled to the Green Belt (%)	45%	46%	56%	47%	<b>51%</b>

### Water and Wastewater Management

# 51%

recycled sanitary wastewater directed on irrigation

# 39%

of water generated from water vapor recovered from flue gases



## Waste Management

Waste Generation and Recycling	2011	2012	2013	2014	2015
Total waste disposed (tonnes) <sup>6</sup>	3,306	4,914	3,318	3,312	3,351
Total industrial waste (hazardous) disposed to MIC Hazardous Waste Treatment Center (tonnes)	506	2,114	518	512	<b>551</b>
Domestic waste (tonnes) <sup>7,8</sup>	2,800	2,800	2,800	2,800	<b>2,800</b>
Oil waste, recycled (tonnes)	0	27	20	66	<b>58</b>
Total waste recycled (tonnes)	0	27	21	66	<b>64</b>

We use natural gas as a main raw material for production, and our processes are gas-based so do not generate a significant amount of hazardous and non-hazardous wastes in comparison to other production processes operated by other companies. Nonetheless, the main generation of waste occurs during major maintenance and turnarounds. It is important to us that we operate in a way that minimizes the generation of disposable waste, so we are taking particular care in establishing best waste management practices for domestic waste.

In 2015, we installed new centralized and multi-functional network printers to replace numerous printers used and reduce consumables (ink, paper, toner) that in turn will reduce further waste generation.

We also started introducing the virtualized VMWare desktop, which further improves information security, increases energy efficiency and extends the equipment shelf life.

Recycling machines for tins and plastic bottles were installed to encourage employees to recycle and contribute to saving the environment.



Recycling machines for tins and plastic bottles

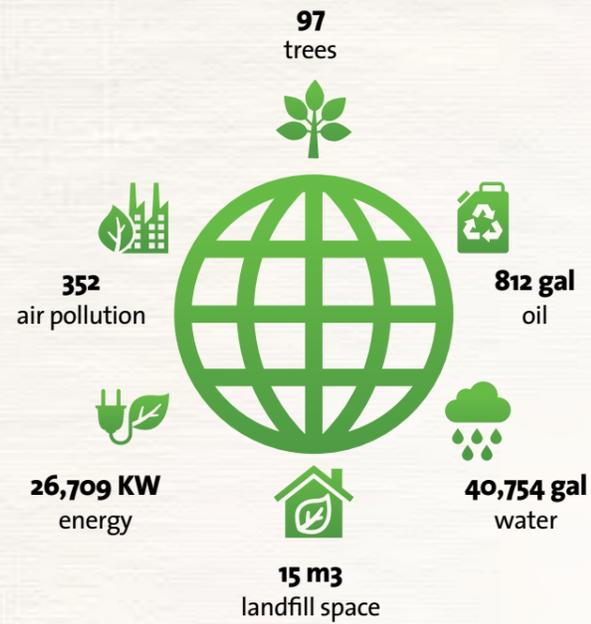
<sup>6</sup>Total waste disposed is a sum of total industrial waste and domestic waste.

<sup>7</sup>Domestic waste data is estimated based on the average produced per person multiplied by the number of workforce.

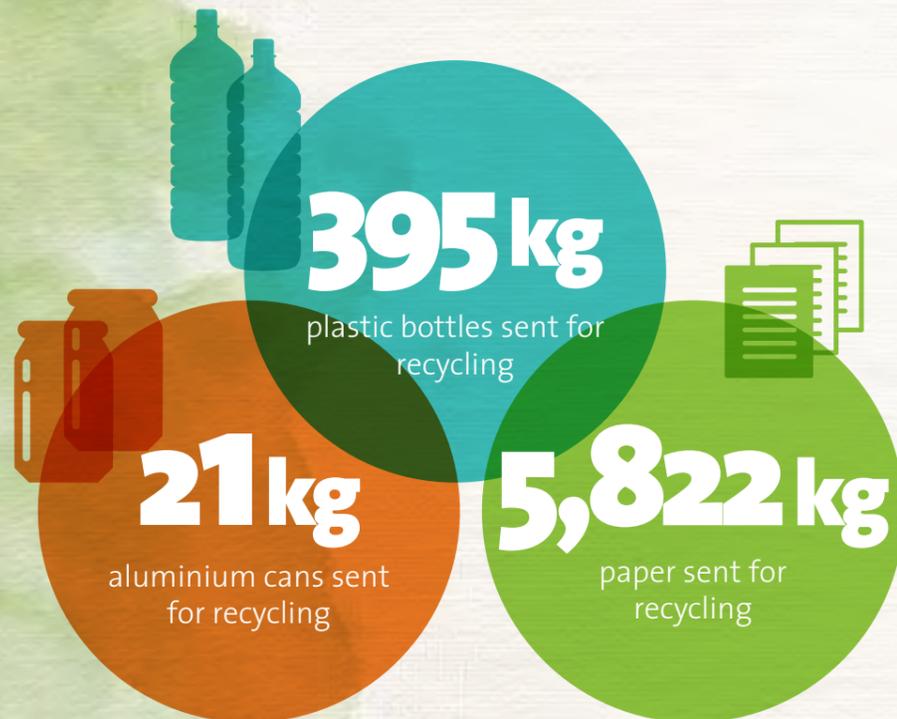
<sup>8</sup>Domestic waste includes waste generated in the office premises at MIC and Doha and in the canteen in MIC.

With the aid of external environmental services company Averda Consulting, we have made impressive strides toward waste recycling and environmentally friendly management of energy and water consumption. From December 2013 to December 2015, Averda Qatar has diverted a total of 6,238 kg of recyclables (paper and plastic) from landfill on our behalf: 21 kg of empty cans; 5,822 kg of clean paper and cardboard; and 395 kg of empty plastic bottles. The results of our recycling efforts for 2015 are quite impressive, and the equivalent value of savings is demonstrated in the picture below.

**Savings Due to QAFAC Recycling Program**



**Recycled Waste**



**Raising Environmental Awareness**

Children hold the future in their hands. That is why we conduct an annual awareness raising activity for the children of our employees. Participants are categorized into three different age groups so that we make sure everyone can understand the importance of protecting the environment.

In 2015, we celebrated World Environment Day through a poster making competition, with the following theme: **“Seven billion dreams. One planet. Consume with care”**. The competition was arranged under the supervision of five independent judges who were invited from local schools in Doha. Winners and runner-up contestants from all three age categories received shields and prizes.

# Strengthening Our Society



We seek to make meaningful contributions to strengthening our society and leave a positive legacy by supporting local procurement to enhance the local economy. Our contribution in terms of job creation and local hire ensures the development of Qatar human capital, while our strategic community investment activities assist the needs of our local community, following the direction of the Qatar National Vision 2030.

## Indirect Economic Impact

Supporting Local Suppliers	2011	2012	2013	2014	2015
Percentage of locally based suppliers	58%	64%	65%	65%	60%
Local suppliers paid amount – total (QR '000)	27,115	68,845	90,170	92,391	101,778
Percentage of spending on locally based contractors and suppliers (% of total spending)	79%	88%	78%	71%	77%

We recognize that procuring goods and services from local suppliers helps boost national economic development. We therefore seek to generate economic and social development through local procurement. In 2015, 77% of our total procurement spending was awarded to locally based contractors and suppliers, a 6% increase compared to 2014.

It is required that QAFAC dedicates 60% of its procurement tender awards to local vendors (who are registered in Qatar). Priority is always given to purely national companies, even if their price is 10% more than other competitors.

### Local Procurement

# 77%

spending on locally based contractors and suppliers

## Qatarization

As a Qatari company, and in alignment with the QNV 2030, we strongly believe in promoting the development of the local workforce and consider it as a top priority. We seek to develop the future intellectual capital of the country. We do so by offering deserving, young and bright Qatari students scholarship opportunities to national and international educational institutions. In 2015, we invested a total of 2,268,050 QAR in supporting education for both Qatari students and QAFAC employees.

We also provide educational assistance for those employees who wish to continue their education in areas that are consistent with their career development. In 2015, 40 employees were given support to complete their education, which constitutes a 21% increase from 2014.

The newly joined Qataris are supported along their career path by following Personal Development Plans (PDP), which present a detailed set of qualifications tailored specifically to match the career preferences and goals that need to be fulfilled to reach the target jobs.

We are particularly proud of our achievements in attracting and developing young and talented Qataris with technical professional specializations, since the Energy and Industry sector in Qatar faces particular challenges in increasing the share of Qataris among its workforce. In 2015, four engineers were confirmed in their position at QAFAC, three of whom went through the entire training and education cycle with QAFAC immediately after they finished school. One of them became a shift engineer at the Methanol plant and two at the MTBE plant.

Supporting Education and Training	2011	2012	2013	2014	2015
Number of Qatari students sponsored to study in universities abroad	5	13	14	9	9
Number of Qatari students sponsored to study in university/technical school in Qatar	9	7	10	8	8
Number of trainees and interns at QAFAC	17	14	16	20	13
Number of QAFAC employees supported to complete their education				33	40
Total cost for supporting Qatari students and QAFAC employees in their education					2,268,050



### Mr. Al-Heidous

Position: MTBE Shift Engineer and Incident Commander, AMAN Program Manager

Nationality: Qatari

**The position of Shift Engineer in a large plant involves physically challenging work conditions and high responsibility. Why have you chosen to pursue this career?**

My personality has always attracted me to activities that require continuous self-improvement by overcoming challenging tasks. I have always aimed to reach results beyond my expectations, no matter how difficult the challenge. Thus, from the early start of my career I understood that the path I would follow would reflect my ambitions.

**How QAFAC's Qatarization programme has helped you to achieve qualifications required to perform your current job?**

I joined QAFAC as a process technician not long time after my graduation. Shortly afterwards the Company offered me an opportunity to support my engineering studies at the Chemical Processing Faculty of the CNAQ, followed by studies leading to a Bachelor's Degree in Chemical Engineering from Loughborough University in the UK. In 2013 I came back to QAFAC as assistant to the Shift Engineer. After completing a specialized two-year training program in accordance with the Personal Development Plan, I achieved the qualification necessary to undertake the role of Shift Engineer. Thus, all along my career path until today I have been receiving continuous support from QAFAC, which has encouraged my ambitions of reaching new professional heights.

**What do you particularly like in your everyday work at QAFAC?**

I really appreciate easy accessibility to top management of the Company, always eager to listen and to support everyone's initiative. It makes you feel you are part of one team, working to reach a common goal.

## Contribution to Research and Innovation

To support local research, we cooperate directly with local educational institutions to work on technical issues relevant for QAFAC processes. Thus, we have cooperated with Texas A&M University at Qatar (TAMUQ) to study the environmental impact of residual chlorine and thermal discharges into the Arabian Gulf.

In 2015, QAFAC signed a three-year agreement with Qatar University (QU) to sponsor a Professorial Advanced Materials Chair. The agreement states that QU will provide consultation services to QAFAC, as well as training courses for selected QAFAC employees, while QAFAC will fund the Chair position during the three-year term.

We seek to promote shared learning and research projects. To that end, QAFAC is a member of the Mary Kay O'Connor Process Safety Center's steering committee in Texas A&M. The committee meets regularly, usually every six months, and provides guidance, reviews, suggestions and recommendations for on-going and future projects. The steering committee also facilitates technology transfer.

We also signed a Memorandum of Understanding (MoU) with GreenGulf Inc, under which both parties will be working together to identify and develop projects of mutual interest in the following areas: integration of solar into QAFAC affiliated projects; Carbon Capture to serve as feedstock for QAFAC's methanol production stream; waste-to-energy solutions specially focused on process engineered fuels; and deploying methanol powered vehicles in Qatar.

## Supporting Needs of Society

We work with local communities to make meaningful contributions to improve the quality of life and address the challenges faced. Over the years, we have taken steps to develop an integrated strategic approach to our community investments. Our initiatives focus mainly on meeting society's basic needs in health, education, environmental awareness and sports. We want to improve educational opportunities, and promote the importance of sports and good health.

The Corporate Social Responsibility Committee screens all proposals in the sphere of education, environmental awareness, health and sport. QAFAC takes it as social investment portfolio, linking to QNV 2030, related to all segments of society's needs.



**CSR Budget**

Investment in Community Initiatives	2011	2012	2013	2014	2015
Community investment (QR)	1,230,276	1,185,593	7,655,618	17,157,000	<b>7,826,000</b>
Community Investment by Areas of Impact					
Spent on educational initiatives (QR)	274,939	539,535	2,390,392	601,139	<b>2,020,000</b>
Spent on environmental initiatives (QR)	79,399	329,026	513,398	836,476	<b>928,200</b>
Spent on safety initiatives (QR)	82,828	87,001	497,035	2,376,589	<b>291,200</b>
Spent on health initiatives (QR)	-	230,032	202,227	6,751,248	<b>928,200</b>
Other				6,750,540	<b>3,658,400</b>

As part of the Company's commitment to its social responsibilities, QAFAC sponsors the 'Asthma-Friendly Schools' Program, launched by the Supreme Council of Health, which is focused on promoting the adoption of policies and procedures enabling students to safely manage asthma attacks. Thirty independent schools were selected for the Program roll out. The Program implementation bears particular social significance given that asthma is one of the most common chronic diseases among children and adults in Qatar.



QAFAC Sponsors 'Asthma-Friendly Schools' Program



Award Given to DAKAR Championship Winner Mr. Nassr Saleh Al- Attiya

**Qatar Sports Day**



Although in principle the National Sports Day is an event for enjoyment and participation, there is always an element of competition. Keeping up with annual tradition, QAFAC employees and their families participated in the Qatar National Day. Different sports competitions were arranged including badminton, table tennis, football and others.



QAFAC Organized Sports Day for its Employees and their Families

## Annex 1. Sustainability in Numbers

ECONOMIC CONTRIBUTION	Indicator	Unit	2010	2011	2012	2013	2014	2015
	Revenue	USD ('000)	569,611	921,244	927,768	984,547*	816,702	685,861
Indirect Economic Value Generated (USD 000's)								
Employee wages and benefits			34,735	44,983	45,260	55,678	57,276	
Contractors paid amount – total			7,917	16,059	18,455	19,769	26,542	
Suppliers paid amount – total			1,502	5,540	13,262	16,150	9,679	
Percentage of procurement budget spent on locally based contractors and suppliers	% of budget	90	79	88	78	71	77	
Percentage of locally based suppliers	% of all suppliers and contractors		58%	64%	65%	65%	60%	
Local suppliers paid amount – total	(QR '000)		27,115	68,845	90,170	92,391	101,778	
Production - broken down into main products:								
MTBE	t	512,705	654,549	610,985	648,022	600,342	688,450	
Methanol	t	879,196	1,021,872	843,543	940,963	869,271	1,118,210	
Pentane	t	5,012	7,903	7,492	8,513	8,194	11,035	
CLIMATE CHANGE AND ENERGY								
Energy intensity	GJ/tonne production		13.63	13.67	13.68	13.27	13.46	
Direct energy consumption (diesel)	GJ	18,985,973	22,057,736	19,158,500	20,964,690	18,761,283	22,442,665	
Indirect energy consumption (electricity)	GJ	697,489	786,701	727,906*	771,782	739,512	874,080	
Total direct and indirect energy consumption	GJ		22,847,568	19,886,406	21,736,472	19,500,795	24,316,745	
Direct GHG emissions (scope 1)	t CO <sub>2</sub>	774,008	882,373	769,195	823,722	806,967	871,937	
Indirect GHG emissions (scope 2)	t CO <sub>2</sub>	94,974	107,122	99,116	105,285	100,696	119,020	
Total GHG emissions	t CO <sub>2</sub>		989,495	868,311	929,007	907,663	990,957	
GHG intensity	(GHG/tonne production)		0.59	0.60	0.58	0.62	0.55	
Flaring	MMSCM	118	150.2	138.0	152.0	151.0	150.7	
Flaring of off-spec gases	MMSCM		150.2	138.0	152.0	151.0	150.7	
Natural gas used	m <sup>3</sup> ('000)	957,597	1,116,416	955,560	1,054,480	958,029		

THE ENVIRONMENT	Indicator	Unit	2010	2011	2012	2013	2014	2015
	Fresh water used, purchased	m <sup>3</sup>	1,170,556	1,289,819	1,405,222	1,563,951	1,219,204	1,132,829
Fresh water used, company generated	m <sup>3</sup>	0.00	0.00	0.00	0.00	0.00	814,680	
- of which water recovered and reused from CDR plant (m <sup>3</sup> )	m <sup>3</sup>					125,615	315,360	
Total wastewater generated, including non-contact cooling water	m <sup>3</sup>		521,323	575,947	720,960	484,961	567,859	
Water discharged, (including non-contact cooling water)	m <sup>3</sup>		288,223	312,669	317,724	258,463	276,744	
Recycled wastewater discharged for the Green Belt	m <sup>3</sup>		233,100	263,278	403,236	226,498	291,115	
Share of wastewater recycled to the Green Belt	%		45%	46%	56%	47%	51%	
Water discharged (to sea)	m <sup>3</sup>	248,245	288,223	312,669	317,724	258,463	276,744	
Water recycled or reused to green belt	m <sup>3</sup>	231,208	233,100	263,278	403,236	226,498	291,115	
SOx emitted	t	63	120	93	103	94	108	
NOx emitted	t	1,091	1,329	1,235	1,363	1,254	1,371	
Significant oil spills (> one barrel)	-	0	0	0	0	0	0	
Volume of spills	l	-	-	-	-	-	-	
Total industrial waste (hazardous) disposed to MIC Hazardous Waste Treatment Center	t		506	2,114	518	512	551	
Total waste disposed	t	2,983	3,306	4,914	3,318	3,312	3,351	
Domestic waste	t		2,800	2,800	2,800	2,800	2,800	
Oil waste, recycled	t		0	27	20	66	58	
Total waste recycled	t	0	0	27	21	66	64	
HEALTH AND SAFETY								
Work hours (employees)	h	449,670	460,056	496,234	469,968	542,016	496,408	
Work hours (contractors)	h	1,185,252	515,974	891,832	940,120*	2,819,236	559,160	
Employee fatalities	-	0	0	0	0	0	0	
Contractor fatalities	-	0	0	0	0	0	0	
Employee lost time injuries	-	0	1	0	0	0	0	
Contractor lost time injuries	-	0	0	0	0	0	0	
Employee total reportable injuries	-	1	1	0	0	0	0	
Contractor total reportable injuries	-	1	1	0	0	1	0	
Employee occupational illnesses	-	0	0	0	0	0	0	
Heat stress events	-	0	0	0	0	0	0	
Loss of containment (LOC) / process safety incidents	-	0	0	0	2	0	1	
Emergency response drills	-	4	4	4	8	12	12	
Safety incident investigation initiated	-	0	1	0	0	2	2	
Safety incident investigation completed	-	0	1	0	0	2	2	

\*Value of this indicator has been updated in the current report due to more precise data available or due to the changes in the calculation and reporting methodology.



## Annex 2. GRI G4 Content Index



GENERAL STANDARD DISCLOSURES		
General Standard Disclosures	Page Number	External Assurance
<b>STRATEGY AND ANALYSIS</b>		
G4-1	7, 9	Not Assured
<b>ORGANIZATIONAL PROFILE</b>		
G4-2	11	Not Assured
G4-3	Qatar Fuel Additives Company Limited	Not Assured
G4-4	34	Not Assured
G4-5	Doha, Qatar	Not Assured
G4-6	QAFAC Operates only in Qatar	Not Assured
G4-7	13	Not Assured
G4-8	QAFAC products are sold in Asia and in the Middle East	Not Assured
G4-9	34, 36, 58	Not Assured
G4-10	58	Not Assured
G4-11	Trade unions are not allowed in Qatar	Not Assured
G4-12	16, 17	Not Assured
G4-13	No significant changes	Not Assured
G4-14	The precautionary approach is embedded in QAFAC's sustainability management	Not Assured
G4-15	Qatar National Vision 2030, Qatar National Development Strategy 2011-2016	Not Assured
G4-16	18	Not Assured
<b>IDENTIFIED MATERIAL ASPECTS AND BOUNDARIES</b>		
G4-17	13	Not Assured
G4-18	4, 30	Not Assured
G4-19	31, 88	Not Assured
G4-20	88	Not Assured
G4-21	88	Not Assured
G4-22	There have been no restatements of data in this report	Not Assured
G4-23	There have been no significant changes to the report Scope and Aspect Boundaries	Not Assured
<b>STAKEHOLDER ENGAGEMENT</b>		
G4-24	29	Not Assured
G4-25	29	Not Assured
G4-26	29	Not Assured
G4-27	29	Not Assured

REPORT PROFILE		
G4-28	January 1, 2015 - December 31, 2015	Not Assured
G4-29	2014	Not Assured
G4-30	Annual	Not Assured
G4-31	4	Not Assured
G4-32	4	Not Assured
G4-33	QAFAC does not seek external assurance for its sustainability report	Not Assured
<b>GOVERNANCE</b>		
G4-34	15	Not Assured
<b>ETHICS AND INTEGRITY</b>		
G4-56	Code of Ethical Conduct, based on international standards in professional business ethics, is applicable for all employees. The Code of Conduct Committee oversees compliance with the guidelines of the Code of Ethical Conduct. Internal Audit Department ensures compliance of QAFAC as a company with corresponding laws and regulations. All employees and members of the Board must annually declare any conflict of interest in accordance with QAFAC's Conflict of Interest Policy.	Not Assured
SPECIFIC STANDARD DISCLOSURES		
DMA and Indicators	Page Number	External Assurance
<b>CATEGORY: ECONOMIC</b>		
<b>MATERIAL ASPECT: ECONOMIC PERFORMANCE</b>		
G4-DMA	26, 27	Not Assured
G4-EC1	36	Not Assured
G4-EC4	No assistance received from the government	Not Assured
<b>MATERIAL ASPECT: MARKET PRESENCE</b>		
G4-DMA	75	Not Assured
G4-EC6	76, 82	Not Assured
<b>MATERIAL ASPECT: INDIRECT ECONOMIC IMPACTS</b>		
G4-DMA	75	Not Assured
G4-EC7	41	Not Assured
G4-EC8	75, 76	Not Assured
<b>MATERIAL ASPECT: PROCUREMENT PRACTICES</b>		
G4-DMA	75	Not Assured
G4-EC9	75	Not Assured
<b>CATEGORY: ENVIRONMENTAL</b>		
<b>MATERIAL ASPECT: MATERIALS</b>		
G4-DMA	26, 34, 71	Not Assured
G4-EN2	71	Not Assured

MATERIAL ASPECT: ENERGY		
G4-DMA	26, 65	Not Assured
G4-EN3	65	Not Assured
G4-EN4	65	Not Assured
G4-EN5	65	Not Assured
MATERIAL ASPECT: WATER		
G4-DMA	26, 70	Not Assured
G4-EN8	70	Not Assured
G4-EN10	70	Not Assured
MATERIAL ASPECT: EMISSIONS		
G4-DMA	26, 66, 68	Not Assured
G4-EN15	66	Not Assured
G4-EN16	66	Not Assured
G4-EN18	66	Not Assured
G4-EN21	68	Not Assured
MATERIAL ASPECT: EFFLUENTS AND WASTE		
G4-DMA	26, 70, 71	Not Assured
G4-EN22	70	Not Assured
G4-EN23	71, 72	Not Assured
G4-EN24	81	Not Assured
CATEGORY: SOCIAL		
SUB-CATEGORY: LABOR PRACTICES AND DECENT WORK		
MATERIAL ASPECT: EMPLOYMENT		
G4-DMA	27, 61	Not Assured
G4-LA1	61	Not Assured
MATERIAL ASPECT: OCCUPATIONAL HEALTH AND SAFETY		
G4-DMA	28, 50	Not Assured
G4-LA6	50	Not Assured
MATERIAL ASPECT: TRAINING AND EDUCATION		
G4-DMA	27, 61	Not Assured
G4-LA9	61	Not Assured
G4-LA10	59, 60	Not Assured
MATERIAL ASPECT: DIVERSITY AND EQUAL OPPORTUNITY		
G4-DMA	27, 58	Not Assured
G4-LA12	58	Not Assured

ASPECT: SUPPLIER ASSESSMENT FOR LABOR PRACTICES		
G4-DMA	27, 28, 55	Not Assured
G4-LA14	55	Not Assured
SUB-CATEGORY: HUMAN RIGHTS		
MATERIAL ASPECT: INVESTMENT		
G4-DMA	27	Not Assured
G4-HR1	27, 55	Not Assured
MATERIAL ASPECT: NON-DISCRIMINATION		
G4-DMA	58	Not Assured
G4-HR3	zero	Not Assured
MATERIAL ASPECT: CHILD LABOR		
G4-DMA	QAFAC does not have operations where there is significant risk of child labor. Furthermore, the company does not hire anyone under the legal working age in Qatar	Not Assured
G4-HR5	zero	Not Assured
MATERIAL ASPECT: FORCED OR COMPULSORY LABOR		
G4-DMA	QAFAC adheres to all laws relating to worker rights, and follows international guidelines. The Company takes significant steps to help ensure that there are no violations of worker rights, including forced or compulsory labor, among contractors.	Not Assured
G4-HR6	See G4-DMA for Forced or Compulsory Labor	Not Assured
SUB-CATEGORY: SOCIETY		
MATERIAL ASPECT: ANTI-CORRUPTION		
G4-DMA	19	Not Assured
G4-SO5	19	Not Assured
MATERIAL ASPECT: COMPLIANCE		
G4-DMA	37	Not Assured
G4-SO8	QAFAC has not had any incidents of non-compliance with laws and regulations during the reporting period.	Not Assured
SUB-CATEGORY: PRODUCT RESPONSIBILITY		
MATERIAL ASPECT: CUSTOMER HEALTH AND SAFETY		
G4-DMA	42	Not Assured
G4-PR9	There were no fines for non-compliance with laws and regulations concerning the provision and use of products and services	Not Assured
MATERIAL ASPECT: PRODUCT AND SERVICE LABELLING		
G4-DMA	26, 34	Not Assured
G4-PR3	34	Not Assured
MATERIAL ASPECT: ASSET INTEGRITY AND PROCESS SAFETY		
G4-DMA	28, 44	Not Assured
G4-OG13	44	Not Assured

## Annex 3. Report Scope and Boundaries of materiality Issues

Material Aspect	Material within QAFAC	Material outside QAFAC	GRI Material Aspect
Operational and Financial Growth	Yes	Customers, Environment, Society	Economic Performance
Resource Optimization	Yes	Environment, Society	Materials
Product Quality and Innovation	Yes	Society	Product and Service Labeling, Research and Development
Supply Chain	Yes	Suppliers, Customers	Procurement Practices
Health and Safety	Yes	Environment	Occupational Health and Safety
Human Rights and Labor Standards	Yes	Society	Labor Practices and Decent Work
Process Safety and Asset Integrity	Yes	Environment	Asset Integrity and Process Safety
Plant Reliability	Yes	Customers	Availability and Reliability, Access
Energy Efficiency	Yes	Environment, Customers, Environment	Energy
Air Emissions	Yes	Environment, Society	Emissions
GHG Emissions (Climate Change)	Yes	Environment, Society	Emissions
Water Management	Yes	Environment, Society	Water
Waste Management	Yes	Environment, Society	Effluents and Waste
Employee Learning and Development	Yes		Training and Education
Human Resources Attraction and Retention	Yes	Society	Employment, Labor Practices and Decent Work
Employee Engagement	Yes		Employment
Qatarization	Yes	Society	Market Presence
Local Procurement	Yes	Suppliers	Procurement Practices, Indirect Economic Impacts
Corporate Social Responsibility	Yes	Society	Local Communities

[G4-19, G4-20, G4-21]

## Annex 4. Glossary and Acronyms

ACS	American Chemical Society
AGT	Authorized Gas Tester
AWMA	Air and Waste Management Association
BBS	Behavior Based Safety
BCMS	Business Continuity Management System
BIBW	Business Intelligence/Business Warehouse
CCMP	Continuous Competency Management Program
CCR	Continuous Catalyst Regeneration
CDR	Carbon Dioxide Recovery
CEO	Chief Executive Officer
CFR	Code of Federal Regulations
CO <sub>2</sub>	Carbon Dioxide
COO	Chief Operations Officer
CRT	Crisis Response Team
CSP	Complete Saturation Process
CSR	Corporate Social Responsibility
DCS	Distributed Control System
DIB	De-isobutanizer Tower
DMA	Disclosure on Management Approach
EMS	Environmental Management System
EPA	Environmental Protection Agency
ERP	Enterprise Resource Planning
ERT	Emergency Response Team
FEED	Front-End Engineering and Design
GCC	Gulf Cooperation Council
GHG	Greenhouse Gas
GJ	Giga Joules
GPCA	Gulf Petrochemicals and Chemicals Association
GRI	Global Reporting Initiative
GSES	Gulf Sustainability Assessment System
HR	Human Resources
HSE	Health, Safety, and Environment
HSSE	Health, Safety, Security, Environment
IMC	Isothermal Methanol Converter
IOLLC	International Octane LLC
IPTC	International Petroleum Conference
IQ	Industries Qatar
ISMS	Information Security Management System
IT	Information Technology
L&D	Learning and Development
LCYMEC	LCY Middle East Corp.
LDAR	Leak Detection and Repair

### Catalyst

A substance which aids or promotes a chemical reaction without forming part of the final product. It enables the reaction to take place faster, remains unchanged at the end of the reaction and can provide control by increasing desirable reactions and decreasing undesirable reactions.

### Climate Change

The term “climate change” is used to imply a significant change from one climatic condition to another. Sometimes, climate change is used synonymously with the term global warming; scientists however, tend to use the term in the wider sense to also include natural changes in climate.

### GHG

Greenhouse Gas - is a gas in an atmosphere that absorbs and emits radiation within the thermal infrared range. The primary greenhouse gases in the Earth's atmosphere are carbon dioxide, methane, nitrous oxide, ozone and water vapor.

### Materiality

Aspects or issues that reflect QAFAC's significant economic, environmental and social impacts, or substantively influence the assessments and decisions of stakeholders. Materiality aspects identified for QAFAC should be reported in a transparent and comprehensive manner in accordance with GRI principles of sustainability reporting.

### MTBE

MTBE is used in gasoline to boost the octane rating and to decrease the toxic emissions in the exhaust. As an octane enhancer, MTBE delivers high octane numbers at relatively low cost. A direct effect of the use of MTBE is the reduction of both “regulated” emissions (CO, unburned hydrocarbons) and “unregulated” emissions (e.g. ground-level ozone).

### Natural Gas

Colorless, highly flammable gaseous hydrocarbon consisting primarily of methane, ethane, and small amounts of heavier gaseous hydrocarbon compounds such as propane.

## Refining

Conversion of crude oil or gas into useful petrochemical products. It begins with the separation of hydrocarbons into different fractions by distillation, which are further treated to convert them into mixtures of more useful products by various methods.

## Scope 1

Scope 1 emissions are direct GHG emissions from the sources that are owned or controlled by the entity. Scope 1 can include emissions from fossil fuels burned on site, emissions from entity-owned or entity-leased vehicles, and other direct sources.

## Scope 2

Scope 2 emissions are indirect GHG emissions resulting from the generation of electricity, heating and cooling, or steam generated off site but purchased by the entity, and the transmission and distribution (T&D) losses associated with some purchased utilities.

## Stakeholders

Stakeholder, an accountant, group, organization, member or system who affects or can be affected directly or indirectly by an organization.

## Sustainability

Meeting the needs of the present without compromising the ability of future generations to meet their own needs.

## VOC

Organic compounds that readily evaporate. VOCs include pure hydrocarbons, partially oxidised hydrocarbons, and organic compounds containing chlorine, sulfur or nitrogen. They are widely used as fuels (e.g., propane and gasoline), as paint thinners and solvents, and in the production of plastics. VOC emissions have to be carefully controlled so as not to contribute to air toxicity and urban smog.

<b>LOC</b>	Loss of Containment
<b>LTA</b>	LostTime Accident
<b>MKOPSC</b>	Mary Kay O'Conner Process Safety Center
<b>MME</b>	Ministry of Municipality and Environment
<b>MMSCM</b>	Million Metric Standard Cubic Meters
<b>MoU</b>	Memorandum of Understanding
<b>MT</b>	Metric Ton
<b>MTBE</b>	Methyl-Tertiary Butyl Ether
<b>NDS 11-16</b>	National Development Strategy 2011-2016
<b>NOX</b>	Nitrogen Oxide
<b>OE</b>	Operational Excellence
<b>OGI</b>	Optical Gas Imaging
<b>OMECE</b>	OPIC Middle East Corporation
<b>ORU</b>	Oxygenate Removal Unit
<b>OSHAS</b>	Occupational Health and Safety Management Systems
<b>PDP</b>	Personal Development Program
<b>PHA</b>	Process Hazard Analysis
<b>PO</b>	Purchase Order
<b>PSI</b>	Process Safety Information
<b>PSM</b>	Process Safety Management
<b>PTW</b>	Permit to Work
<b>QAFAC</b>	Qatar Fuel Additives Company
<b>QEISS</b>	Qatar Energy and Industry Sector Sustainability
<b>QNV 2030</b>	Qatar National Vision 2030
<b>QP</b>	Qatar Petroleum
<b>QR</b>	Qatari Riyal
<b>QSSA</b>	QAFAC Support Service Area
<b>QU</b>	Qatar University
<b>RBI</b>	Risk Based Inspection
<b>ROSPA</b>	Royal Society for the Prevention of Accidents
<b>SAP</b>	Systems, Applications and Products Software Company
<b>SASB</b>	Sustainability Accounting Standards Board
<b>SD</b>	Sustainable Development
<b>SO</b>	Strategic Objectives
<b>SOP</b>	Standard Operating Procedures
<b>SOX</b>	Sulfur Oxide
<b>SWP</b>	Safe Work Practices
<b>TAMUQ</b>	Texas A&M University at Qatar
<b>UOP</b>	Universal Oil Products LLC
<b>VOC</b>	Volatile Organic Compounds



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