



**КазМұнайГаз**  
NATIONAL COMPANY / ҰЛТТЫҚ КОМПАНИЯСЫ

# **COURSE TOWARDS A LOW-CARBON FUTURE**

**SUSTAINABILITY  
REPORT  
2020**





# TABLE OF CONTENTS

Report Overview	14
Message of the Chairman of the Board of Directors	16
Message of the Chairman of the Management Board	18

## Company Overview

2020 corporate milestones	26
Company's Mission and Strategic Intents	28
Anti Crisis measures amongst the COVID-19 pandemics	29
Corporate governance	31
Digital transformation	43

## Contribution to Economic Development

Created and allocated economic value	72
KMG tax strategy	73
Implementation of investment projects	75
Procurement practices	78
Anti-corruption management	80
Anti-competitive behaviour	83
Social and economic compliance	83

## Social Responsibility

Employment	119
Equal opportunities and motivation of personnel	123
Observance of human rights and social assistance	123
Staff development	127
Our communities	129
Our contribution to the fight against the COVID-19 pandemic	131

## Sustainability Management

Our approach to sustainable development	49
Commitment to UN GC and SDG principles	51
ESG integration	53
Focus on low-carbon future	54
Ethics and integrity	56
How to report unethical conduct	57
Stakeholder Engagement	59
Identification of material topics of the Report	61
Initiatives and memberships	64

## Environmental Liability and Workplace Safety

Our approach to management	85
Occupational health and safety	89
Production sanitary and workplace hygiene	93
COVID-19 pandemic response – safety at production facilities	96
Environmental performance	97
Compliance with requirements	116
HSE training	117

## Appendices

Independent verification report	134
1. Reporting limits, amendments and notes	136
2. Environmental indicators	138
3. GRI Content Index	141
4. Abbreviations and Acronyms	151
Contact details	154

KMG Sustainability Reports are available in electronic and on-line form in State, Russian and English languages on the company's website.

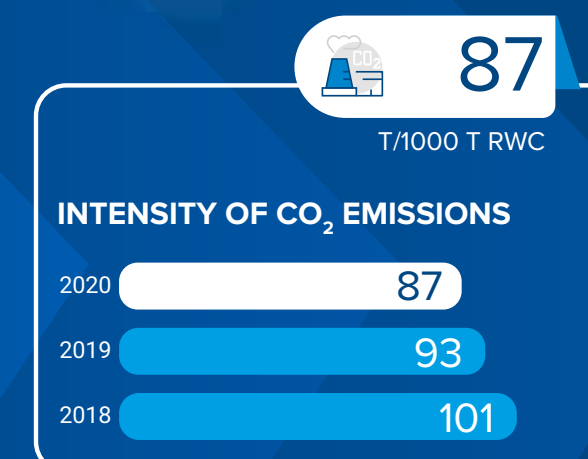
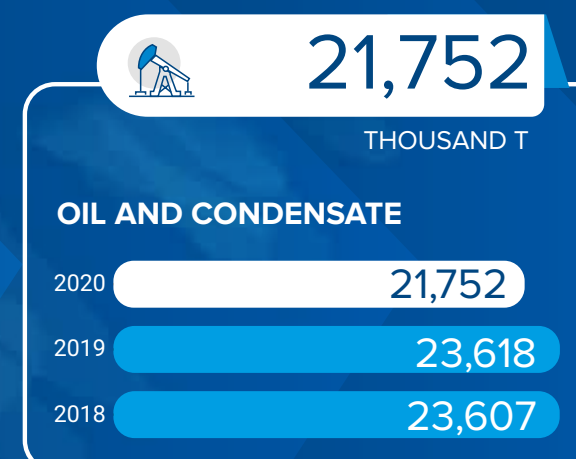
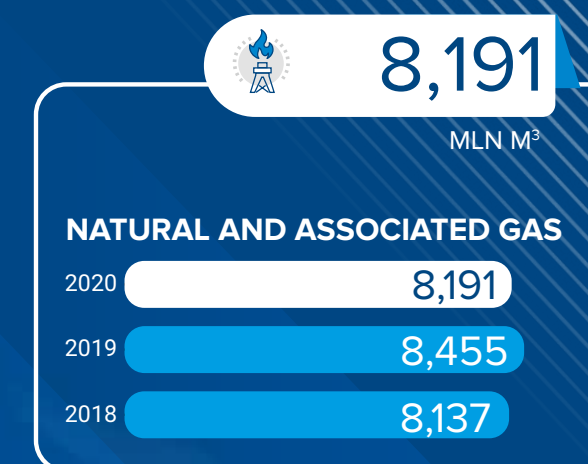
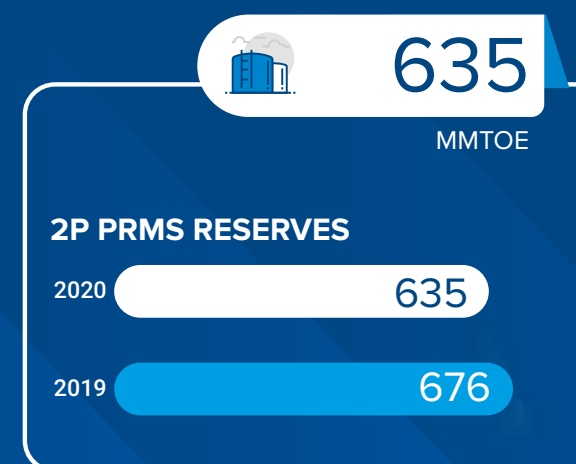




# PRODUCTION OF OIL AND GAS

## KEY INDICATORS

102-1,102-2,102-7,102-8



## CASE STUDY

In 2020, reserves of raw hydrocarbons grew by 16 mln tonnes, mainly as a result of additional exploration and re-estimation of fields of Embamunaygaz JSC, Ozenmunaygaz JSC, Kazakhturkmunay LLP, etc.

Today, about 85% of oil produced by Company's operational assets is produced by seven main fields: Uzen and Karamandybas (Ozenmunaygaz JSC), Kalamkas and Zhetybay (Mangistaumunaygaz JSC), S.Nurzhanov and East Moldabek (JSC Embamunaygaz) and Karazhanbas (Karazhanbasmunay JSC).



# OIL AND GAS TRANSPORTATION

## KEY INDICATORS

102-1,102-2,102-7,102-8



64,181

THOUSAND T

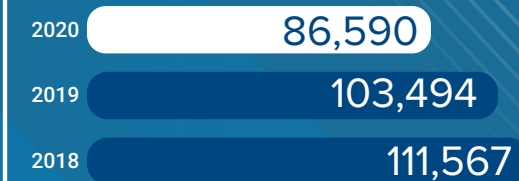
### OIL TRANSPORTATION



86,590

MLN M<sup>3</sup>

### GAS TRANSPORTATION



629

THOUSAND T

### OIL TRANSPORTATION IN THE CASPIAN



8,361

THOUSAND T

### OIL TRANSPORTATION IN THE BLACK AND MEDITERRANEAN SEAS



## CASE STUDY

In 2020, **NMSC KAZMORTANSFLOT** transported 629,000 tonnes of oil in the Caspian using its own tanker, or 116% against the target (540,000 t).

In 2020, oil transportation in Black and Mediterranean seas reached 8,361,000 tonnes or 166% against the target (5,040,000 t).

Out of the total volume, 3,414,000 tonnes were transported by the own fleet and 4,947,000 tonnes were transported by chartered vessels.

Transportation in open seas:

- Oil transportation in the Black Sea: 3,420,000 tonnes;
- Oil transportation in the Mediterranean Sea: 4,941,000 tonnes.



# REFINING AND MARKETING

## CASE STUDY

### CASPI BITUM

In 2020, yield of bitumen reached 44% (4% more against the previous periods). This is a record setting maximum since commissioning of the facility. As compared to 2019, processing of less oil resulted in production of more bitumen:

	2019	2020
Oil refining, t	886	865
Bitumen production, t	369	370

## KEY INDICATORS

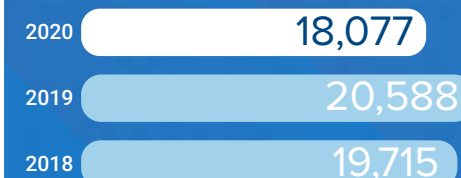
102-1,102-2,102-7,102-8



18,077

THOUSAND T

### OIL REFINING



3,167

THOUSAND T

### WHOLESALE SALES OF KMG PETROLEUM PRODUCTS PRODUCED IN ROK



# SERVICE

## CASE STUDY

### MANAGEMENT OF OFFSHORE COASTAL INFRASTRUCTURE

The following projects were successfully completed in 2020:

- MCV Barys, Berkut, Sunkar and tugboats Talas, Emba and Irgiz were built for the future Tengizchevroil expansion; 90 modules totalling to 57,000 tonnes were transported.
- 6 barges and 36 tugboats transported 25 major cargoes totalling to 3600 tonnes from Constanta Port (Romania) to Atyrau Port (RoK) for construction of KPI polypropylene production plant (Kazakhstan Petrochemical Industries Inc.).
- 1 barge was engaged for BERTLING, 2 major cargoes were transported from KCOI (RoK) to Prorva port (RoK).

Following compliance assessment by OCIMF (Oil Companies International Marine Forum), NMSC Kazmotransflot was given the highest rating A.

In 2020, one MCV (Barys) was started to be upgraded into a container carrier.

In 2020, 25, major cargoes were successfully transported from Constanta port to Atyrau river port for Construction of KPI Petrochemical Complex in Atyrau.

An investment project was initiated to purchase an Aframax tanker to transport KMG oil in open seas.



Land and air transport



Offshore operations support



Drilling and integrated services



Manufacturing oil and gas  
equipment



Process automation



Oil spill response

MORE THAN **10.5** THOUSAND VEHICLES ARE ENGAGED  
at our production facilities on a daily basis



# CONTRIBUTION TO ECONOMIC DEVELOPMENT

KEY INDICATORS

102-1,102-2,102-7,102-8



172

BLN KZT

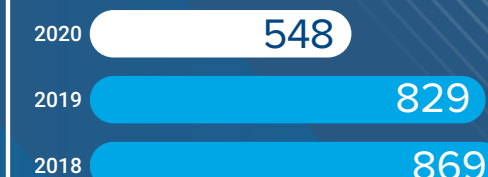
## INCOME



548

BLN KZT

## TAXES\*



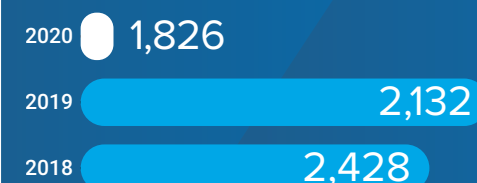
\*to the local budget



1,826

BLN KZT

## PROCUREMENT



82%

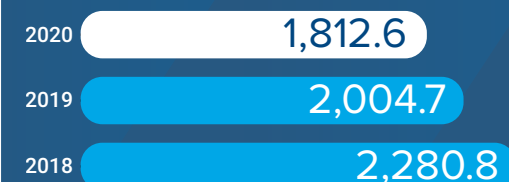
## LOCAL CONTENT IN PROCUREMENTS, %



1,812.6

BLN KZT

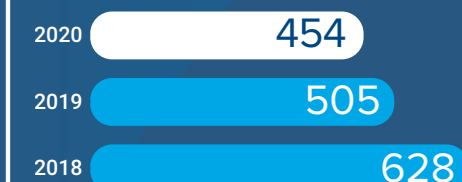
## PURCHASE OF GOODS, WORKS AND SERVICES FROM RESIDENT COMPANIES



454

BLN KZT

## CAPITAL INVESTMENTS





# SOCIAL RESPONSIBILITY and HSE

## KEY INDICATORS

102-1,102-2,102-7,102-8



BLN KZT

### SOCIAL SUPPORT FOR EMPLOYEES

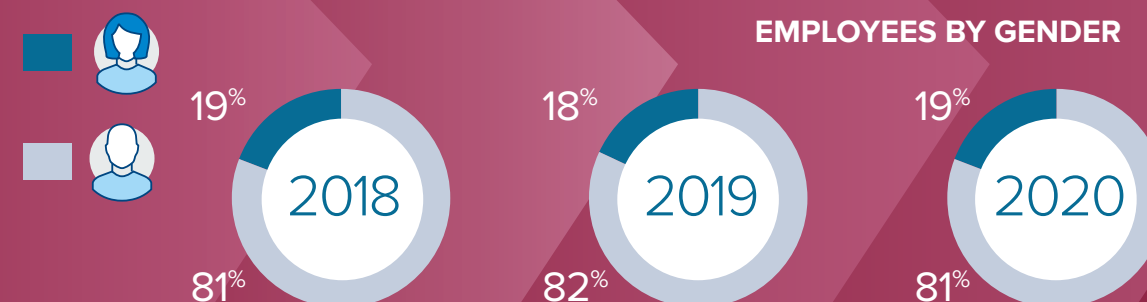


%

### TURNOVER



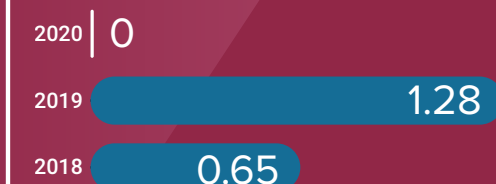
### EMPLOYEES BY GENDER



### NUMBER OF ACCIDENTS

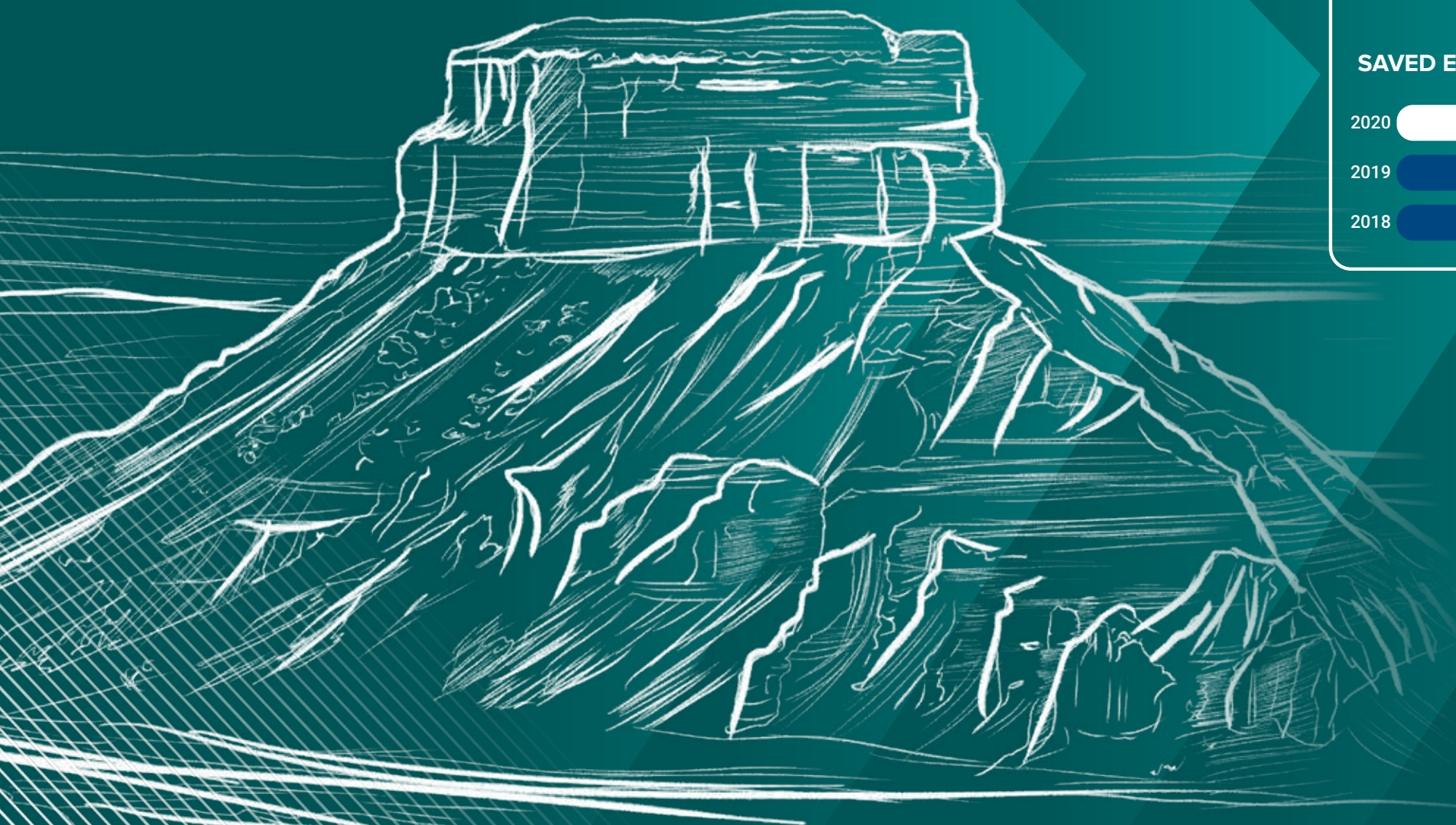


### FATAL ACCIDENT RATE (FAR)



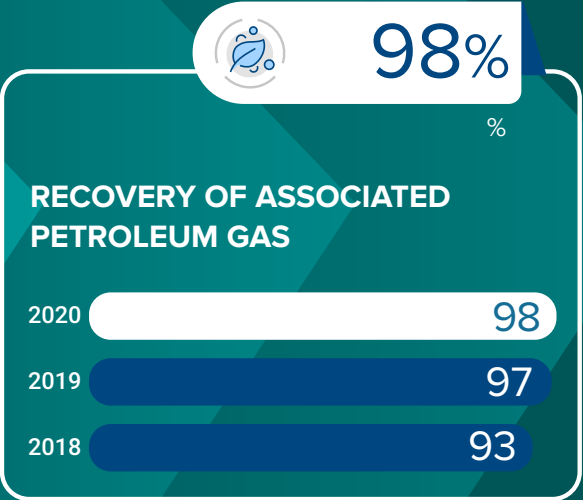
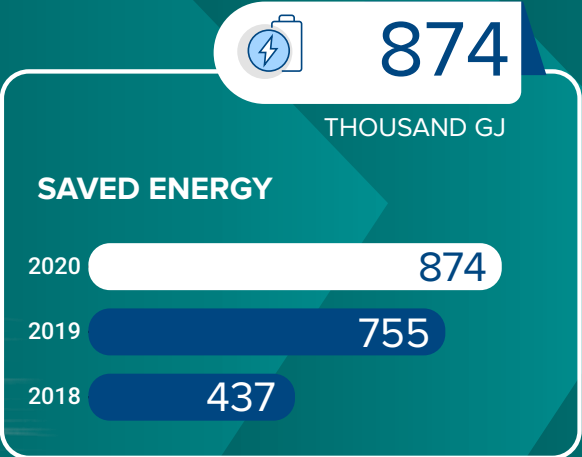
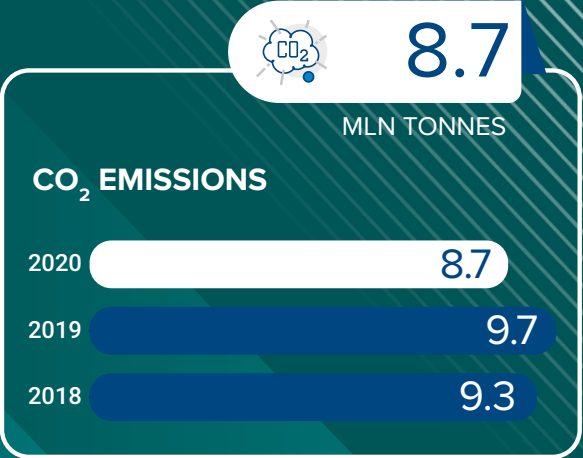
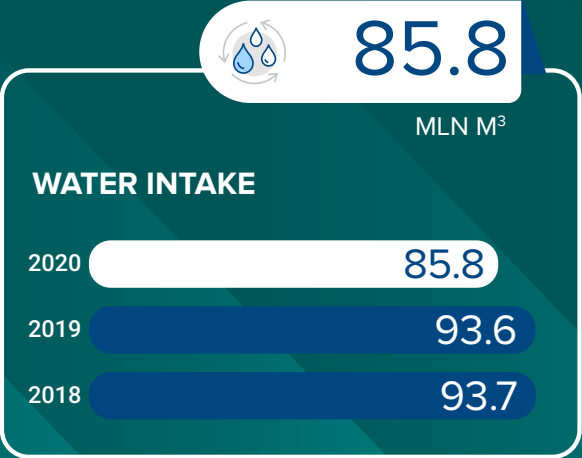


# ENVIRONMENTAL PERFORMANCE



## KEY INDICATORS

102-1,102-2,102-7,102-8





## REPORT OVERVIEW

102-32,102-46, 102-50, 102-52, 102-54,102-56

In order to ensure clarity and transparency of its activities for stakeholders, JSC NC "KazMunayGas" (KMG) annually reports its approach to sustainability, social, economical and environmental responsibility.

The Company has been reporting its sustainability activities annually since 2008; starting from 2012, it has been publishing reports under Global Reporting Initiative (GRI).

This report has been prepared in accordance with the GRI Standards: Core option.

The Report contains consolidated information of KMG and its subsidiaries and associated entities (referred to in the Report as KMG, the Company, the Group) for the year 2020.

The Report covers KMG's subsidiaries and associated companies with fifty and more percent of voting shares (interest) directly or indirectly owned or held in trust by KMG, as well as the legal entities with activities KMG is entitled to control (the detailed reporting responsibilities by sections is presented in Appendix 1 hereto).

The Company's financial standing and production performance are presented based on consolidated Company data with the organizational support of the relevant Company's Business Units. This Report has been based on KMG's managerial and audited financial statements prepared in accordance with the International Financial Reporting Standards.

This Report has been compiled pursuant to the Global Reporting Initiative Sustainability Reporting Standards (GRI Standards) and GRI Oil and Gas Sector Disclosures.

See more details about Report preparation, identification of major subjects and interactions with the stakeholders in "Sustainability Management".

To be able to compare data by specific indicators, the information is provided in the form of multi-year trends.

KMG sustainability reports are available electronically in the state language, in Russian and English on KMG website: [http://www.kmg.kz/rus/ustoichivoe\\_razvitiye/reports/](http://www.kmg.kz/rus/ustoichivoe_razvitiye/reports/).



The KMG Sustainability Report is approved by resolution of KMG Board of Directors and is communicated to the stakeholders by means of publication on the corporate website and distribution of the paper copy.

An interactive version of the report is published on the KMG website in the state language, in Russian and English: [http://www.kmg.kz/rus/ustoichivoe\\_razvitiye/reports/](http://www.kmg.kz/rus/ustoichivoe_razvitiye/reports/).



The report has been externally certified and reviewed by the GRI Materiality Disclosures Service and received the original Global Reporting Initiative (GRI) mark (Appendix 3).

According to the Procurement Management Standard of the Samruk-Kazyna JSC, the Supplier for the procurement of services for verification of the annual Sustainability Report of JSC NC "KazMunayGas" is Ernst & Young Consulting Services Limited Liability Partnership.\*

\*The procurement management standard of Samruk-Kazyna Sovereign Welfare Fund and organizations in which fifty or more per cent of the voting shares (participation shares) are directly or indirectly owned by Samruk-Kazyna under the right of ownership or trust management.



## SUSTAINABLE DEVELOPMENT GOALS



Human rights		<b>Principle 1</b>	Businesses should support and respect the protection of the internationally proclaimed human rights
		<b>Principle 2</b>	Businesses should not be complicit in human rights abuses
Labour relations		<b>Principle 3</b>	Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining
		<b>Principle 4</b>	Businesses should eliminate all forms of forced and compulsory labour
		<b>Principle 5</b>	Businesses should uphold the effective abolition of child labour
		<b>Principle 6</b>	Businesses should uphold the elimination of discrimination in respect of employment and occupation
Environment		<b>Principle 7</b>	Businesses should support a precautionary approach to environmental challenges
		<b>Principle 8</b>	Businesses should undertake initiatives to promote greater environmental responsibility
		<b>Principle 9</b>	Businesses should encourage the development and diffusion of environmentally friendly technologies
Anti-corruption management		<b>Principle 10</b>	Businesses should work against corruption in all its forms, including extortion and bribery



## MESSAGE

## OF THE CHAIRMAN OF THE BOARD OF DIRECTORS

102-14, 102-44



Christopher John Walton

Chairman of the Board of Directors

## Dear Readers,

I am pleased to present to you the JSC NC "KazMunayGas" 2020 Sustainability Report.

The year 2020 will be remembered as a year of challenges. The challenges that we faced have shown the importance and the value of our efforts to implement the philosophy of sustainability and to improve corporate governance.

Despite the challenging times, our strategic priorities in the reporting year remained the same. In the year 2020, a special focus was devoted to ESG, i.e. Environmental and Social responsibility and corporate Governance issues.

To improve the Company's sustainability performance, in 2020, the Board of Directors approved the ESG rating as a corporate KPI. This involved an independent review of ESG by a rating agency.

KMG obtained an ESG rating from Sustainalytics, an international rating agency. For its first rating, KMG received 69 points. The Agency's experts reviewed more than 48 ESG criteria of the Company.

The Company employees' health and safety are a major priority. This is evidenced by the fact that, for the first time, we managed to achieve a zero work-related fatality rate over the 12-month period. Furthermore, we took measures to reduce incidence rates and the spread of COVID-19, which prevented mass infection and suspension of operations.

Reducing carbon emissions from operations is among the key environmental ESG challenges for KMG. It is worth noting that the climate change issues are overseen by the Board of Directors and the Safety, Health, Environment and Sustainable Development Committee of KMG's Board of Directors.

During the year, departmental KPIs for 2021 were approved which include the development of activity plans and targets until 2030 to cut the emissions of pollutants and greenhouse gases, and ensure water and energy savings in the KMG Group.

The Safety, Health, Environment and Sustainable Development Committee is active. In 2020, the Committee had four meetings where it addressed 40 sustainability matters.

These included approval of new corporate policies and procedures in relation to the sustainability management system, health and business process safety management. The sustainability management system implementation status is being monitored regularly.

An important strategic issue for KMG is the transition to a low-carbon operating environment. We are reviewing our activities to develop an energy transition in accordance with the Paris Agreement. We are also working on ways to ensure the embedded integration of climate risk management into the Company's business strategy. The Company Strategy will be revised in 2021 to include low-carbon development as one of our strategic goals.

We are committed to integrate the UN Sustainable Development Goals into the Company activities. In March 2020, KMG's Board of Directors and Management Board had an extended meeting and approved the priority SDGs; they are now being integrated into KMG's business processes.

Along with the Sustainable Development System, we give a lot of attention to fostering a sustainable development culture. Despite being in remote work mode, in 2020, we conducted sustainability training for the Corporate Centre and subsidiary employees. Over 85% of employees were also successfully trained

in corporate values and passed tests on ethical procedures and principles.

Given the growing interest of stakeholders in KMG's ESG performance, we have decided to carry out the independent verification of sustainability reporting on an annual basis. This will help improve the transparency and consistency of our non-financial reporting.

In conclusion, I would like to highlight that, despite the pandemic, we managed to take timely measures to ensure our employees' safety and health, to improve corporate governance and to continue implementing our sustainability goals and objectives, including the Company's ESG rating improvement.

Yours sincerely,

**Christopher John Walton**

Chairman of the Board of Directors



## MESSAGE

## OF THE CHAIRMAN OF THE MANAGEMENT BOARD

102-14,102-44



Alik Aidarbayev

Chairman of the Management Board

## Dear readers,

Last year was very challenging for all of us. The COVID-19 pandemic and quarantine measures have led to global consequences and affected almost every person on the planet.

The oil and gas industry has been among the sectors of economy which suffered the most. The reduced demand for hydrocarbons and limited production under OPEC+ negatively affected the operational and financial performance of oil and gas companies worldwide. KazMunayGas was not an exception.

Nevertheless, we managed to face all these challenges with dignity. An Anti-Crisis Plan was implemented in a timely manner, which made it possible to mitigate the influence of the pandemic as much as possible, to prevent operational process shutdown and maintain financial stability of the Company. Furthermore, we continued to implement priority investment and infrastructure projects.

Thanks to the Anti-Crisis Measures, the financial performance of KMG turned out better than expected. The Company has generated positive free cash flow, reduced the consolidated debt by 488 million dollars, and paid 82 billion tenge to the shareholders – the highest dividends in the entire history of KMG. Taxes and other mandatory payments amounted to 1.2 trillion tenge. On top of that, more than 3 billion tenge have been allocated to finance social projects in regions.

We have fulfilled all of our commitments under collective agreements. According to annual sociological studies, the integral social stability indicator has reached 86% last year. This is one of the highest indicators among the “Samruk-Kazyna” JSC portfolio companies.

Despite the crisis, we have retained jobs for our production personnel, and continued to improve the working conditions. Specifically, new dormitories were constructed at Karazhanbas and Asar fields, a shift camp in Aktobe region, the Atyrau Refinery employees received the keys to 100 apartments.

Along with this, the Company has been actively involved in the global fight against COVID-19 from the very first days of the pandemic. 6.2 billion tenge were allocated as part of the charitable support to the regions. This money was used to purchase ambulance vehicles, ventilators and personal protective equipment (PPE), among many other things.

It should be noted that an important achievement in the reporting period was the absence of work-related fatalities. This is the first time when the Company managed to achieve this.

We are continuously striving to improve corporate standards, taking the best practices into account. A set of anti-corruption policies has been approved, and our Code of Business Conduct has been updated. During last year, similar documents were developed and adopted by 35 subsidiaries and affiliates. Such comprehensive measures made it possible to close the year 2020 without a single case of corruption or fraud in the Group.

KMG follows its principles and pays special attention to environmental activities, which minimizes its environmental impact. For example, the effective utilisation of associated petroleum gas (APG) has reached 98%. We also managed to cut the atmospheric pollutant emissions. The waste disposal activities, including historical wastes disposal and polluted land reclamation, are currently ongoing.

Our carbon footprint has been calculated under the Carbon Disclosure Project (CDP) for the second year in a row. In August 2020, KMG published its 2019 Greenhouse Gas Emission Report as part of the CDP Climate Change Questionnaire. The CDP reporting has also been extended: water management data has been published for the first time in the 2019 Water Security Questionnaire.

The Company has received an ESG rating by Sustainalytics, an international rating agency, for the first time, earning 69 points out of 100. This independent rating reflects the consistent work we do every year for sustainable development. Each of our employees makes a great contribution.

Together with SOCAR and other oil and gas companies, we have joined the Caspian Environmental Protection Initiative. This is another crucial step, which involves active joint efforts to address climate change and prevent greenhouse gas emissions.

We observe the global trend for decarbonisation and green technology. The Company will also develop in this area and focus on moderate, well-considered and consistent development of renewable energy sources and decarbonisation. A Project Design Office to develop Low Carbon Development Programme has already been created.

In general, corporate governance, industrial safety and environmental protection will remain our main priorities. I am convinced that through our joint efforts we will fulfil all of our sustainability commitments.

Yours sincerely,

**Alik Aidarbayev**

Chairman of the Management Board





# COMPANY OVERVIEW



## COMPANY OVERVIEW

102-1,102-2,102-4,102-5,102-6,102-9

Joint Stock Company “National Company “KazMunayGas” is a unique, vertically integrated oil and gas operator which implements the full production cycle, from exploration and production of hydrocarbons to special services.

KMG was established under a Decree of the President of the Republic of Kazakhstan (RoK) dated 20 February 2000 No. 811 – On the Measures to Ensure Future Interests of the State in Oil and Gas Sector of the Country Economy, and Resolution of the RoK Government dated 25 February 2002 – On the Measures to Implement Decree of the RoK President dated 20 February 2002 No.811. KMG is a successor of closed joint stock companies “National Oil and Gas Company “Kazakhoil””, “National Company “Oil and Gas Transport””, and Joint Stock Company “KazMunayGas – Processing and Marketing”. KMG was founded by the RoK Government represented by the State Property and Privatisation Committee under the RoK Ministry of Finance.

**KMG shareholders are:**



Joint Stock Company Sovereign Wealth Fund  
Samruk-Kazyna (JSC Samruk-Kazyna)

**90.42%**



Republican State Institution National Bank of  
Kazakhstan

**9.58%**

The KMG Group includes 135 companies with fifty or more percent of voting stocks/participation directly or indirectly owned by KMG, of which 68 assets are based in RoK. Other assets are based in such countries as Romania, Georgia, Switzerland, the Netherlands, Canada, Bulgaria, Ukraine, Moldova, Russia and Turkey.

On December 30, 2015, Resolution of the RoK Government approved the 2016–2020 Comprehensive Privatisation Plan, which included 73 companies of the KMG Group. Legal entities from the KMG Group are cut as a part of privatisation and divestment programmes.

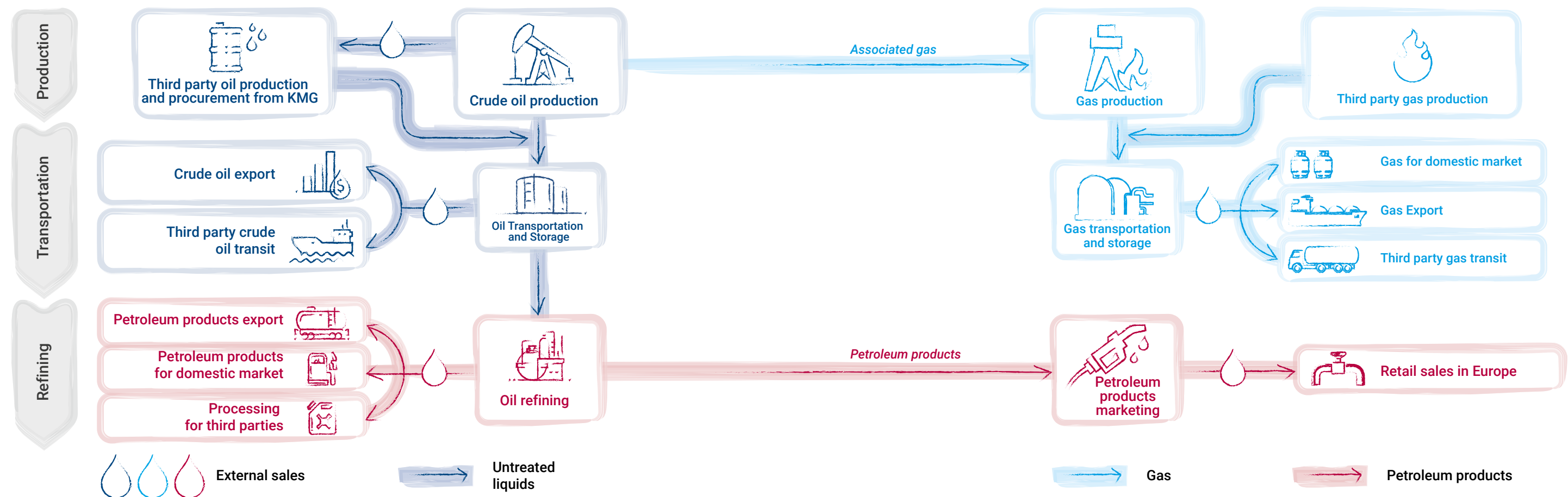
November 5, 2020, Resolution of the KMG Board of Directors (Minutes No.13/2020) revised the Activity Plan to switch to the target asset structure of JSC NC “KazMunayGas” dated June 6, 2019.

The assets structure of the KMG Group is also being simplified by dissolving/reorganising subholdings. In 2020, the voluntary dissolution of KazMunayGas Exploration Production JSC continued, as a result, in 2019–2020, KMG purchased 8 companies from KazMunayGas Exploration Production JSC.

In 2020, KMG sold 3 companies, dissolved 2 companies and reorganized 1 company.



## PRODUCTION VALUE CHAIN



KMG ships diesel fuel for field agricultural work and supplies fuel oil to social production facilities and institutions during the heated season.

Also in 2020, KMG sold jet fuel to 2 local airports and 6 airline companies through KMG-Aero LLP.

- Sary-Arka Airport JSC
- Nursultan Nazarbayev International Airport JSC
- Deutsche Lufthansa Aktiengesellschaft (Germany)
- Aerofuels Overseas Limited (Russia)
- Air Astana JSC
- JSC QAZAQ AIR
- JSC Scat
- KazAviaSpas JSC

The remaining oil products are sold to third party consumers in the domestic market or exported.

In 2020, KMG exported petrol (163,000 t), and for the first time started to export diesel (115,000 t). Export of light petroleum products grew by 241,000 tonnes against 2019 as a result of lower consumption in the domestic RoK market.

### Case study

#### JET A1 jet fuel production

Since 2020, all RoK oil refineries have had process capacities to produce international jet fuel class JET A1.

This is done to

- Ensure that aircrafts of domestic airline companies are ready to use JET A-1
- Be able to make supplies to international market;
- Make RoK airports more attractive;
- Be able to develop fuel filling complexes of RoK airports according to international standards

One of the main advantages of JET A-1 over TC-1 and RT fuels is the improved fire and explosion safety properties of JET A-1.

Shipment of dark petroleum products to Europe, petrol supplies to European countries, Afghanistan, Georgia and Tajikistan were prevailing in the structure of export supplies in 2020. Diesel, petrochemistry, coke, sulphur and butane were supplied to Europe, China, Russia, Uzbekistan and Tajikistan.

### WHOLESALE SALES OF KMG PETROLEUM PRODUCTS PRODUCED IN THE REPUBLIC OF KAZAKHSTAN, THOUSAND TONNES

Product	2018			2019			2020		
	domestic market	export	total	domestic market	export	total	domestic market	export	total
Gasoline	701	0	701	789	37	826	647	163	810
Diesel	954	0	954	1,028	0	1,028	930	115	1,045
Jet fuel	34	0	34	85	0	85	65	0	65
Fuel oil	192	414	606	188	469	657	211	402	613
Vacuum gas oil	0	200	200	0	167	167	0	155	155
Bitumen	53	0	53	65	0	65	87	0	87
Coke	44	33	77	40	51	91	61	57	118
Sulphur	9	4	13	2	13	154	6	5	11
Benzene	0	5	5	0	12	12	0	19	19
P-xylene	0	2	2	0	55	55	0	90	90
Liquefied gas	128	0	128	114	0	114	133	1	134
Heating fuel	43	23	66	7	0	7	6	0	6
Other	4	0	4	14	0	14	15	0	15
<b>Total</b>	<b>2,162</b>	<b>681</b>	<b>2,843</b>	<b>2,332</b>	<b>804</b>	<b>3,136</b>	<b>2,161</b>	<b>1,007</b>	<b>3,168</b>



**301-1, OG8**

In 2020, KMG procured oil from 4 subsidiary oil producers in the West Kazakhstan for further processing at 2 oil refineries (Atyrau Refinery in the west and Pavlodar Refinery in the east).

The total cost of oil and processing services amounted to 302.2 bln tenge.

The country's domestic market is 100% filled with domestic oil.

In accordance with the Technical Regulations of the Customs Union, starting from 2018, domestic refineries has been producing motor fuels of environmental classes C4 and C5

**K4, K5 (EURO-4, EURO-5)**

Quality of gasoline by the RoK refineries is as follows:

- Volume fraction of benzene is not more than 1% for environmental classes K4, K5;
- Volume fraction of aromatic hydrocarbons is not more than 35% for environmental classes K4, K5;
- Mass fraction of sulphur is not more than 50 mg/kg for class K4, not more than 10 mg/kg for class K5;
- Volume fraction of monomethylaniline is not more than 1% for environmental class K4 and none for environmental class K5.
- Production of gasoline of environmental classes K4 and K6 does not involve metal containing additives (with iron, manganese, lead).

See more details about operations and financial performance of the Company in the 2020 Annual Report at [www.kmg.kz/rus/investoram/reporting-and-financial-result](http://www.kmg.kz/rus/investoram/reporting-and-financial-result)



The information on the quality of products by Kazakhstan refineries is available at the official websites of the relevant refineries:





# 2020 CORPORATE

## MILESTONES

### PRODUCTION RESULTS

- ▶ On December 11, two wells were commissioned in East Urikhtau field.
- ▶ In 2020, a milestone for additional exploration of the operated projects was the free flow of pure oil from Triassic deposits, at 70 t/day, from NSV-11 well near the north-west wing of S.Nurzhanov field of Embamunaygaz JSC.
- ▶ In 2020, one of the important events for the operated prospecting and exploration projects was the free flow of pure oil from Jurassic deposits at up to 85 t/day from an exploration well at Bekturly East.
- ▶ For three oil refineries, processing depth of light petroleum products was improved to the average of up to 84.8% (POCR: from 86.3% to 87.2%; AR: from 75% to 77.2%; PKOP: from 84.8% to 90.1%), losses of all refineries reduced as compared to 2019.
- ▶ Oil was reliably and uninterruptedly supplied to the domestic market, exported and transited.
- ▶ First phase facilities were commissioned, construction of a main pump station and power generation facilities was completed; upgrade of the oil metering system at the Kenkiyak – Kumkol oil pipeline was completed as a part of the second phase of the Kenkiyak – Atyrau oil pipeline reverse project.
- ▶ Transportation by KMTF vessels and transshipment of cargoes through Prorva port for TCO FGP was completed before term. Total of 408 modules totalling to 279,859 tonnes were processed.
- ▶ The Beineu – Bozoi – Shymkent trunk gas pipeline reached its full capacity.

### CONTRIBUTION TO ECONOMIC DEVELOPMENT

- ▶ The 2020–2021 Anti-Crisis Measures has been developed and are being implemented to reduce the adverse effect of the crisis on the Company.
- ▶ Because of the Anti-Crisis measures, financial performance of KazMunayGas turned out to be better than it was expected in the beginning of the pandemics. Positive free cash flow was reached following the results of the year.
- ▶ The Anti Crisis Measures cut expenses by 147 bln KZT (capital expenses reduced by 103 bln KZT, operational expenses reduced by 27 bln KZT, administrative expenses reduced by 17 bln KZT).
- ▶ The total debt in USD dropped by 3.4% against the 10,030 mln USD as of December 31, 2019, and amounted to 9,690 mln USD as of December 31, 2020.
- ▶ Unprofitable and low margin projects were removed from the KMG investment portfolio.
- ▶ Capital expenses for investment projects reduced (expenses for development were cut by 29 bln KZT).
- ▶ KMG Euro bonds were successfully refinanced at 907 mln USD, this resolved the issue of major lump-sum debt repayments. The next major debt repayment will happen only in 2025.
- ▶ Thanks to the previous work in 2017–2019 to control and cut the debt, timely refinancing of major lump-sum repayments, improvement of the covenant package, higher liquidity management, optimised cost and reinforced financial stability, KMG managed to keep its credit ratings according to Moody's, Fitch and SQP without asking for assistance from the state.
- ▶ The share of local content in procurement of goods, work and services is 71% for goods (the target is 60%); and 86% for work and services (the target is 80%). Goods for 165 bln KZT or 68% of all procured goods were procured from domestic producers under contracts valid less than 1 year according to SDE procurement plans.
- ▶ In 2020, 40 offtake contracts and 2 memorandums were entered into with domestic producers for the total of 13.56 bln KZT.
- ▶ In 2020, under contracts for up to 500 mln KZT, suppliers retained 22,600 jobs and created 1,623 new jobs.
- ▶ A group of measures to achieve zero tolerance towards corruption and fraud, which involved as many employees of the KMG Group as possible, made it possible to finish 2020 without a single corruption or fraud case.
- ▶ Information security activities, observation of basic cyber hygiene requirements, including those for remote work, prevented information security incidents, which could result in major damage for the Company.
- ▶ Measures implemented by KMG, SDEs and security contractors in 2020 ensured the appropriate physical security of KMG infrastructure, not allowing a single criminal branch to the trunk oil pipelines.

### SOCIAL AND ENVIRONMENTAL PERFORMANCE

- ▶ During the COVID-19 pandemics, the KazMunayGas Group did not let production processes stop, did not downsize production staff and did not cut remuneration. The Company provided more than 6 bln KZT of charitable assistance to regions to fight the COVID-19.
- ▶ For the first time in its history, KazMunayGas managed to finish the year without work-related fatalities.
- ▶ In 2020, a 42 km long high and medium pressure gas pipeline was constructed to supply gas to five settlements (Masanchi, Karakemer, Sortobe, Bular batyr, Aukhatty) in Korday District of Zhambyl Region. The project provided natural gas for 10 settlements with more than 62,000 people, 7,177 residential houses, 29 social facilities, 243 small and medium businesses. Seven more settlements can be gasified in the future.
- ▶ The joint efforts of Turkestan akimat and KazTransGas Aimak JSC in 2019–2020 made it possible to gasify 100% of Turkestan. More than 50,000 consumers has been connected to the gas supply networks. 26,200 families are already using natural gas by KazTransGas Aimak JSC in their houses.
- ▶ The social well-being index in the KMG Group grew from 72% in 2019 to 74% in 2020 (according to the research of November 2020 by Social Engagement and Communications Centre of Samruk-Kazyna JSC).
- ▶ KazMunayGas met all of its commitments under collective agreements despite the pandemics and low global oil prices.
- ▶ On several occasions, KazMunayGas paid for the forced downtime to employees of service companies, where work scopes dropped because of the reduced production.
- ▶ Despite the reduced expenses, work conditions of production workers continued to be improved. New dormitories were commissioned in Karazhanbas, Mangistaumunaygaz, a shift camp was constructed in Aktobe Region. Employees of Atyrau Refinery got the keys to 101 apartments as a part of the social support programme.
- ▶ It is the second year in a row when carbon footprint is being calculated and published in the CDP Climate Change Questionnaire, which resulted in KMG being given Climate Change Score C.



## COMPANY'S MISSION AND STRATEGIC INTENTS

102-16

### MISSION

*Ensure the maximum benefits for the Shareholders from participation in development of the national oil and gas industry*

### VISION

*A highly efficient, national-wide, vertically integrated company, which meets the highest safety and corporate governance standards.*

### STRATEGIC GOALS\*

*Create value and strengthen business solvency*

*Optimise business and governance model*

*Introduce best practices of corporate governance and sustainability*

### STRATEGIC PERFORMANCE FOR KMG

- Growing free cash flow and return on investments
- Appropriate business model and governance model
- Ethics, compliance, corporate culture
- Sustainability and environmental responsibility

### STRATEGIC PERFORMANCE FOR THE SHAREHOLDERS

*Higher dividends for the Shareholders*

## ANTI CRISIS MEASURES AMONGST THE COVID-19 PANDEMICS

In order to mitigate effects of the COVID-19 crisis on the company, KMG has developed and is implementing the 2020–2021 Anti Crisis measures.

**The main five areas of the Anti Crisis Measures which significantly mitigated the crisis effects on the Company:**

- **Operational model;**
- **Operational efficiency;**
- **Financial stability;**
- **Investment activities;**
- **Digital transformation.**

### Measure 1. Operational model

The operational model measures include:

- Optimisation of business processes;
- Revision of the organisational chart and optimization the KMG Headquarters.

During the 2020 crisis, KMG paid for the forced downtime to employees of service companies, where work scopes dropped because of the reduced production.

Outplacement, a socially responsible employee dismissal project. As a result, 25% of the participants were employed within six months since the beginning of the project, and 12% changed their occupation and started their own business, 93% of the participants were satisfied with the outplacement programme.

Optimisation, debureaucratisation and enhancement of business process efficiency in KMG and in relationships with SDEs:

- A new procurement and contracting procedure was introduced;
- Typical competencies for SDE bodies were developed. At the moment, SDEs work to revise their Articles of Association according to the Typical Competences.

#### Case Study

*The Anti Crisis Measures cut expenses by 147 bln KZT (capital expenses reduced by 103 bln KZT, operational expenses reduced by 27 bln KZT, administrative expenses reduced by 17 bln KZT).*

*The KMG headquarters was optimized by 34% in total, the staff was optimized from 729 to 480 people, all 22 managing directors were laid off, number of departments was reduced by 3.*

*Bonuses and company vehicles were cancelled, top management salaries were cut by 30%.*

### Measure 2. Operational efficiency

Measures to increase operational performance involve:

- Reducing oil production, primarily through stopping non-profitable wells;
- Reducing tariffs/prices and cutting scopes of contractors/suppliers throughout the KMG Group.

Production processes in the KMG Group were not allowed to stop during the COVID-19 pandemics.

KMG met all of its oil production commitments under OPEC+.

### Measure 3. Financial stability

Measures to support financial stability of KMG included:

- Optimising manageable expenses within the prime cost;
- Reducing the share of fixed costs;
- Optimising capital expenses (CAPEX);
- Keeping the debt burden at an appropriate level so that to cover possible cash shortages and investments.

In 2020, the debts of the KMG Group dropped by 341 mln USD, including early repayment. The debt is also observed to drop at the level of joint ventures for more than 1.1 bln USD, of which more than half are attributable to KMG Kashagan B.V.

KMG Euro bonds were successfully re-financed at 907 mln USD.

This resolved the issue of major lump-sum debt repayments. The next major debt repayment will happen only in 2025.

KMG managed to keep its credit ratings according to Moody's, Fitch and SQP as a result of the previous work in 2017–2019 to control and cut the debt, timely refinancing of major lump-sum repayments, improvements of the covenant package, higher liquidity management, optimised cost and reinforced financial stability.

\* According to the JSC NC "KazMunayGas" Development Strategy until 2028, approved by the decision of the KMG Board of Directors dated October 4, 2018 (Protocol No. 14/2018).



#### Measure 4. Investment activity

Two main aspects of investment activities were optimised:

- The list of assets to be divested was expanded.
- The investment projects portfolio was prioritised and included the most profitable projects which meet strategic goals of the Company.

Unprofitable and low margin projects were removed from the KMG investment portfolio.

Capital expenses for investment projects reduced (expenses for development were cut by 29 bln KZT).

#### Measure 5. Digital transformation

Prioritising the digital transformation projects portfolio resulted in net profit of 9.3 bln KZT in 2020, which is 127% above the target because of the post monitoring projects. "Association KazMunayGas Exploration and Production" JSC and JSC National Company "KazMunayGas" and "Procurement Category Management".

Four projects were launched: "Introduction of ABAI Information System", "Introduction of Engineering Simulation System at RoK Refineries", "Establishing a Multifunctional KMG Shared Service Centre and "Journey Management". The expected effect from the introduction will amount to 72.4 bln KZT.

In order to reduce disease rates and minimise the spread of the virus, and to reduce effects on production processes, the necessary comprehensive measures were taken, corresponding methods and guidelines were developed and introduced, special activity plans were developed and approved. See more information in **COVID-19 Response – Production Safety**.

As part of the global fight against COVID-19, the Company provided the necessary assistance of 6.2 bln to local executive authorities and medical institutions. See more details in **Our Contribution to the Fight against COVID-19**.



## CORPORATE GOVERNANCE

102-18

Pursuant to the RoK laws and KMG Articles of Association, the KMG corporate governance structure is as follows:

**KMG bodies are:**



The Board of Directors is engaged in general management of KMG activities, identifies priority activities, Company development strategy and reports to the General Shareholders Meeting for its management functions. The current activities are managed by the Management Board, which, in turn, reports to the Board of Directors.

*Committees of the Board of Directors are established to review the most important matters and to issue recommendations for the Board of Directors. As of 31, December 2020, there were the following committees of the Board of Directors:*

- 1. Nomination and Remuneration Committee** is established to address succession of the Board of Directors and the Management Board, evaluate performance of the KMG bodies, ensure efficient HR policy, salaries and remuneration system, and social assistance, professional development and training for KMG officials and employees.
- 2. Strategy and Portfolio Management Committee** is established to address development strategy and investment policy, KMG operational priorities, improvement of KMG investment attractiveness, KMG financial and economic planning and transformation monitoring.
- 3. Audit Committee** is intended to control the financial and economic activities, efficiency of the internal control, risk management and corporate governance systems, to address audit and financial reporting issues.
- 4. Health, Safety, Environment, and Sustainability Committee** is intended to address health, safety and environment, introduction of sustainable development and social & economic development philosophy, social commitments and programs, business continuity and environmental efficiency. This committee is responsible for initiation, in-depth review of and resolving on economic, environmental and social aspects of the impact caused by the Company.



## Economic, Environmental and Social Responsibility

102-20

According to the Corporate Governance Code, the Board of Directors and the Management Board, within their competences, build and introduce an appropriate sustainability system, and officials and employees of all levels make their contributions to sustainable development.

As of December 31, 2020, responsibility for sustainable development in the executive body was distributed as follows:

- Deputy Chairman of the Management Board for Strategy, Investments and Business Development: establishing and introducing a sustainability management system to ensure observation of sustainable development philosophy; integrating sustainable development in key processes, development strategy and decision making processes of the Company.
- Deputy Chairman of the Management Board for Economy and Finances is responsible for economy of the Sustainable Development, including assistance with economic development within the company geography.
- Director of the Health and Environment Department: establishing and ensuring implementation of HSE strategy and policies of KMG, health, safety and environment.
- Director of the Human Resources Department is responsible for process implementation and management of manpower, human resources and social aspects of the Sustainable Development.

Before introduction of the new structure of KMG Headquarters on 01 July 2020, establishing and introducing a sustainable development management system to ensure observation of sustainable development philosophy, and integrating sustainable development in key processes, development strategy and decision making processes of the Company were the responsibility of the Managing Director for Sustainable Development. After introduction of the new structure of the KMG Headquarters, this position was discontinued and the powers were handed over to the Deputy Chairman on the Management Board for Strategy, Investments and Business Development.

The above officers report to the Chairman of the KMG Management Board. Accountability of the responsible officers for economic, environmental and social matters is governed in detail by internal regulations, internal control and business continuity procedures of the Company. Thus, according to the development plan, matters are regularly brought for review of the Management Board, which, in turn, reports to the Board of Directors. To review these matters during the BoD meetings, BoD committees issue recommendations for the BoD as follows:

- Comprehensive control over the functions and activities to improve corporate governance is the responsibility of the Audit Committee of the KMG Board of Directors;
- Initiating, deep review and decision making on economic, environmental and social aspects of the company impact, and following up on introduction of sustainable development in the Company is the responsibilities of the Board of Directors Committee for Health, Safety, Environmental and Sustainable Development.

## Consulting stakeholders on economic, environmental and social matters

102-21, 102-31, 102-32, 102-33, 102-34

Stakeholders and Company's supreme corporate governance body constantly consult each other on economic, environmental and social matters in various ways.

For instance, the Health, Safety, Environment, and Sustainability Committee of the Board of Directors (hereinafter – the Committee) is in charge of general management of the above officials. In 2020, 4 meetings of the Committee were held, which reviewed 40 matters and issued 98 resolutions and instructions.

The Committee generates and issues to the Board of Directors recommendations regarding:

- Health, safety and environment;
- Integration of the sustainable development philosophy into KMG strategic planning and social & economic development;
- KMG social commitments and programs under the existing subsoil use contracts;
- KMG business continuity;
- Environmental efficiency of KMG.

## The main focus of the Committee in 2020 was health, safety, environmental, strategic governance of ESG (Environmental Social Governance) and introduction of a sustainable development system.

The key items of the Committee agenda in 2020 may include:

- Climate change (greenhouse gas emissions, CDP (Carbon Disclosure Project), WDP (Water Disclosure Project)).
- ESG rating (Environmental – Social – Governance) of KMG.
- Environmental rating of the KMG Group.
- Getting approval of the List of UN Sustainable Development Priorities for KMG.
- Introduction of a sustainable development system in KMG and its business units, incorporating the sustainable development philosophy into the key business processes.
- Establishing KPIs for certain managers of the Company associated with Sustainable Development.
- COVID-19 reports for KMG and measures taken by the KMG Group to prevent spread of COVID-19.
- Health, safety and environmental reports of KMG.
- Recording potential safety threats, preventing highly hazardous incidents for life and health of employees.
- HSE management of contractors in the KMG Group.
- Researching and preventing fatalities, traffic accidents and safety incidents, holding managers responsible for incidents.
- Social policy of the KMG Group, ensuring social stability in KMG facilities and social responsibilities of the KMG Group.
- Results of the anonymous HSE poll conducted by the KMG Internal Audit Service in 2019.
- Training for KMG employees to develop skills and competencies in ethical procedures and philosophy.
- Increasing efficient use of associated petroleum gas in the KMG Group.

In addition, in 2020, the Committee reviewed and approved the following main documents:

- Corporate Standard – Single Health and Safety Management System in JSC NC "KazMunayGas";
- Corporate Standard for Production Process Safety Management in JSC NC "KazMunayGas";
- Manual for Sustainable Development System Management in JSC NC "KazMunayGas".

KMG officials and employees were regularly invited to take part in the Committee's meetings without the voting rights. The KMG Board of Directors accepted every recommendation developed by the Committee.

A wide range of stakeholders is consulted on economic, environmental and social matters via Company's website, public relations service (press service), and through the annual Sustainability Report which is the central means of communication between KMG and its internal and external stakeholders for sustainable development disclosures. At the same time, KMG has various communication methods in place to be able to have appropriate dialogues with stakeholders and the Company. For example, detailed information for investment community is published at <https://kmg.kz/rus/investoram/reporting-and-financial-result/>, employment matters are covered at <http://work.kmg.kz>, confidential reporting system is implemented through the trust system at [doverie@kmg.kz](mailto:doverie@kmg.kz); functional interactions are also provided for activities of the Ombudsman at [ombudsman@kmg.kz](mailto:ombudsman@kmg.kz), safety and environment matters at [hse@kmg.kz](mailto:hse@kmg.kz), and sustainable development at [sustainability@kmg.kz](mailto:sustainability@kmg.kz).



## GOVERNANCE BODY AND ITS COMMITTEES

102-22, 102-23

As of December 31, 2020, the KMG Board of Directors includes:

1. **Christopher John Walton**, Chairman of the Board of Directors, Independent Non-Executive Director
2. **Alik Aidarbayev**, Chairman of the KMG Management Board;
3. **Timothy Glenn Miller**, independent non-executive director;
4. **Philip Malcolm Holland**, independent non-executive director;
5. **Uzakbay Karabalin**, Representative of JSC Samruk-Kazyna
6. **Almasadam Satkaliyev**, Representative of JSC Samruk-Kazyna
7. **Anthony Espina**, Representative of JSC Samruk-Kazyna

**As of December 31, 2020, Committees of the KMG Board of Directors are represented by:**

### Audit Committee

1. **Christopher John Walton**,  
*Chairman*
2. **Timothy Glenn Miller**
3. **Philip Malcolm Holland**

### Strategy and Portfolio Management Committee

1. **Philip Malcolm Holland**,  
*Chairman*
2. **Christopher John Walton**
3. **Timothy Glenn Miller**
4. **Uzakbay Karabalin**
5. **Anthony Espina**

### Nomination and Remuneration Committee

1. **Philip Malcolm Holland**,  
*Chairman*
2. **Christopher John Walton**
3. **Anthony Espina**

### Health, safety, environment and sustainable development committee

1. **Timothy Glenn Miller**,  
*Chairman*
2. **Christopher John Walton**
3. **Uzakbay Karabalin**

The Company complies with the Corporate Governance Code in terms of the number of independent directors in the Board of Directors, according to which there shall be up to 50% of independent directors in the Board of Directors.

Resolution of the Management Board of JSC Samruk-Kazyna dated August 17, 2020 (minutes No.30/20) elected new 7 members of the Board of Directors, including three independent directors. The Chairman of the Board of Directors is an independent director.

**As of December 31, 2020, the KMG Board of Directors has the following structure:**

- **3** independent directors;
- **3** representatives of Samruk-Kazyna JSC;
- **1** manager of the executive body (Chairman of the Management Board);

Out of seven members of the Board of Directors, three people are the citizens of the Republic of Kazakhstan, three are the citizens of UK, one is the citizen of the USA.

Term of office of the Board of Directors is three years. Members of the Board of Directors can be re-elected for more than six years in a row, if specifically considered, with regard to the need to renew the Board of Directors. An independent director cannot be elected to the Board of Directors for more than nine years in a row, and an independent director shall be elected in the Board of Directors every year, supported by a detailed explanation why to elect this specific member of the Board of Directors and how this factor affects independence of decision making. The Board of Directors and its Committees maintain the balance of skills, experience and knowledge to ensure the independent, unbiased and efficient decision-making process in the interests of KMG and in view of equal treatment of all shareholders and sustainable development principles. Members of the Management Board, except for the Chairman, cannot be elected to the Board of Directors, and the Chairman of the Management Board cannot be elected as the Chairman of the Board of Directors. For more details on the members of the Board of Directors, visit KMG website: [https://www.kmg.kz/eng/kompaniya/korporativnoe\\_upravlenie/sovet\\_direktorov/](https://www.kmg.kz/eng/kompaniya/korporativnoe_upravlenie/sovet_direktorov/)



## NOMINATION AND SELECTION OF THE GOVERNANCE BODY

102-24

### Procedure for Nomination and Selection of Candidates to the Board of Directors

Candidates to the members of the Board of Directors are nominated and selected as defined by the Articles of Association, KMG Corporate Governance Code and other regulations, by the General Shareholders Meeting together with the Chairman of the Board of Directors, and Chairman of the Board of Directors Committee for Nomination and Remuneration, and according to the philosophy of transparency, fairness and professionalism in search and selection and nomination of candidates.

In 2018, the Matrix of Skills and Competencies for the Members of the Board of Directors of JSC NC "KazMunayGas" was developed, which was approved by resolution of the Committee for Nomination and Remuneration on 30 March 2018 (Minutes No.5/2018). The Matrix was filled in by members of the Board of Directors to identify competences which are needed for the KMG Board of Directors, and to issue shareholder recommendations for candidates to the KMG Board of Directors. The Summary Matrix is updated when new members of the KMG Board of Directors are elected. Resolution of the Management Board of JSC Samruk-Kazyna dated 17 August 2020 (minutes No.30/20) elected new members of the Board of Directors. The Matrix was submitted to the new members of the Board of Directors – T.G. Miller and Ph.M Holland. The filled in Matrices helped identify the most essential knowledge, experience and competences for selecting and nominating new candidates for the KMG Board of Directors. On 08 December 2020 (Minutes No.12/2020), the Nomination and Remuneration Committee, following the discussion of the updated summary Matrix, issued a recommendation to continue working with Samruk-Kazyna JSC to search for an independent director to be elected not later than in Quarter 3 of 2021, and identified criteria for a candidate including independence, citizenship, gender diversity and professional qualifications.

Members of the Board of Directors are elected from among the suggested candidates to become shareholders representatives or other persons. Candidates to the Board of Directors are reviewed during meetings of the Board of Directors Committee for Nomination and Remuneration and shall have knowledge, skill and experience as necessary to fulfil their functions and to ensure long term value and sustainability, and shall have spotless business reputation. The Chairman of the Board of Directors is elected by the General Shareholders Meeting. Independent directors are selected according to the approved Guidelines for Selection of Independent Directors for Companies within Samruk-Kazyna Group.

## CONFLICT OF INTERESTS

102-25

The basic conflict of interests settlement processes are reflected in the Policy for Settlement of Conflict of Interests for Employees and Officers of KMG and SDEs approved by the KMG Board of Directors, and the Code of Business Conduct.

Observation of this policy is the responsibility of each company Employee regardless of position, and of each company Officer.

At the moment, the Company has implemented a Procedure for initial disclosure of information about potential conflict of interests among employees and/or officials being hired/appointed/taking a new office. Such Disclosure shall include:

- Beneficial ownership/share participation and management in counterparties/competitors of KMG and SDEs;
- Participation in single member and joint bodies of counterparties or competitors of KMG and SDEs;
- Interactions with counterparties of KMG and SDEs;
- Intention to acquire assets and/or securities owned by KMG and/or its SDEs, etc.

Checks are conducted for conflict of interest and observation of requirements and procedures of KMG policies and/or other compliance documents, including attributes of affiliation of the Fund Group officials with persons being considered as candidates to be hired, appointed for management positions, and when entering into interested party transactions. The above persons additionally provide their Consent with the anti-corruption restrictions according to the Anti Corruption Law.



## ROLE OF THE GOVERNANCE BODY IN IDENTIFICATION OF GOALS, VALUES, MISSION AND STRATEGY

102-26

The Board of Directors shall prioritise activities, approve and monitor implementation of the development strategy, including the goals, values, mission, and economic, environmental and social development related policies and tasks as agreed with the shareholders based on suggestions developed by the executive body.

Strategic Session (a separate meeting of the Board of Directors for Development Strategy) was held on 20 November 2020, which reviewed implementation of the KMG 2028 Development Strategy, which had been approved in 2018, in view of the changed environment and anti-crisis measures. Members of the KMG Board of Directors and the Management Board had a constructive discussion of the most important subjects. Specifically, they discussed the valid KMG Development Strategy, including prospects and sustainable development of KMG.

According to the KMG Corporate Governance Code and Development Strategy, long-term, sustainable development is one of the main strategic goals and objectives of KMG, which is consistent with the vision of Samruk-Kazyna JSC, development strategy of the Republic of Kazakhstan and agenda or the international investment community.

In 2020, the KMG Board of Directors Committee for Safety, Health, Environment and Sustainable Development approved 6 sustainable development priorities out of 17 Sustainable Development Goals. Those included:

- Ensuring healthy lifestyle and facilitating well-being for everyone in any age;
- Providing public access to cost-efficient, reliable, sustainable and modern sources of energy for everyone;
- Facilitating progressive, comprehensive and sustainable economic growth, complete and productive employment and decent work for everybody;
- Creating a stable infrastructure, promoting comprehensive and persistent industrialization and innovation;
- Taking urgent measures to fight climate change and its consequences;
- Protecting and restoring shore ecosystems, promoting their efficient use, efficient use of forest, combating desertification, stopping and reversing the loss of biodiversity.

The year 2021 and the subsequent years will be dedicated to practical implementation of activities to achieve these goals.

The Board of Directors acknowledges the high priority of ecology and environmental protection, life and health of Company employees and contractors of all production facilities, development of human potential and commitment to recognised Global Sustainable Development Goals by delegating these matters to the Committee of the KMG Board of Directors for Safety, Health, Environment and Sustainable Development.

## COMPETENCE AND PERFORMANCE REVIEW OF THE GOVERNANCE BODY

### Collective knowledge of the members of the governance body

102-27

Members of the Board of Directors are committed to regular improvement of their skills and professionalism, including economic, environmental and social management skills. The Nomination and Remuneration committee regularly reviews the current balance of skills and knowledge of the members of the Board of Directors. Regular updates of training of the members of the Board of Directors are published on the Company website.

KMG employees pass periodic trainings in sustainable development, ethics and compliance, and other regular workshops and sessions according to components of the corporate governance.

### Governance Body performance review

102-28

A provision has been developed under the Code for performance review of the Board of Directors, Committees of the Board of Directors, Chairman and members of the Board of Directors and Corporate Secretary of KMG (the Provision). The Provision provides that the Board of Directors, Committees and members of the Board of Directors shall be annually reviewed as a part of a structured process approved by the Board of Directors. At least once in three years, such review shall involve an independent professional organisation.

An independent review involving PricewaterhouseCoopers LLP (PwC) took place in 2017, and the results were used to establish the new composition of the KMG Board of Directors. Also in 2018, PwC was involved for independent corporate governance assessment in KMG based on the Method, which included, but was not limited to, performance review of the Board of Directors.

Therefore, the next independent performance review of the Board of Directors is scheduled for 2021. With that, in 2020, KMG conducted self-assessment of the members of the Board of Directors following 2019 in accordance with the Code and the Provision, the results were then reviewed and discussed during a closed meeting of the Board of Directors, which was only attended by the members of the Board of Directors and the Corporate Secretary. The discussion included demonstration of self-assessment results of members of the Board of Directors, skills and competences. Some activities to improve these were initially included in the KMG 2019–2020 Detailed Corporate Governance Improvement Plan (DCGIP), which was later revised for further improvement of the Board of Directors performance.

On 08 December 2020, meeting of the Board of Directors Committee for Nomination and Remuneration reviewed the matter of the 2020 self-assessment, where the Corporate Secretary presented information about the status of DCGIP activities following the self-assessment of 2019.

The following should be noted from among DCGIP activities to improve performance of the Board of Directors on indicators which, according to the members of the Board of Directors, required improvement:

- Resolution of the Fund Management Board dated August 17, 2020 (Minutes No.30/20) elected seven (7) members of the KMG Board of Directors because of expiration of the terms of office. The new members of the Board of Directors – Ph.M. Holland and T.G. Miller, filled in a Skill and Competence Matrix, and the Committee for Nomination and Remuneration reviewed the corresponding summary (Minutes No.12/2020). Following the discussion, they issued a recommendation to continue the search for an independent director and the main requirements for the candidate.
- Meeting of the KMG Board of Directors Committee for Nomination and Remuneration reviewed the matter of the Policy of Succession of the KMG BoD Members (Minutes No. 5/2020 dated March 31, 2020). This was the first step to develop a succession plan for the members of the KMG Board of Directors. Following review of

the summary skill and competence matrices during the meeting of the Nomination and Remuneration Committee, development of the succession plan for the members of the Board of Directors is expected to be continued.

- During the Information Session for the KMG BoD Development Strategy on November 20, 2020 No.14/2020, C.D. Walton, the Chairman of the BoD in his welcoming remarks focused the attention on practicability of updating the valid KMG Development Strategy, commitment of the KMG BoD and Management Board to the KMG Development Strategy, sufficiency of financial and human resources to achieve the approved strategic goals of the Company, and presented an extensive report.
- According to the updated Provision on the BoD Audit Committee, functions of the Internal Control and Risk Management Committee were revised to include: "The Committee shall assess the level of confidence in the risk management and internal control systems, including internal financial controls, and whether they are sufficient for the Board of Directors to resolve that they perform effectively."
- The Board of Directors shall clearly and constructively respond in the context of crisis, including the current crisis; In the context of crisis, the Board of Directors made certain resolutions on the matters, including, but not limited to, an anti-crisis programme, Comprehensive Business Continually Plan, financial stability, downsizing the total headcount, organisational chart of the KMG headquarters, reducing remuneration, etc.

***The Crisis Management Team was activated in February 2020 because of the onset of COVID-19.***

### Management of economic, environmental and social impacts

102-29

The KMG Board of Directors plays a crucial role in management of economic, environmental and social impact and the associated prospects. The Company quarterly and annually assesses risks under the approved risk management method, including economic, environmental and social risks. Based on the identified risks, the relevant action plans are developed and implemented to prevent, monitor and eliminate such risks. Specifically, the competences of the Board of Directors include defining the corporate risk management policy, approving risk register and risk map, critical risk management activities plan, total risk appetite, tolerance to each key risk, approving the Risk Report and business continuity documents of KMG.



The KMG Board of Directors uses the “top-down” approach to ensure that appropriate behaviour standards are followed; the basic document which governs ethical standards adopted in the Company is the KMG Code of Business Conduct, which is approved by the Board of Directors. During the reported period, the KMG Board of Directors approved the updated KMG Code of Business Conduct. Observation of this Code is one of the steps towards reinforced reputation of the Company, sustainable development and achievement of strategic goals of KMG.

In the reported period, the Committee of the KMG Board of Directors for Health, Safety, Environment and Sustainable Development instructed the KMG Ombudsman to ensure that 100% of KMG employees pass the training to develop skills and competencies in ethical procedures and philosophy. In addition, the KMG Board of Directors Committee for Health, Safety, Environment and Sustainable Development builds and enhances the culture of safety, health, environment and sustainable development.

Stakeholders are consulted with to assist the superior corporate governance body with identification and management of economic, environmental and social impacts, risks and opportunities, as required, during meetings of the KMG Board of Directors with representatives of the main shareholder of KMG (Samruk-Kazyna JSC), meetings of the Audit Committee of the KMG Board of Directors with the external auditor of KMG (Ernst & Young), and during meetings of the KMG Board of Directors and its committees with initiators of the agenda items (managers of KMG).

## RISK MANAGEMENT PROCESS

The CMRS is designed as a consistent and clear structure to manage risks associated with the activities of KMG. KMG has built a vertical risk management process and performance of the risk management system on all management levels from the top level (KMG) to the level of line management (production business units of subsidiaries).

Each officer shall properly review risks when taking a decision.

Risks are assessed using qualitative and quantitative tools in view of the probability and impact of a materialised risk.

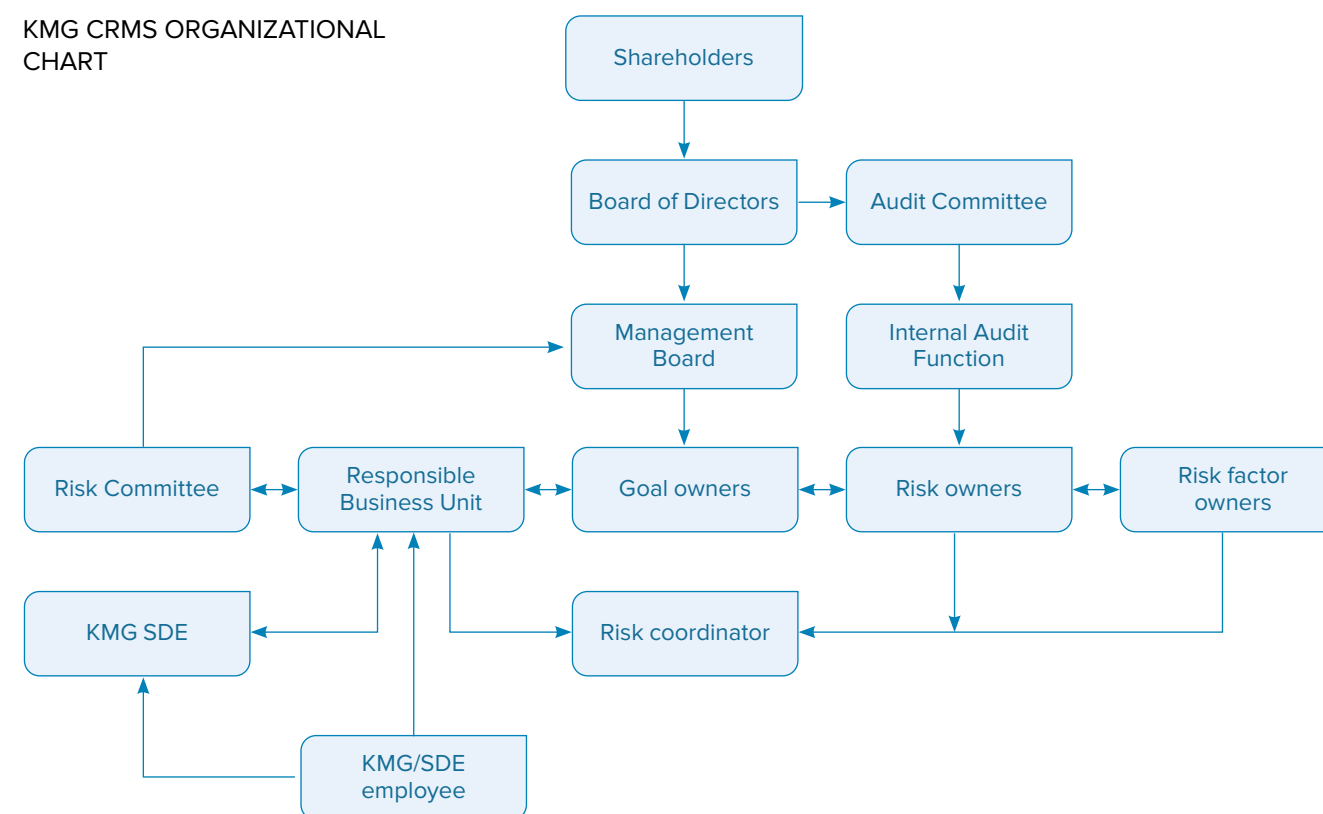
The CRMS process is implemented through seven interconnected CRMS processes which are integrated into management business processes of the KMG Group.

- Establishing goals (linking strategic, mid-term and short-term planning targets);
- Identifying risks/risk-factors (identifying exposure of all activities and business processes of the KMG Group to risks, which may have adverse effect on the ability to reach the planned targets and implement the goals);
- Evaluating and analysing risks/risk factors (to identify how risks/risk factors affect achievement of KPIs); Work-related/non-work-related risks and corresponding risk-factors are analysed according to probability of materialisation and the degree of impact (potential damage);
- Managing risks (developing and implementing measures to reduce adverse consequences and/or probability of inherent risks and corresponding risk-factors, or get financial compensation for the damages associated with the risks of KMG Group activities);
- Monitoring and reporting (monitoring dynamics of the risk parameters and efficiency of risk management activities and controls). The monitoring is provided quarterly by the KMG Risk Management and Internal Control Unit, a consolidated Risk Report covering KMG SDEs is brought for review of the Board of Directors quarterly);

- Informing and communicating (to provide reliable and timely information about risks to participants of the risk management process, improve awareness about risks, risk response methods and tools. The corresponding information is identified, recorded and provided in the established formats and on dates for employees to be able to efficiently fulfil their functions);
- Internal environment (implementing the above components of the risk management process to facilitate development of the risk culture in the KMG

Group based on the appropriate “top” approach, high awareness about risks, responsibility of risk/risk-factor owners, active risk management and timely reporting. KMG is committed to build an adequate CRMS organisational chart to be able to implement effective corporate governance, ensure appropriate division of duties, authority and responsibility for identification, assessment, management and reporting or risks.)

## KMG CRMS ORGANIZATIONAL CHART



The following documents are brought for review of the KMG Board of Directors at least once a year:

- Suggestions regarding Company's risk appetite;
- Consolidated risk register;
- Risk map;
- Company risk management activity plan.

In addition, the KMG Board of Directors quarterly reviews the Risk Report (consolidated risk report covering KMG SDEs), including the risks of injury, environmental, industrial, social risks in the regions,

risks of the COVID-19 pandemic, geological, tax, reputational, financial risks, cyber risks, compliance risks and other key risks) which are reviewed properly and discussed fully. The Board of Directors takes appropriate measures to bring the current risk management and internal control system (RMICS) in line with the philosophy and approaches established by the Board of Directors.



Efficiency of risk management processes

102-15, 102-30, 207-2

Risk management in KMG help prevent risk events, which affect achievement of strategic and operational goals, and limit their impact should they occur. Risk management is an integral part of the KMG strategic planning, corporate government and maintaining financial stability.

Risk management approach, including management of tax risks, is established by the Corporate Risk Management System (CRMS).

KMG has integrated the CRMS into the key business and management processes of the company. The CRMS is intended to achieve the appropriate balance between the growing value of KMG, its profitability and risks.

The CRMS is the core component of the corporate governance system, which serves to identify, evaluate and monitor all major risks (including tax risks) in a timely manner, and to take timely and adequate measures to mitigate the level of risks.

The CRMS of KMG and its subsidiaries and dependent entities is applicable to all activities of KMG.

ECONOMIC, ENVIRONMENTAL AND SOCIAL OVERVIEW

102-31

During each scheduled meeting, the Board of Directors hears the health, safety and environmental information of KMG. In addition, in 2020, the Board of Directors reviewed minimisation of compliance risks, influence of COVID on KMG activities (different aspects, including dropping oil prices). The Board of Directors and the Audit Committee quarterly review risk reports.

On multiple occasions during the reported period, members of the Board of Directors discussed the current situation with the spread of COVID, oil price wars between major international oil exporters resulting in drastic decline of the economy in general and in Kazakhstan in particular. Members of the Board of Directors emphasised that it was important for KMG in the current situation to care for its employees and business.

ROLE OF THE SUPERIOR CORPORATE GOVERNANCE BODY IN PREPARATION OF THE SUSTAINABILITY REPORT

102-32

According to the Articles of Association of the Company, the Sustainability Report shall be approved by the KMG Board of Directors.

A KMG body which checks and recommends the KMG BoD to approve the Sustainability Report is the KMG Board of Directors Committee for Health, Safety, Environment and Sustainable Development.

INFORMING CRITICAL ISSUES

102-33

The KMG Board of Directors is informed about critical issues through regular reports of Company activities, including but not limited to, key activity changes report of the Chairman of the KMG Management Board, HSE information, preliminary report of financial and business performance, report of interested party transactions resolved on by the Management Board, strategy performance status overview, key performance indicators and investment projects, KMG Consolidated Development Plan Implementation Report, risk report, report of resolutions of the Board of Directors, and reports of Chairmen of the BoD Committees.

In addition to the above reports, the BoD from time to time identifies matters which need to be informed on immediately, such as current situation in the KMG Group, including COVID-19 situation, operational activities, etc., financial performance, major HSE incidents in the KMG Group, including fire reports (even if such events occurred after the reported period). The BoD Committee for Health, Safety, Environment and Sustainable Development regularly reviews and discusses reports of introduction of the Sustainable Development System in KMG and its business units, and incorporation of the Sustainable Development philosophy in key business processes, and information about status of improving ESG rating (Environmental – Social – Governance).

Nature and number of critical issues

102-34

During review of KMG HSE information, which is reviewed during each meeting in presentia, the Board of Directors instructed to immediately inform the members of the Board of Directors about any HSE incident in the KMG Group regardless of the reported period. In addition, the Board of Directors demanded details of a HSE incidents investigation procedure and to develop an activity plan to minimise the incidents in the KMG Group. The Board of Directors instructed the KMG Management Board to prepare an activity plan describing negative factors of the changed environment (COVID influence, falling oil prices, reduced gas export and resulting losses from supplies of gas to the domestic market), activities to respond to such factors, dates and involvement of the Board of Directors.

The Board of Directors takes active part in the handover of KazTransGas JSC to Samruk–Kazyna JSC, and in discussion of potential risks for KMG.

During the quarterly discussion of the Risk Report, it was instructed to prepare suggestions to arrange a simulation of unknown risks and scenarios. The Board of Directors also instructed to analyse reputational risks and liquidity risks in view of the current fall of oil prices and risk management measures. The Board of Directors was informed how COVID influenced activities of KMG.

When discussing financial and business performance reports of KMG, the Board of Directors instructed to identify reasons for the reduced net profit.

The members of the Board of Directors weekly receive information about impact of COVID-19 on activities of the KMG Group.

The Board of Directors received the results of benchmarking for competitive analysis of the main indicators of KMG refineries and situation with employment in Zhanaozen.

REMUNERATION POLICY

102-35

Remuneration for the members of the KMG Board of Directors is established based on resolution of the Management Board of Samruk–Kazyna JSC as agreed with the member of the KMG Board of Directors.

Remuneration of the members of the Board of Directors includes a fixed salary and extra remuneration.

The extra remuneration includes remuneration for chairing the Board of Directors, chairing a committee of the Board of Directors, participation in a committee of the Board of Directors, participation in a meeting initiated by the Chairman of the KMG Board of Directors and/or representative of the Samruk–Kazyna Management Board, Chairman of the KMG Management Board.

On August 17, 2020, Samruk Kazyna JSC resolved to pay only the fixed salary and extra remuneration for chairing the Board of Directors. This resolution cancelled the extra remuneration for chairing a committee of the Board of Directors, participation in a committee of the Board of Directors, participation in a meeting initiated by the Chairman of the KMG Board of Directors and/or representative of the Samruk Kazyna Management Board, Chairman of the KMG management Board.

Remuneration establishing process

102-36

In accordance with the Corporate Governance Code, “remuneration for members of the Board of Directors shall be sufficient to attract, keep and motivate each member of the Board of Directors of a level as required for successful management of the company. Remuneration for a member of the Board of Directors of a company is established using a method developed by Samruk–Kazyna JSC in view of the expected positive effect for the company from participation of this person in the Board of Directors. Also, in accordance with the Corporate Governance Code, no one shall be involved in making a decision regarding his/her own remuneration.



Remuneration establishing procedure is defined by Samruk Kazyna JSC. Resolution of Samruk–Kazyna JSC dated 26 September 2016 (minutes No.35/16) approved the Guidelines for Selection of Boards of Directors of Companies within Samruk–Kazyna JSC, which describes, among other things, how to establish remuneration for members of the Board of Directors. According to Section 3 of the Remuneration and Compensation Guidelines, remuneration is established according to responsibilities of a member of the Board of Directors, scale of company activities, long-term goals and objectives. Remuneration is paid to independent directors. Remuneration for representatives of Samruk–Kazyna JSC in the Board of Directors of a company is based on resolution of the Samruk–Kazyna Management Board.

#### **KMG does not involve advisors to establish remunerations.**

With that, following the independent corporate governance assessment for KMG in 2018, which was procured by the KMG shareholder represented by Samruk–Kazyna JSC, the advisor gave the following recommendation” “During the Board of Directors performance review, consider how remunerations of members of the Board of Directors are consistent with their individual contributions to improvement of performance of the Board of Directors. Arrange an information session involving members of the Board of Directors to have an open discussion of remuneration of the Board of Directors. Clearly identify consequences of inadequate performance of duties and communicate them to the members of the Board of Directors. For example, low efficiency of members of the Board of Directors may result in early termination of their authority or not being able to be re-elected.”

This recommendation was reflected in one of the DCGIP activities, which in 2020 included an information session for the members of the KMG Board of Directors as a part of the meeting of the Committee of the KMG Board of Directors Committee for Nomination and Remuneration on April 25, 2020 (Minutes No.6/2020). The agenda of the Committee included suggestions to revise composition and remunerations of members of the KMG Board of Directors. Results of the discussion of the Board of Directors were communicated to Samruk–Kazyna JSC in a letter from KMG. The Company intends to take further measures to fulfil the advisor’s recommendation in 2021, after KMG Board of Directors performance review, as a part of the independent KMG corporate governance assessment procured by the main shareholder of KMG.

#### **Involvement of stakeholders in salaries**

102-37

Remuneration establishing procedure is based on resolution of Samruk–Kazyna JSC Management Board. According to the Guidelines for Selection of Boards of Directors for Companies within Samruk–Kazyna JSC, which among other things, describe how to establish remunerations for members of the Board of Directors, remuneration is established in view of the duties of a member of the Board of Directors, scale of company activities, long-term goals and objectives. Remuneration is paid to independent directors. Remuneration for representatives of Samruk–Kazyna JSC in the Board of Directors of a company is based on resolution of the Samruk–Kazyna Management Board.

When deciding on remuneration for members of the KMG Board of Directors, the Committee for Nomination and Remuneration, according to the Corporate Governance Code, shall have the right to recommend remuneration for members of the KMG Board of Directors.

See more details about GRI 102-15, 102-30, 102-35,102-36,102-37,102-38,102-39 (risk management, remuneration of the board of directors) in the KMG 2020 annual report on the KMG website at <https://kmg.kz/rus/investoram/reporting-and-financial-result/>



## **DIGITAL TRANSFORMATION**

102-10



### **2020 RESULTS**

KMG understands that digitalization is not a matter of far future, it is a necessary element of any industrial company today. The Company is intending to continue digitalization, but in a selective and reasonable manner, where it will have a considerable effect.

In 2020, Samruk–Kazyna JSC identified production improvements as the focus of the Digital Transformation Programme. This approach defined structure of a new KMG Transformation Portfolio and launched the search for new projects.

Targeted Digitalization strategy will be developed to support necessary transformations to reach the SDG. Digital technology will help automate work processes, analyse and optimise use of energy and materials to minimise climatic impact, ensure safe work conditions for employees.

As the global economy is declining due to the COVID, digital transformation is seen as one of the lines within the anti-crisis strategy of KMG. The current Programme Portfolio includes projects intended to cut expenses, enhance transparency of business processes, develop a culture of continuous improvement and introduce digital solutions in work. The Programme is focused on exploration, production and processing of oil.

In 2020, the digital transformation project portfolio included four projects: “Introduction of ABAI Information System” for production assets, “Introduction of Engineering Simulation System at RoK Refineries”, “Establishing a Multifunctional KMG Shared Service Centre and “Journey Management”.



For example, ABAI is an information system which uses big data analytics and artificial intelligence to be able to cut costs for core exploration and production processes. In 2020, technical solutions were developed for 5 modules, which will be introduced in subsidiaries starting from the next year. For example, it is planned to launch a system for continuous corrosion monitoring of aboveground equipment to be able to cut costs for chemicals and reduce the accident rate.



The Journey Management project is intended to introduce a single system to acquire and process data from sensors on vehicles and special equipment by 9 parameters including the use of safety belts. This project also includes a motivation system for drivers, which will promote better safety and driving culture.

Lean 6 Sigma is aimed at sustainable development. The programme provides conditions to motivate employees and suggest improvements for current processes. Therefore, Lean 6 Sigma promotes the culture of lean management and changes people’s attitude to their daily work. 50 such projects were introduced in KMG in 2020. For example, consumption of fuel and energy at Pavlodar Refinery was reduced by selecting an appropriate duty for the furnace. The economical effect from this project amounted to 76.9 mln tenge.

### **GOALS AND OBJECTIVES FOR 2021**

According to company development priorities, Digital Transformation will be focused on the following initiatives:

- Environment – emissions control and resource saving;
- Health and safety – preventing injuries and control of COVID-19;
- Reliable and stable production – introduction of digital initiatives to maintain work processes at refineries;
- Initiatives to cut costs – improving profitability of production.

Searching for new digital transformation initiatives according to the identified areas will be done through the Bank of Ideas, the single platform which is expected to be launched for all KMG employees. The main objectives of the Bank of Ideas is to involve employees in resolving current issues, use creative potential of innovators to address socioeconomic and work tasks.

Digital transformation of KMG supports transformations as required to reach SDGs through upgrades of infrastructure and retrofitting industrial facilities by making them resilient by improving efficiency of resources and increased use of clean and environmentally friendly technologies and production processes (SDG 9).



## DIGITALIZATION PROJECTS OF OIL REFINING AND PETROCHEMISTRY DIVISION

### PC-based training simulators

To improve quality of employees' work in normal and abnormal situations, improve reliability of units and prevent unscheduled shutdowns, the RoK Refinery Personnel Training and Qualification Project Using PC-Based Training Simulators (TS) has been implemented since 2019. The project is aimed at development of a dynamic process model based on a mathematical process model and visualization of a process unit. Visualisation is provided by: 1) Fully replicated interface and logic of distributed control systems (DCS) 2) Displaying the actual equipment in 3D or panoramic interface. Unit operators regularly master abnormal and normal conditions (shutdown/start) in the simulated conditions of the training simulators.

Upgrade and retrofitting of PKOP included commissioning of TSs for residual fluid catalyst cracker (RFCC), catalyst cracking hydrotreater (Prime G+), desulphurization of saturated and unsaturated liquefied petroleum gas (Merox), short cycle adsorption (SCA-2) and sulphur production units.

The project, which was initiated in 2019, covers eleven process units at AR, nine POGR units and one PKOP unit.

In 2019–2020, the project included commissioning of TSs for delayed cokers, isomerisation unit and naphta splitter, diesel hydrotreater and cerosene hydrotreater of POGR, catalyst reformer of PKOP, catalyst crackers (FCC), catalyst reformers (CCR) and aromatic hydrocarbons production complex (PX) of AR.

Guidelines were also developed and approved to apply TSs for training and knowledge assessment of refineries personnel. The refineries appointed trainers in charge of the training simulators, training, development of scenarios and knowledge assessment using TSs.

Production personnel of refineries pass regular trainings using TSs under the approved training curricula, training schedules, ready scenarios of emergencies and normal conditions.

### Advanced process control system

A pilot project of advanced process control system was commissioned for ELOU-AT-2 unit of AR to implement the business objective of unit process automation. This system is known worldwide as the Advanced Process Control (APC).

The APC acts as an auto pilot, maintaining process conditions of the unit within the pre-set limits. It automatically monitors constant parameters of unit load, temperatures of columns and furnaces, quality parameters of flows leaving the unit. This reduces human factor in process control.

After introduction of the APC, dispersion of quality parameters reduced by 67% for gasoline and by 73% for diesel. The APC increases gasoline yield by approaching the gasoline boiling temperature as close as possible, and increases diesel yield by approaching the target pour point.

The project lasted for about a year: since April 2019, the AT-2 unit was inspected, equipment was designed and installed, the APCS was tested and integrated with the distributed control system (DCS). Dedicated AR specialists and unit operators were trained in work with



the system. The system operates around the clock, it is now an integral part of the unit control, just as the DCS.

Introduction of the APCS on AT-2 unit had considerable effect. Yields of gasoline and diesel increased by 0.32-0.36% (to 6.5 thousand t), which amounted to about 350 mln KZT/year.

Since the pilot is so successful, the system will be introduced at AVT-3 unit of AR in 2021, and at the catalyst cracker in 2022. After that it will be introduced for other AR units. In 2022–2023, the APC is scheduled to be replicated at PKOP.

### 3D plot plan Refinery engineering data management system

Digital Plot Plan and 3D Model of RoK Refineries is being implemented to build a high precision, digital refinery plot plan as a basis for a "digital twin".

The project includes:

- Laser scanning of all facilities
- Digitalization of all technical documentation for refineries,
- Building a digital 3D model of plants based on point clouds,
- Introducing "Digital Plot Plan" software, a multifunctional information system intended to store, analyse, process and visualise engineering data.



The project is not only intended to introduce a standalone digital plot plan and 3D model of a refinery. The main goal is to integrate the 3D model into daily business processes of the refinery. The future users of the product include not only employees of production assets upgrade department, but also process engineers, mechanical engineers, repair schedulers, reliability experts. In the process of implementation, the initial scope of the project was expanded and included an engineering data management system and an informational standard. It also includes integration of the new system with the repair scheduling system – IBM Maximo.

The digital plot plan will allow the system users to get updates about production assets, cut time and costs for engineering, increase production safety and reliability of assets.

Introduction of the digital model and plot plan at AR and POCC is scheduled on the first half of 2021.

### Digitalization of Kazakhstan Petrochemical Industries

Since July 2018, JSC NC “KazMunayGas” has been constructing the first gas chemical complex in Atyrau region – Kazakhstan Petrochemical Industries (KPI).

The polypropylene production plant (KPI LLP) is the first phase of the Integrated Gas Chemical Complex (IGCC), which is scheduled for start-up in 2021. It will produce 500,000 tonnes of products per year. The second phase is the polyethylene production plant.

KPI is a new industrial facility which can be built from scratch, as a completely digital asset.

The majority of major downstream and chemical companies (BASF, BP, ADNOC) have digitalised their assets progressively, over a long period of time. Kazakhstan does not yet have examples of a fully digitalized facility. KPI is targeting to reach the level of Digitalisation 4.0. In future, after basic automated and digital solutions have been introduced, a remote Process Control Centre is considered to be built to control processes at IGCC from Atyrau.

KPI will be digitalised in two stages. The first stage is scheduled to end in quarter 4, 2021 (parallel with the start-up of IGCC). The second stage will start after the IGCC is commissioned.

The first stage (before commissioning of IGCC) will include introduction of the following elements and systems: instrumentation and controls (I&C), emergency shutdown system (ESD), distributed control system (DCS), repair scheduling system, laboratory Information Management System (LIMS), manufacturing execution system (MES), employee training process automation (PC-based training simulators), plant 3D model; SAP S4/HANA includes not only the basic modules (ERP), but also manufacture scheduling systems, integrations with manufacturing systems (MES, LIMS) and the repair scheduling system, and a single digital window (a business analytics tool).

The goal of SAP/HANA project is to implement the latest versions of corporate and production SAP modules at KPI. All business processes for the project are based on best international practices and international experience for petrochemical facilities, the target organisational chart of the plant is based on best practices and benchmarking.

In addition to integration with the internal plant systems (MES, LIMS, IBM Maximo, EDCS), it is also integrates with external systems: electronic VAT invoices, client bank, zakup.sk.kz procurement system.

SAP core modules have been started since 01 January 2021: FI, TR, CO, MM, SD, HCM. Accounting, Procurement and Supplies, controlling and HR Management business operations are already implemented in SAP.

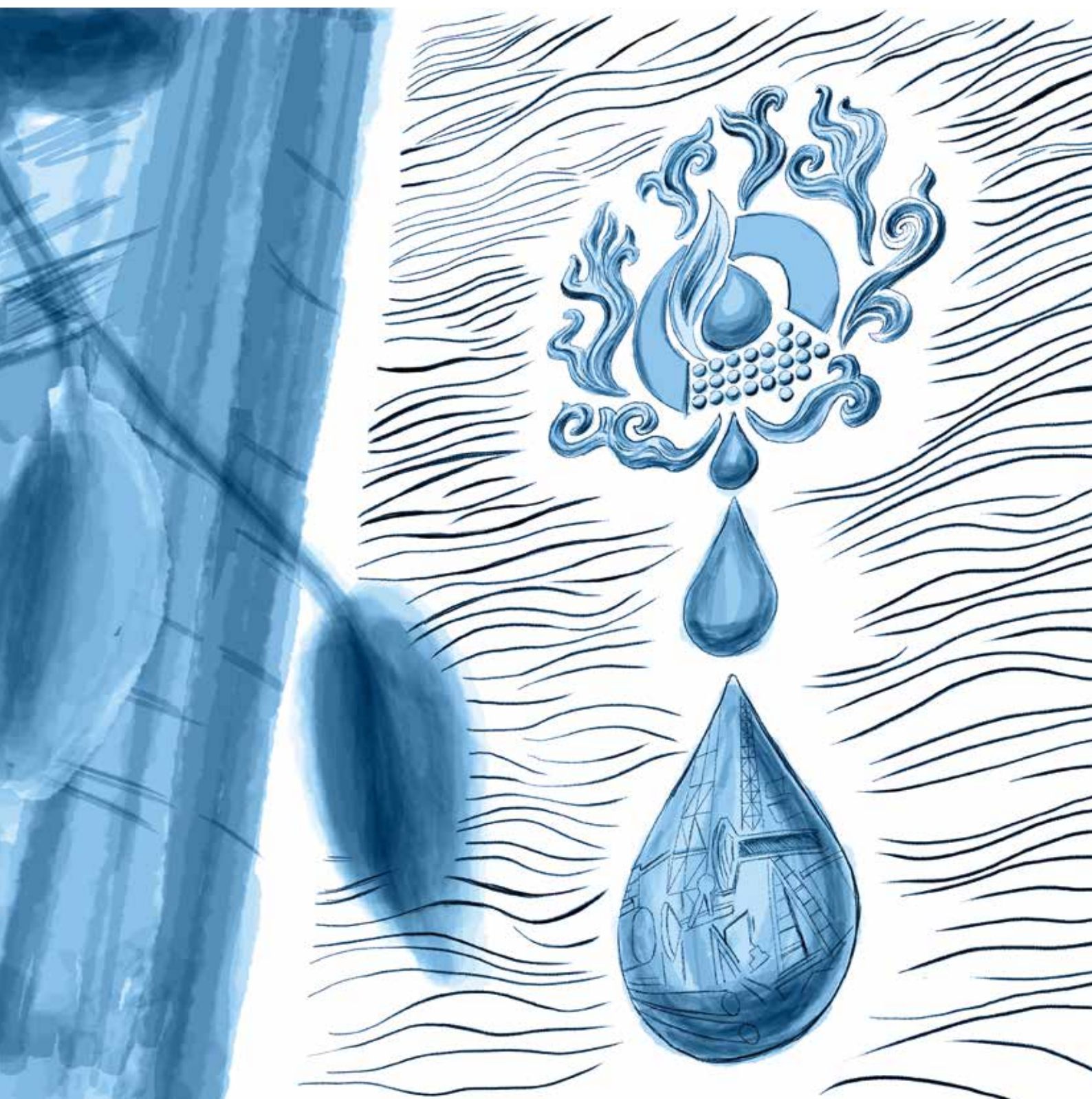
The second stage of KPI digitalisation includes introduction of an equipment reliability management system (AWS system), advanced automation with the advanced process control system, development based on SAP S4/HANA modules.

Digital technologies and solutions will increase efficiency of IGCC business: minimise equipment downtimes and production failures, reduce rejection rates, increase productivity of work, cut operational expenses (current repairs, raw materials, products, chemicals, utilities), increase income through better product yields as a result of the optimisation.





# SUSTAINABILITY MANAGEMENT



**Principle 1.** Businesses should support and respect the protection of internationally proclaimed human rights.

**Principle 2.** Businesses should not be complicit in human rights abuses.

**Principle 4.** Businesses should eliminate all forms of forced and compulsory labour.

**Principle 6.** Businesses should uphold the elimination of discrimination in respect of employment and occupation.

**Principle 8.** Businesses should undertake initiatives to promote greater environmental responsibility.

**Principle 10.** Businesses should work against corruption in all its forms, including extortion and bribery.



## OUR APPROACH TO SUSTAINABLE DEVELOPMENT

102-15, 103-1, 103-2, 103-3, 201-2, OG3

Our approach to sustainability aspects is based on the following sustainable development principles:

**Disclosure** – We are open for meetings, discussion and dialogue; we are committed to build long-term cooperation with stakeholders based on mutual interests, rights and balance of the company and stakeholders interests.

**Accountability** – We recognise that we are accountable for our impact on economy, environment and society.

**Transparency** – Our decisions and actions should be clear and transparent for stakeholders.

**Ethical behaviour** – Our decisions and actions are based on our values such as respect, honesty, disclosure, team spirit, trust, fairness and just;

**Respect** – We respect rights and interests of stakeholders resulting from the law, contracts, or indirectly, through business relationships;

**Rule of law** – Our decisions, actions and behaviour comply with the law of the Republic of Kazakhstan and resolutions of the company bodies;

**Respect for human rights** – We observe and promote human rights as provided by the Constitution of the Republic of Kazakhstan and international documents;

**Intolerance for corruption** – We declare intolerance for any manifestation of corruption in interactions with all stakeholders;

**Unacceptability of conflict of interest** – Personal interests of an official or employee should not have effect on unbiased fulfilment of their job duties and functions.

**Personal example** – Each of us in our daily actions, behaviour and decision-making promotes the principles of sustainable development; officers and employees in management positions should motivate for introduction of sustainable development principles through their personal example.



**In its Development Strategy 2028, KMG defined sustainable development as one of the strategic objectives aimed at integrating the sustainability principles in the key business processes, operations, and decision-making practices.**

Implementation of the strategic sustainability goal shall result in a sustainability management system to achieve the improved corporate social responsibility, health, safety and environment, improve economic effect within the company geography, counteract corruption, improve interactions with stakeholders, corporate governance rating, general corporate ethics and compliance culture.

KMG is committed to build an effective sustainable development management system, including

- Company's commitment to the sustainable development principles on all management levels;
- Analysing three sustainable development aspects of the external and internal situation: economy, environmental and social.
- Identifying economic, environmental, and social risks of sustainable development;
- Stakeholder engagement and stakeholder mapping;
- Identifying sustainable development goals and KPIs;
- Implementing sustainable development priorities/initiatives;
- Integrating sustainable development with the key business processes;
- Advanced sustainable development training for Company employees;
- Annual sustainability reporting;
- Sustainable development performance measurements;
- Improving the sustainable development process.

In 2020, KMG continued active implementation and integration of sustainable development principles in the key business processes, operations:

- KMG passed an independent evaluation by Sustainalytics, an international rating agency, to establish its ESD-rating. KMG ranked 69 out of 100 ESG points.
- To improve sustainable development performance of the Company, in 2020, the Board of Directors approved ESG rating as the corporate KPI for the first time. It included 48 ESG criteria.

- To prove its commitment to sustainable development principles, the KMG Board of Directors approved some new corporate documents:
  - ✓ Manual for Sustainable Development System Management in JSC NC "KazMunayGas".
  - ✓ Corporate Standard – Single Health and Safety Management System in JSC NC "KazMunayGas".
  - ✓ Corporate Standard for Production Process Safety Management in JSC NC "KazMunayGas".
- Implementation of the Sustainable Development System is regularly reviewed by the Committee for Safety, Health, Environment and Sustainable Development of the Board of Directors. In 2020, total of 4 meetings of the Committee were held, which reviewed **40 matters** and issued 98 resolutions and instructions. The main focus in 2020 was health, safety, environmental, strategic governance of ESG (Environmental Social Governance) and introduction of a sustainable development system.
- Employees of KMG headquarters and SDEs passed training to introduce the Sustainable Development Management System. Elements of the sustainable development system and their practical application are being actively explained in subsidiaries.
- There is a permanent Sustainable Development and ESD-Rating Work Group to implement the sustainable development system and improve the ESG-rating.
- It was negotiated to include a 2030 activity plan and targets in 2021 KPIs of department directors by business areas to cut pollutant emissions, greenhouse gases, water and energy saving in the KMG Group.
- The Sustainable Development Reporting Guidelines were updated; in November 2020 the Management Board approved the new revision of the Guidelines. The Guidelines govern the annual Sustainable Development Reporting for the reported period. The valid Guidelines were updated according to the latest revisions to the GRI Standards to improve the reporting process.
- To increase stakeholders confidence in disclosure of non-financial information of the Company, an independent audit of the Sustainability Report is scheduled to be conducted annually. The independent audit can guarantee that data in the report is true, and ensure transparency of the Company operations.

Aside from the Sustainable Development System, a lot of attention is paid to improvement of the sustainable development culture. There are regular sustainable development courses for employees of the headquarters and SDEs.

- ✓ On 03 March 2020, a special sustainable development session and workshop was held for company management, and was attended by Norimass Shimomura, the Permanent Representative of UN in Kazakhstan. Following the seminar, 6 global objectives were decided to be brought for review of the Management Board as the priority SDGs for KMG.
- ✓ On 10-11 March 2020, a training seminar was conducted for KMG employees (Corporate Reporting: Best Practices and International Trends)

to improve sustainable development reporting competences of employees.

- ✓ On 16-18 September 2020, to improve their qualification, employees involved in sustainable development reporting and integration of SDGs in the Company operations passed online certification training GRI STANDARDS: Sustainable Development Reporting, SDG: Sustainable Development Goals on Company Reporting.
- ✓ To explain elements of the Sustainable Development systems in KMG and SDEs, a series of online trainings for HQ and SDEs were held in November-December 2020 together with coaches: Sustainable Development System in JSC NC "KazMunayGas" and SDEs". The training included main business areas.

## COMMITMENT TO UN GC AND SDG PRINCIPLES

In line with the international sustainable development initiatives, KMG is committed to the United Nations

Global Compact (UNGC) and integrates the Sustainable Development Goals (SDGs) in its activities.

### PRINCIPLES OF THE UNITED NATIONS GLOBAL COMPACT

Human rights	Principle 1	Businesses should support and respect the protection of the internationally proclaimed human rights
	Principle 2	Businesses should not be complicit in human rights abuses
Labour relations	Principle 3	Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining
	Principle 4	Businesses should eliminate all forms of forced and compulsory labour
	Principle 5	Businesses should uphold the effective abolition of child labour
Environment	Principle 6	Businesses should uphold the elimination of discrimination in respect of employment and occupation
	Principle 7	Businesses should support a precautionary approach to environmental challenges
	Principle 8	Businesses should undertake initiatives to promote greater environmental responsibility
Anti-corruption management	Principle 9	Businesses should encourage the development and diffusion of environmentally friendly technologies
	Principle 10	Businesses should work against corruption in all its forms, including extortion and bribery





In 2020, SDGs started to be integrated with Company business processes. Business units arranged 17 goals by categories, defined 6 priority SDGs, where the Company can make its contribution:



Ensure healthy lifestyle and facilitate well-being for everyone in any age;



Provide public access to cost-efficient, reliable, sustainable and modern sources of energy for everyone;



Facilitate progressive, comprehensive and sustainable economic growth, complete and productive employment and decent work for everybody;



Create a stable infrastructure, promote comprehensive and persistent income industrialization and innovation;



Take urgent measures to fight climate change and its consequences;



Protect and restore shore ecosystems, promote their efficient use, efficient use of forest, fight desertisation, stop and reverse the loss of biodiversity.

*In 2021, a Programme for SDG priorities is expected to be developed and approved, which will be targeted to improve business processes and achieve progress under target of SDG priorities.*

## ESG INTEGRATION

103-1,103-2

Introduction of best practices in the field of corporate management and sustainable development is one of the Company's strategic priorities. Integration of ESG<sup>1</sup> criteria in the Company's activities is essential

to improving management system of sustainable development indicators and understanding the key ESG risks and opportunities.



*Sustainalytics is a leading independent ESG and corporate governance research provider, ratings and analytics firm that supports investors around the world with the development and implementation of responsible investment strategies.*

*ESG Rating (Environmental, Social and Governance) is the ecological and social business risk assessment as well as corporate risk assessment at the Company. When making investment decisions, the investors use the ESG Rating as a strategic tool which helps to identify risks and opportunities of the Company for defining its long-term sustainability.*



### Case Study

KMG has been a member and active participant of UNGC since 2006 and is committed to 10 UNGC principles and 17 SDGs.

The Company's Annual Sustainability Report is our message about progress under the UN Global Compact and is available at <https://www.unglobalcompact.org/what-is-gc/participants/6810>



In 2020, for the first time KMG passed the ESG Rating assessment of Sustainalytics international rating agency (Amsterdam, the Netherlands).

KMG ESG Rating was **69 points** out of 100. In terms of the ESG Rating components, KMG has been rated as follows: Environmental – 69 points, Social – 70 points, and Governance – 67 points. This represents rather high sustainable development indicators of the company in the world among oil and gas companies (ranks 33rd in the world out of 119 industry players).

Moreover, KMG received ESG risk Rating at the level of 34.5 points which shows high level of uncontrolled ESG risk. The Company has been included into the forth

risk category out of five. ESG risk management at KMG was estimated as "strong" by Sustainalytics analysts. At the same time the initial risk exposure was estimated as "high". The high KMG Rating relates mainly to the risks which can not be controlled by the management, that is, the risks involved in the oil and gas industry.

Carbon emissions from operating activity and emissions from use of the Company's products as well as relationships with local community at the regions of its activities are the key ESG challenges for KMG.

KMG is planning to continue its systemic work on ESG Rating level improvement and performing tasks based on the ESG risk Rating management and reduction.

**69** POINTS

**KMG ESG RATING**

<sup>1</sup> Environmental, Social, Governance

## FOCUS ON LOW-CARBON FUTURE

Basic goals towards sustainable future of business, society and environment are Climate Action and energy system reorganisation. The Paris Agreement sent a decisive and global message about the inevitable start of transition to low-carbon economy. There is a significant role for the business here. The scale of the set goals shows that it is necessary to make overall efforts for their successful achievement.

As a part of the United Nations Framework Convention on Climate Change, Kazakhstan signed the Paris Agreement which stipulates the global reduction of industrial emissions of CO<sub>2</sub> by 25% by the year 2030, by 70% by the year 2050, and by the year 2070 – by 100% (full decarbonisation).

Being the participant of the UNGC, KMG recognises the importance of preventive Climate Actions and is determined to make contribution to achieve SDG 13: Climate Action. Our response to climate change and climate change adaptation are reflected in our strategic documents and corporate policy.

Climate Action issues are controlled at the strategic level by: The Board of Directors, the Health, Safety, Environment and Sustainable Development Committee of the KMG Board of Directors (HSE&SD Committee). In 2020 at the HSE&SD Committee meetings the following key topics related to Climate Change issues were discussed:

- On issues of increasing associated gas beneficial use
- On issues of water management
- On climate change issues.



In 2018 we declared our participation in The Carbon Disclosure Project (CDP) initiative, which is an

international association of investors disclosing information about greenhouse gas emissions and climate change risks, and started working on evaluating the total carbon footprint of the commercial yield, from wellhead to a final consumer.

The carbon footprint is estimated for the second consecutive year. In August 2020, KMG published a Green Gas Emissions Report for 2019 as a part of the CDP's (Carbon Disclosure Project) Climate Questionnaire. In 2020, the CDP reporting was expanded, for the first time the water management data was published as part of the Water Safety Questionnaire following the 2019 results.

Our climate change priorities: reducing greenhouse gas emissions, increasing effective use of associated petroleum gas, increasing energy efficiency and energy saving, etc.

*More detailed information on greenhouse gas emissions, associated gas use, energy efficiency and energy saving increase **Environmental indicators – Climate change and atmospheric air.***

The climate change issues require to identify risks and take measures to reduce the environmental load.

Corporate risk management system is the key element of the corporate management system and is aimed at timely identification, assessment, monitoring and mitigation of potential risk events which may have adverse effect on strategic and operational goals. The Company accepts climate change risks and is committed to make its contribution to sustainable future with minimised environmental impact and greenhouse gas emissions at every stage of its operations. The Corporate Risk Register was expanded to include a new climate change risk, which is developed in accordance with the TECD – the working group on financial disclosure related to climate change. We quarterly report HSE risks to the Board of Directors.

International carbon regulation becomes tougher (the Paris Agreement, the European Green Deal and possible introduction of Border Adjustment Carbon Tax, additional carbon regulating measures in China, etc.). Due to this fact, the national carbon regulation is also expected to enhance. These measures require taking immediate actions by KMG aimed at new conditions adaptation and maintaining its long-term market competitive ability.

The existing challenges and global energy transition force many international oil and gas companies to engage in diversification of their business and creation of corporate low-carbon strategies. For instance, BP, Chevron, CNPC, ENI, Equinor, ExxonMobil, Occidental, Petrobras, Repsol, Saudi Aramco, Shell, Total established the Oil&Gas Climate Initiative Investment Fund. And the U.S. corporation Chevron created the USD 100 million Future Energy Fund to invest in breakthrough technologies. In 2020, the world decarbonisation investments amounted to USD 501.3 billion.

The climate transformation is becoming inevitable, as a minimum, for the companies of oil and gas industry. It will be rather a long-term process than a short duration action, that is why it needs a system approach, and understanding that it is a task for several decades.

CLIMATE CHANGE RISKS	Low-carbon economy transition risks	<b>Political and regulatory risks</b> (e.g. introduction of carbon price fixing/increasing mechanisms to reduce greenhouse gas emissions; the country's transition to quota allocation by specific emission factors only resulting in some companies having shortage of quotas; reducing power consumption to reduce emissions; making energy efficient decisions; reinforcing efficiency enhancement measures and promoting more sustainable land use methods).
		<b>Market risk</b> (risk of change in supply and demand for certain climate-related goods, products and services).
		<b>Technological risk</b> (development and use of new technologies such as RES, energy efficient technologies, BATs, carbon capture and sequestration technologies and other decarbonisation technologies).
	Physical climate change risks	<b>Reputational risks</b> associated with a changed perception of the Company by stakeholders because of its contribution to transition to low-carbon economy, or avoiding such transition.
		<b>Short-term risks</b> caused by extreme weather events such as cyclones, hurricanes, floods.
		<b>Systematic (chronic) risks</b> caused by long-term climatic model changes (e.g. abnormally high temperatures for long periods, increased sea level and flooding of onshore wells).

In November 2020, KMG conducted the informational session with participation of the KMG Board of Directors where they considered the world trends for transition of oil and gas companies to carbon neutrality and defined the necessity to update the current KMG Development Strategy 2018–2028 taking into account the Climate Agenda.

Due to this, the KMG Management decided to create a Low-carbon Development Project Office at the corporate centre level, in order to develop its own decarbonisation approaches with its further integration in an updated Strategy for the Company's development. The work of the Project Office will be focused on the following key directions:

1. The organisational and management measures (carbon footprint estimation, development of methodology for calculation of direct and indirect greenhouse gas emissions in accordance with international requirements, introduction of reporting and monitoring system, establishing the Company's medium- and long-term climate target points in greenhouse gas emissions, ESG Rating increase etc.).

2. Development of program for resource saving and energy efficiency increase (including establishing target points for energy intensity, energy consumption monitoring and accounting, projects implementation and energy management system improvement).  
Energy efficiency is one of the most efficient approaches in this sector. In accordance with the researches of the International Renewable Energy Agency (IRENA), the fast transition to the RES combined with energy efficiency strategies can provide the reduction of 90% energetics related CO<sub>2</sub> emissions in order to achieve the climate goals declared at the national level. Moreover, efficient resources use, reduction of leakage and carbon emissions and their own consumption by the companies of oil and gas sector also contribute to reduction of greenhouse gas emissions.
3. Transition to low-carbon energy sources. KMG is exploring the possibility to use the RES at production facilities and replace traditional energy sources by increasing own generation of the RES via mergers and acquisitions, new facilities construction.



4. Additional decarbonisation methods. KMG is exploring the possibility to use CCUS (CO<sub>2</sub> capture, utilisation and storage) technology at its own fields as well as perspectives of hydrogen production and implementation of forest carbon projects.
5. Introduction of financial mechanisms to attract investments in low-carbon projects.

In 2021, KMG has an important goal of defining the potential of carbon footprint reduction and the KMG products carbon intensity with the account of international carbon regulation of the Company's activity and further setting of goals for carbon intensity reduction via optimum decarbonisation project set.

#### Case Study

Renewable energy sources introduced in KazTransGas JSC subsidiaries and dependent entities during previous years perform effectively: Waterkotte geothermal pumps; single-crystal solar panels (batteries).

**The total volume of renewable energy generated in 2020 by the KTG Group broken down by sources:**

- Geothermal energy generated by heating pumps in 2020 – 678.5 Gcal.
- Electric energy generated by solar panels in 2020 by the KTG Group amounted to 78,410 kWh.

## ETHICS AND INTEGRITY

102-16

### VALUES, PRINCIPLES, STANDARDS AND NORMS OF BEHAVIOUR

The strategic initiative and the most important principle of the Company's activity is to ensure a high-level corporate responsibility. The Corporate Responsibility includes transparent and ethic behaviour which contributes to sustainable development and corresponds to the legislation and international norms of behaviour. The Company's activity in this area has a systemic nature, that is why KMG conducted the work to update the current document on ethical issues – the new revision of Business Ethics Code was approved in order to comply with ethic behaviour standards and fair business conduct.



Pursuant to the approved Code, KMG's activities are based on the following principles:

-  **Justice**
-  **Loyalty**
-  **Development**
-  **Safety**
-  **Responsibility**

The Company strictly follows the provisions of the Code as the basis of the KMG relations with its shareholders, employees, subsidiaries and dependent entities, governmental authorities, partners, other stakeholders, when making business decisions and in every-day operations is the balance of interests, mutual respect, trust, responsibility and observance of rights and duties of each Party.

The Code is an open document and is freely available to KMG's business partners and to any other stakeholders. It is also available on the Company's website in the Corporate Documents section.

## HOW TO REPORT UNETHICAL CONDUCT

102-17

To prevent violation of employee rights, confidential and accessible means have been made available for online reporting of any wrongful actions on the part of employees or third parties.

Any employee of the Group, or any other person, who has any doubts regarding the legality of actions taken by other employees, counter parties, or any other persons interacting with KMG and its SDEs, may inform their management, supervisor, or the Compliance Function.

Such information can be transmitted by the following confidential channels and means of communication:

1. to the KMG trust system by e-mail [doverie@kmg.kz](mailto:doverie@kmg.kz) or by trust line 8-(7172)-78-65-65;
2. to the Ombudsman (for business ethics, discrimination, labour disputes and other labour matters, etc.) by e-mail [ombudsman@kmg.kz](mailto:ombudsman@kmg.kz) or by phone 8-(7172)-78-65-60, 78-65-61;
3. to the Compliance Function (in case of any suspected or available information regarding corruption, fraud, or unethical conduct) through a single centralised hot line administered by Samruk-Kazyna JSC:
  - toll-free call to: 8 (800) 080 30 30
  - WhatsApp: 8 (702) 075 30 30;
  - e-mail to: [nysana@csc.kz](mailto:nysana@csc.kz);
  - through Internet portal: [nysana.csc.kz](http://nysana.csc.kz).

The contact details of the Hot Line are available on the KMG corporate website in the national, Russian and English languages. Similar information is available at the websites of the SDEs.

All communications, including anonymous, will be received and processed by the operators and forwarded to the KMG Compliance Function, which is in charge of professional and confidential review thereof. The Compliance Function will bring the information about the results of such review to the attention of the Audit Committee and the KMG Board of Directors on a quarterly basis. In 2020, 118 complaints and requests were sent to the Hot



#### Hot line

You can inform of any facts of labour, corruption and other offences via any of the four communication channels

#### We guarantee

Confidentiality and anonymity  
Review of **100%** of requests

**8 800 080 30 30**  
**8 702 075 30 30**  
**Nysana@csc.kz**  
**Nysana.csc.kz**

All communications will be received and processed by Samruk-Kazyna Fund.

Line, the number of requests increased by 180 % as compared to the year 2019 which is due to the Hot Line Popularisation Campaign, raising awareness of employees and third parties of its availability.

The issues which did not directly relate to corruption and fraud fight were resolved owing to the requests sent to the Hot Line. For instance, the Hot Line received the requests related to business behaviour violations, abuse of official powers and social and common complaints related to unfavourable economic consequences of the corona crisis. All the received requests were considered in accordance with the established time frames and procedures, relevant measures were taken which decrease a possible re-occurrence of similar situations in future and the requesters' notification about their consideration.

## TRUST AND ATTENTION TO EVERYONE

410-1, 412-1, 412-2

The observance of rights of JSC NC “KazMunayGas” Group employees and the third parties (private and legal entities) is ensured in accordance with the Republic of Kazakhstan laws, the KMG and SDEs general corporate and internal documents. KMG respects human rights in all regions of presence that enshrined in the Constitution of the Republic of Kazakhstan and international documents such as the Universal Declaration of Human Rights also the 10 principles of the UN Global Compact.

In 2020, the KMG Group further developed the internal communications system whereby any employee or other stakeholder can immediately send a message about any act of infringing laws and the KMG internal documents.

The Company has **the KMG Confidential Reporting Policy** approved by the Resolution of the Board of Directors dated 13 February 2020, Minutes No.1/2020, (the Policy) and **the KMG Economic Security Regulations** approved by the Resolution of the KMG Management Board dated 30 July 2020, Minutes No.31 (the Regulations).

In accordance with the Policy and Regulations, the KMG and SDEs have available and full-time (24/7) communication channels and means ensuring confidentiality in order to increase efficiency of preventive measures and offences prevention, to improve interaction and provide feedback from the Company's employees, stakeholders (private and legal entities) and in order to protect legal rights and interests: **Hot Line, confidential phone number and e-mail.**

The Policy and Regulations establish that the employee is obliged and any other person has the right to immediately inform his/her line manager, the Compliance Service and Corporate Security Department (the CSD) about any doubts regarding the legality of actions taken by other employees, counterparties, or any other persons interacting with KMG.

At the same time, none of the employees can be discriminated (dismissal, demotion, withholding of a bonus or other incentives, labour conditions worsening and other) for reporting a committed or imminent offence.

The procedure for acceptance, registration and consideration of the requests by the employees, citizens, other legal and private entities about violation of the Kazakhstan laws and the Company's internal regulatory documents is regulated by **the Work Instructions for the KMG Trust Information System Management** approved by Order No. 129 of the KMG Chairman dated 18 April 2018 (the TIS).

**Similar documents were approved by the SDEs.**

In 2020, the Group's Trust Information System received 210 applications (in 2019 –185) of which every third was about domestic gas tariffs, every fifth was about the employees' labour rights related to related to the remuneration level, occupational safety, etc.

From 57 applications of the employees, private and legal entities received by mail or at personal appointment (in 2019 –38) more than a half related to procurement, thefts, abuses and corruption, every tenth related to labour disputes.

All the received communications were reviewed in accordance with the established time frames and procedures, relevant measures were taken, and the submitters were duly informed.

As a result of timely and comprehensive review and resolving of requests, complaints and applications in 2020 **there were neither facts of violation of rights and interests of the Company's employees nor unsanctioned protest actions and conflicts** which could cause damage to the KMG Group interests.

In 2020 as in the previous years, **there were no facts of discrimination of employees** on the grounds of ethnicity, gender, religion or political views, there were no facts of forced or compulsory labour as wells as proceedings or prosecutions related to such violations.

The KMG Group Security Services play a special role in ensuring observance of the rights of employees and other persons.

All employees of the Group Security Services perform their duties in accordance with the Republic of Kazakhstan laws, corporate and internal documents of the SDEs, regulations on subdivisions and job descriptions.

It should be noted that the Security Services employees, as a part of qualification requirements to the positions, as a rule, have an experience of working in law-enforcement and special authorities system, have higher education and an experience in the area of management of corporate security business processes, observation of the rights and freedoms of employees and the third parties.

In 2020, more than **7.5%** of the Group Security Services employees were trained in observance of the policies

and procedures of rights enforcement (in 2019 – **11.7%**, the indicator reduced due to objective factors associated with the previously introduced state of emergency, nationwide epidemiological and quarantine measures).

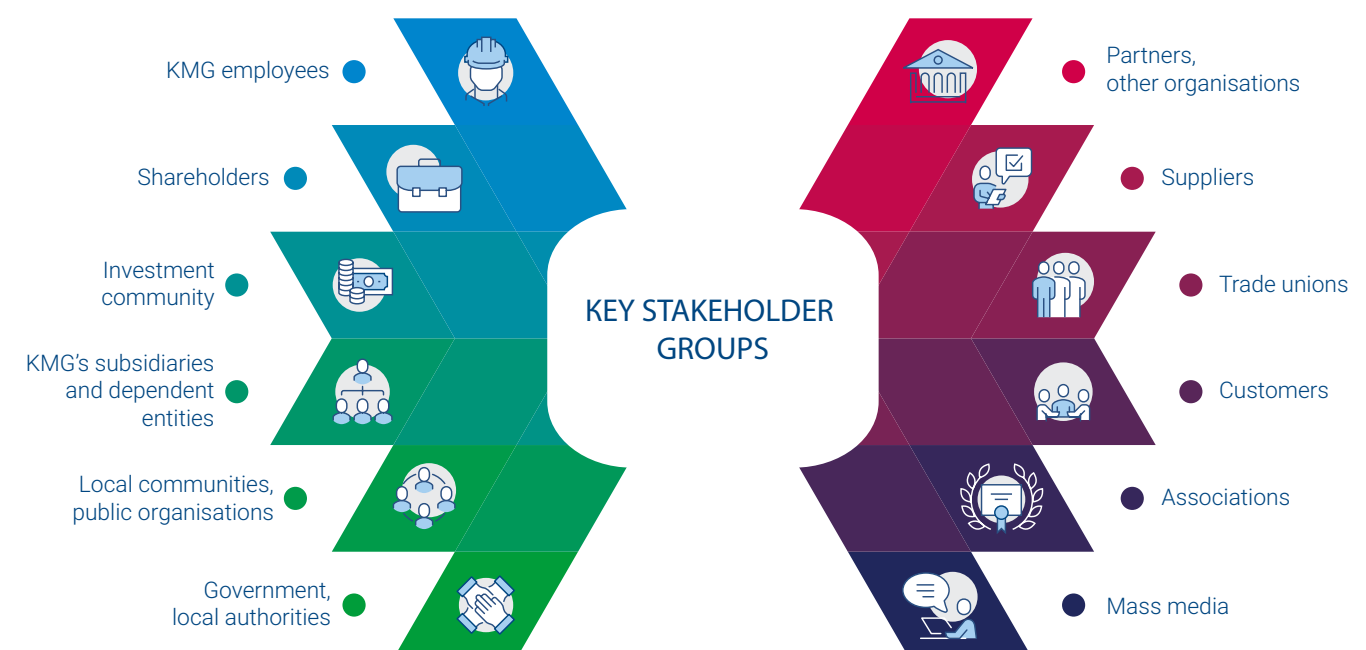
As a general matter, the governing authorities and the top management as well as the Heads of KMG Group business units are well informed about measures for protection of the employees' rights, and take an active part in enforcement of their rights.

## STAKEHOLDER ENGAGEMENT

102-40, 102-42, 102-43

We seek to ensure a high level of openness and transparency of our activities by implementing the principle of active dialogue with stakeholders. On annual basis, we disclose information about all existing aspects of the Company's performance. This helps us to maintain the balance between economic, social and environmental aspects of our activities.

KMG provides the full operating cycle from HC exploration and production through transportation and refining to distribution of crude oil and oil products both in Kazakhstan and abroad, and represents state interests in the oil and gas sector. Having a complicated structure and various activities, KMG is interacting with a wide range of stakeholders.



*"The employee's right for request is considered as one of effective methods to eliminate the law violations, one of the means to prevent offence, to protect rights and legal interests both of the employees and the Company. The request submission institution is another channel*

*for strengthening the relations between the Company and its employees, and the evidence of employees' confidence in it."*  
**Turysbek Aliaskarov, Director of the KMG Corporate Security Department**



DEFINITION OF STAKEHOLDERS





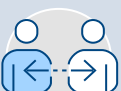
KMG is constantly making efforts to build up a dialogue, long-term cooperation and management of relations with its stakeholders.

KMG has an approved Stakeholder Map, which takes into account risks and rankings (based on direct or indirect dependence), obligations, the situation (with a special focus on higher-risk areas), influence, and

different prospects. To ensure effective achievement of the goals, Stakeholder Engagement Plans are developed.

When defining stakeholders and stakeholder engagement, KMG applies the best stakeholder engagement practices, including international standards, such as AA1000SES Stakeholder Engagement Standard.

STAKEHOLDER ENGAGEMENT METHODS INCLUDE:

Engagement level	Engagement methods
 <div><b>Consultations:</b><ul style="list-style-type: none"><li>✓ bilateral interaction; stakeholders answer questions asked by the organisations</li></ul></div>	<ul style="list-style-type: none"><li>• Questionnaires;</li><li>• focus groups;</li><li>• meetings with stakeholders;</li><li>• public meetings;</li><li>• workshops;</li><li>• feedback using communication means;</li><li>• advisory boards</li></ul>
 <div><b>Negotiations</b></div>	<ul style="list-style-type: none"><li>• Collective negotiations based on social partnership principles</li></ul>
 <div><b>Involvement</b><ul style="list-style-type: none"><li>✓ Bilateral or multilateral interaction; build-up of expertise and knowledge on all sides;</li><li>✓ the stakeholders and organisations act independently</li></ul></div>	<ul style="list-style-type: none"><li>• Multilateral fora;</li><li>• advisory panels;</li><li>• consensus achievement procedure;</li><li>• joint decision-making procedure;</li><li>• focus groups;</li><li>• feedback mechanisms</li></ul>
 <div><b>Cooperation</b><ul style="list-style-type: none"><li>✓ Bilateral or multilateral interaction; joint build-up of expertise and knowledge, making decisions and taking measures</li></ul></div>	<ul style="list-style-type: none"><li>• Joint projects;</li><li>• joint ventures;</li><li>• partnership;</li><li>• joint stakeholders' initiatives</li></ul>
 <div><b>Authorisation</b><ul style="list-style-type: none"><li>✓ stakeholders, if applicable, participate in management</li></ul></div>	<ul style="list-style-type: none"><li>• Integration of stakeholder engagement in management, strategy, and operations</li></ul>

IDENTIFICATION OF MATERIAL TOPICS OF THE REPORT

102-47

To assess and disclose material topics, the Report analysed information on both external and internal stakeholders. Based on the results of the performed procedures, a materiality matrix was constructed of 43 potential topics.

DISTRIBUTION OF WEIGHTS IN THE ASSESSMENT STRUCTURE OF MATERIAL TOPICS

The results of internal and external indicators on the horizontal and vertical axes of the matrix, respectively, were used to construct the matrix. The rating scale used in the matrix ranges from 1 to 5 points.

Online stakeholder survey was prepared on the basis of Google Forms platform. The representatives of shareholders, KMG CC, SDEs, suppliers, associations, local state bodies, banks, partners and clients participated in the questionnaire. Each sustainable development topic was suggested to be rated on a scale from 1 to 5 according to the level of importance, where 1 means "unimportant", 2 – "insignificant

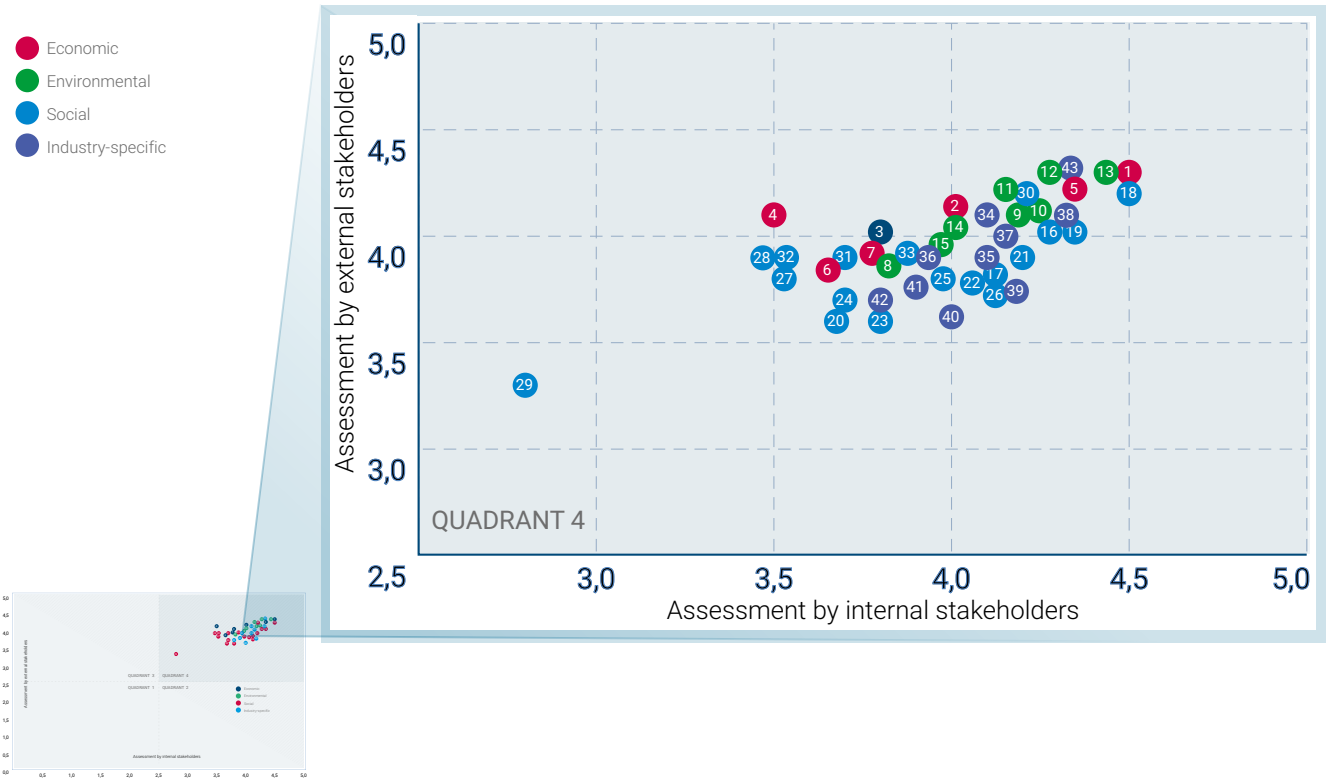
importance level", 3 – "medium importance level", 4 – "considerably high importance level", 5 – "highest or critical importance level".

The materiality matrix of 43 topics is provided below.

ASSESSMENT BY EXTERNAL STAKEHOLDERS

This matrix is divided into 4 conditional zones (quadrants) according to the level of importance of the topics as presented below.

- **Quadrant 4:** most important topics (assessment by external and internal stockholders > 2.5);
- **Quadrant 3:** topics important for external stakeholders, but less important for internal stakeholders (assessment by external stakeholders > 2.5, and assessment by internal stakeholders < 2.5);
- **Quadrant 2:** topics important for internal stakeholders, but less important for external stakeholders (assessment by external stakeholders < 2.5, and assessment by internal stakeholders > 2.5);
- **Quadrant 1:** least important topics (assessment by external and internal stockholders < 2.5).



List of material topics

ECONOMIC

1	Economic efficiency (e.g. revenues, profits)
2	Market presence (e.g. rate of remuneration in the regions, local content at the executive level)
3	Indirect economic effects (e.g. investments in infrastructure)
4	Procurement practices (e.g. share of local suppliers in expenses)
5	Counteracting corruption (e.g. corruption risk assessment)
6	Anti-competitive practices (e.g. compliance with the antimonopoly regulations)
7	Tax information (e.g., transparent tax administration)

ENVIRONMENTAL

8	Use of materials (e.g. recycled materials)
9	Energy (e.g. energy consumption, energy saving)
10	Water and effluents (e.g., water consumption, impact on water sources)
11	Biodiversity (e.g., conservation of Red Book animal species)
12	Emissions (e.g. greenhouse gas emissions, climate change)
13	Waste (e.g., waste recycling, hazardous waste management)
14	Environmental compliance (e.g. ecological fines or sanctions)
15	Environmental assessment of suppliers (e.g. negative environmental impact in the supply chain)

SOCIAL

16	Employment (e.g. labour turnover or employee benefits)
17	Employee-management relations (e.g. employee incentives)
18	Occupational health and safety (e.g. occupational injuries or risk of occupational diseases)
19	Training and education (e.g. employee training or career development)
20	Diversity and equal opportunities (e.g. gender equality)
21	Non-discrimination (e.g. dealing with facts of discrimination)

List of material topics

22	Freedom of association and collective bargaining (e.g. violation of such rights and freedoms)
23	Child labour (e.g. use of forced child labour)
24	Forced or compulsory labour (e.g. risks and efforts to eradicate such labour)
25	Security practices (e.g. training of security staff in human rights matters)
26	Human rights compliance assessment (e.g. training in human rights compliance)
27	Local communities (e.g. programmes for engagement with local communities)
28	Supplier Social Assessment (e.g., assessment of supplier social responsibility of suppliers)
29	State policy (e.g. donations for political purposes)
30	Consumer health and safety (e.g. impact of goods/services on consumer health)
31	Marketing and product and service information (e.g. compliance with such requirements)
32	Consumer immunity (e.g. consumer immunity violations)
33	Social and economic compliance (e.g. compliance with law or fines)

INDUSTRY-SPECIFIC

34	Volume and type of estimated proven reserves and production (oil and gas)
35	Investments in renewable energy sources (e.g. solar plants or wind farms, renewable energy utilisation capacity)
36	Monitoring of biodiversity impact in the regions of operations
37	Volume and disposal of formation or produced water
38	Volume of burned hydrocarbons and greenhouse gas leaks
39	Amount of drill cuttings (drill mud and slurry)
40	Benzene, lead and sulphur content in fuels
41	Strategies and programmes for engagement with local communities in the regions of operations; Settlement of disputes and conflicts, litigation with local communities
42	Decommissioning of production facilities; Compulsory relocation of people (as a consequence of operations)
43	Process integrity and safety (including spill prevention and emergency preparedness)



## INITIATIVES AND MEMBERSHIPS

102-12, 102-13

### INITIATIVES



#### The World Bank Initiative “Complete cessation of regular flaring of APG by 2030”

KMG supported this initiative in 2015. It unites governments, oil companies and development organisations that are ready to cooperate to stop the practice of regular APG flaring by no later than 2030. Our goal is to increase the beneficial use and disposal level of APG, to minimise flaring. We submit annual progress reports to the World Bank.



#### Global Methane Initiative

KMG supports the Global Methane Initiative (GMI) and regularly discloses its environmental activities to all stakeholders under the Sustainability Report. In 2017, as part of its methane emission reduction activities, KMG joined the GMI Project Network, which is a growing community of private sector businesses, financial institutions, and other governmental and non-governmental organisations interested in methane emission reduction projects, and in methane recovery and use. Working with the GMI partner countries, the members of the Project Network can intensify their activities, setting the stage for specific methane projects.



#### CDP Climate Programme

In 2020, KMG published a Greenhouse Gas Emissions Report 2019 as a part of the CDP's (Carbon Disclosure Project) Climate Programme. The Report comprises data on direct and indirect greenhouse gas emissions for all KMG assets, including subsidiaries in Romania and Georgia. For the first time the CDP Water Safety Questionnaire for 2019 was published.



#### Environmental responsibility rating of oil and gas companies in Kazakhstan

As a result of the performed works on improvement of ecological indicators as well as ensuring openness and transparency in this area, for the 4<sup>th</sup> time in a row, KMG was placed 1<sup>st</sup> in the Environmental Data Transparency Rating among Kazakh oil and gas companies following an independent assessment by Russian WWF, National Rating Agency and Creon Group.

The rating methodology has been tested through corporate practices and for the second year in a row an internal rating is held among the KMG SDEs, which is topped by Intergas Central Asia JSC with Embamunaigas JSC and KazTransOil JSC coming in the leading trio.

The company continues to increase the environmental responsibility, develops the environmental management system, and cooperates with all the parties concerned. Thereby performing its obligations reflected in the Company's Environmental Policy.

More details about the rating methods are available at: <https://wwf.ru/what-we-do/green-economy/ekologicheskij-rejting-neftegazovykh-kompanij-rf-sovmestnyy-proekt-wwf-i-kreon/>



#### International Organization for Standardization (ISO)

Since 2006, the quality and HSE management system has been maintained in accordance with ISO 9001, ISO 14001 and OHSAS 18001. Subsidiaries and dependent entities with significant levels of energy consumption are certified to ISO 50001.

In 2020, all the Group companies successfully passed supervision audits, which confirmed conformity of the current integrated management systems to the international standards.



#### Extractive Industries Transparency Initiative (EITI)

It is a global standard that promotes transparency of revenues from oil, gas and mining industries. We comply with the terms of the Memorandum of

Understanding of the Initiative and provide reporting on taxes and other payments to the state revenue <http://eiti.geology.gov.kz/ru/national-reports>

#### Caspian Environmental Protection Initiative (CEPI)

In September 2020, in Baku city JSC NC “KazMunayGas”, state oil company of the Azerbaijan Republic, BP Exploration (Caspian Sea) Limited, Equinor Apsheron AS and TOTAL E&P Absheron B.V. signed the Memorandum of Understanding. The Memorandum involves creation of Caspian Environmental Protection Initiative. The main goals of the Initiative will be creating the first platform for environmental protection and joint researches effective in the region of international oil companies. Activities of the participating companies will be aimed at active joint efforts in order to resolve climate change problems threatening the Caspian Region ecological stability and prevent green house gases and harmful substances environmental emissions.





### Oil Spill Preparedness Regional Initiative (OSPRI)

The Initiative is aimed at assistance and support of oil industry and the regional government in joint work which contributes to making accepted, sustainable, integrated and stable national, regional and international oil spill response decisions. The initiative is implemented through IPIECA, the International Petroleum Industry Environmental Conservation Association ([www.ipieca.org](http://www.ipieca.org)). OSPRI in close cooperation with International Marine Organization (IMO – [www.imo.org](http://www.imo.org)) and other international organisations is the regional means of implementation of international efforts on assistance to Oil Spill Preparedness for IPIECA.



### Performance Excellence Process (PEP) Solomon Associates benchmarking.

Solomon Associates consulting company is the most famous benchmarking (fuel productions investigation) of the oil refineries in which efficiency indicators of hundreds refineries are compared both on a regional and worldwide basis.

## MEMBERSHIP



### National Chamber of Entrepreneurs of the RoK “Atameken”

KMG and the National Chamber of Entrepreneurs of the Republic of Kazakhstan “Atameken” entered into an agreement for cooperation in legal matters.

The agreement provides for interaction of the parties in such important legal areas as improvement of legislation, development of joint programmes and projects aimed at raising legal culture, expanding the role of arbitration in resolution of commercial disputes, etc.

The gaps between the actual data of the refinery and deviations from the leaders are identified by the investigation results, and the next stage of development and implementation of the Performance Excellence Process (the PEP) is carried out in order to identify the reasons.

Improvements are achieved through introduction of the Solomon best practices as well as measures not requiring significant investments or with small investments.

The results of the Solomon benchmarking identified the most significant areas of improvement for the refineries of JSC NC “KazMunayGas”:

- Hydrocarbons loss reduction;
- Process unit yield optimisation;
- Energy consumption reduction;
- Reduction in repair costs.

In 2020, Atyrau Refinery LLP in cooperation with Solomon Associates started the process of continuous improvement of operational performance. In period 2021–2022, the works on development and introduction of Performance Excellence programme will be continued at Pavlodar Refinery LLP and PetroKazakhstan Oil Products LLP (PEP).



### Kazakhstan Association of Oil, Gas and Energy Entities “KAZENERGY”

The KMG management is involved in the activities of several committees and working groups of the Association.

The chairmanship in the Coordination Council of KAZENERGY for ecology, social responsibility and transparency opens an opportunity for KMG to promote sustainable development in the oil and gas sector of Kazakhstan.

KMG and Kazakhstan Association of Oil, Gas and Energy Entities “KAZENERGY” entered into a Memorandum of Cooperation.

The Memorandum provides for joint activities in such key legal areas as improvement of the Kazakhstan legislation; development of joint programmes and projects aimed at improving legal culture; cooperation in holding round tables, seminars, conferences on topical issues in the legal field, etc.



### The UN Global Compact

Our membership in the UN Global Compact and the annual posting of the Sustainability Report on the UNGC website to show KMG's progress in promoting the principles of the Global Compact and 17 Global Sustainable Development Goals clearly demonstrate our commitment to the principles of sustainable development.



### International Association of Oil and Gas Producers (IOGP)

Since 2018, KMG has been a full member of the International Association of Oil and Gas Producers. Our health and safety statistics will be publicly available, and our performance indicators will be compared to those of more than 75 oil and gas companies worldwide. Our strategic goal is to be among the Top 20 companies on this list.



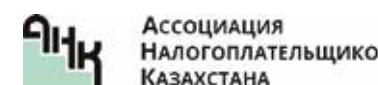
### International Association of Scientific, Technical and Business Cooperation in Geophysical Research and Well Work (ARW)

This is a non-commercial organisation uniting organisations, enterprises, educational institutions, and the plants of oil and gas sector. The main goal of the Association is to increase scientific and technical level, efficiency, competitiveness of geophysical research and works performed by enterprises – the Association members.



### International Association of Oil Transporters (IAOT)

Since 2015, KTO has been a member of the MATH/IAOT. The Association was formed in order to assist in actions coordination for sustainable development of oil transportation systems of participating companies and strengthen the stability of international oil transportation.



### Association of Taxpayers of Kazakhstan

The Association of Taxpayers of Kazakhstan (the Association, the ATK) is a non-commercial organisation created in 2005 in order to assist in protection of legal rights and interests of taxpayers, enhance their knowledge to ensure voluntary and timely tax payment. The Association classifies and analyses the areas of concern, proposals and comments in the field of taxation received from the ATK members. The results of the systemic works are the dialogues between the representatives of the involved ministries and taxpayers as a part of round tables, conferences, fora and working groups, as well as a range of the proposals on amendments and supplements to the RoK taxation laws.



### Association of Legal Entities “Kazakhstan Union of Mechanical Engineers”

Association of Legal Entities “Kazakhstan Union of Mechanical Engineers” is a non-commercial Association which includes more than 600 machine-building enterprises. The Union was formed in order to unite domestic enterprises for efficient development of machine-building sector of the country, to assist in resolving the industry's systemic problems, establish cooperation, represent their interest when interacting with state authorities and other organisations.





### Kazakhstan Welding Association “KazWeld”

The Kazakhstan Welding Association “KazWeld” was formed by the initiative of Total French oil and gas company and with the support from the national leaders. The main goals and tasks of the Association are to improve quality and competitiveness of national welding products, increase the number and quality of training for welding production workers in compliance with international standards, create a network of educational centres on welding and introduce international standards of education, training and attestation/advanced training of welding production personnel and many other things.



### Union of Energy Engineers of the Republic of Kazakhstan

Association of Legal Entities “Union of Energy Engineers” was formed in 1999 in order to unite efforts of energy enterprises and institutions of Kazakhstan, assist in energy supply problems resolving, develop regulatory and regulatory and technical documents of energy sector, in particular, industrial energy, organise energy saving in the country, increase qualification of energy personnel working in this highly important sector of the national economy.



### National Association of Business “IRIS”

National Association of Business “IRIS” is a non-commercial organisation which unites representatives of the Kazakhstan business in order to assist in protection of legal rights and interests of entrepreneurs, stimulation of the Kazakhstan entrepreneurship development, increase interest of state authorities and management bodies in entrepreneurship development, provide opportunities for free expression and protection of their interests by all members of the Association, etc.



### Association of Marine Transport Entrepreneurs of the Republic of Kazakhstan

The Association is a non-commercial organisation which unites legal entities on a voluntary basis in order to assist in development of the Kazakhstan marine transport, coordination of their activities, aimed at completion of production, scientific and technical, social and economic objectives and protection of their common rights.



### Union of Oil Service Companies of Kazakhstan

The Union was formed in 2011 in order to unite domestic oil service companies to consolidate the approach in resolving challenges of the sector, represent interests of its members in the country's provinces of core business running as well as interact with state bodies.



### Trans-Caspian International Transport Route

The Organisation which unites and represents the rights of some countries and companies located on Trans-Caspian International Transport Route (the TITR). The Association is intended to coordinate interaction of all participants of cargo transportation from Asia to Europe and backwards providing necessary informational support. The main tasks and goals are to promote simplification of administrative procedures, creation of competitive environment and provision of maximum efficiency for the companies from different countries including those not actually located at the international transport route. The TITR runs across China, Kazakhstan, the Caspian Sea water area, Azerbaijan, Georgia and then to the European countries.



### Union of Kazakhstan Transport Workers “KAZLOGISTICS”

The Union consists of 46 members including about 550 transport and logistics companies and associations of the Republic of Kazakhstan. The Union is a public coordinator of transport logistics development, the RoK global transit capacity and synergy of all transport types.



### Oil Spill Response Limited (OSRL)

Oil Spill Response Limited (OSRL) is a British company established in 1985 specialising in oil spill response and performing its services worldwide. The OSRL members include more than a hundred world companies. The Company pays special attention to

prevention and removal of oil contaminations not only offshore but also in coastal waters.



### Kazakhstan Bar Association

The Republican Public Association “Kazakhstan Bar Association” was formed in 2012 at the founding congress of lawyers. The Association's activity relies on the principles of voluntary participation, equal rights, publicity, legitimacy, cooperation with state bodies, non-governmental organisation and Kazakhstan citizens.

#### Case Study

### The KMG Sustainability Report 2019 was included in the best top reports at the Annual Report and Sustainability Report Competition

On 11 December 2020 the «QRA» Rating Agency summed up the results of the 10th Anniversary Annual Report and Sustainability Report Competition. The ceremony of awarding laureates and nominees of the annual Competition was held online.

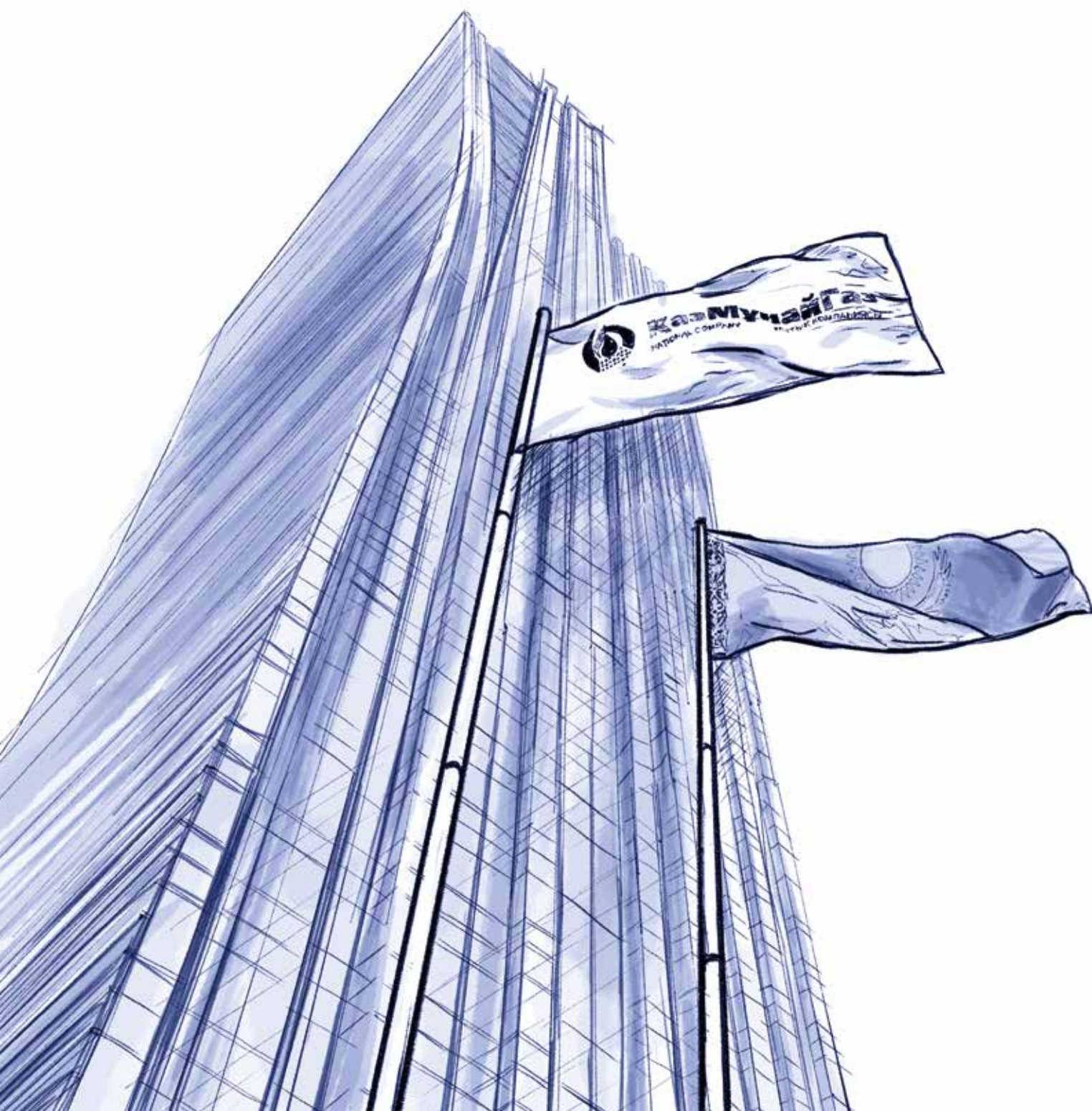


At the 2020 Competition, assessed were 111 annual reports of the Kazakh companies including 39 financial, and 72 non-financial organisations.

The KMG Sustainability Report 2019 was awarded with the laureate diploma Best Online Version of Annual Report and Sustainability Report and the nominee diploma Best Sustainability Report.



# CONTRIBUTION TO ECONOMIC DEVELOPMENT



**Principle 10.** Businesses should work against corruption in all its forms, including extortion and bribery



## ECONOMIC PERFORMANCE

For KMG 2020 was the year of pressure test and the Company passed the test with flying colours. In 2020, the KMG financial results were greatly influenced by such factors as oil price reduction, production restrictions under OPEC+ agreement and the COVID-19 pandemic. However, the Company achieved better results than we had expected owing to the immediate actions taken in response to external challenges. Based on the results of 2020, the Company managed to provide positive free cash flow, maintain credit ratings and prevent violation of financial covenants and debt increase.

At the end of 2020, the KMG net profit amounted to KZT 172 billion (USD 416 million).

Furthermore, as one of the largest taxpayers in the covered geography, KMG makes its contribution to the national budget in form of taxes and other payments. In 2020, KZT 548 billion (USD 1,325 million) of taxes were paid and other compulsory payments were made to the state revenue.

In addition, the Company employs over 60 thousand people in the country, providing them with a steady paycheck along with social assistance for them and their families. In 2020, the Company paid KZT 53 billion worth of social charges and pension contributions for its employees.

Participation in domestic manufacturer support programmes and increased local content in procurement remain among the KMG priorities. In 2020, the KMG Group procured KZT 1,812.6 billion worth of goods, work and services from Kazakh companies, which makes **99%** of the total procurement. **The local content in procurement was 82%.**

In the course of its operating activities, KMG makes annual substantial contributions to improve social and economic potential of the country and develop locations within the Company footprint.

The below economic performance figures provide a picture of the Company's contribution to the national economy.

### 103-1, 103-2, 103-3

*Planning and performance of the KMG Business Plan and Budget play an important part in the Company's value appreciation and reinforcing its financial stability for all stakeholders. Planning in KMG is aimed at ensuring medium-term (5-year) and current (for 1 year) planning of the KMG activities in accordance with priorities and goals defined in the Development Strategy.*

*Formation and approval of the consolidated and separate Development Plan and Budget of KMG are regulated by the Rules for Formation, Approval, Amendment and Monitoring of the KazMunayGas Development Plan. The Consolidated Business Plan includes the SDE plans for 5-year period and is regulated by the Plan for Development, Coordination, Approval and Monitoring of Business Plans and Budgets of KazMunayGas SDEs. The KMG Development Plan and Budget are formed in the automated planning system in accordance with the requirements of the approved corporate accounting policy of KMG and International Financial Reporting Standards (IFRS).*

*The KMG Management monitors the Business Plans performance on the basis of monthly, quarterly and annual management reports.*



# CREATED AND ALLOCATED ECONOMIC VALUE

201-1, 201-4, 415-1

Indicator	UoM	2018	2019	2020
Created direct economic value				
Total income	KZT billion	7,889	7,970	5,202
Allocated economic value				
Total expenditures	KZT billion	7,199	6,812	5,030
Unallocated economic value				
Profit	KZT billion	690	1,158	172

Total income is a total revenue and other income in the statement of comprehensive income.  
Total expenditure is total expenses and costs in the statement of comprehensive income.

Indicator	UoM	2018	2019	2020
Other taxes and payments (excluding CIT)	KZT billion	1,258	1,360	1,068
Other taxes and payments (including CIT)	KZT billion	1,444	1,522	1,156
Income tax paid	KZT billion	186	162	88
Payments to capital providers	KZT billion	305	318	331

The data was received from the consolidated statement of cash flows (direct method) of KMG for 2020.  
Payments to capital providers consist of Dividends paid to the shareholder, Dividends paid to the non-controlling interest, Interest paid and Distributions in favour of NWF Samruk-Kazyna JSC.

Indicator	UoM	2018	2019	2020
Capital investments (accrual method)	KZT billion	628	505	454

KMG did not receive any monetary assistance from the Government in the reporting period and does not make any donations for public/political use.

## SOCIAL ASSISTANCE FOR EMPLOYEES

201-3

In accordance with the national law, retirement savings of citizens are kept by the Unified Pension Savings Fund. Pension savings include the state-guaranteed minimum pension rate, individual pension savings (monthly contribution – 10% of salary) and extra regional increments.

For its part the Company, in accordance with the Collective Agreements of organisations, fulfils additional obligations on social assistance of the retirees, according to which the retiring employees due to achievement of retirement age as well as after retirement, receive financial assistance in the form of financial aid for the Kazakhstan national and state holidays, for anniversaries, in the form of health resort treatment vouchers with partial cost compensation and other.

Indicator	UoM	2018	2019	2020
Social charges and compulsory pension contributions	KZT billion	52	52	53

In 2020, financial assistance to the retirees of the Company was provided for a total amount of over KZT 2 billion.

Some of the KMG companies have the early retirement plan for employees approaching the retirement age, which makes it possible to compensate them

## KMG TAX STRATEGY

207-1

The KMG taxation approach (the KMG tax strategy) was established by the KMG Tax Accounting Policy (the TAP) developed in accordance with the requirements of the RoK Tax Code and on the basis of the KMG Group Corporate Tax Accounting Policy (the Corporate TAP).

The Corporate TAP was developed and implemented in order to unify tax accounting in the KMG Group. KMG and all the KMG subsidiaries use the Corporate TAP in development and approval of the Company's TAP which contains peculiarities of the tax accounting procedure by types of operations taking into account the activities performed by the Company (both core and non-core activities).

KMG and all its subsidiaries are governed by the **Corporate TAP**, except for the subsidiaries:

- Engaged in subsoil use operations under the production sharing agreement which provides for a special stable taxation regime;
- With less than 50% of the majority share holding (interest) held by KMG;
- Registered outside the RoK as well as the KMG branches and its subsidiaries' branches registered outside the RoK.

The Corporate TAP is **aimed** at achieving the tax accounting uniformity in order to present in its reporting **the most complete, objective and fair information** taking into account organisational and industry-specific peculiarities of KMG and its subsidiaries.

The Corporate TAP **objective** is to reflect the specifics of tax accounting of the KMG Group where the tax laws:

- Contain the provisions requiring or allowing to choose from several options or methods provided by the RoK Tax Code;

for mutually agreed termination of employment; employees who have reached the retirement age can be compensated for termination of employment.

In total, in 2020 social assistance for the employees and retirees was provided for the amount of over KZT 21 billion.

- Establish only general provisions and do not prescribe clear and specific ways of tax accounting, the procedure for defining taxable items and tax related items;
- Require to reflect separate conditions and provisions in the TAP.

The Corporate TAP is based on the following **principles** of the RoK Tax Code:

- Obligatory Taxation Principle – KMG and its subsidiaries are obliged to timely and correctly calculate, retain and pay taxes in full to the Kazakhstan national budget.
- Taxation Equity Principle – operations of KMG and its subsidiaries can not be subject to double taxation for one and the same type of tax and payment for one and the same taxable item for one and the same period.
- Good Faith Principle of KMG and its subsidiaries – it is prohibited to get benefit from their illegal actions in order to get tax saving and tax payments reduction.

The Corporate TAP provisions shall be a commercial and tax secret of the KMG Group.

Approval of the Corporate TAP and the KMG TAP as well as amendments and supplements to them are the competence of the KMG Management Board.

**Amendments and supplements to the Corporate TAP and the KMG TAP are made in the following cases:**

- Changes of the RoK Tax Code norms related to the tax accounting procedure established by the Corporate TAP provisions;
- Changes of the RoK Accounting and Financial Reporting Law or the IFRS related to the tax accounting procedure established by the Corporate TAP provisions;

- The Decisions made by KMG/subsidiary change the methods and principles of accounting of the KMG Group influencing the tax accounting procedure, defining the taxation items and/or the tax related items;
- The Decisions made by KMG/subsidiary lead to the change of procedure and principles of separate tax accounting of the KMG Group and other provisions, for which the RoK Tax Code has default rules.

In other cases the changes to the Corporate TAP and the KMG TAP are introduced as required but not more than two (2) times a year.

The Corporate TAP is developed in accordance with the requirements of the RoK tax laws in interconnection with International Financial Reporting Standards (IFRS), the RoK Accounting and Financial Reporting Law, other RoK legislative acts and international contracts ratified by the Republic of Kazakhstan as well as by the internal documents regulating activities of KMG/ subsidiary.

In the event of any conflicts between the provisions of the Corporate TAP and statutes of the RoK tax law or international contracts ratified by the RoK, the statutes of tax law or the corresponding international agreement rules are applied.

In its approach to taxation in tax planning KMG takes into account peculiarities of the KMG commercial activity and social influences of such approach which fully comply with the Development Strategy 2028 of JSC NC "KazMunayGas" which is a strategy of gradual organic growth of KMG for 2018–2028.

Thus, in a medium-term period KMG will improve measures on retaining and strengthening its financial stability. This strategy initiative will help KMG to manage the debt efficiently and reach optimum capital structure. As a part of the Initiative, one of the main objectives of KMG is to optimise the tax burden by restructuring unprofitable/profitable assets with redistribution of their tax obligations by maximum use of tax losses of the KMG Corporate Centre, optimum model of economic management taking into account potential changes of external environment and legislation.

## 207-2

Core tax risks of the Company can be:

1. Ambiguous interpretation of the tax and customs laws.
2. Incorrect tax reporting and customs goods declaration.
3. Untimely provision of financial statements.
4. Transfer pricing related risks.
5. Taxation of controlled foreign companies (inclusion of the CFC consolidated profit into the KMG taxable income).
6. Non-resident taxation (individuals under the contracts with non-residents).

The main risk factors (causes) in the Company can be:

### 1. Internal factors:

- Poor tax administration in KMG SDEs;
- Untimely provision of/failure to provide documents and information to the Accounting Office by programme administrators;
- Errors in tax statements and customs declarations of goods;
- Insufficient knowledge of the tax law;
- Inappropriate tax review of agreements/contracts;
- Untimely preparation/insufficient substantiation of tax preferences/changes to the tax law.

### 2. External factors:

- Ambiguous interpretation of the RoK tax law;
- Retrospective changes to the RoK tax law;
- Failures of the tax authority IT infrastructure;
- Ambiguous interpretation of the transfer pricing law.

The core preventive influence measures at the Company are:

1. Regularly monitor changes to the RoK tax law, and consider them in the work.
2. Employees are to participate in seminars, fora, self-educate in tax law and transfer pricing.
3. Follow up on tax record maintenance and tax reporting.
4. Regularly conduct reconciliation with tax authorities.
5. Provision of tax analysis reports on major deals (approval of contract projects).
6. Obtain explanations from state revenue authorities regarding tax, customs and transfer pricing laws.

7. Audit tax statements (as required).
8. Keep correspondence with authorised bodies to get explanations of regulatory legal acts.
9. Protect the company's interests in court.
10. Analyse risks of price deviation in major transactions (TP).
11. Monitor draft revisions to the transfer pricing law initiated by state authorities.

For more details on GRI 207-2 (Tax governance, control, and risk management), refer to Section "Corporate Governance" – Efficiency of Risk Management Processes.

## 207-3

KMG is included in the list of major taxpayers subject to tax monitoring in accordance with tax law.

On a regular basis, KMG analyses problem issues of tax law application in the KMG Group with further development of proposals to amend the Legislative Acts as well as initiates amendments to the RoK legislation in order to create favourable conditions for taxation of the KMG Group, ensure systemic improvement of tax law, customs law of the Customs Union and the RoK, the RoK transfer pricing law, and

increase of operating efficiency and the KMG value appreciation as a whole.

The relations and interaction with state authorities are built in accordance with the RoK Tax Code standards via business mailing in order to define a correct tax policy, participate in the meetings, discussions organised by both the state authorities and shareholders and industry associations.

Protection of the KMG Group interests by improving the legislation includes:

- development of proposals (including groundings, presentations and calculations) on improvement of tax legislation;
- consideration and provision of conclusions to the draft legal and regulatory acts developed by the corresponding state authorities as a part of execution of tax legislation and subsoil legislation;
- support of legislative initiatives of the KMG Group by direct participation in the activities of consultative bodies of the industry associations (Association of Taxpayers of Kazakhstan (the ATK), KAZENERGY, National Chamber of Entrepreneurs of the RoK "Atameken" (the NCE)), work groups with participation of authorised state bodies of the Republic of Kazakhstan and the RoK Parliament.

KMG is the member of the above mentioned industry associations.

# IMPLEMENTATION OF INVESTMENT PROJECTS

## 203-1, 203-2

**KMG is a national leader of oil and gas industry of Kazakhstan with full integration at all stages of the value-added chain.** Being a leader of oil and gas industry and a vertically integrated company, KMG has a stable platform for its long-term sustainable development. KMG assets include the whole cycle of hydrocarbons value-added chain which consists of exploration, production, transportation, refining and marketing. The activities are performed in Kazakhstan and Romania.

As part of the above mentioned directions, KMG implements over 50 investment projects aimed at increasing hydrocarbon reserves, creating a new production, and expanding and renewing the existing production.

Implementation of the following investment projects contributes to sustainable development of Kazakhstan:

### I. Projects for gasification of the RoK regions and modernisation of gas distribution networks

In 2020, among the successfully completed investment projects were:

#### • Upgrade of Bozoi UGS

On 20 December 2020, the project for increase of gas storage capacity of Bozoi underground gas storage facility was completed. The project is aimed at increasing reliable gas supplies to the south regions of the country, levelling of gas consumption load in cold months, levelling gas transport system load as a whole. Project volume



of gas storage is 4 billion m<sup>3</sup> (Zhamankoyankulak section is 3 billion m<sup>3</sup> and Zhaksykyoyankulak section is 1 billion m<sup>3</sup>). Daily gas withdrawal rate during the peak of heating season can reach 27 mln m<sup>3</sup>/day.

- **Construction of a supplying gas pipeline for 5 settlements in Kordai District of Zhambyl Region**  
KazTransGas JSC finished the installation of gas supply pipelines to 5 settlements in Kordai District (Massanchi, Sortobe, Karakemer, Aukhatty, Bular Batyr) totalling up to 42 km and reconstruction of Kordai-Shu automated gas distribution station, pursuant to the instruction of the Kazakhstan President K. Tokayev received in the course of his working visit to Kordai District of Zhambyl Region.

Ten settlements with population of over 62 thousand people were provided with natural gas as a result of implementation of the project in cooperation with the Akimat of Zhambyl Region. 7,177 residential buildings, 29 social entities, 243 entities of small or medium business. There is a prospect of gasification of another 7 settlements. The works were performed from June till October 2020.

In 2021, the works are to be continued under the investment project **Construction of the Trunk Gas Pipeline “Beineu – Bozoy – Shymkent”** with the throughput capacity up to 15 bln m<sup>3</sup>/year. The gas transported via this gas pipeline is supplied to the population of the RoK regions and for export to China.

In February 2019, compressor stations Aral, Korkyt-Ata and Turkestan were commissioned in the Bozoi – Shymkent gas pipeline section.

On 29 April 2020, at the Beineu-Bozoy section of the trunk gas pipeline, the last forth 1A compressor station was commissioned and with its commissioning throughput capacity of the Beineu – Bozoy-Shymkent trunk gas pipeline reached 15 bln m<sup>3</sup> per year.

Activities to expand Beineu GMS and Bozoy CS are scheduled to be completed in 2022.

Also at the end of 2019, pursuant to the instruction of the First President/the Head of the State dated 5 March 2018, AstanaGas KMG JSC, with 50% of shares under the trust management of KMG, commissioned the trunk gas pipeline on the Karaozek (Kyzylorda Region) – Zhezkazgan – Karaganda – Temirtau – Nur-Sultan route.

Also, in 2021 the activities under the following investment projects are to be completed:

- **Gasification of Almaty city, revamping of Almaty gas distribution networks**

The project contributes to better environmental situation in Almaty, will allow to connect 4,100 of new consumers who will ensure annual average consumption of 15.8 mln m<sup>3</sup> of gas. At the beginning of 2021, 1,846 houses were connected, the other 2,254 houses also have a gas access and will be connected as soon as possible.

As at 1 January 2021, 265 km of new gas pipelines were constructed and 58 km of the existing gas pipelines were reconstructed, 30 gas control plants and 1 package-type gas control unit were installed. Till the end of 2021, 40 km of gas pipelines, 4 gas distribution plants are to be reconstructed.

- **Construction of gas distribution networks of start-up packages 1 and 2 of Phase 2 in Nur-Sultan**

Gas supply from AGDS-2 to the main gas distribution plant (MGDP) “Vostok” and the “Yugo-Vostok” MGDP is ensured within start-up package 1, and gas supply from “Vostok” MGDP to the residential districts Internationalnyi, Michurino, Kuigenzhar and to the boiler houses is ensured within start-up package 2.

It is preliminary planned to construct 83.7 km of gas pipelines, install 5 package-type gas distribution units and 5 gas distribution units. All the works are supposed to be completed by the end of 2021.

## II. Oil transportation projects

### “The first stage of reversing Kenkiyak – Atyrau oil pipeline section, up to 6 mln tonnes per year”

project is aimed at transportation of up to 6 mln tonnes per year of West-Kazakhstan oil to POGR, PKOP and increasing oil exports to China. In 2020, as a part of the project, start-up package 1 was commissioned, mechanical completion of the Aman PS facilities was performed. Heating furnaces production and the works on supervising installation of heating furnaces equipment was fully completed.

## III. Oil and gas refining projects

- Proving its commitment to best health, safety and environment (HSE) practices, in 2020 Atyrau Refinery continued to design and construct new treatment facilities for the refinery as a part of the Tazalyq project.

The objective of the Tazalyq project is to upgrade wastewater treatment units and reconstruct the Tukhlaya Balka evaporation fields located on the left bank of Atyrau in order to execute environmental requirements of state governing authorities.

The environmental effect from the new MTUs is the removal of 8000 m<sup>3</sup> of open petroleum product evaporation fields and recycling of 15% of treated wastewater in own production. The environmental effect from reclamation of the evaporation fields will be prevention of adverse impact on the atmosphere, groundwater, local flora and fauna.

The treatment facilities are being upgraded in 2 stages:

1. Reconstruction of mechanical treatment units at Atyrau Refinery, 2019–2022;
2. Reconstruction of a closed channel for effluents treated to standard quality and reclamation of evaporation fields, 2019–2023.

- **Construction of a new Gas Processing Plant in Zhanaozen.** Taking into account the maximum wear level of the main process equipment, technical devices and engineering networks of the gas refinery

plant in Zhanaozen, significant risks associated with ensuring safe labour conditions, compliance with environmental protection requirements, man-caused emergency with environmental consequences, risks of gas disposal by subsoil users, risk of failure to provide the population of Mangistau Region with gas processing products, KMG plans to construct a new plant taking into account the following measures:

1. In 2018, the technical and economic studies on the project were completed.
2. In 2021, the FS and pre-feed are to be performed, as well as the start of works on the DED development under the project.
3. The construction of the plant is to be completed at the end of 2023.

## IV. Water supply projects

- KMG assists CITIC ENVIROTECH LTD with implementation of the project on construction of the desalination plant at Karazhanbas field as well as utilities installation to the desalination plant. As per the approved project parameters the works on installation of utilities to the desalination plant were expected to be completed before 31 December 2020, however, due to untimely supply of process equipment and materials from the PRC caused by the COVID-19 pandemic, there were shifts in the work schedule for key facilities. As a result, total term of the plant construction completion (PWRI) was shifted to 31 March 2021.

### Case Study

#### Sary-Arka trunk gas pipeline

(Sary-Arka TGP) connected Central Kazakhstan and the capital of our state to the unified gas transportation network of the country. This is the largest infrastructure project in the years of independence which was constructed in record time.

Its commissioning will allow transporting up to 2.2 bln m<sup>3</sup> of gas annually to provide consistent supplies of local natural gas to Nur-Sultan, Karaganda, Temirtau, Zhezkazgan, and along the trunk gas pipeline route. About 2.7 million people from 171 settlements are expected to get connected to the gas supply network. Currently, the works on construction and commissioning of internal regional gasification facilities are carried out.

Gas consumption in the domestic market continues to grow. This is a world trend, as natural gas is the most beneficial and cleanest fuel, its use significantly decreases harmful atmospheric emissions. Population of Karaganda and Nur-Sultan is

being connected at full speed to the gas supply network owing to the constructed Sary-Arka trunk gas pipeline. In future, the 2<sup>nd</sup> and 3<sup>rd</sup> stages of the Sary-Arka gas pipeline construction will enable gasification

of the northern regions of the country. Active gasification work is carried out in the south, with almost full gasification of Turkestan city this year.



- Also KMG implements the project for increase of throughput capacity of the Astrakhan – Mangyshlak Main Conduit and upgrade of worn out equipment to satisfy the existing deficit and future increase of water consumption of Atyrau and Mangistau Regions of the Republic of Kazakhstan. As a part of Phase 1 of the project, it is planned to increase water feed capacity from 30,100 thous. m<sup>3</sup>/year to 68,388 thous. m<sup>3</sup>/year by the end of 2024. Currently, it is planned to develop DED on implementation of Phase 1 of the project.
- KMG implements the project for construction of the desalination plant with the main pipeline near the Kenderly recreation area with the capacity of

more than 50 thous. m<sup>3</sup> per day, under the protocol assignment on fast track of the construction project No. 11-3/07-781 of the RoK Prime Minister A. Mamin dated 18 September 2019. Positive conclusion No. 01-0197/21 of RSI Gosexpertiza dated 8 April 2021 was received for the FS of Desalination Plant with capacity of 50 thous. m<sup>3</sup>/day with the Kendeli – Zhanaozen water main developed by the Designer KazNIPImunaigas LLP, the branch of KMG Engineering LLP.

Note, however, that according to the Samruk-Kazyna Procurement Method, one cannot establish requirements by social criteria for potential suppliers. Therefore, setting by KMG of social criteria to select suppliers may be perceived by Samruk-Kazyna as restriction on competition.

However, human rights and social criteria provisions are included in standard KMG contracts for procurement of goods, work and services, and in the approved Code of Business Ethics.

**The general scope of goods, work and services procured from the Kazakhstan residents (regardless of nationality of their employees and whether or not they have ST-KZ goods origin certificates) was as follows:** KZT billion

Year	Total	Goods	Work and services
2018	2,280.8	739.8	<b>1,541.0</b>
2019	2,004.7	462.1	<b>1,542.6</b>
<b>2020</b>	<b>1,812.6</b>	<b>469.5</b>	<b>1,343.1</b>

Therefore, in 2020, KZT 1,812.6 bln worth of goods, work and services was procured from the Kazakhstan residents, which makes 99 % of the total procurement.

Concurrently, local content in the procured goods, work and services is calculated under the Unified Local Content Calculation Method for Procurement of Goods, Work and Services by Companies approved by Order No.260 of Investment and Development Minister of the Republic of Kazakhstan on 20 April 2018.

*The word “local” means domestic enterprises, which produce goods and have ST-KZ goods origin certificate specifying the local content percentage. Local content in a contract for work/service, except for work/service procured under a subsoil use contract, is calculated based on the share of Kazakh employees salaries in the total payroll.*

**Total amount of goods, work and services, and local content** (KZT billion)

Year	Total	LC, %	Goods		Work and services	
			Amount	LC, %	Amount	LC, %
2018	2,428	79	824	77	1,604	80
2019	2,132	81	473*	63*	1,659	83
<b>2020</b>	<b>1,826</b>	<b>82</b>	<b>472*</b>	<b>71*</b>	<b>1,354</b>	<b>86</b>

*\*excluding oil and gas*

The above values reflect consolidated data for all KMG subsidiaries with fifty or more percent of voting shares (participation interests) are directly or indirectly owned or held in trust by KMG, and which are subject to the Samruk-Kazyna Procurement Management Standard.

The issues of support of domestic manufacturers of such simple things like products of furniture, food, consumer goods and construction industries (“Economy of Simple Things” goods) are under special scrutiny by the RoK Government and the Samruk-

Kazyna Management. For the year 2020, Samruk-Kazyna JSC set the target indicator for KMG to reach the purchase rate of the “Economy of Simple Things” goods from domestic manufacturers at the level not below 90 %. As a result of the works performed, our indicator reached 92 %. The target indicator set for KMG for the year 2020, was exceeded by 2 %.

**82%**

**SHARE OF LOCAL CONTENT**

## PROCUREMENT PRACTICES

103-1, 103-2, 103-3, 204-1, 102-9,102-10

One of the procurement principles is to offer equal opportunities to all potential suppliers participating in the procurement.

The KMG procurement procedures in 2020 were regulated by the Procurement Procedure and the Procurement Management Standard of Samruk-Kazyna JSC posted at the procurement portal of Samruk-Kazyna Contract LLP <https://www.skz.kz/ru/regulations/>.

According to the current goods procurement system, open bidding or procurement is to be held through a Request for Quotation process, only among manufacturers of the procured goods listed in the Holding Manufacturers Register, or only among disabled people employers producing the concerned goods and listed in the Holding Register of Disabled People Employers.

Moreover, the Samruk-Kazyna procurement method governing procurement processes in the KMG businesses, imposes special conditions for procurement of goods used by the Holding subsoil users, who have entered into subsoil use contracts before 1 January 2015, until the earlier of expiration date of such contracts or 1 January 2021. According to the referred special conditions, subsoil users shall (as required by Clause 3 Article 78 of the RoK Subsoil Use Act) purchase goods from Kazakh manufacturers provided that the latter comply with a design document or the RoK technical regulation law.

Procurement process includes:

- Development and approval of annual (long-term) procurement plan;
- Selection of suppliers;
- Entering into and execution of a procurement contract;
- Inventory management.

Suppliers for KMG and its SDEs are selected in an open tender through a Request for Quotation process, in a tender through competitive negotiations within the intra-holding cooperation and through a single source procurement in accordance with the Samruk-Kazyna Goods, Work and Services procurement methodology.

All procurements are made using the E-Procurement Information System.

When selecting a supplier of goods, work, services, it is essential that the procurement procedure is held in strict compliance with the procurement method of Samruk-Kazyna JSC, without any violation which might affect the results. This indicator is included in the KPI Card for the KMG and SDE managers.

The Samruk-Kazyna Procurement Management Standard provides that procurement procedure is to be held among qualified potential suppliers, and includes pre-qualification of potential suppliers and creating the database of pre-qualified potential suppliers.



It should also be mentioned that KMG successfully conducted work on import substitution as a part of implementation of the New Production Promotion Programme of Samruk-Kazyna JSC. The main goal of this Programme is to support the initiatives of private business willing to become familiar with a new type of products or upgrade the current production in order to satisfy the demand of Samruk-Kazyna companies by concluding off-take contracts. The mechanism for off-take contracts provides for implementation of import substitution projects with a condition of future purchase and supply of commodities to be produced as a result of such implementation.

Thus, in 2020, the KMG subsidiaries entered into 40 off-take contracts and 2 memoranda with local manufacturers implementing import-substituting projects, as a part of the above Programme, for a total amount of KZT 13.6 billion.

Category Management is an effective tool for increasing quality of the purchased goods and maximisation of benefits from the procurements.

Since 2019, the Category Management Introduction project was transferred to operational activities of JSC NC “KazMunayGas” having proven its efficiency for business directions of the Company.

Category Management of JSC NC “KazMunayGas” (the Category Management) during the 2017–2020 period developed, approved and performed 23 category-based procurement strategies (the CPS). Also, the Category Management participated in development and implementation of 12 CPS

developed by Samruk-Kazyna Contract LLP, being the Competence Centre for category-based procurement management of NWF Samruk-Kazyna JSC.

As a part of the developed CPS, in the 2017–2020 period, the KazMunayGas Group made procurements for the amount of KZT 92.7 billion that allowed to reach benefits for the indicated period in the amount of KZT 12.61 billion.

## SUPPLIER SOCIAL ASSESSMENT

414-1

For the reporting period in order to ensure compliance of the established guarantees in labour relations for the contracting employees by the Decision of the KMG Management Board dated 2 June 2020 the Standard Regulations on activities of SDEs with contractors performing their activities at the KMG facilities were approved. And currently, the work on their implementation into the KMG SDEs is being carried out.

The Regulations are binding on SDEs in the course of execution and monitoring of contracts with the contracting companies that have their own personnel, and will form an integral part of the contracts between SDEs and the contracting companies.

The main objective of the Regulations is to ensure social and labour rights of the contracting company employees.

(corporate values of KMG updated, gift limits added, compliance contacts updated, the Code amended to comply with the Code of JSC Samruk-Kazyna and the recommendations of the international audit companies specialized in compliance).

In 2020, equivalent compliance policies were developed and approved at 35 subsidiaries and affiliates of the Company,

As for the work with the subsidiaries and affiliates, the Company strives to accelerate the processes of integrating the businesses into the corporate culture by introducing local functions and developing compliance programmes tailored to each enterprise. Thus, compliance risk assessment has been held at 8 enterprises (Embamunaigas, Pavlodar Oil Chemistry Refinery, Atyrau Refinery, KazTransOil, KazTransGas, Intergas Central Asia, Kazmorttransflot (interview), and Zhambyl Petroleum (interview)). 4 subsidiaries and affiliates have established own compliance services / added compliance officers to the organizational structure: Pavlodar Oil Chemistry Refinery, Atyrau Refinery, KazTransOil, and KLPE.

Remote interaction caused by the pandemic facilitated the Service developing effective approaches to applying organisational and system measures to prevent corruption among employees of the Group. Ethics training of all employees of the Company's Corporate Centre was held remotely. Special attention was paid to enhancing corporate communication by newsletters including reminders for all employees about the Company's anti-corruption requirements, the changes in the regulatory documents (amendments to the RoK Law on Anti-Corruption), and functioning of the hotline, which facilitated higher commitment among the employees and other persons to using the hotline managed by the Social Engagement and Communications Centre of JSC NWF “Samruk-Kazyna”, which is one of the most effective tools to monitor quality of the Company's and its employees' compliance with the legal and ethical standards. In addition, the Service has arranged some awareness-raising activities among the managers and the employees of the Company to teach about preventing and resolving conflict of interest within one's official powers.

For the purposes of establishing an effective system for managing conflict of interest and to specify the requirements to the employees' conduct that ensure minimisation of the risks of decision-making

under the influence of personal interest and relations within the Company, a range of measures has been employed. Thus, in 2020, the Company has approved the Conflict of Interest Management Policy regulating the procedure for review of a conflict of interest and specifying methods for management thereof. Compliance with the Policy is an obligation of each Company's employee regardless of his/her position.

At employment, all employees go through a process of familiarisation with the Policy and complete and sign an initial conflict of interest declaration. An equivalent procedure is established for transfer of an employee to another position.

The procedure of conflict of interest declaration was introduced in 2020 and resulted in receiving 434 declarations from the employees. Also, during 2020, 48 cases were verified and assessed to identify possible conflicts of interest, where 6 potential conflicts of interest were resolved and 42 cases showed no conflict of interest.

In accordance with the Anti-Corruption Policy, the Company is involved in no direct charity or sponsor support to authorities, commercial or non-commercial organisations, representatives thereof, or any other entities. An exception can be made when instructed by Samryk-Kazyna, which is the majority shareholder, to provide assistance for specific needs followed by a detailed report on intended expenditure.

Commitment to high ethical standards is the foundation of good corporate management and a guarantor in upholding and ensuring that the interests of the Company are prioritised over any personal ones. The Company actively highlights the personal liability of managers for corruption offences, including those committed by their subordinates. Considering the situation caused by the COVID-19 pandemic, the majority of the employees was transferred to working from home, which enhanced the importance of the corporate communication by regular newsletters including reminders to the employees about the Company's anti-corruption requirements, the changes in the regulatory documents, and the functioning of the hotline, which ensured 100% coverage and facilitate higher awareness of the employees and other persons regarding the possibilities of the hotline. Additionally, as part of the annual training, an online course on ethics was arranged for all employees of the Corporate Centre.

## ANTI-CORRUPTION MANAGEMENT

102-25, 103-1, 103-2, 103-3, 205-1, 205-2, 205-3

JSC NC “KazMunayGas” (hereinafter – the Company) operates on the basis of the principles of legitimacy, good faith, and ethics. The Company strictly respects human rights and makes all possible efforts to prevent corruption, maintains the unblemished reputation, and strives for implementation of the highest international standards of ethics.

The Compliance Service (hereinafter – the Service) of the Company was established in 2019, which has become one of the progressive initiatives responsible for compliance with the corporate standards of goods faith at the Company. The responsibilities of the Service comprise exclusion of all existing risks related to the possibility of corruption offences

committed by the employees at work. Remaining independent, the Service is integrated with all business units of the Company.

Following the best global practices of corporate management, the Company continually strives to improve the existing corporate standards. Thus, as part of the Company's and its employees' compliance with the legal and ethical anti-corruption standards, the key anti-corruption regulations have been approved: Anti-Corruption Policy of JSC NC “KazMunayGas” and Its Subsidiaries, Confidential Informing Policy of JSC NC “KazMunayGas”, Conflict of Interest Management Policy for Employees and Officers of JSC NC “KazMunayGas” and Its Subsidiaries and Affiliates, as well as the new version of the Code of Ethics

Following the assessment of the compliance risks and analysis of the internal documents in the field of compliance to determine conformity with the standards and requirements of the anti-corruption laws and the regulations, including the RoK Law on Anti-Corruption, the UK Bribery Act, and the OECD Convention on Combating Bribery of Foreign Public Officials, the new version of the Code of Ethics was approved in 2020. Thus, to minimise the legal and reputation risks that may arise due to breach of professional and ethical standards, as well as to instil the culture of zero tolerance to corruption among the Company's employees, an online training was conducted for all employees on the Code provisions.

The Company operates within the memorandum on cooperation between JSC NWF "Samruk-Kazyna" and the Anti-Corruption Agency for zero tolerance to any corruption and forming of anti-corruption culture. The Company is also engaged in communication with the public authorities regarding the current anti-corruption compliance issues. The Company employs the commonly-accepted and legally feasible methods of cooperation with the public authorities. In 2020, the Company participated in development of suggestions for the Action Plan for 2021–2025 to Implemented the RoK Anti-Corruption Strategy for 2021–2025.

#### 205-1

In 2019, an external independent assessment of compliance risks in the operations of the Company and its major subsidiaries and affiliates was held to verify conformity with the UN Global Compact framework, which comprised interviews with more than 130 employees of the KMG business units and the business units of the subsidiaries and affiliates to identify the areas of major non-conformities. Assessment of the compliance risks of the Company and its major subsidiaries and affiliates exposed the risky areas in the field of procurement, human resources, and issues related to monitoring of business relations to identify conflict of interest.

#### 205-2

Familiarization with the anti-corruption measures for the management personnel and coverage of the RoK legal provisions has been ensured within an online training on ethics in November 2020 and by corporate newsletters sent on a regular basis to cover amendments to the anti-corruption legislation, the introduction of general tax declaration, conflict of interest, and hotline operation.

Currently, during the employment procedure, all employees familiarise themselves with the Conflict of Interest Management Policy and the Code of

Ethics and fill in and sign an initial conflict of interest declaration which is further attached to the personal file of each employee. An equivalent procedure is established for transfer of an employee to another position. Additionally, a practice for familiarization with the Anti-Corruption policy has been introduced and in 2020 all employees of the Company undertook to comply with the provisions of the Anti-Corruption Policy. An equivalent procedure is being introduced at all subsidiaries and affiliates of the Company.

All standard contracts between the Company and its contractors include an anti-corruption clause specifying obligations of the contractors to comply with the anti-corruption laws of the Republic of Kazakhstan and report to the customer on any possible or actual breaches of the anti-corruption laws and the procurement regulations via the hotline.

In 2020, following the approval of the new version of the KMG Code of Ethics, an online training was held for all employees of the Corporate Centre.

No anti-corruption training is held for representatives of public authorities.

#### 205-3

118 reports were received by the hotline in 2020. The Company demonstrate growth of the number of the reports compared to 2019 due to 100% coverage of the employees with the awareness-raising activities through a corporate newsletter about the operation of the hotline, as well as by posting the hotline contact details on the Company's website to the employees, contractors, and others. Thus, 41 out of 118 reports were confirmed. The major part of the reports related to staff issues and working conditions associated with the adverse economic impact of the COVID-19 pandemic. The results of the hotline operation, including the statistics on the received (processed) reports and the non-conformities identifies as the result, are regularly reviewed by the Board of Directors and the Audit Committee.

Analysis of the reviewed reports received via the hotline in 2020 resulted in disciplinary measures applied to 2 employees.

There were no cases of non-renewal or termination of contracts with business partners over the reporting period due to corruption-related issues.

There was no data on court proceedings related to corruption and initiated against the organisation or its employees over the reporting period.

## ANTI-COMPETITIVE BEHAVIOUR

#### 206-1

Over the reporting period, 7 organisations of the KMG Group were engaged in 31 court proceedings related to anti-competitive behaviour and breach of anti-trust and anti-monopoly laws. 9 out of those cases have been

solved in favour of the subsidiaries and affiliates and the KMG CC, 15 cases have been solved not in favour of the subsidiaries and affiliates, and 7 proceedings are currently ongoing.

## SOCIAL AND ECONOMIC COMPLIANCE

#### 419-1

#### Non-compliance with laws and regulations in the social and economic area

10 subsidiaries and affiliates of KMG were involved in court cases related to social regulation. During the reporting period, KMG and SDCs were involved in 28 court cases. 19 of them were resolved in favor of SDCs and KMG, 6 court cases were not satisfied in favor of SDCs.

During the reporting period, subsidiaries and affiliates were involved in 2 court cases in the area of inconsistency with legislative acts in the field of economic regulation. 1 court case with a total amount of 3,955.3 million tenge is related to the tax issue. 1 court case in the amount of 0.83 million tenge related to the provided data on shipments.





# ENVIRONMENTAL LIABILITY AND WORKPLACE SAFETY



**Principle 7 Environment:** Businesses should support a precautionary approach to environmental challenges

**Principle 8 Environment:** Businesses should undertake initiatives to promote greater environmental responsibility

**Principle 9 Environment:** Businesses should encourage the development and diffusion of environmentally friendly technologies



## OUR APPROACH TO MANAGEMENT

### 103-1, 103-2, 103-3

Occupational health, safety, and environmental (HSE) management objectives are directly linked to the Company's Development Strategy. The KMG Development Strategy until 2028 (hereinafter – the Strategy) provides for strategic initiatives to improve the environmental responsibility. The Company's priorities in the field of environmental protection include managing greenhouse gas emissions and reducing gas flaring, water management, waste management, land remediation, and energy efficiency.

In accordance with the priorities of the KMG Strategy, the HSE Policy has been divided into two separate H&S policy and environmental policy approved by the Board of Directors in 2020. The KMG Management and its subsidiaries and affiliates follow the principle of zero tolerance towards losses and damage related to contamination of the environment.

KMG is a participant of the World Bank's Global Initiative to Reduce Gas Flaring by 2030 announced in 2015 to unite the efforts of states, petroleum companies, and public organisations in order to increase the beneficial use of associated petroleum gas. As part of implementation of the above initiative, the Company follows the Emission Management Policy at KMG aimed at full cessation of regular gas flaring and comprising eight key principles.

In 2020, the Corporate Standard for Environmental Impact Assessment was developed and approved by resolution of the Management Board. The standard is a part of the Health, Safety and Environment

Management System Regulations of the KMG Group. The standard specifies the corporate principles of the environmental impact assessment of the planned activity, regulates the activities of the KMG Group and contractors of the KMG Group, including design organisations whose activities relate to development of technical documentation and documents for environmental impact assessment, arrangement and performance of recording of public opinion regarding the environmental impact assessment documents, and obtaining of emission permits.

The main strategic initiatives in the field of environmental protection and sustainable development are specified in the Roadmap for Improvement of the Occupational Health and Environment – 2020 and the Action Plan for implementation thereof.

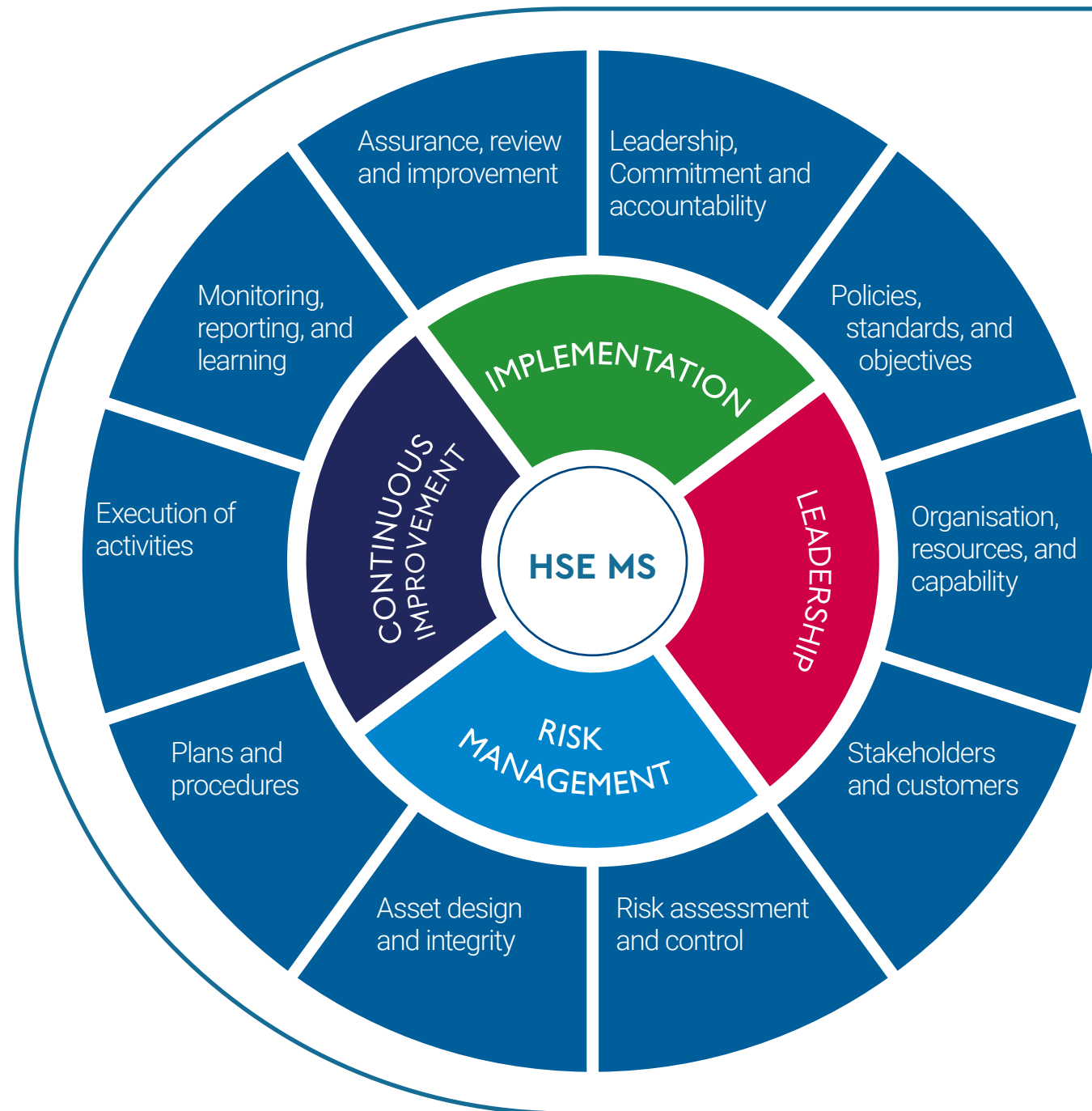
## HSE MANAGEMENT SYSTEM

### 403-1

The company has a functioning health, safety, and environment management system (MS) developed in conformity with the requirements set forth by the laws of the Republic of Kazakhstan, industry-specific and international standards ISO 14000 and ISO 45001, as established by the best world practices, approaches, and recommendations of the International Association of Oil & Gas Producers (IOGP). The system includes 10 key elements based on the following fundamental principles: Leadership, Implementation, Risk Management, and Continuous Improvement.

# STRUCTURE OF THE HSE MS

## AND IMPLEMENTATION OF THE BEST INDUSTRIAL PRACTICES



<b>Internal control and improvement</b>	<ul style="list-style-type: none"> <li>• HSE assessment management system</li> <li>• HSE committee system</li> <li>• HSE Compliance and RT Audits</li> <li>• Set of measures to improve the HSE culture</li> </ul>
<b>Monitoring</b>	<ul style="list-style-type: none"> <li>• HSE reporting regulations</li> <li>• Automation of HSE DB</li> <li>• KPI system for HSE</li> <li>• Incident investigation procedure</li> <li>• Automation Accident cause investigation module</li> <li>• Comparative analysis</li> </ul>
<b>Execution</b>	<ul style="list-style-type: none"> <li>• Healthcare system</li> <li>• Transport safety program</li> <li>• Standard of crisis situation management</li> <li>• Methane leak identification program</li> <li>• Waste management standard</li> <li>• Water supply management standard</li> <li>• Roadmap of energy efficiency</li> </ul>
<b>Production integrity</b>	<ul style="list-style-type: none"> <li>• Fire safety preparedness</li> <li>• LOTO</li> <li>• Production process safety system</li> </ul>
<b>Risk management</b>	<ul style="list-style-type: none"> <li>• Risk management system</li> <li>• OTT program</li> <li>• Risk assessment standard</li> <li>• EIA</li> </ul>
<b>Stakeholders</b>	<ul style="list-style-type: none"> <li>• Contractor standard</li> <li>• Contractor reports</li> <li>• Public hearings</li> </ul>
<b>Standards</b>	<ul style="list-style-type: none"> <li>• Development &amp; implementation of HSE standards based on best world practices</li> </ul>
<b>Course</b>	<ul style="list-style-type: none"> <li>• HSE policy</li> <li>• Transport policy</li> <li>• Alcohol policy</li> <li>• Air emission policy</li> </ul>
<b>Strategy</b>	<ul style="list-style-type: none"> <li>• Safety at work</li> <li>• Environmental responsibility</li> </ul>
<b>Goals</b>	Nil: <ul style="list-style-type: none"> <li>• Incidents</li> <li>• Spills</li> <li>• Discharges</li> <li>• Routine flaring</li> </ul>
<b>Management</b>	<ul style="list-style-type: none"> <li>• Involvement of the management: Leadership forum, SPE</li> <li>• 3-tier HSE committee system</li> </ul>



Taking into account best practices in health, safety and environment (HSE) management, a three-tier committee system has been introduced and implemented to increase the commitment and involvement of managers at all levels and employees in HSE management processes:

- Level one – Health, Safety, Environment and Sustainable Development Committee of the Board of Directors of KMG (HSESDC);
- Level two – HSE Committee at the KMG level;
- Level three – HSE committees of the subsidiaries and affiliates.

Starting from 2019, the Health, Safety, and Environmental Protection Committee has been functioning at the level of JSC “Samruk-Kazyna”. In 2020, KMG actively participated in the work of the Committee and the Committee Expert Group. As part of the Committee and the Expert Group work, the portfolio companies of JSC “Samruk-Kazyna” actively share their experience and develop uniform approaches to HSE, including those related to countering the pandemic. Many approaches of the KMG in the field of HSE and countering the pandemic have been adopted by other portfolio companies as examples of best practices.

Reports on occupational health, safety, and environmental protection are monthly reviewed during the sessions of the KMG Board of Directors and the detailed reports are reviewed by the HSESDC of the KMG Board of Directors. The HSESDC sessions in 2020 included detailed discussion of the following key issues in 5 meetings:

- improvement of the beneficial use of associated petroleum gas;
- environmental rating results;
- biodiversity preservation;
- water resources management;
- climate change.

HSE risks are monitored monthly, including environmental risks and risks related to climate change and water deficit. KMG regularly analyses environmental indicators, performs benchmarking of equivalent indicators of the leading international petroleum associations (IOGP, IPIECA, CDP), and audits production facilities. The company pays special attention to the environmental aspects and assessment of environmental risks. The Company develops draft environmental impact assessments for planned activities, holds public hearings, and implements environmental protection measures.

#### Improvement of the health, safety and environment (HSE) management system:

The following corporate documents were developed, updated, and approved in 2020:

- HSE Risk Communication and Awareness Plan of JSC NC “KazMunayGas” Group;
- Corporate standard of “Uniform System of Safety Management at JSC NC “KazMunayGas” Group”;
- Corporate standard of Production Process Safety Management at JSC NC “KazMunayGas” Group”;
- Corporate standard of Interaction with Contractors in the Field of Health, Safety and Environment at JSC NC “KazMunayGas” Group;
- Regulations on Application of Korgay Map for JSC NC “KazMunayGas” Group;
- Corporate standard of HSE Competences Maintenance at JSC NC “KazMunayGas” Group;
- Corporate standard of Environmental Impact Assessment for a Planned Activity at JSC NC “KazMunayGas” Group;
- Health and Safety Policy of JSC NC “KazMunayGas”;
- KazMunayGas Environmental Policy
- KazMunayGas Policy on Safe Operation of Land Transport Vehicles
- JSC NC “KazMunayGas” Policy on Alcohol, Narcotic Drugs, Psychotropic Substances and Their Analogues;
- Regulations on Safe Operation of Vehicles at JSC NC “KazMunayGas”;
- Working Instruction on Fire Safety in Administrative Buildings of JSC NC “KazMunayGas”.

## CONTRACTORS COORDINATION

308-1

The Company is committed to improvement of criteria for selection of potential suppliers to guarantee high quality of work and complete transparency of the whole service cycle.

The Corporate Standard of Interaction with Contractors in the Field of Health, Safety and Environment at JSC NC “KazMunayGas” Group is a structural element of the Management System and includes the requirements to contracts with customers that should include an HSE Agreement for conformity with the HSE requirements and the penalties for failure to comply with the requirements, pre-mobilization audit of the machinery and equipment availability,

audit of contractor personnel, and an HSE assessment of contractor. Besides, the Company regularly holds forums and meetings with potential service providers to discuss future partnerships and the HSE requirements of KMG.

The Standard requirements are mandatory for all contractors during supply/performance/rendering of GWS, including all associated operations and services at the production facilities of the KMG Group. At the KMG Group, an equivalent Standard is being developed and approved or the internal documents of subsidiaries and affiliates are amended to ensure conformity with the Standard, which will allow KMG to improve safety of its contractors and service provides, stakeholders, environmental protection, and improve its HSE indicators.

## OCCUPATIONAL HEALTH AND SAFETY

103-1, 103-2, 103-3, 403-2

Occupational health and safety policy of the KMG Group is based on commitments of the top management to health and safety and is aimed at engaging each employee in development of the safety culture. The management of the Company and its subsidiaries and affiliates follows the principles of zero tolerance towards losses and damage caused by accidents and emergencies, consumption of alcohol, narcotic drugs, psychotropic substances and their analogues, as well as by road traffic accidents. The Company's commitment is to follow the national law alongside requirements of international and national standards.

#### Key indicators for 2020

Life and health of each employee is the top priority of the Company. We constantly strive to our goal, which is reduction of accidents to zero, that is, achieving 100 % safety. Each year the health and safety indicators are improving. The employees note that the Company ensures all safe working conditions and implements

the highest standards for the employees to protect themselves, their colleagues and those around them. Nevertheless, there is still room for improvement. The company keep records within the Group and by contractor; contractor data are included in the accident rates.

In 2020, no fatalities were registered at work, and this result has been achieved by KMG for the first time. Also, from the moment of KMG becoming a member of the International Association of Oil & Gas Producers (IOGP) in 2018, the injury and RTA rate of the KMG Group was lower than that of IOGP. Following the results of 2020, occupational accident rate reduced by 27 % compared to the previous year (from 41 cases in 2019 to 30 cases in 2020) and the number of injured employees reduced by 33 % (from 48 in 2019 to 32 injured people in 2020).

Number of road traffic accidents reduced by 66 % (from 44 accidents in 2019 to 15 in 2020) and the number of fires reduced by 40 % (from 10 fires in 2019 to 6 in 2020).

KEY INDICATORS H&S

Indicator	UOM	2018	2019	2020	Difference (between 2020 and 2019)	%
Accidents	Accident	48	41	30	-11	-27
People injured in accidents	People	50	48	32	-16	-33
Road traffic accidents	Accident	67	44	15	-29	-66
Fires	Case	12	10	6	-4	-40

ACCIDENT AND FATALITY RATE

Indicator*	2018	2019	2020	IOGP***
Lost time incident rate, per mln man-hours	0.32	0.31	0.25**	0.24
Fatality rate, per 100 mln man-hours	0.65	1.28	0.0	0.46

\*Data on the Company's contractors are not included in the accident and fatality rates.

\*\* The Company is in a continuous process to improve the efficiency of information disclosure in the field of sustainable development. As a result of the improvement of the methodology for recording man-hours worked in a number of the Group's companies, the LTIR coefficient for 2020 was updated and this explains its slight discrepancy with the information from the KMG Annual Report for 2020. In the next reporting period, an updated methodology for recording man-hours worked will be used, which will avoid discrepancies with the Annual Report and the Sustainability Report.

\*\*\* Available IOGP metrics for 2019 (<https://www.iogp.org/>).

PRODUCTION PROCESS SAFETY  
MANAGEMENT

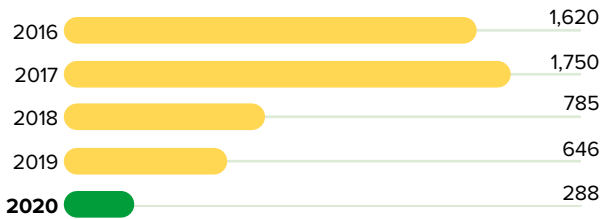
306-3

In 2020 KMG started its work in improvement of the production process safety to prevent major catastrophic incidents (process emergencies, incidents, and fatal accidents) at the Company. For these purposes, the Company has approved a corporate standard of production process safety management in the KMG group of companies (hereinafter – the Standard). The Standard establishes uniform requirements and effective approaches to maintain integrity of assets and process equipment, safe operational rules, standards, and procedures in compliance with the RoK statutory requirements and best work practices (IOGP, OSHA), identification of process risks, and application of corresponding measures to prevent and mitigate such risks.

We annually control and monitor oil spills. The volume of oil spills for Exploration and Production reduced by 55% in 2020 compared to the previous year and corresponds to 288 tonnes. The volume of the previous year was 646 tonnes. These results are the consequence of the ongoing program for improvement of reliability of upstream pipelines at the Company's subsidiaries and affiliates of the Exploration and Production area aimed at replacement of the worn-out pipelines and protection of the lines from corrosion by inhibition.

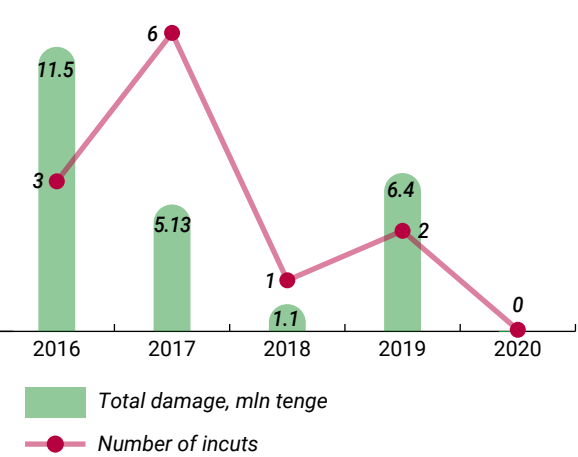
The Company is working on reduction of faults and leaks in upstream pipelines by timely and quality diagnostics, reconstruction, replacement, inhibition, and cleaning of pipelines, aimed at improvement of integrity and reliability thereof.

OIL SPILLS (UPSTREAM)  
(TONNES)



The main cause of oil spills at the company are leaks in upstream pipelines caused by corrosion processes. The Company keeps working on reduction of faults and leaks in upstream pipelines by timely and quality diagnostics, reconstruction, replacement, inhibition, and cleaning of pipelines, aimed at improvement of integrity and reliability thereof.

UNAUTHORIZED INCUTS



Closely cooperating with law-enforcement agencies, JSC "KazTransOil" could change the situation with unlawful incuts on the Company's pipelines. Over the last several years the Company could reduce the number of unauthorized incuts: there were 3 unauthorized branches in 2016, 6 unlawful incuts in 2017, 1 in 2018, 2 incuts in 2019, and 0 incuts in 2020.

These results have been achieved in greater extent due to implementation of the following measures:

- stricter control over the monitoring of mobile groups using GPS systems and timely implementation of mobile groups' visits and inspections of oil pipelines;
- oil pipeline security ensured by Optosense monitoring system.

Permanent preparedness for emergency oil spill response (EOSR) is our absolute priority.

TRANSPORT SAFETY

The pilot project of Trip Management was launched at JSC Embamunaigas to improve transport safety and create the culture of safe driving and centralised digital platform.

The purpose of the project is to improve transport safety by creating a safe driving culture based on best international practices, modern digital

solutions, and process automation. The project will ensure harmonisation of travel safety management requirements for all land transport operations, centralised control over the key metrics, and effective use of vehicles by introducing analytical reports and corporate indicators.

Further steps of the Trip Management project:

- by the end of 2021 – to connect the leased vehicles of JSC Embamunaigas to the single monitoring system;
- in 2022 – to employ the project solution at other subsidiaries and affiliates.

FIRE SAFETY

In order to reduce the risk of fire and damage to health of the employees and property, the subsidiaries and affiliates audited their fire-fighting, heating, and power systems, verified conformity and application of the standards and rules for operation of process equipment in compliance with the fire safety requirements and the internal regulations, with due regard to the nature of the production processes.

The contractors were also audited and receive corresponding recommendations. The Company developed a package of fire safety documentation (schedules plans, Inspection Report, operational fire-fighting plan, instructions, etc.). In accordance with the schedules, fire tactics trainings (FTT) are held at the sites with engagement of field fire-fighting equipment and the employees.

A range of preventive technical measures has been applied:

- maintenance and repair of the automated security and fire alarm systems, fire-fighting systems, and fire alert systems to maintain serviceability of the devices during operation, by carrying out periodic maintenance and technical inspection thereof and eliminating typical faults as set forth in the operational documentation and the standard operating procedures;
- fire safety audits;
- audits of emergency fire-fighting equipment, water supply systems, etc.



## HSE DIGITALISATION

1. The project of **Trip Management** was initiated to improve transport safety and create the culture of safe driving and centralised digital platform.
2. The project of **Development of Environmental Monitoring Procedures** was launched in the field of environmental protection. The purpose of the project is to increase transparency and efficiency, and to minimise error in performance of environmental accounting, analysis, control, and management processes at the KazMunayGas Group. A demo-version of the Information System has been presented on the basis of the pilot project at a producing organisation. A full-scale implementation of an automated information system of environmental monitoring at the KMG Group is planned for 2021 with commissioning of the system into commercial operation.
3. **Upgrade of HSE KMG information system**  
The HSE KMG health, safety, and environment information system comprises the following modules:
  - Reporting – intended for preparing reports on HSE activities.
  - Observation – intended for Behaviour-Based Safety Observation of operations and driving.
  - Events – intended for planning internal audits and monitoring of implementation of the measures.
  - Korgau – intended for identification and informing of unsafe conditions/behaviour/actions/hazardous case/factor, as well as for improvement of the health and safety system.
  - HSE analysis – intended for surveying and collection of reports from the employees of the KMG Group.
  - Accounting and investigations – intended for accounting of all incidents and conducting incident investigations.
  - Internal control and monitoring – intended for performing commission audits and identification of non-conformities.
  - Analysis – intended for performing HSE analysis and automated visualisation of consolidated data.
 The HSE KMG system is planned for implementation within the entire KMG Group in 2021.

## IMPROVEMENT OF WORKPLACE CULTURE AND HSE AWARENESS-RISING ACTIVITIES:

During the reporting period, the following work was carried out:

1. Analysis of incidents occurring during well service and workover and development of an Action Plan for improvement of production process safety during pulling and running operations of well servicing.
2. Weekly distribution (68) of HSE brochures and check-lists among the subsidiaries and affiliates and the CC focused on prevention of occupational injuries, accidents, prevention of CVI, and continuous communication and advisory support to the professionals of the subsidiaries and affiliates.
3. Videos on the following issues have been developed and distributed:
  - lessons learned from pulling and running operations of well workover and servicing;
  - lessons learned from the occurred road traffic accidents;
  - emergency and crisis management system of KMG and response to all types of incidents (process accidents, fires, cyber-attacks, supply failures, and financial crises);
  - industrial gymnastics at workplace.
4. The subsidiaries and affiliates have been audited to ensure conformity with the HSE requirements, including preparation for the 2<sup>nd</sup> wave of CVI, with issues of corresponding improvement recommendations.
5. To assess, analyse, and reduce HSE risks, the contractor companies of the KMG Group quarterly submit a report to the KMG Board of Directors on the non-conformities of the contractor companies, including penalties applied in the field of HSE.
6. In fulfilment of the order given during the session of the Board of Directors of JSC NC “KazMunayGas” regarding prompt informing of the KMG BoD, instant reports on fires and major HSE incidents are sent to the BoD.
7. Upon completion of investigation, the KMG BoD is provided with corresponding documents, including the investigation report, specifying the immediate and root causes, the extent of damage to property, copies of disciplinary orders against the employees who caused the incident, and the changes implemented following the incident investigation and to prevent similar incidents.

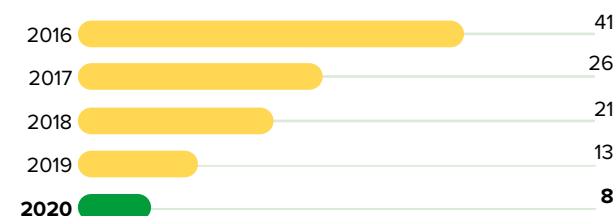
## PRODUCTION SANITARY AND WORKPLACE HYGIENE

103-1, 103-2, 103-3, 403-1, 403-3, 403-4, 403-5, 403-6, 403-7

In accordance with the requirements of the RoK laws and the international standards in the field of occupational health and safety, production sanitary, and workplace hygiene, the Company has implemented an occupational health and workplace hygiene management system. The Company employs a proactive policy to protect its employees' health and wellness, irrespective of the production process.

In 2020, There were 8 cases of fatalities not related to injuries 3 of which were contractors (without lethal cases of COVID-19 and pneumonia) reduced by 38% compared to 2019.

### NUMBER OF NON INJURY-RELATED FATALITIES



The system provides compliance assessment tools for establishing of health care facilities, risk management, and medical emergency response.

The key purposes of the Company's system are as follows:

- establishing uniform requirements for production process management to maintain and improve the health of the employees;
- identification and reduction of risks (hazards and harmful occupational factors) by improving workplace hygiene and ergonomics, as well as production sanitary at workplaces;
- application of preventive controls based on the assessment of employee health risks and reduction thereof;
- promoting and encouraging healthy lifestyles for employees during and after working hours.

An evaluation of the Company's system and development of measures to improve the system are carried out twice a year (every six months).

The Company regularly implements a set of measures to improve labour conditions and prevent occupational diseases at production facilities.

The KMG campaign of Heart Attack and Stroke Prevention is ongoing and is aimed at prevention of mortality among the employees due to heart diseases. The 10 Steps to Health initiative implementation is controlled and monitored along with the standard for arranging emergency medical aid at the company which specified the uniform requirements for rendering first aid to injured employees, equipping of first aid stations, and the contents of the emergency medical response plan.

In 2020, 55 employees of the KMG Corporate Centre were trained on rendering first aid.

To improve the efficiency of medical services to the employees of the Company (medical services and medical insurance), a draft Employee Health Management Concept has been developed along with an Action plan for 2021–2023 to ensure its stage-by-stage implementation.

A range of measure has been employed:

- a working group established;
- First Aid Procedure brochure developed;
- a video on workplace gymnastics produced;
- regular communication and advisory support was ensured for the subsidiaries and affiliates to prevent coronavirus infection and prepare the employees to respond to a worsening epidemiological situation;
- presentations on measures to prevent coronavirus infection for the employees of the KMG CC were arranged in cooperation with Mediker LLP;
- weekly distribution of brochures, check-lists, and videos among the subsidiaries and affiliates and the CC focused on prevention of CVI, continuous communication, and advisory support to the professionals of the subsidiaries and affiliates;
- interaction with the Committee for Quality Control and Safety of Goods and Services of the RoK Ministry of Health;
- arranging and coordination of PCR testing for the employees of the KMG CC;
- audit of the subsidiaries and affiliates to prepare for the 2<sup>nd</sup> wave of CVI (MMG, KTO (MNU) and the service companies – OSC, OTC, OCC) with provision of recommendations.

## RESULTS OF HEALTH AND WORKPLACE HYGIENE MANAGEMENT SYSTEM ASSESSMENT

Company Name	ELEMENTS							Average
	Policy and strategy	Organisation, obligations, and resources	Contractor and supplier management	Risk management	Planning and Procedures	Implementation and monitoring	Management system review	
Refining								
Atyrau Refinery	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Pavlodar Refinery	4.0	4.0	3.0	4.0	4.0	3.0	4.0	3.7
PKOP	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
KazGPP	4.0	3.0	3.0	3.0	3.0	4.0	3.0	3.2
Kaspi Bitum	4.0	4.0	4.0	3.0	3.0	4.0	2.0	3.4
Production								
KGM	4.0	4.0	3.0	4.0	4.0	4.0	4.0	4.0
KBM	3.0	3.0	3.0	4.0	4.0	4.0	2.0	3.7
OMG	4.0	4.0	3.0	3.0	4.0	3.0	2.0	4.0
EMG	4.0	3.0	3.0	4.0	3.0	4.0	4.0	3.2
MMG	4.0	4.0	4.0	3.0	3.0	4.0	4.0	3.4
KOA	4.0	3.0	3.0	4.0	4.0	4.0	2.0	3.4
KTM	4.0	4.0	3.0	3.0	4.0	3.0	2.0	3.2
Ural Oil and Gas	4.0	3.0	3.0	2.0	2.0	2.0	3.0	2.7
Urikhtau Operating	4.0	3.0	4.0	3.0	4.0	3.0	2.0	3.2
Transportation								
KTO	4.0	4.0	4.0	4.0	4.0	4.0	3.0	3.8
ICA	4.0	4.0	4.0	4.0	3.0	4.0	4.0	3.8
KTG Onimderi	4.0	3.0	3.0	3.0	3.0	2.0	2.0	2.8
KTG Aimak	4.0	3.0	3.0	n/a	3.0	3.0	3.0	2.7
Asia Gas Pipeline	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Beineu-Shymkent Gas Pipeline	4.0	3.0	3.0	3.0	n/a	3.0	2.0	2.5
Amangedy Gas	4.0	4.0	2.0	3.0	3.0	3.0	2.0	3.0
Kazmortransflot	4.0	3.0	3.0	3.0	3.0	3.0	3.0	3.1
Service								
KMG Security	4.0	4.0	4.0	3.0	3.0	4.0	4.0	3.7
OCC	3.0	3.0	2.0	3.0	3.0	2.0	2.0	2.5
OSC	4.0	3.0	3.0	4.0	4.0	3.0	2.0	3.2
OTC	4.0	3.0	3.0	3.0	3.0	2.0	2.0	2.8
UTTOS	4.0	3.0	2.0	2.0	4.0	4.0	4.0	3.2
DWPT	4.0	4.0	3.0	3.0	3.0	3.0	3.0	3.2
Ken-Kurylys-Service	4.0	3.0	2.0	2.0	2.0	2.0	2.0	2.4
OzenMunaiServis	4.0	3.0	4.0	2.0	3.0	2.0	2.0	2.8
Teniz Service	4.0	3.0	3.0	4.0	3.0	4.0	3.0	3.4
								3.0
KMG average	3.9	3.4	3.1	3.1	3.3	3.2	2.8	3.3

■ – The process is not available or its development is in progress

■ – The process is in place but not fully implemented.

■ – The process is in place and active. The system is functioning. The system procedures are documented and the results are measured.

■ – The process is in place and active. The system is functioning and is maintained by continuous improvement.

### The results of the analysis of the industrial sanitation management system

The analysis of performance indicators in the field of industrial sanitation includes a predictive assessment of the activities of subsidiaries and affiliates (GAP-analysis) at the level of implementation of health management systems, consisting of 7 elements, using assessment sheets (checklists).

Confirmation of the level of development of the health protection management system of subsidiaries and

dependent companies is carried out through an audit, request for supporting documents.

The consolidated results of the KMG Group of Companies for the 2<sup>nd</sup> half of 2020 are shown in the table and displayed by business areas and for each subsidiary and dependent company separately. This allows you to use your goals for improvement, but also to see at what level of development they are in relation to subsidiaries and affiliates.





## COVID-19 PANDEMIC RESPONSE – SAFETY AT PRODUCTION FACILITIES

*The main achievement of the KMG Group in 2020 was prevention of the process shut-down during the CVI pandemic.*

As the pandemic started, within the shortest time the Company adapted to the new environment and applied a range of comprehensive measures to reduce the incidence, prevent and minimise the spread of CVI, and reduce the impact on production processes.



**Procedures and directives, Action Plans, and Algorithms providing for three stages of reinforcement have been developed and implemented:**

**Stage 1** – pre-quarantine measures;

**Stage 2** – maintenance of the quarantine measures and regimes;

**Stage 3** – escalation of measures to prevent incidences upon occurrence of infection sites.

In accordance with the approved plans and algorithms, the Company performed mass CVI testing, suspended all non-critical operations, limited business trips, prohibited mass events, switched the management system to a remote mode, increased duration of shifts

for the shift personnel (from 7 to 14 days and from 14 to 28 days), demobilized all non-essential personnel from the production sites, and reduced the number of employees at the fields to the minimal possible to maintain continuity of production operations.

Substitute groups that are not involved in the working process and have no contact with the remaining personnel have been formed. Such substitute personnel is involved when the main personnel gets infected and is put to quarantine.

Quarantine accommodation of the employees has been arranged in the rotation camps and other designated locations, while all asymptomatic CVI carriers have been ensured proper self-isolation.

Operation of the KMG Crisis Management Team (hereinafter – the CMT) and crisis centres of the subsidiaries and affiliates (hereinafter – CC) was arranged effectively to exclude the impact of the pandemic on the production operations of the KMG subsidiaries and affiliates in all business areas.

The CMT and CC keep 24/7 monitoring of the epidemiological situation and the current situation to, if necessary, respond promptly and provide recommendations regarding corresponding measures.

Extensive work has been done to prepare for a second wave of the pandemic, taking into account all possible economic complications, including the development and implementation of necessary action plans.

The Company has employed comprehensive preventive and organisational measures of stricter sanitary and disinfection regime at all facilities of the KMG Group and, depending on the current situation, a range of epidemiological measures has been applied.

For the purposes of CVI prevention and compliance with the epidemiological measures, the Company carried out regular informative and awareness-raising work among the personnel and performed sanitation and disinfection.

To prevent infection cases and spread of CVI the following measures were suggested for implementation:

- compliance with the previously introduced algorithms (corrected with due regard to the experience received during the first wave) to reduce the risk of CVI spread and maintain epidemiological regime, stronger sanitation and disinfection, and other established sanitary requirements;
- critical business processes have been identified along with the options of rehabilitation thereof, as

well as the list of essential personnel, suppliers, materials, and equipment;

- operational continuity and emergency recovery plans for critical business processes have been developed;
- readiness of the first aid services has been ensured along with addressing the possibilities of expansion in case of necessity of laboratory examination and arrangement of CVI vaccination;
- reserves of PPE (medical masks, respirators, gloves), dispensers, antiseptic and disinfectant solutions, as well as life-support equipment required for protection of the employees' life and health have been ensured;
- the longer duration of rotation shifts has been preserved and the information and awareness-raising work among the employees has been intensified to ensure self-control and compliance with the sanitary standards, as well as the preventive measures (epidemiological vigilance) and social distancing;
- faultless supplies and prompt procurement of GWS have been planned in case of worsening of the epidemiological situation;
- continuous monitoring of CVI spread and cooperation with public and contractor medical services to implement preventive and quarantine measures and ensure collective response in case of worsening of the epidemiological situation.

## ENVIRONMENTAL PERFORMANCE

102-11, 103-1, 103-2, 103-3

Production operations of the KMG Group is focused on minimisation of the environmental impact, sustainable use of natural resources and preservation of biodiversity. The environmental measures of 2020 allowed improving the environmental performance of the Company. Over the past years, part of the measures has been aimed at further increase of beneficial use of associated petroleum gas which resulted in improvement of the indicator up to 98%. We also managed to reduce air emissions among the KMG Group. The Company utilizes its waste, including historical waste, and remediates the contaminated lands. The programme activities being implemented and planned will promote the reduction in water consumption from surface water sources and improvement of the waste water qualitative composition. Desalination plants in Mangystau region are in the process of construction.

### KMG GREEN OFFICE PRINCIPLES

The Green Office principles focus on use of all resources in an economical manner and maintaining environmental awareness. KMG works on implementation of the Green Office requirements that include measures for continuous improvement of working conditions, comfort, performance, design and architecture, green space expansion, and better recreational opportunities.





The following measures have been implemented as of today:

- installation of bins in offices, halls, lounge areas, and parking for separate waste collection: paper, plastic, glass, and metal;
- separate waste collection video with monthly results played on displays installed in lifts and lounge area of Izumrudnyi BC.
- a pop-up reminder to shut down computers and office equipment appearing on the employees' displays by the end of a business day;





## Preservation of natural resources from paper recycling

			
Trees saved from cutting-down	Water saving, l	Power saving, kW	Reduction of CO <sub>2</sub> emissions, kg
<b>8</b>	<b>16,870</b>	<b>844</b>	<b>1,434</b>

- a sticker with the reminder to preserve trees, minimise printing, use two-sided or black and white printing, print unofficial documents on the reserve side of recycled papers that contain no confidential information;
- to protect the employees from the harmful impact of computers, a pop-up window with a reminder to stand up for 5 minutes and do some exercises appears at 11 a.m. and 4.30 p.m.
- a pop-up reminder appearing on the displays of the employees at 10 a.m. and 3 p.m.: "Wear a mask. Maintain social distancing. Wash and sanitise your hands frequently";
- draft calendar for 2021 concerning the ecology has been developed for the KMG employees;
- an awareness-raising campaign, internal distribution of posters, brochures, videos, and presentations about the Green Office concept;

- in the part of the introductory training, the adaptation programme for the new employees contains slides about the bins for separate collection of waste in the office etc.

As part of the Green Office campaign, in 2020 the KMG Corporate Centre building collected 920 kg of recycled paper (561 kg of which was collected directly by KMG), 844 kg of plastic (KMG – 555 kg), 32 kg of glass and 45 kg of polyethylene, which preserved 8 trees from being cut down, saved 16,870 l of water and 844 kW of electric power, and reduced CO<sub>2</sub> emissions by 1,434 kg.

## PRIORITY ENVIRONMENTAL PROJECTS

- Elimination of historical contamination as well as sources of negative environmental impact (idle wells, waste water ponds, landfills, and other production facilities).
- Reduction of emissions to the environment by improving process solutions, for instance, replacing fuel oil with fuel/natural gas (as fuel for process furnaces), use of new generation additives, green planting and landscaping in the territory of production facilities, replacement of equipment, expanding gas processing capacities, building gas processing plants, etc.
- Reduction of emissions of contaminating substances – the Tazalyq project: upgrade of the waste water treatment facilities of Atyrau Refinery LLP, remediation of the Rotten Draw evaporation ponds, and construction of desalination plants.
- Implementation of the Green Office principles, improvement of the environmental culture and rising of environmental awareness.



## ENVIRONMENTAL ASSESSMENT OF PLANNED BUSINESS ACTIVITIES

In accordance with the precaution principle (Principles 15 of Rio De Janeiro UN Declaration on Environment and Development, 1992) and in accordance with the requirements of the national and international laws, the Company performs environmental assessment of planned business activities at all stages of project life cycle – from declaration of intention to construction and operation design. We fully comply with the statutory requirements, regularly contact the local community representatives, and respect their opinion while planning and implementing our projects. Each design stage is accompanied by public hearings with participating of the concerned parties where all concerned parties get access to the EIA projects and all comments and suggestions are registered. All EIA projects of the KMG Group are subject to the state environmental expert review and are available to the public concerned on the Company's official website and on the websites of local authorities throughout the entire life cycle of the project. In 2020, 14 meetings with the local community and public organisations were held, the Company arranged 29 public hearing sessions and media tours around some production facilities. Due to the limitations introduced in response

to the emergency situation related to the COVID-19 pandemic, the number of offline public hearings was reduced.

In 2020, the Management board approved the **Corporate Standard for Environmental Impact Assessment**. The Standard specifies the corporate principles of the environmental impact assessment of the planned activity, regulates the activities of the KMG Group and contractors of the KMG Group, including design organisations whose activities relate to development of technical documentation and documents for environmental impact assessment, arrangement and performance of recording of public opinion regarding the environmental impact assessment documents, and obtaining of emission permits. The approval of the Standard by the KMG Board of Directors and its further implementation at the KMG subsidiaries and affiliates is expected in 2021.

## ENVIRONMENTAL PAYMENTS AND COSTS

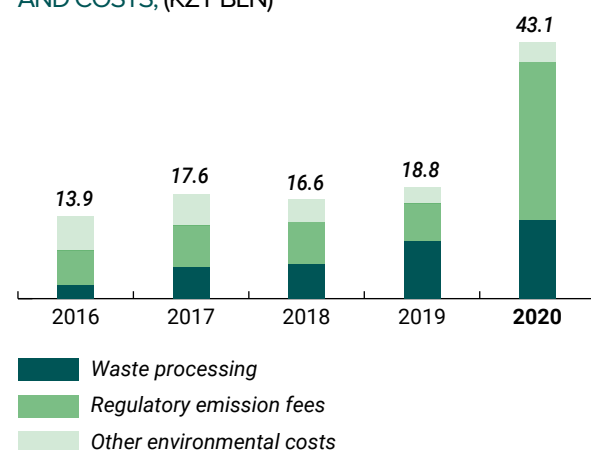
To effectively manage environmental risks, the Company is permanently improving its approaches to environmental management and allocates necessary resources for environmental protection.





Environmental costs include taxes on permitted emissions, cost of environmental activities, insurance, compensatory environmental measures, investments to prevent environmental impact, etc. We have expanded the budget for historical waste processing and remediation of the contaminated lands. The investment in waste processing has been increased by three times since 2015 and now makes more than one third of the environmental protection costs. At the same time, a reduction in air pollutant emission fees is observed. Environmental protection costs were equal to 43.1 bln tenge in 2020, which is 24 bln tenge more than in 2019. The major part of the costs is associated with oil refinery waste processing and implementation of cleaner technologies.

DYNAMICS OF ENVIRONMENTAL FEES AND COSTS, (KZT BLN)



## SHUT-DOWN AND REMEDIATION OF SITES

As set forth in some contracts, in accordance with the laws and the regulatory documents, KMG is legally liable for dismantling and elimination of fixed assets and remediation of lands on each of its deposits. In particular, KMG obligations include gradual shutting-in of all unproductive wells and final cessation of operations, such as pipeline removal, destruction of buildings, and remediation of the contractual territories, as well as decommissioning of facilities and fulfilment of all obligations related to contamination of the environment at the production site.

The Company estimates the obligations related to disposal of assets separately for each of its contracts. As of December 31, 2020, the oil and gas asset disposal obligations were 66 bln tenge (as of December 31, 2019 – 54 bln tenge).

## Trunk oil and gas pipelines

The KMG subsidiaries, JSC “KazTransOil” and JSC “Intergas Central Asia”, which is a subsidiary of JSC “KazTransGas”, are legally bound to remove the trunk pipeline upon termination of its operation and to further implement measures to rehabilitate the environment, including land remediation. The pipeline liquidation and land remediation reserve is estimated on the basis of the dismantling and remediation costs calculated by KMG. As of December 31, 2020, the book value of the KMG Group reserve for pipeline liquidation and land remediation was 114 bln tenge (as of 31 December 2019 – 100 bln tenge).

## USE OF ENERGY RESOURCES AND ENERGY EFFICIENCY

103-1, 103-2, 103-3

The continuation of energy efficiency activities is seen by our Company as one of the environmental protection and productivity enhancement tasks. The Corporate Centre collects and analyses energy consumption and energy efficiency data, monitors the progress and identifies areas for improvement, performs a benchmarking against the previous period and the performance of peers (IOGP).

The Company's activities in the field of energy conservation and energy efficiency are based on the methodology of ISO 50001 Energy Management Systems, which is the best generally recognised international practice for system management in this area.

### Case Study

#### Energy efficiency management using the EII energy intensity index assessment

In 2020, the Company started its work on operating processes energy efficiency management with the Total Quality Management (TQM) method. Along with that, the energy intensity index assessment (EII) practice developed by Solomon Associates has been employed at Atyrau Refinery, Pavlodar Refinery, and PKOP. The target is to reduce the total specific energy consumption in 1-2 years by minimum 5%.

The concerned business units of the refineries were provided with the HSB Solomon Associates LLC methodology and other forms to make calculations for each major process and monitor the energy consumption structure of installations. Following the review of the recommendations given by Solomon Associates within the PEP project, a summary of the best energy efficiency management practices has been developed.

At this moment, the specialists of the production and engineering services at the refineries have adopted the methodology of EII energy intensity index assessment. The index assessment reports are sent for analysis to the Technical Development Department daily.

## ENERGY CONSUMPTION

302-1, OG3

In total, 156.6 mln GJ of fuel and energy resources was consumed in 2020 (14% less than in 2019), including 13.2 mln GJ of electric energy, 4.2 mln GJ of thermal energy, 1.5 mln GJ of motor fuel, and 137.7 mln GJ of boiler and furnace fuel. The energy consumption scope was distributed between the three business areas: Oil and Gas Production, Oil and Gas Transportation, and Oil and Gas Refining.

Reduced consumption of energy resources compared to 2019 is associated with reduction of the volume of transported gas and reduction of HCs production due to the pandemic. In 2020, the amount of energy generated by own facilities at the KMG Group was 406.0 mln kW of electric energy and 4,096 thous. Gcal of thermal energy.

Application of innovative technologies and use of renewable energy sources is a relatively new and promising trend in the oil and gas industry.

The renewable energy sources introduced at KTG in the previous years, in particular those at the subsidiaries of AGP and ICA: geothermal heat pumps of Waterkotte type; monocrystalline solar panels; closed cycle vapor turbogenerator - operate effectively.

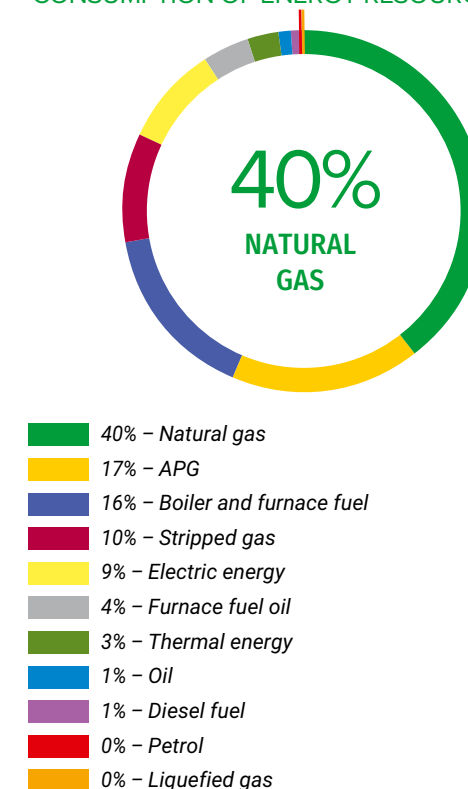
Generated renewable energy in the KMG Group is consumed for its own needs.

The total amount of the generated (produced) renewable energy in breakdown by sources at the KMG Group was as follows in 2020:

1. Geothermal (thermal) energy generation by heat pumps 678.5 Gcal.
2. Electric power generation by solar panels – 78,410 kW\*h.

Electric power generation by solar panels of PKOP for outdoor lighting of the territory amounted to 211,000 kW\*h in 2020.

CONSUMPTION OF ENERGY RESOURCES BY TYPES, %



## ENERGY CONSUMPTION OUTSIDE THE ENTITY

302-2

Currently we keep records of energy consumption within the organisation only; therefore, energy consumption outside the organisation is not reflected in this report.

REDUCTION IN ENERGY CONSUMPTION

302-4

The main strategic development areas of energy conservation and energy efficiency of the Group are upgrading process equipment, introducing energy saving technologies, optimising heating energy generation and consumption as well as developing own generation sources, including those with the use of raw gas.

In 2020, 55 measures were implemented to ensure energy conservation and energy efficiency. The planned annual saving of fuel and energy resources was 0.9 mln GJ, in natural units – 6.9 mln kW of power, 9.8 thous. tonnes of fuel gas, and 11,803 thous. cub. m of natural gas.

Examples of implemented measures that allowed to reduce energy and fuel consumption are modular complete power plants (Capstone) operating in an autonomous mode; complex automatic energy accounting system (ASCAE), the use of energy-saving lighting sources of light, etc.

ENERGY INTENSITY

302-3

In 2020, specific energy consumption in the hydrocarbons production was on average 2.2 GJ per tonne of produced hydrocarbons at the KMG Group, which is 46% higher compared to the International Association of Oil & Gas Producers (IOGP) indicator that was 1.5 GJ per tonne of produced hydrocarbons in 2019. In the oil production sector, the increase of specific consumption of energy resources is first of all associated with the increase of water cut at older deposits as higher water cut results in higher specific density of produced liquid and, correspondingly, higher demand for energy required to maintain mechanical production.

Specific energy consumption of Oil Refining was 4.3 GJ per tonne on average among the refineries in 2020.

USE OF WATER RESOURCES

103-1, 103-2, 103-3

Since the Company performs its main activities in Central Asia where water is a valuable and scarce natural resource, KMG recognizes its responsibility towards the society and the environment and strives to ensure rational use of water resources.

KMG recognizes that the risks of a decrease in the amount of available water may have a negative impact on the Company's operations in the form of increased operating costs. The scale of the potential impact is assessed as medium-to-high, and no assessment of the financial implications for the Group has been undertaken. The measures taken by the Company in response to the risk of exceeding the consumption of water resources in regions with a shortage of fresh water risks are reflected in **2019 CDP Water Security Questionnaire**.

KMG officially declared its intention to contribute to preservation of the water resources of the Republic of Kazakhstan. At the Health, Safety & Environment Forum for General directors of KMG, Chairman of the Management Board A. Aidarbayev signed a personal Statement of Commitment to the rational management of water resources (eight water principles of KMG). This initiative has been supported by the Chief Executive Officers of the KMG subsidiaries and affiliates who signed equivalent statements on behalf of their companies. The signed statements are available on the official websites of the KMG Group.

The standard specifies the core principles of KMG in respect of use of water resources – the eight water principles, systematises the approach to water management at the KMG subsidiaries and affiliates, and assists in improving commitment of the managers and employees of the Company to sweet water preservation.

The Company deploys projects aimed at reduction of emissions and reduced water intake from natural sources.

Atyrau Refinery LLP

One of the main environmental measures is the TAZALYQ project that comprises upgrade and reconstruction of mechanical treatment facilities of Atyrau Refinery, reconstruction of the biological treatment facilities, and construction of a post-treatment unit, as well as the reconstruction of the evaporation fields and the canal for effluent treated to standard quality.

Therefore, rehabilitation of the evaporation fields suggests full cessation of waste water discharge to the ponds (860 ha owned by Atyrau Refinery) that will be dewatered and exclusion of the negative impact on ground water, flora, and fauna of Atyrau region.

The TAZALYQ project will also include construction of closed mechanical treatment facilities while implementation of modern processes will ensure treatment of water to standard quality.

Construction of desalination plants in Kenderli recreational area of Mangistau region

JSC Ozenmunaigas and KMG Engineering LLP have signed the Memorandum of Understanding and Cooperation with the Akimat of Zhanaozen. The signed document provides for conversion of the feasibility study developed by KMG Engineering LLP for construction of a desalination plant into a social project under the official instruction of Prime Minister of the Republic of Kazakhstan A. Mamin dated 18 September 2019. The desalination plant is planed to be constructed with the KMG funds in the territory of Kenderli recreational area of Mangistau region. The estimated capacity will be 50 thous. m³ of water per day.

JSC Karazhanbasmunai has faced the problem of water deficit as there are no potable water sources in the territory of the Karazhanbas field and the company needs large quantities of water to generate steam used as a thermal method of impact on oil reservoir by injection. As a result, the situation created a risk of oil production drop and associated losses.

A desalination plant construction-and-assembly works have been ongoing since September 2019 at JSC Karazhanbasmunai in Mangistau region of Kazakhstan. At the moment the construction is at the final stage. The desalination plant is designed to treat and dispose of reservoir water and supply with technical water in order to increase the reservoir recovery at Karazhanbas field by steam injection into the reservoir.

The plant is of high importance to the company because, in addition to desalination of water for steam generation, it will provide a solution for rational use of produced water. It will ensure improvement of the field development in terms of reservoir pressure maintenance.

In 2020, the CDP reports have been expended and the water management data was first published on the CDP website as part of the Water Security Questionnaire 2019.

For more information, refer to the published KMG reports available at:



CDP Water Security Questionnaire 2019

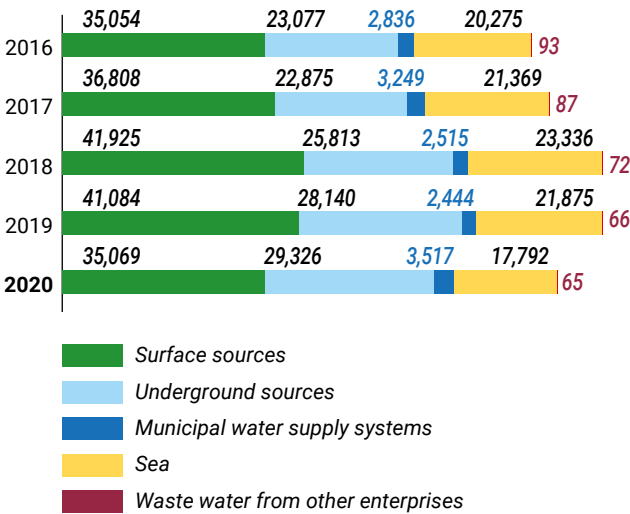
WATER FOOTPRINT

303-1, 303-2, 303-3, 303-4, 303-5, 306-1, 306-5, OG5

The company conducts its activities in accordance with the national legislation of the Republic of Kazakhstan in the field of water resources management, best international practices, standards and regulatory legal acts. At the level of subsidiaries and affiliates, the Corporate Standard for Water Resources Management was introduced for the KMG group of companies, which defines 8 key "water" principles and establishes requirements for the activities of subsidiaries and affiliates in the field of water conservation and water consumption.

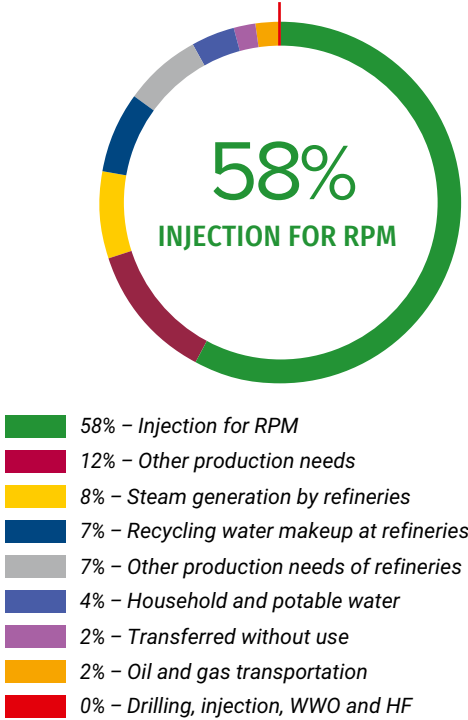
Total water intake of the KMG Group was 85.8 mln m³ in 2020 which is 8.3% less compared to 2019 (in 2019 the Company consumed 93.6 mln m³ of water).

THE KMG GROUP WATER INTAKE WITH BREAKDOWN BY SOURCES, 85,769 THOUS. M³





USE OF WATER RESOURCES BY TYPE OF OPERATIONS AT THE KMG GROUP IN 2020



In 2020, the Group discharged 10.45 mln m<sup>3</sup> of waste water (normatively purified water), of which 9.83 m<sup>3</sup> were discharged into the ponds, transferred to third-party organizations for the treatment of 0.62 m<sup>3</sup> of wastewater. After waste water treatment in treatment facilities, the water treated to standard quality is discharged to specialised facilities: collection ponds, evaporation fields, and filtration fields. The enterprises that have no own storage facilities transfer waste water to specialised companies for treatment and discharge under the signed contracts.

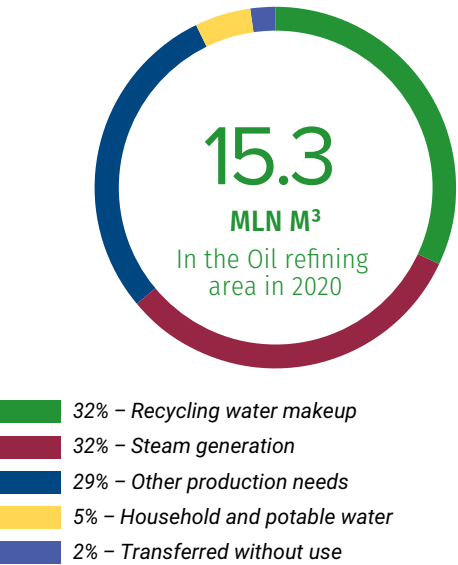
After treatment, waste water is reused for vehicle washing, dust suppression, and fire-fighting systems. At this, significant volume of the treated waste water is recycled at the refineries only where 3.3 mln m<sup>3</sup> of treated waste water was recycled. Such water is mostly used for makeup at recycling water units. The percentage of water recycling at the KMG plants was 21.6% (from the total water intake in the Oil Refining area).

In total, the recycling water systems of the KMG refineries used (recirculated) 430 mln m<sup>3</sup> of water.

CIRCULATION VOLUMES IN RECYCLING WATER SUPPLY SYSTEMS OF KMG REFINERIES: RECYCLING WATER, MLN M<sup>3</sup>



USE OF WATER RESOURCES BY TYPE OF OPERATIONS IN THE OIL REFINING AREA IN 2020



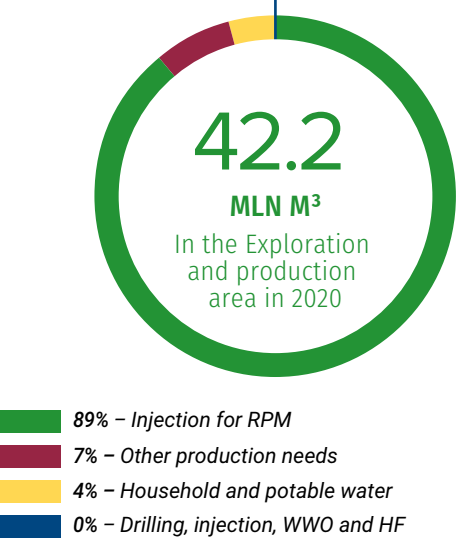
Oil production generates large volumes of so-called produced associated water: water-oil emulsion is drawn to surface, which is then separated into water and oil by gravity. After settling in this manner, water is injected to the reservoir.

In total, 99% of 125 mln m<sup>3</sup> of the associated water was re-injected to maintain reservoir pressure in 2020.

WATER INJECTED TO RESERVOIR TO MAINTAIN RESERVOIR PRESSURE PRODUCED ASSOCIATED WATER, MLN M<sup>3</sup>



USE OF WATER RESOURCES BY TYPE OF OPERATIONS IN THE EXPLORATION AND PRODUCTION AREA IN 2020



The Company's operations have the strongest impact on the water bodies of West Kazakhstan (the Ural and Kigach rivers, Kokzhide sands) that represent a special environmental, economic, historical, cultural and recreational value. The authorities perform regular environmental monitoring to prevent negative impact on sensitive ecosystems.

In November 2020, the Atyrau Refinery underwent a short shutdown of circulation pumps, which caused an excess of the concentration of suspended and organic matter (biosludge) at the point where the settler exits into the sand filter. The company took prompt measures to restore the operating mode of the installation, due to which this incident did not have a significant impact on the environment. Corrective measures have also been taken to ensure that such incidents do not recur in the future.

More detailed information is presented at the link:



WASTE MANAGEMENT

103-1, 103-2, 103-3, 306-2, 306-4

Regular accounting and monitoring of all waste is ensured at the production facilities of the KMG Group, including waste of contractors. The Company employs measures to reduce volume of waste generation and annually fund waste processing and (or) utilization of newly generated, accumulated, or historical waste.

Considering the current necessity to improve the environmental quality and to ensure environmental safety, KMG implements projects for reduction of accumulated waste volume, elimination of historical waste, and cleaning up of oil-contaminated areas.

In the period between 2016 and 2020 the Company cleaned up the fields with accumulated oil-containing waste: OMG cleaned up 5 fields, KBM – 1 field, MMG cleaned up and liquidated 10 fields, with transfer of the waste for utilization to specialised companies.

From the start of 2020, all newly generated waste of OMG, MMG, and KBM is transferred for utilization by third-party specialised companies without disposal on sites.

KTO is performing remediation of the disturbed lands in the territories of the Uzen – Atyrau – Samara trunk oil pipeline. 20.1 ha of disturbed lands have been remediated over 10 years, including 4 ha in 2020. The remediated lands are returned to the local executive authorities to be returned in economic use.

Under the Memorandum of Cooperation between the Ministry of Ecology, Geology and Natural Resources and KMG, efforts are being taken to dispose of waste and clean oil-contaminated land in the contract territories of MMG, OMG and KBM. Inventory checks of the contractual territories specified the characteristics of the wast and volume thereof, which was used as the basis for development and approval of corresponding remediation projects for of territories contaminated with oil in 2020. As parts of projects, safe and effective technologies for oil-containing waste utilization have been selected and recommended to the companies along with development of oil-contaminated land remediation. In total, OMG and MMG utilised 558,419 tonnes of historical waste and remediated the territories of disposal thereof in 2020. The operations under the Memorandum are planned to be completed by the end of 2024.

As part of the Company’s requirements and the “Waste Management” procurement-category strategy, work should be carried out on the contract territory without the removal of oil waste in order to minimize the impact on the environment and reduce transportation.

At the KMG Group, the total volume of the waste in circulation was 1,031.2 thous. tonnes in 2020, including 993.7 thous. tonnes of waste classified as “hazardous” and 37.5 thous. tonnes of “non-hazardous” waste correspondingly.

At this, the volume of the newly generated waste was 302.7 thous. tonnes and 95.5% of that waste was either utilised or processed.

RATIO OF THE AMOUNT OF DISPOSED WASTE TO THE AMOUNT OF NEWLY GENERATED WASTE, T/T



64% of the waste is transferred for processing by specialised companies under contracts and 24% of the waste was subject to bioconversion. Other major methods of waste management are recycling, disposal at landfills, and reusing.

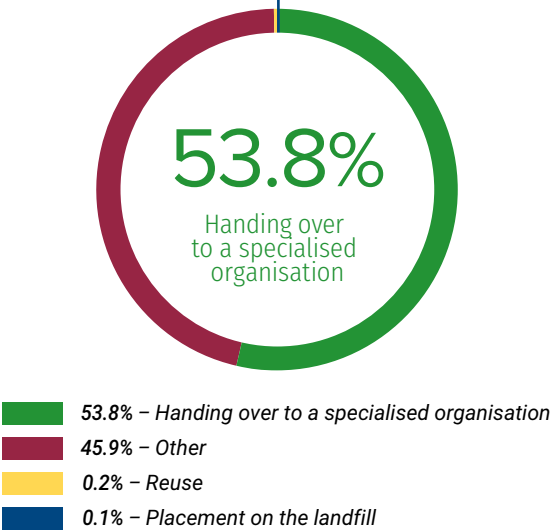
In the process of waste disposal / recycling in the KMG group of companies, the total mass of hazardous waste transported in the KMG group of companies, the total mass of hazardous waste transported to the facilities of specialized enterprises in 2020 amounted to 631.8 thousand tons, for the reporting period of international transportation of waste, as well as imports and no hazardous waste was exported.

The company, when handling waste, ensures compliance with the environmental, sanitary and epidemiological requirements of the Republic of Kazakhstan, all transportation of hazardous waste is carried out in accordance with the rules for the carriage of dangerous goods by vehicles in the territory of the Republic of Kazakhstan.

HAZARDOUS WASTE IN 2020 BY MANAGEMENT METHOD



NON-HAZARDOUS WASTE IN 2020 BY MANAGEMENT METHOD



END OF YEAR TO BEGINNING OF YEAR RATIO OF CONTAMINATED LAND AREA AT THE KMG GROUP, HA/HA



GENERATION OF DRILLING WASTE

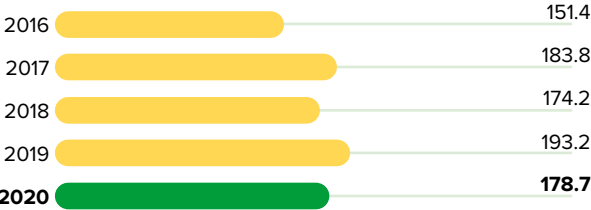
OG7

The producing companies of the KMG Group generated 178.75 thous. tonnes of drilling waste in 2020, including: 29.41 thous. tonnes – waste drilling mud; 149.34 thous. tonnes – cuttings. All drilling waste of the KMG Group is transferred to specialised organizations for utilization. The organisations further

	thous. tonnes	2016	2017	2018	2019	2020
Onshore projects	Waste drilling mud	44.24	49.50	37.05	59.24	29.41
	Drilling sludge	107.13	134.28	137.19	133.95	149.34
Offshore projects	Waste drilling mud	0	0.99	1.36	0	0
	Drilling sludge	0	1.06	0.81	0	0

The possibility of introducing a technology for treating drilling wastewater after the separation of the solid phase is being considered, which will reduce the volume of waste drilling fluids (in service subsidiaries and affiliates for drilling wells).

OVERALL GENERATION OF DRILLING WASTE WITHIN KMG, THOUS. TONNES



CONSERVATION OF BIODIVERSITY AND ENVIRONMENTAL MONITORING

Protected natural areas in the regions where we operate and the species of flora and fauna affected

103-1, 103-2, 103-3, 304-1, 304-4, OG4

North Caspian is the most productive part of the Caspian Sea. This part of the sea is rich with bioresources. There are 25 species of main commercial fish species, of which the most valued are sturgeons with 70-80% of the global reserve living in the sea basin.

utilise the waste by thermal and chemical methods, inertisation and bioconversion.

Measures to reduce the volume of drilling waste generation:

- rational use of raw materials and materials used in well drilling;
- reuse of drilling wastewater after separation of the solid phase (up to 20% of the total).

Eastern area of the North Caspian with deltas of Volga (within Kazakhstan) and Ural is a part of the State Conservation Area in the North Caspian. Wetlands of the North Caspian, particularly deltas of Volga, Ural and Emba, and the adjacent coast and the sea itself are essential for Eurasia and support millions of water birds and semiaquatic birds during nesting, moulting, seasonal migrations and wintering. One of the largest Eurasian flyways, the Siberia – Black Sea – Mediterranean Sea flyway, crosses the North Caspian.

According to the baseline studies, more than 70 bird species (including 5 rare species listed in the Red Book of Kazakhstan) migrate through open areas of the North-East Caspian 20-60 km away from the shore. The coastal areas are nesting home to little egret, Eurasian spoonbill, pelicans, whooper swan, ferruginous duck, and Pallas’s gull. Swamphen, white-tailed eagle and osprey are also observed flying.

Land cenoses are nesting grounds for 5 species listed in the Red Book of Kazakhstan. Steppe eagle is the most common one. As for rare birds, avocets, oystercatcher, little egret may be observed in these areas.

The only large marine mammal (pinnipeds) of the Caspian Sea is Caspian seal (*Phoca caspica*). It is an endemic mammal species. Seals are spread all across the Caspian Sea, although they vary in number in the North part depending on a season. Seasonal distribution of animals across the sea area is based on three main phases of the annual cycle: reproduction, moulting and feeding. Reproduction grounds are in the North Caspian, which freezes in winter. During feeding period from April till September, seals mainly



stay in the Middle and South Caspian. In summer, only a few animals (about 30,000) remain in the North Caspian, the majority of population move to the deeper and colder South Caspian. They migrate to the North shallow waters in the late autumn, where water starts to freeze. The majority of population gathers in the North Caspian in October – November.

This area is essential to conserve biodiversity in Kazakhstan and the entire Eurasian continent and it needs to be continuously monitored and timely protected. From the very beginning of its operations in the North Caspian, KMG has focused on protection of environment of the region.

Republican **Novinsky State Natural (Faunal) Reserve** was established to create better conditions for reproduction of flora and fauna, including species listed in the Red Book of Kazakhstan. Protection status: a reserve.

**Zhambyl** is in the northern part of the Caspian Sea. The contract territory is within the Caspian Sea conservation area, and a part of it covers Novinsky Reserve, although industrial sites do not affect environmentally sensitive areas. This area has restrictions for production operations during the most environmentally sensitive period. Over the period under studies, there were no recorded abnormalities in natural conditions, environmental situation or unnatural factors which would cause concerns or require closer attention.

**Isatay area** is located in the northern part of the Caspian Sea, 45 km north of the coast of the Bozashy Peninsula in Mangistau region.

**Dead Kultuk (Ustyurt)** is the habitat of the most characteristic Caspian species – flamingo, which was common in the north-east in the past, and is still using this part of the sea, moulting and summer birds near Komsomolets bay and Dead Kultuk shor and Kaidak. Flamingo (*Phoenicopterus roseus*) is a locally nesting, decreasing species. It is the only specimen of its species in Kazakhstan fauna. Until now, the main nesting grounds in Kazakhstan included Tengiz lake, Chelkarteniz lake and north-eastern coast of the Caspian Sea.

Komsomolets bay, Dead Kultuk and Kaidak shors are still regularly used by thousands of birds to spend summer and moult. Birds from Central Kazakhstan fly through these areas and enlarge the local non-nesting population in April and August-September. Up to 35 thousand birds migrate through Komsomolets bay each year.

**Mangistau region** Mangistau Region has a vast system of designated nature conservation areas including Ustyurt State Nature Reserve and republican Kenderli-Kayasan Conservation Area, as well as 8 reserves and 1 regional natural park. Elaphe sauromates is one of the reptiles inhabiting the territory of Mangistau region that has been included in the Red Book of the Republic of Kazakhstan (2010). Afghan tortoise is a common, well spread species which is quite numerous in local areas of Mangistau Region, nevertheless, according to the Red List of International Union for Conservation of Nature (IUCN) it is a vulnerable species.

**Kendirli-Kayasan protected area** of national importance has been established to preserve the habitat and natural reproduction of MacQueen’s bustards and saker falcons. Established status: a conservation area, reserve/nature reserve, controlled area.

**Ustyurt State Nature Reserve** has the highest category of republican designated nature conservation areas. Ustyurt State Nature Reserve (USNR) was founded with the main goal of preserving the natural state of unique natural complexes, historical monuments, flora and fauna of Kazakhstan deserts. The Reserve is the main habitat of several species listed in the Red Book of Kazakhstan and/or International IUCN Red List: goitered gazelle, Ustyurt mountain sheep, caracal, honey badger, golden eagle, Eurasian eagle-owl, white scavenger vulture, chlamydotis, etc. According to the leading experts, the USNR meets the criteria of a UNESCO World Heritage Site and may be honoured as one in future to prove the highest level of recognition internationally.

A living Persian leopard was spotted for the first time in the entire history of Ustyurt State Nature Reserve in 2018. Formerly, leopard was only known in Kazakhstan because it was killed by human 3 times, including

twice in Mangistau Region in 2007 and 2015. Leopards sometimes get to Mangistau from the neighbouring Turkmenistan, and considering the adequate food reserves (mountain sheep and goitered gazelle) they might possibly form a local population if they were not hunted by human and if the habitats were properly protected. There is at least 600 km between the Ustyurt Reserve to Kopetdag in Turkmenistan, where the leopard is known to live for a fact.

It should also be noted that the leopard is currently not listed in the fauna of Kazakhstan or the Red Book of the Republic of Kazakhstan. The USNR employees have already addressed the Forestry and Wildlife Committee of the Kazakhstan Ministry of Agriculture with the suggestion to immediately record the Persian leopards in the Red Book of Kazakhstan to ensure the necessary legal status for the species efficient protection.

Over the last decades, certain species of mammals that are new for the region were found: desert long-eared bat in West Ustyurt, lesser mouse-eared bat and common noctule in North Ustyurt, honey badger in South-Western Ustyurt, golden jackal in Mangyshlak plains and Karagiye Depression, raccoon dog. Striped hyena was encountered in West Ustyurt and signs of Indian crested porcupine were observed, which has not been recorded in the area for more than 40 years.

**Kansu area** of Karakiya district in Mangistau region lies partially within the territory of Kendirli-Kayasan protected area and borders with Ustyurt State Nature Reserve (2 km of the buffer zone from the borders of the area). No geologic exploration work was carried out on the site in 2016. Due to high geological, environmental risks and non-profitability, KMG made a decision to exit the project. In 2019, the procedure for return of the contract territory to the government started.

**Samtyr area** Since 2018 JSC NC “KazMunayGas” has owned 50% of Samtyr LLP located in Mangistau region. It is located within South-Ustyurt sedimentation basin immediately next to Uzen, Shakhpaty, and Dzhel fields.

**Kokzhide-Kumzhargan, Local State Nature Reserve.** This reserve accommodates two sites of the republican nature reserve fund: Kokzhide Sands and Kokzhide Groundwater, which are included in the List of Republican and International Geological Sites of the State Nature Reserve Fund.

**Urikhtau, Alibekmola and Kozhasay fields** are located in Mugalzhar District of Aktobe Region, Kazakhstan. North-western part of the contract territory within Urikhtau field lays within the Kokzhide Sands, the fields also border Kozhide–Kumzhargan Local State Nature



Reserve. To avoid groundwater pollution, environment is being regularly monitored both within the Group operations footprint and near the Kokzhide Sands adjoining the contract territory.

**Karazhambas field** is in the north-western part of Buzachi Peninsula, within Caspian Depression, in the territory bordering the Caspian Sea on the west. The field's west borders the State Nature Conservation Area of the North Caspian. Industrial environmental monitoring includes bi-annual flora and fauna monitoring.

PRODUCTION SITES LOCATED WITHIN THE BOARDERS OR NEXT TO NATURE RESERVES

Type DNCA	Within	Adjacent borders (a part of territory)	Outside (located within 1–10 km)
Category IUCN I-IV	0	0	Kansu Samtyr
	Zhambyl Satpayev Isatay		Alibekmola Kozhasai
Category IUCN V-VI	Dead Kultuk (Ustyurt)	Zhambyl Urikhtau	Karazhambas Rozhkovskoe
World heritage sites	-	-	-
Ramsar lands	-	-	-

OUR CONTRIBUTION TO PROTECTION OF BIODIVERSITY IN 2020

Number and percentage of major operating sites where biodiversity risk has been assessed and monitored in 2020

304-2, OG4

Baseline environmental studies, drilling, and well testing have been performed in the areas located in the state reserve territory in the north of the Caspian Sea. There are currently no significant man-made effects in these regions, which would restrict free movement of wild animals and birds within their habitats. During drilling operations the following activities have environmental impacts: drilling rig installation, well drilling and testing, navigation. Among impact factors are increased concentrations of suspended solids in water during offshore construction, disturbance of natural structure of bottom deposits due to intensive navigation among other things, physical effects of noise.

Construction of an appraisal well in East Urikhtau field and an appraisal directional well in South Urikhtau field has started in Urikhtau, which shares borders with designated nature conservation lands. Groundwater impact factor is the well drilling which may pollute groundwater. Pollutants may also enter groundwater with infiltrating precipitations from the surface of industrial and domestic waste accumulations, oil-contaminated areas, oil and produced water storage areas. In this respect, KMG implements certain measures to protect groundwater and prevent it from being polluted, littered or depleted. Well design isolates groundwater reservoir by running a casing down to 80-85 meters, and regular observations are performed over occurrence, level and quality of groundwater in currently and potentially polluted areas.

The Company performs continuous environmental monitoring of abandoned wells and hydrology, hydrochemistry, hydrobiology, and ichthyology researches as part of compensation for the unavoidable damage to fish resources caused by operations. Zhambyl Petroleum LLP invested 72.8 mln tenge in research work to compensate for the damage



to fish in 2020. KMG System&Services LKP released 94,600 starry sturgeon underyearlings in the Ural river in 2020.

Another impact factor of industrial development of the territory on biodiversity is power transmission lines which pose major danger for birds. The network of overhead power lines is constantly expanding and invades natural bird habitats, often causing their mass death. This is of special concern for predatory birds living in forest-free steppes and semi-deserts where overhead line pylons are the most attractive for the birds to sit on.

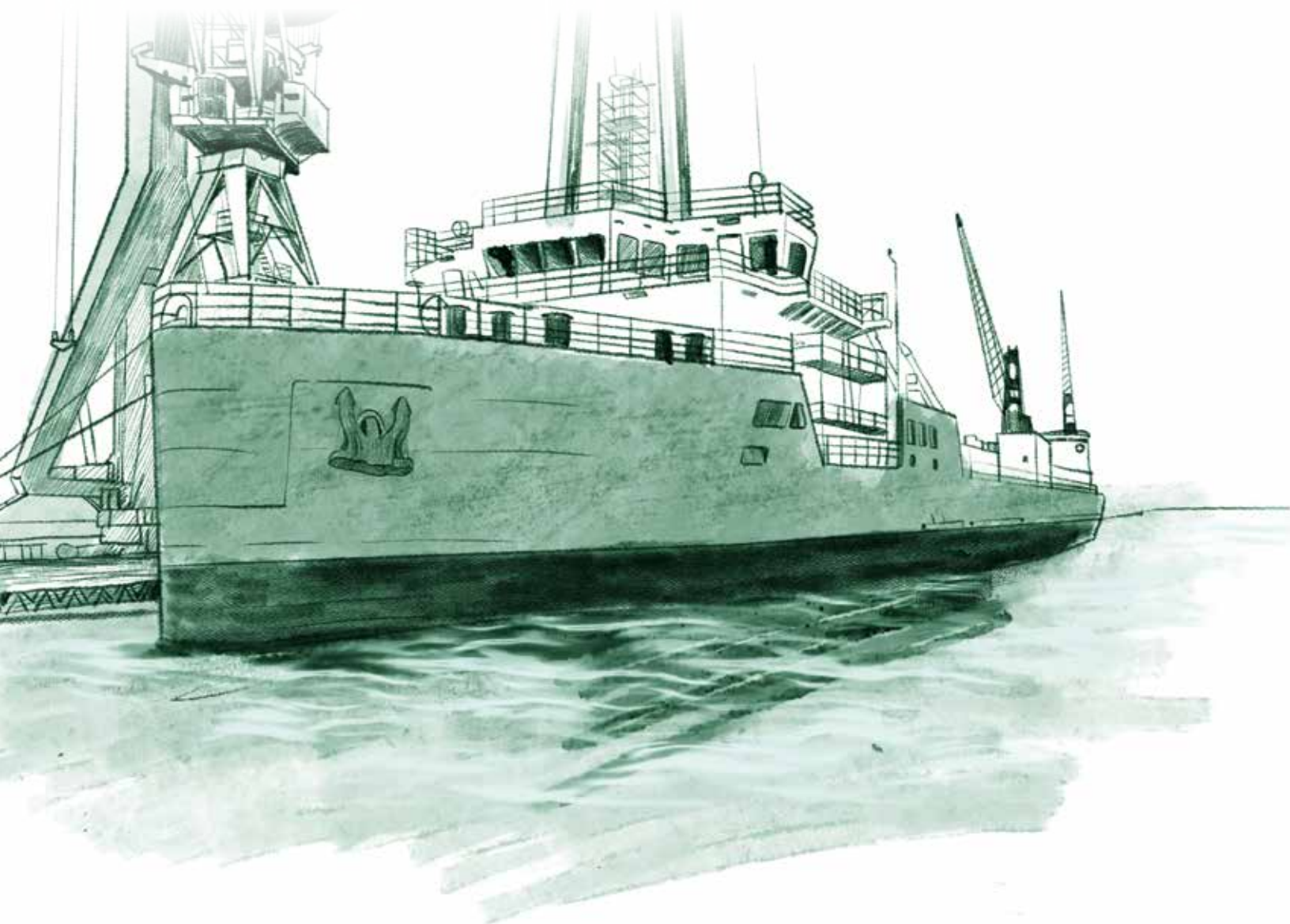
Identification and research of electrical installation areas of high risk for birds is performed as part of special researches or as part of industrial environmental control. To exclude electrocution of birds on overhead power lines (6-10 kV OPL), special polymer bird protective devices (BPD) are installed on the lines. This type of BPD, despite being commonly used abroad, is only being introduced in operation in Kazakhstan. The advantage of this device is use of non-conducting material for manufacturing of all BPD parts. Installation of the BPD requires no preliminary complex preparation (welding, crossbar drilling, etc.). At the same time, insulation of live wire ensures that hazardous short-circuits involving birds are avoided.

For instance, KTO replaces the used AC-50/8 steel-reinforced aluminium cable with self-supported SPW-3 protected wire during overhauls of 6-10 kV overhead lines. The performed overhauls included installation of 223 km of SPW-3 wire. Use of self-supported protected wire ensures insulation of birds from exposed live parts, thus protecting birds from electrocution and death.

- Each of us can contribute to conservation of biodiversity in our country by following simple rules:
- Do not litter streets and nature;
  - Care for environment;
  - Do not engage in illegal hunting and fishing;
  - Focus on conservation of biodiversity when planning environmental activities;
  - Report violations of environmental law by legal entities and individuals to authorized officers and to hse@kmg.kz;
  - Record red-book listed animals and plants in an area by taking photos and tagging locations, and send to hse@kmg.kz;
  - Participate in campaigns and programmes to preserve biodiversity in Kazakhstan
  - Send your initiatives, ideas and projects to hse@kmg.kz.

	Onshore operations		Offshore operations	
	2019	2020	2019	2020
Sites where biodiversity is covered in EIA or an equivalent document (%)	100	100	100	100
Sites where environmental monitoring is performed regularly (%)	100	100	100	100
Parts with abandoned wells where abandoned wells are regularly monitored (%)	100	100	100	100





## PREVENTION OF SPILLS ON WATERS

Permanent preparedness for emergency oil spill response (EOSR) is our absolute priority.

The Caspian Sea is a unique natural object with fragile ecosystem which is particularly sensitive to oil pollution due to its enclosed nature. We set high requirements to environmental safety during offshore oil operations: any work is preceded by baseline environmental studies in the contractual territories and assessment of our potential social and environmental impact. We also monitor the impact, emissions, and accidents – both during and after operations.

Prior to commencement of offshore drilling operations, we ensure permanent preparedness to respond to any possible emergency oil spills. Upon termination of the operations, we continue with ongoing environmental monitoring of the abandoned wells. Monitoring of abandoned wells in contractual territories includes monitoring over the following: air quality, sea water and sediment pollution, biodiversity condition, as well as laboratory and analytical

work, photo and video recording of the abandoned wellheads.

In our offshore operations, we strictly adhere to the following principles:

- Strict compliance with the design solutions
- Zero discharge principle – all waste and waste water is taken to the shore
- Equipping all facilities with fish protection devices and absence of bilge water
- Prohibition of any production operations during the breeding season – from 1 April through 15 July
- Prohibition of fishing on production vessels
- Prohibition of well testing and burning of raw hydrocarbons at night time
- Compliance with the special operation mode

Zhambyl Petroleum LLP has signed a contract with the consortium comprising KMG Systems & Services LLP, Kazmortransflot LLP, and Republican State Enterprise on the Right of Economic Use "Professional Militarized Emergency Rescue Service" to receive services of emergency oil spill response (hereinafter – EOSR). In the period of development well construction, the EOSR vessels stay within 500 meters from Caspian Explorer SSDR.

## THE INITIATIVE OF VOLUNTEERING FOR EMERGENCY OIL SPILL RESPONSE

Taking into account the seriousness and importance of a thing like volunteering for emergency oil spill response (hereinafter – EOSR), KMG Systems&Services LLP initiated development and implementation of the Volunteering Programme for EOSR in Atyrau and Mangistau regions (hereinafter – the Programme). The Programme includes all volunteering aspects such as legal aspects of volunteering in the Republic of Kazakhstan and other countries, how to involve volunteers, how to register and manage volunteers before and during EOSR, it also classifies volunteers and suitable tasks, rights and obligations of volunteers and basic personal safety for volunteers. The Programme specifies the tasks that need to be completed before a spill (preparatory stage) and oil spill response action (operating stage).



The key purpose of the project is to ensure transferring knowledge and training to volunteers in the basics of emergency oil spill response (EOSR) and wildlife rescuing.

As part of the project, a training video on "Transfer of basic knowledge in wildlife rescuing during emergency oil spill response operations".



The target audience of the course are both potential volunteers for EOSR and other concerned parties, including representatives of authorities, specialists of companies engaged in offshore oil operations, etc.

The video course will teach you about personal safety of a volunteer, a volunteer's rights and obligations, the impact of oil spills on wildlife, as well as the types of operations volunteers might be involved in during wildlife rescuing operations. It is essential to understand that volunteers cannot be engaged in all wildlife rescuing operations as safe and effective work requires special training and experience in such operations. The course shows which types of work a volunteer can do independently and which can only be performed with expert guidance only.

Everyone who is interested may fill in a questionnaire on the corporate website of KMG Systems&Services LLP for further 2-day training in Atyrau and Aktau in the basics of oil spill response.

## CLIMATE CHANGE AND AIR QUALITY

103-1, 103-2, 103-3

We make it our highest priority to minimise our impact on environment through compliance with environmental law, rational use of natural resources and continuous improvement of our environmental activities. Our priorities include careful and rational use of natural resources, minimisation of environmental risks. Target Programmes are intended to reduce raw gas flaring, develop green energy based on renewable energy resources and generally increase energy efficiency.

The KMG Corporate Centre manages activities of subsidiaries and associated companies with regard to greenhouse gas and pollutant atmospheric emissions, monitors that all permits for activities are obtained in due time, such as emissions permit, greenhouse gas quota, raw gas flaring permit.

Atmospheric impact minimisation programmes include raw gas development and refining programmes for production sector, oil refineries upgrade programme, application of the latest available technologies in the construction of new transportation facilities, etc. Gradual implementation of these programmes will result in reduced pollutant and greenhouse gas emissions into the air, increased benefits from using raw gas.

The KMG Group has an effective Emission Management Policy specifying the key principles of operational management to reduce the harmful impact on the air:

- Operating in strict compliance with the law and other Company commitments;
- Following the established pollutant emission standards and emission limits, greenhouse gas quotas;
- Clearly allocated functions and duties, increased competence, training and awareness;
- Regular recording, inventory checks and monitoring of emissions;
- Ending regular flaring of raw gas during hydrocarbon production operations;
- Activities to reduce greenhouse gas emissions and carbon footprint;
- Management of carbon assets;
- Continuous improvement of emissions management activities.

We comply with the national law, best international standards, provisions of corporate HSE documents and other corporate documents, identify and assess environmental risks, ensure that our environmental activities are transparent and open.

We are still working on improvement of our facilities' operations to reduce atmospheric impact. We take active part in improvement of regulatory framework of the country, hold meetings of Emissions Management Work Group, participate in climate change forums, conferences, enhance our knowledge and skills to improve our abilities in emissions reduction strategy.

- The KMG Long-Term Development Strategy defines the following climatic priorities:
- Managing greenhouse gas emissions;
  - Reducing regular flaring of associated petroleum gas;
  - Improving energy efficiency.

We are committed to increase oil and natural gas production to meet the world's growing demand for energy, that is why we primarily focus on activities to minimise adverse impact our operations have on the environment through compliance with the environmental law, rational use of natural resources and continuous improvement of our environmental activities.

We are planning to set long-term goals for reduction of air emissions based on changes in the external environment and stakeholder requests.

GREENHOUSE GAS EMISSIONS

305-1, 305-2, 305-3, 305-4, 305-6



In 2020, Carbon Disclosure Project published a Greenhouse Gas Emission Report 2019 as part of the Climate Change programme of CDP (Carbon Disclosure Project) which includes data on volume of direct and indirect greenhouse gas emissions in relation to all KMG assets, including subsidiaries in Romania and Georgia.

The estimation includes carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), and nitrogen oxide (N<sub>2</sub>O). The data on direct greenhouse gas emissions is confirmed by conclusions of independent accredited organisations for each of the subsidiaries and affiliates. The data for 2020 will be disclosed in the CDP report in Quarter III of 2021. When disclosing information, we adhere to the principles of consistency and comparability. We constantly improve the completeness of disclosure and expansion of the reporting scope for all indirect emissions of Level 3.

The volume of emissions in equivalent tons of CO<sub>2</sub> was obtained by recalculating the volumes of methane and nitrous oxide, taking into account the latest values of global warming potentials (hereinafter – GWP) from the 5<sup>th</sup> IPCC Assessment Report.

GHG emissions calculations are performed in accordance with international and national methodologies and guidelines, such as CDP Technical Note: Accounting of Scope 2 emissions; CDP Technical Note: Guidance methodology for estimation of scope 3 category 11 emissions for oil and gas companies; Compendium of Greenhouse Gas Emissions Estimation Methodologies for the Oil and Natural Gas Industry, API 2009; 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Volume 2 Stationary Combustion; Methodological guidelines for calculating GHG emissions from thermal power plants and boiler houses, Astana, 2010.

The volume of direct greenhouse gas emissions (CO<sub>2</sub>) at the KMG Group was 8.7 mln tonnes of CO<sub>2</sub> in 2020, which is 11 % lower than the volume of 2019. Reduction of the emissions is associated with reduced production. In Production, reduction of the emissions relates to reduced gas flaring.

The CO<sub>2</sub> emission intensity indicator was 87 tonnes per 1,000 tonnes of produced HCs, which is significantly lower than the average indicator of the industry per the International Association of Oil & Gas Producers (IOGP) equal to 123 in 2019.

There are no biogenic CO<sub>2</sub> emissions from the enterprise. The Company's operations do not result in emissions of ozone-depleting substances that contribute to climate change. The company carries out periodic monitoring and control of ozone emissions.

AIR QUALITY

305-5, 305-7

We conduct operational environmental monitoring and take measures to reduce air pollutant emissions generated by the operations and processes. As part of the operational environmental monitoring programmes, observations of air emissions are made in the designated sampling points and measurements are taken to assess the potential impact. The bulk of pollutant emissions is generated by heating gas burned in boilers, process furnaces and compressors, gas turbine plants, compressor stations, gas flaring, etc.

The volume of permissible emissions of all contaminating substances at the Group was 247.2 thous. tonnes in 2020 (264.8 thous. tonnes in 2019). The Company demonstrates reduction of emissions by 7% compared to 2019.

Over last 3 years, the volume of emissions at the Production section has been reduced by 13% due to the increase of beneficial use of raw gas and corresponding reduction of flaring. Oil Refining and Transportation areas demonstrate an 8% reduction compared to 2019.

The implemented refinery upgrade projects have improved the environmental indicators of the fuel produced by the facilities by production of petroleum products complying with the European quality standards and classified as K4-K5 in accordance with the Technical Regulations of the Customs Union.

At this point, we do not make direct, real-time measurements using, for example, gas analysers, however, in accordance with the new Environmental Code, the authorised environmental body plans a company-wide switch to automated monitoring of pollutant emissions by installing sensors / gas analysers at emission sources of Category 1 natural resources sites. Currently, some organisations are developing design documentation for switching to online monitoring of pollutant emissions.

GROSS AIR POLLUTANT EMISSIONS WITHIN THE KMG GROUP, THOUS. T

	2018	2019	2020
Total air pollutant emissions, including:	269.3	264.8	247.2
NOx emissions	16.7	18.5	17.6
SOx emissions	13.9	12.3	12.7
other pollutant emissions	238.7	234.0	216.9

SPECIFIC POLLUTANT EMISSIONS WITHIN THE KMG GROUP

	2018	2019	2020
RWS production, t / 1,000 toe of produced raw hydrocarbons	1.9	1.7	1.9
Oil refining, t / 1,000 t of refined oil	3.2*	2.9*	2.9
Oil transportation, t / 1,000 of transported oil	0.5	0.5	0.5
Gas transportation, t / 1,000 of transported gas	1.4	1.5	1.6

*\*2018-2019 has been updated with consideration to the expansion of the area of the subsidiaries and affiliates for calculation of the indicator value*



In 2020, the average NOx emissions to total raw hydrocarbons production ratio in oil equivalent was 0.2 tonnes per one thousand tonnes of raw hydrocarbons at the KMG Group while the average IOGP indicator is 0.4. Compared to 2018, specific NOx emissions have increased by 7%. The average SOx emissions to total raw hydrocarbons production ratio in oil equivalent was 0.23 tonnes per one thousand tonnes of raw hydrocarbons at the KMG Group while the average IOGP indicator is 0.2. Compared to 2018, specific SOx emissions have increased by 11%.

305-7

In its operations, the Company does not emit persistent organic pollutants.

RATIONAL USE OF ASSOCIATED PETROLEUM GAS

OG6, 103-1, 305-5

This section reflects data on upstream companies where processes related to production and beneficial use of raw gas are in place.

One of our most important targets in reduction of greenhouse gas emission is the increase of beneficial use and utilisation of associated petroleum gas (APG) and minimisation of flaring. The measures of the Development and Raw Gas Processing Programmes have ensured increase of APG use for own needs to generate thermal and electric energy.

Utilization of associated petroleum gas was equal to 98% in 2020. Gas flaring indicator is at 2.2 tonnes per 1 thous. tonnes of produced raw hydrocarbons (6 in 2018 and 2.95 in 2019), which is 25% lower than the result of 2019 and 79% lower than the average IOGP 2019 indicator for the industry.

The Company is aspiring to minimise the volume of gas flaring. In 2015, KMG supported theWorld Bank’s “Zero Routine Flaring by 2030” initiative. Raw gas flaring volumes are reported on an annual basis as part of this initiative.

SOUR GAS FLARING

Indicator	2017	2018	2019	2020
Total volume of sour gas flaring, mln cub. m	315.8	148.9	80.2	57.6
Level of beneficial use of raw gas, %	85	93	97	98
Sour gas flaring intensity, tonnes per 1 thous. of produced raw hydrocarbons	11	6	2.95	2.2

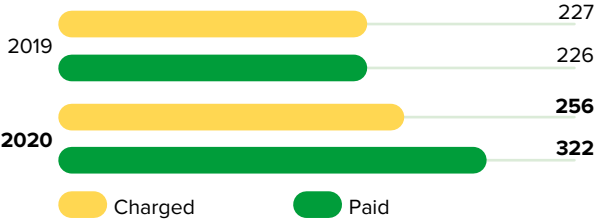
COMPLIANCE WITH REQUIREMENTS

103-1, 103-2, 103-3, 307-1

We strive to operate within the legal framework of the Republic of Kazakhstan and take corresponding measures to prevent environmental damage.

The Company will keep its work on identification on non-conformities with the environmental laws of the Republic of Kazakhstan at the production facilities, identification of problems, and risk management to arrange measures preventing any non-conformities with the legal requirements.

PENALTIES CHARGED AND PAID, MLN TENGE



The Specialised Judicial Board of the RoK Supreme Court ruled in favour of KBM regarding the environmental fine in the amount of 19.8 bln tenge.

HSE TRAINING

404-2

The training system is aligned with the Company’ strategic plans and need for employees that possess the required HSE competences. The training programmes are a tool to improve performance, quality, and safety at work and minimise the risks associated with work of unskilled workers. The safety of operations, personal safety of employees and environmental safety directly depend on the competence of employees.

In total, 100,172 employees of the KMG Group received training in 2020 for the total amount of 671,341 thous. tenge. 24,041 employees have received free training under the training model of “70/20/19 – job training/ internal training/external training” implemented at the KMG Group in own 6 training facilities/centres on health and safety, industrial safety, fire safety, and safe driving.

JSC Ozenmunaigas (Zhanaozen), JSC KazTransOil (Aktau), JSC Intergas Central Asia (Atyrau, Shymkent), Pavlodar Oil Chemistry Refinery LLP (Pavlodar) and Oil Services Company LLP (Aktau) have their own training centres.

The Company implemented mentorship and internal coaching programs among experienced employees, holds workshops and trainings, various contests

among advanced employees, which allows it to improve internal communications and motivate the personnels to strive to be the best in their profession.

KMG intends to improve the level of safety culture in compliance with the international standards and ensure effective functioning of the HSE management system.

Despite the restrictions required due to the COVID-19 pandemic, the demand for HSE training at the KMG Group remained a priority. Considering the specifics of the Kazakhstan oil and gas sector as well as mandatory requirements of the RoK laws for compulsory learning, training and professional development of personnel in general, more priority is given to occupational health and safety, industrial and fire safety.

The levels of the personnel that was trained in 2020 on HSE were as follows: administrative and managerial personnel – 3,459, technical and engineering employees – 9,235, and operational personnel – 75,968 people.

In 2020, 9,235 females and 90,937 males were trained, which is 9.2% females and 90.8% males for the total number of 100,172 people.

TRAINING COSTS

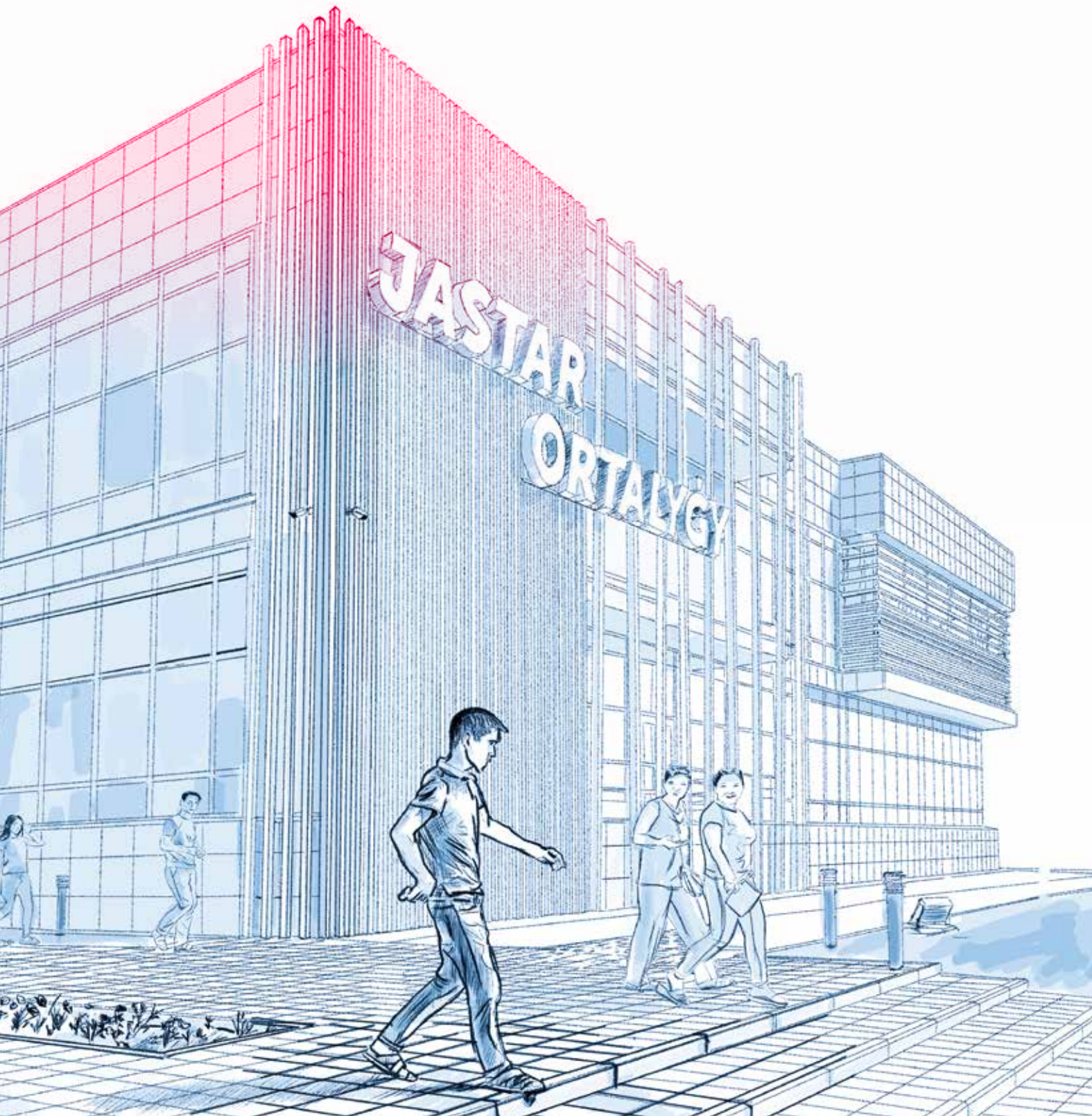
Indicator	2018	2019	2020
Number of trained employees	114,971	130,615	100,172
Amount, thous. tenge	1,097,877	1,179,877	671,341

HSE TRAINING WITH BREAKDOWN BY KEY BUSINESS AREAS

Business area	Number of employees	Amount, thous. tenge
Production	36,263	255,727.5
Transportation	23,840	161,669.9
Refining	7,599	44,038.6
Service	31,686	182,340.8
KMG Corporate Centre	784	27,564.3



# SOCIAL RESPONSIBILITY



**Principle 1** Human Rights: Businesses should support and respect the protection of internationally proclaimed human rights

**Principle 2** Human Rights: Businesses should make sure that they are not complicit in human rights abuses

**Principle 3** Labour: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining

**Principle 4** Labour: Businesses should uphold the elimination of all forms of forced and compulsory labour

**Principle 5** Labour: Businesses should uphold the effective abolition of child labour

**Principle 6** Labour: Businesses should uphold the elimination of discrimination in respect of employment and occupation



## EMPLOYMENT

102-7, 102-8, 103-1, 103-2, 103-3, 401-1, 401-2, 401-3

The concept of our personnel policy is aimed at creating conditions for growing value of the human capital at the KMG Group.

Achievement of this strategic goal is based on the three core purposes of the HR-function:

- Establishment of a single HR-function and a single model of personnel management at the KMG Group;

- Continuous improvement and greater openness of the human resources function;
- Development of the corporate culture and improvement of the managers' skills.

Each objective includes the list of specific tasks that constitute the key areas of the HR policy.

### HR MANAGEMENT DEVELOPMENT CONCEPT

#### VISION

CREATING CONDITIONS FOR ADDING VALUE TO THE HUMAN CAPITAL WITHIN THE KMG GROUP

#### OBJECTIVES

SETTING UP A UNIFIED HR FUNCTION AND A SINGLE HR MANAGEMENT MODEL THROUGHOUT THE KMG GROUP

IMPROVING AND INCREASING THE OPENNESS OF THE HR FUNCTION ON AN ONGOING BASIS

DEVELOPING THE CORPORATE CULTURE AND IMPROVING MANAGERS' SKILLS

#### TASKS

1 Standardising HR processes, policies, methodologies, tools, templates throughout the KMG Group

2 Standardising approaches to building HR organisational structures throughout the KMG Group

3 Automating HR processes

4 Assigning HR processes that do not add value to the HR Shared Service Centre

5 Forming an atmosphere of mutual respect, trust, unity and cohesion within the KMG HR function

6 Monitoring and improving the HR function on a regular basis

7 Maintaining communications and providing feedback from the HR function on a regular basis

8 Improving the corporate culture, increasing the social stability and developing necessary behavioural characteristics of employees

9 Developing leadership and personnel management skills of managers at various levels



**The HR policy concept relies on the following key principles:**

1. Balance between the interests of employees and the Company;
2. Single personnel policy for the entire KMG Group;
3. Shifting the administrative supporting role of HR to a strategic one for business;
4. Creating added value for business;
5. Optimal organisational structure and number of employees;
6. Planning the number of personnel based on business needs and labour market conditions;
7. Continuous improvement of the training and advanced training programmes;
8. Creation of a self-learning organisation based on the 70-20-10 model;
9. Managers' responsibility for human resources management;
10. Establishment of a culture of employee engagement in the collective achievement of the strategic goals;
11. Creation of conditions for employee motivation;
12. Preventing law violations.

Despite the difficulties arisen during the COVID-19 pandemic, KMG prevented suspension of production operations in the regions of operation and could ensure employment of over 60 thous. people in the country.

The actual number of personnel as of the end of 2020 was 57,073 at the KMG Group (2018 – 83,116 people, 2019 – 70,938 people), outstaffing – 3,100 people (2018 – 3,347 people, 2019 – 4,168 people) \*.

Considering the fact that the Company's operations are associated with hazardous and harmful labour conditions, the share of male employees is 81 % and 19 % of the personnel are females. At the same time, compared to 2019, the share of females at the KMG Group grew by 1 %.

\* In 2018, 2019 the headcount included the perimeter of the KMG Group of Companies, in which the share of KMG was 50% or more; in 2020, on the recommendation of the Fund, the perimeter was revised and changed to the perimeter of consolidation, i.e. companies in which the share of KMG is more than 50%. When recalculated in 2018, 2019, along the perimeter of 2020: Actual number in 2018 – 63,178, 2019 – 58,532; outstaffing 2018 – 2,372, 2019 – 3,055.

**KMG EMPLOYEES BY AGE IN 2018-2020, %**

Age	2018	2019	2020
under 31	16.7	13.5	12.4
31 to 50	58.3	59.2	60.1
above 50	25	27.3	27.5

Share of operating staff in the total headcount is 92 % and administrative and managerial personnel makes 8 % of the headcount.

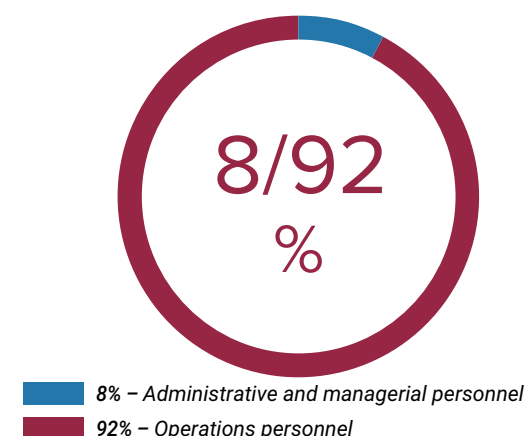
In 2020, female managers made 18 % of the total number of managers at the KMG Group and female specialists made 41 % of the total number of specialists. The share of female workers was 12 % of the total number of workers. Compared to the previous year, the percentage of female managers and specialists grew by 2 % and the number of female workers increased by 1 %.

In terms of age, the employees from 31 to 50 years old made 60.1 % of the staff number where 80.5 % were males and 19.5 % were females.

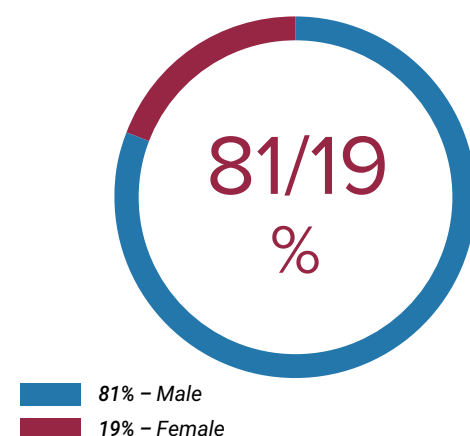
Number of employees over 50 years old makes 27.5 % of the total headcount where 81.5 % are males and 18.5 % are females.

The percentage of young employees under 31 is 12.4 % of the total headcount where 82.6 % are males and 17.4 % are females.

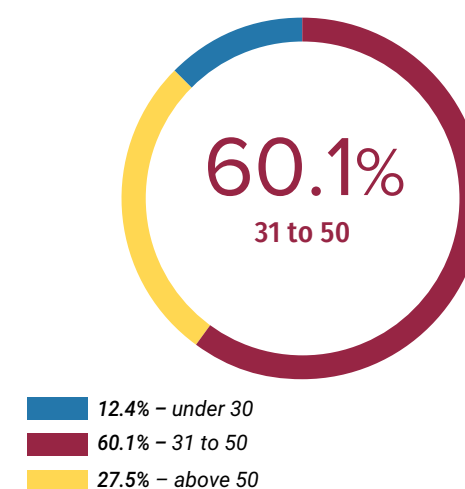
**EMPLOYEES BY CATEGORY FOR THE REPORTING PERIOD, %**



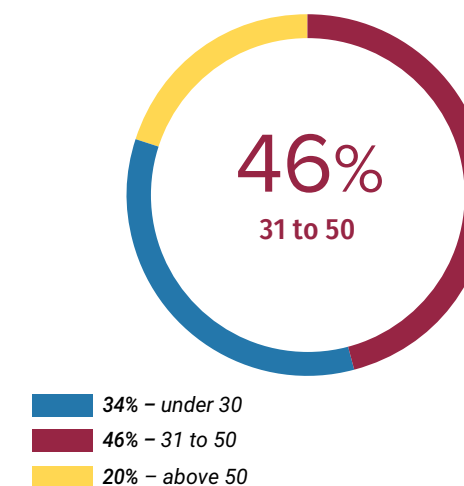
**EMPLOYEES BY GENDER FOR THE REPORTING PERIOD, %**



**EMPLOYEES BY AGE GROUPS FOR THE REPORTING PERIOD, %**



**NEWLY HIRED EMPLOYEES BY AGE GROUPS FOR THE REPORTING PERIOD, %**



**EMPLOYEES IN BREAKDOWN BY SEX IN 2018-2020, %**

years	2018	2019	2020
male	81	82	81
female	19	18	19

**EMPLOYEES BY GENDER AND CATEGORY FOR THE REPORTING PERIOD, %**

Categories of employees	Male	Female	Share of employees by category in total staff number, %
Managers	82	18	11
Specialists	59	41	24
Workers	88	12	65

Number of newly employed staff was 5,412 people or 8 % of the average staff number in 2020.

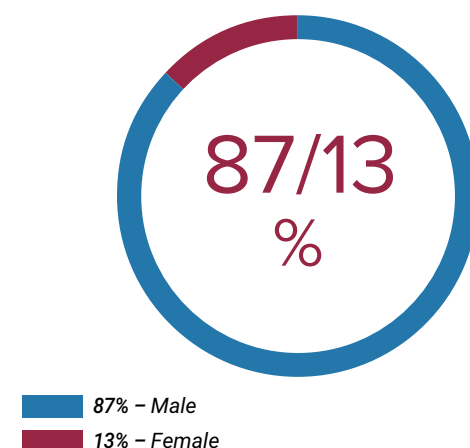
**NEWLY EMPLOYED STAFF IN 2018-2020 %**

years	2018	2019	2020
% of hired employees	12.5	7	8

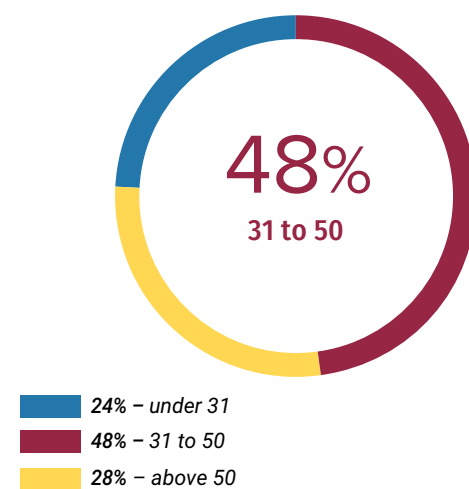
Number of employees who left employment during the reporting period was 3,713 people or 6 % of the average staff number, including employees under 30 – 24% (22% in 2019, 18.2% in 2018, 20.4% in 2017), from 31 to 50 – 48% (49% – 2019, 55% in 2018, 46.4% in 2017), over 50 – 28% (29% in 2019, 27.7% in 2018, 23.5% in 2017).

\* difference with Annual Report in 2020 is due to the adjustment of the calculation

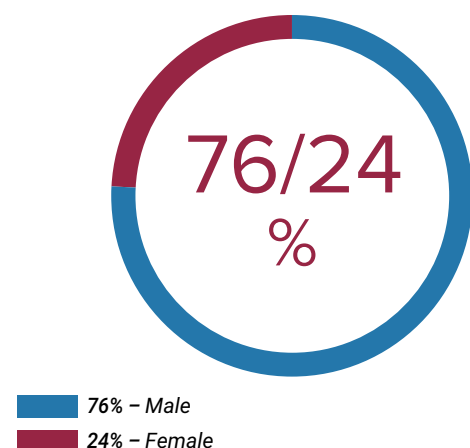
### NEWLY HIRED EMPLOYEES BY GENDER FOR THE REPORTING PERIOD, %



### EMPLOYEES WHO LEFT EMPLOYMENT DURING THE REPORTING PERIOD BY AGE CATEGORY, %



### EMPLOYEES WHO LEFT EMPLOYMENT DURING THE REPORTING PERIOD, BY GENDER, %



### TURNOVER COEFFICIENT AT THE KMG GROUP\*

years	2018	2019	2020
Coefficient	13%**	7%	6%

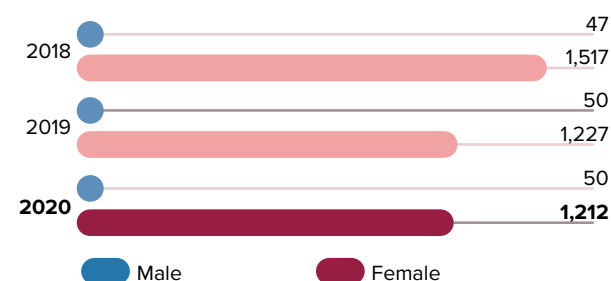
\*Employee turnover coefficient =  $A/B \times 100$ , where A – number of employees at own instance, by agreement between the parties, or at employee's fault, as if the end of the reporting period; B – average staff number in the reporting period. Dismissals on their own initiative, by agreement of the parties, through the fault of the employee (termination of the employment contract at the initiative of the employer) is carried out according to the grounds for termination of the employment contract under the Labor Code of the Republic of Kazakhstan (More in Appendix 1)

\*\*discrepancy between the data presented in Sustainability report in 2018 and Annual Report in 2020 is explained by the different perimeters of data recording.

54% of all employees in the Company underwent a performance assessment in the reporting period (48% in 2019 and 34% in 2018). Including females – 20% and males – 80%. Employees by category: managers – 15%, specialists – 32%, workers – 53%.

Number of employees on unpaid child-care leave was 1,262 people as of the end of the reporting period, where 96% were females and 4% were males.

### EMPLOYEES ON CHILDCARE LEAVE



### FEMALES ON MATERNITY LEAVE IN 2018-2020



Number of females on maternity leave was 245 in the reporting period.

## EQUAL OPPORTUNITIES AND MOTIVATION OF PERSONNEL

103-1, 103-2, 103-3, 202-1, 202-2, 405-1, 405-2

Our approach to staff motivation is based on the principles of decent remuneration, transparency, and respect for the rights of all employees. All changes in the remuneration system are made with due regard to opinions and suggestions of stakeholders.

There are no differences in basic salary and remuneration system according to gender differences at the KMG Group. Level of remuneration at the KMG Group is associated with a position, not an employee, i.e. both males and females performing the same function receive the same remuneration and other payments set forth in the remuneration regulations of the Company.

The payroll system for the supreme management body and top managers is focused on the performance, incentives, increase in labour productivity and efficiency, and includes the elements of short-term benefits based on the achievement of KPIs. In accordance with the best world practices, the top managers' performance reflects the economic, environmental and social objectives of the Group.

The Exploration and Production companies implement the Uniform Remuneration System (URS) designed to ensure a uniform remuneration procedure at all business units and enhance the interest of the employees in better performance. The system provides for a range of conditions when employees receive compensatory payments, additional payments and bonuses; one of such criteria is the regional coefficient – a relative increase of remuneration to compensate for additional expenses and higher labour costs associated with working in regions with

severe climate. The highest coefficient is applicable to Mangistau and Atyrau Regions.

The entry level remuneration at the Group to the minimal remuneration established by the national law ratio was between 6:1 and 8:1 in 2020 (it was same 6:1 to 8:1 in 2019 and 2018).

The share of local\* senior managers\*\* in the regions of operation\*\*\* makes 87% (86% in 2019 and 85% in 2018).

\*Local – citizens of the Republic of Kazakhstan.

\*\*Senior managers – the First leader and his deputies.

\*\*\*Regions of operation – the region (oblast, district) of conducting operational activities.

Employees included in the managerial team corresponds to 11% of all employees. This includes 18% females (16.5% in 2019 and 17% in 2018) and 82% males (83.5% in 2019 and 83% in 2018). The percentage of females is expected to be higher in the reporting year.

18% FEMALES

INCREASE IN THE SHARE OF FEMALE MANAGERS COMPARED TO 2019 AND 2018

## OBSERVANCE OF HUMAN RIGHTS AND SOCIAL ASSISTANCE

102-41, 103-1, 103-2, 103-3, 406-1, 407-1, 408-1, 409-1

The Company strictly complies with the requirements and does not violate the RoK labour law, which states that no one may be subjected to any discrimination in the exercise of his/her labour rights on the grounds of origin, social, official status and material position, gender, race, nationality, language, religious beliefs, convictions, place of residence, age, physical disability

or affiliation with public associations. No facts of discrimination were recorded during the reporting period.

We do not use child labour or forced labour, we acknowledge the equal rights of all employees, irrespective of their race, religion and gender.



Each employee of the Company has equal opportunities in exercising his/her labour rights and freedoms. Moreover, the Company is actively engaged in negotiations with employees for signing or amending the collective bargaining agreement, strictly observes the time limits for negotiations and ensures the functioning of appropriate commissions, provides information necessary to conduct negotiations, strictly fulfils the terms and conditions of the collective bargaining agreement.

In accordance with the labour law, any employee has the right to participate through his/her representatives in collective negotiations and drafting of the collective bargaining agreement as well as to review the signed collective bargaining agreement.

The Company has no restrictions concerning the right to freedom of association and collective bargaining based on activity or territory. As a socially responsible company, we fully support this right and create a beneficial environment for the employees the exercise their right to freedom of association.

A standard form of the Collective Agreement has been developed for the purposes of unification. The form specifies the uniform principles of remuneration, social assistance, labour conditions, working and recreation conditions, etc. The standard Collective Agreement specifies the algorithm of collective labour dispute settling should such disputes arise. The standard requirements for development of collective agreements at the KMG Group allow building of labour relations on a on a legislative basis, ensuring that employee benefits are not unreasonably inflated or reduced, and recommending consistent action when labour disputes arise in order to prevent conflicts and relieve tensions.

Collective agreements have been concluded for the KMG Group at 28 production enterprises. In 2020, the number of employees of the KMG Group of Companies covered by collective agreements amounted to 99% or 56,066 people (in 2019, 58,710 people in 29 production enterprises, in 2018 – 58,838 people in 31).

All collective agreements of the KMG companies provides for 35 types of social assistance to the employees and their families, as well as non-working pensioners.

KMG provides its employees with a guaranteed social package including various types of social allowances and compensations:

- financial assistance for health improvement – provided along with paid leave;
- maternity payments;
- monthly payments to the employees on child-care leave until the child is 1.5 years old;
- compensation in case of employment contract termination in case of impossibility of transfer to another job;
- allowance due to total loss of capacity to work and disability;
- single-time payment due to an employee's death – for arrangement of the funeral;
- single-time payment to the family of an employee who died in the result of an accident at workplace.

The Company also provides social securities for voluntary medical insurance in case of illness and organisation of rest for employees' children in children's health camps in Kazakhstan.

Besides, the employees may be provided with additional social assistance. These forms of social assistance are set forth in collective bargaining agreements or internal regulatory documents of the enterprise. Such payments include payments for the anniversary date, marriage, short-term marriage leave, paid leaves for childbirth, death of relatives, for medical care and surgeries in case the costs exceed the insurance limit, to disabled workers, disabled children, large and low-income families of employees and many other.

In 2020 the KMG Group preserved all social payments and guarantees paid under the collective agreements. At this, it must be noted that children's recreation was arranged only at five KMG Organisations due to the preventive measures. While the expenses on recreation activities for the employees' children were 2,917 mln tenge in 2019, in 2020 the amount of such expenses was 199,234 tenge only.

In case of any change in the working conditions, the Company notifies the employee in writing within fifteen calendar days. The minimal notice period for significant changes in the Company's activities is 4 weeks.

## TRADE UNIONS

The Company interacts with trade unions on the social partnership basis as established by the labour law at the industrial and regional levels. At the sector level, the main interaction parameters (social securities, labour organisation issues, remuneration principles, principles of employment, gender, and youth policy, health and safety, prevention and settlement of labour conflicts, etc.) are specified in the Sectoral Agreement for Oil and Gas, Oil Refining, and Petrochemical Sectors of the RoK for 2020–2022 which has been developed with active contribution from the KMG representatives and enterprises.

The KMG Group has 38 trade union committees, including local trade unions, that protect the interests of more than 47 thousand employees (compared to the 2019 data, the number of trade union members reduced due to reorganisation of KMG Security LLP trade union).

At the regional level, regional committees for social partnership operate. Apart from regional employment and occupational health issues, these commissions deal with specific collective labour disputes. All KMG companies have their established and active conciliation commissions.



Uzdik Maman professional contest

**35** TYPES

**OF SOCIAL ASSISTANCE TO  
THE EMPLOYEES AND THEIR FAMILIES**

## SOCIAL STABILITY

102-41

According to the social stability surveys held by the Social Engagement and Communications Centre of JSC Samruk-Kazyna, the integral social stability at the Company was 86 percent in 2020.

Following the survey, Action plans for social stability are being developed and updated at KMG and separate subsidiaries and affiliates in relation to all identified alarming zones.

The KMG social stability action plan covers the problems identified in the organisations' activities that influence the social well-being of the employees (internal communications, meal quality, conveniences, provision of PPE, training, career development, etc.).

The company also arranged an involvement and satisfaction survey among the administrative and managerial employees of the KMG Corporate Centre which showed the result of 81 % in the reporting period (68 % in 2019).

All production enterprises of KMG have ensured that any employee can contact the management of the enterprise and receive a timely response by employing the internal communication tools. Such internal communication tools assume regular performance assessment meetings between the Chief Executive Officers and the enterprise teams and meetings between the managers and the trade union twice a year.

In 2020, due to the epidemiological situation in the country, the performance assessment meetings with the employees were held online.

The Chief Executive Officers of the subsidiaries and affiliates also receive employees to help resolving personal issues in order to establish and maintain effective direct communication between the employers and the employees at the subsidiaries and affiliates, timely inform the employees of goals and objectives of the subsidiaries and affiliates, inform the employees on the current situation at the organisation, form a positive image of the organisation for the employees, and monitor social and psychological environment in

the teams. Each subsidiary and affiliate has a Chief Executive Officer blog and a corporate information website. The companies have also installed displays for video announcements regarding the internal corporate information. Information stands are used to bring prompt announcements and messages to the notice of employees.

The management quarterly meets with the trade unions of the SACs to discuss the most urgent issues related to fulfilment of the collective agreement, the state of workplace discipline, review of appeals from the employees, health and safety issues, social benefits and compensation, and other socially significant issues in the enterprise.

In 2019–2020, there was a stable social environment among employees of KazMunayGas subsidiaries. This is the result of joint efforts to preserve social stability among employees and improve well-being of population within the KMG geography.

### Case Study

In January 2020, part of the employees of KMG-Security LLP in the city of Zhanaozen, before the start of the work shift, turned to the shift management of KMG-Security LLP with a proposal to revise the wages for employees. Thanks to the prompt response from the leadership of the Partnership, the proposals of the employees were listened to and appropriate explanatory answers were given, after which the employees began to work.

The KMG Group annually holds corporate events such as Spartakiad and Uzdik Maman professional contest. In addition to promoting healthy lifestyle and improving professional skills, such events are tools to consolidate the teams within the KMG Group.

The Company regularly holds festive events and the employees of subsidiaries arrange a concert programme.

For the purposes of preventing spread of coronavirus infection among the employees, no annual corporate events were held in 2020.

## STAFF DEVELOPMENT

103-1, 103-2, 103-3, 404-1, 404-2

KMG annually arranged training and development of the personnel, forms new approaches and employee development programmes at the KMG Group.

Due to the COVID-19 pandemic announced by the World Health Organisation in 2020 and all the related circumstances, employee training and development was switched to the remote and online format to the maximum extent possible at KMG.

It should be noted that effective transition to remote work required arrangement of webinars for development of personal and business skills, as well as the skills required to use the applied tools in work.

In 2020, the mandatory trainings in the field of occupational health, safety, and environmental protection legislation for the administrative and managerial personnel were arranged online and training for the business units supervising production facilities was held in a format of webinars and online courses.

Along with that, in 2020 special attention was paid to development of technical competences of the employees of the KMG Corporate Centre, the subsidiaries, and dependent entities of the Group.

Therefore, the programme for development of technical competences "Development Engineer" started in 2019 was completed in 2020.

The programme included:

- 6 training modules for 24 managers and chief specialists of the development units;
- development of 5 projects to resolve current issues at the production companies.

The "Chief Geologist" programme was launched in cooperation with KMG engineering to maintain and develop the professional competences and creative potential of the Geology professionals. The participants of the programme were 24 specialists of the geological unit from 24 subsidiaries and affiliates and of the Group. The programme also includes development of projects to address current challenges in this field.

One of the results of active cooperation between KMG and PJSC Tatneft in the field of human resources development is the "Professional Foreman" programme. The training programme is focused on improvement of the knowledge in the field of production and well workover, safety, economics, lean production, as well as the development of personal and business competencies and management skills among the employees of JSC Ozenmunaigas. Besides,

considering the current challenges and the importance of digitalisation, the programme includes "Digitalisation and Artificial Intellect" course. The programme engages qualified coaches from Tatneft and KMG Engineering.

Average annual number of academic hours per one employees is 15 hours (17.6 hours in 2019, 15 hours in 2018), including 14.6 hours per male (18 hours in 2019, 14.9 hours in 2018, 15.8 hours in 2017) and 16 per female (15.1 hours in 2019, 15.6 hours in 2018, 18.3 hours in 2017).

### AVERAGE ANNUAL NUMBER OF ACADEMIC HOURS PER ONE TRAINED EMPLOYEE BY CATEGORIES, HOURS



At the same time, it should be noted that employees are trained and developed irrespective of their gender and position taken.

KMG received 27 students from different university of Kazakhstan for industrial work placement and pre-graduation practice who were scheduled for internship in Quarter 1 of 2020. After introduction of the restrictions due to COVID-19, receiving other students was suspended.

When KMG looking for and hiring new employees, the Company strictly observes human rights, avoiding discrimination on gender, nationality and other grounds.

86%

**INTEGRAL SOCIAL STABILITY**



## MAIN SUBJECTS OF THE TRAINING AND ADVANCED TRAINING PROGRAMMES FOR EMPLOYEES

- Personal and business training
- HR management
- Internal control and audit
- Environment, HSE, CD and ES
- Procurement
- Economics and finance
- Corporate management. Project management
- Documentation support
- Information technologies
- Language learning
- Mediation and negotiation training programmes
- Operational trainings
- Trade job trainings
- Master's programs, mini-MBA
- Internship

## ZHAS ORKEN PROGRAMME



In the period between 2018 and 2020 the KMG Group was implementing the Zhas Orken programme for young specialist rotation. The mission of Zhas Orken is to facilitate development of the talented youth of Kazakhstan. JSC Samryk-Kazyna, the programme initiator, ensures organisational and financial support to the programme. The purpose of the programme is to train top managers with a perspective of 20-30 years, to develop young professionals by mentoring, and to establish a mentoring institute. Following the fourth rotation of the participants of Zhas Orken 2018, five mentors from the JSC NC "KazMunayGas" were awarded with Zhas Orken badges and gratitude letters. Approximately 15 participants were accepted for internship at the KMG Group under Zhas Orken 2020. Two of Zhas Orken participants were hired upon completion of the programme.

Digital Summer programme was launched in 2018 to develop talents of young people in the field of information technology and digitalisation. The mission of the Digital Summer programme is to engage young specialists in digitalisation projects, develop young professionals by mentoring, and establish a mentoring institute. Young specialists in information technologies may improve the digitalisation/automation processes, improve performance, and enhance competition ability of the organisation in the new digitalisation period. Approximately 10 participants were accepted for summer internship at the KMG Group under Digital Summer programme. Two young specialists were hired upon completion of the internship.

## OUTPLACEMENT

In 2020, the Board of Directors of KMG approved the new structure and the total number of the employees of the KMG central office.

The updated KMG structure has been formed in compliance with the KMG anti-crisis strategy and provided for reduction of the total staff number by 34% in the KMG central office.

In view of such structural changes, KMG took initiatives to mitigate the impact of the negative factors on the KMG image of a socially responsible employer by implementing the outplacement programme for socially responsible staff release.

The outplacement programme is a system of measures implemented by the employer when dismissing employees to ensure that former employees can be through the crisis period as quickly and as easily as possible and manages to find another job in the nearest future.

As part of the outplacement programme, the HR service held personal talks with each of the released employees.

### The main part of the outplacement programme

**Stage 1** – work with the personnel – comprises search for new opportunities by means of:

- Webinars with each differentiated group of employees to ensure psychological and emotional recovery;
- Individual sessions with a psychologist – "Strength within us";
- Individual coach sessions.

**Stage 2** – support to the released employees and development of individual career development strategies:

- Analysis of the labour market in Kazakhstan, preparation of a map of the jobs and competences that are currently in-demand (map of professions and current competences);
- Webinars with each differentiated group of employees to provide possibilities and identify risks at the labour market;
- Recruitment support. Registration/uploading of the employees' CVs on job search websites, recruitments agencies, and/or directly on employer websites.

### Case Study

In 2020, the outplacement project of socially responsible release of employees was implemented as part of the KMG Anti-Crisis Programme. The programme involved 161 released employees. RESULTS: 30% of the employees found a new job from the moment of the project start; 12% opened their own business. In total, 93% of the participants were satisfied with the outplacement programme results.

## OUR COMMUNITIES

103-1, 413-1, 203-1

The subsoil use contractors of the KMG subsidiaries provide for major financing of the regions of operations and social support to the disadvantaged communities. The agreements and memoranda signed

with the Akimats of the regions also assume that the KMG subsidiaries and affiliates transfer funds to local executive authorities that distribute the funds in accordance with the local community needs. The KMG





Group provided over **4.5 bln tenge** for such purposes in 2020, including:

JSC Ozenmunaigas provided 900 mln tenge for development of the social infrastructure in Zhanaozen and Karakiya region.

JSC Embamunaigas provided 129 mln tenge for construction of a school for 424 students in Mukur village of Kyzylkorga district in Atyrau region.

As part of the Agreement with the Akimat of Mangistau region, JSC Mangistaumunaigas provided assistance in countering the epidemic in the amount of 1,980 mln tenge.

MNK "KazMunaiTeniz" LLP financed the social projects in Mangistau region within the Zhemchuzhina PSA in the amount of 51.7 mln tenge.

JV Kazgermunai LLP provided funds for social and economic development of the region and infrastructure in Kyzylorda region in the amount of 338 mln tenge.

Under the Agreement signed with the Akimat of Mangistau region, JSC Karazhanbasmunai transferred 164 mln tenge to social and economic development of the region and infrastructure.

Kazakhturkmunay LLP provided 127 mln tenge, Kazakhoil Aktobe LLP provided 73 mln tenge, and Urikhtau Operating LLP provided 22 mln tenge for social and economic development of Aktobe region and its infrastructure.

Besides, on the basis of the Memorandum signed with the Akimat of Pavlodar region, Pavlodar Refinery LLP ensured support to some sports and sport events in Pavlodar in the amount of 137 mln tenge.

On the basis of the Memorandum of Understanding and Cooperation signed with the Akimat of Aktobe region, Kazakhoil Aktobe LLP transferred 100 mln tenge to the Aktobe PARYZ fund.

**>4.5 BLN KZT**

**PROVIDED FOR THE DEVELOPMENT OF THE REGIONS OF OPERATIONS**

Also, in fulfilment of the order of the Government of the Republic of Kazakhstan, JSC "KazTransOil" financed the construction of Congress Hall in Turkestan in the amount of 405 mln tenge.

In 2016, the Board of Directors of JSC Samruk-Kazyna approved the Charity Policy of JSC Samruk-Kazyna which requires that KMG and its subsidiaries cannot plan or provide sponsor and charity support independently.

As established in the Charity Policy, any charity projects of JSC Samruk-Kazyna companies are implemented by the fund for development of social projects "Samruk-Kazyna Trust" (hereinafter – the Fund).

The priority areas of the Fund are:

- social and medical support to individuals and communities;
- developing media, cultural community, developing the human potential;
- strengthening labour relations, inter-ethnic relations, investments in sustainable development of the society;
- implementation of the regional programme for social investments in the regions of the Fund's operations;
- improvement of goodwill and image of the Fund and/or the Fund Group.

In 2020, KMG invested 3.1 bln tenge in charity to finance the projects through the fund.

The Fund implements charity projects and programmes aimed to solution of socially significant problems by the entire JSC Samruk-Kazyna Group. The Fund's activities are conducted under the auspices of government authorities, the Kazakhstan Government and public and social policy experts. Administrators of the Corporate Fund's charity projects are selected on bidding basis from among non-governmental organisations. For more details about the Fund's activities, please follow the link.



## OUR CONTRIBUTION TO THE FIGHT AGAINST THE COVID-19 PANDEMIC

In 2020, Company invested in total **6.2 bln tenge** in countering COVID-19 pandemic.

These funds were allocated for the purchase of medical equipment, mobile ICUs, oxygen concentrators, and lung ventilators, all of which were urgently needed.

KMG's subsidiaries also provided vehicles and personal protective equipment to the akimats and healthcare facilities, as well as food baskets to low-income families.

**6.2 BLN KZT**

**INVESTED IN COUNTERING COVID-19 PANDEMIC**

### Case study

**KazTransOil JSC** provided sponsorship to medical institutions of Kazakhstan in the purchase of 68 multifunctional mechanical ventilation devices (ALV), including their delivery, installation, training of medical personnel and warranty service in the amount of 1 billion tenge. Ventilators are distributed in accordance with the requests of medical institutions.



### Case study

From the first days of the pandemic, **JSC "Mangistaumunaigas"** in cooperation with local authorities provides all-round support to the population of the region.

Assistance was provided in the acquisition of 3 units ambulance, 20 units of artificial ventilation of the lungs, computed tomography, 15 units UAZ and stationary apparatus for rural medical outpatient clinics. The necessary highly qualified medical care was provided,

assistance was provided in providing food for employees of checkpoints, patrol services and medical workers provisional, infectious, observational centers of Mangistau region and in the formation of the stabilization fund treatment provision.

In total, to fight the COVID-19 pandemic, financial assistance allocated over 1.9 billion tenge.





# APPENDICES



INDEPENDENT VERIFICATION REPORT	134
1. REPORTING LIMITS, AMENDMENTS AND NOTES	136
2. ENVIRONMENTAL INDICATORS	138
3. GRI CONTENT INDEX	141
4. ABBREVIATIONS AND ACRONYMS	151
CONTACT DETAILS	154





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## Independent practitioner's assurance report

To the Shareholders, Management and Stakeholders of National Company "KazMunayGas" JSC

### Subject matter

We have been engaged by National Company "KazMunayGas" JSC (hereinafter "the Company") to perform a limited assurance engagement, as defined by International Standards on Assurance Engagements, (herein "the Engagement"), to report on the Company's Sustainability Report 2020 (hereinafter "the Report") for 2020 (hereinafter "the reporting period"). Under this engagement, we did not perform any procedures with regard to the following:

- Forward-looking statements on performance, events or planned activities of the Company; and
- Information about Report compliance with the Sustainable Development Goals and with the principles of the UN Global Compact.

### Applicable criteria

In preparing the Report the Company applied Global Reporting Initiative Sustainability Reporting Standards (hereinafter "GRI Standards") in Core option and the sustainability reporting principles of the Company as set forth in paragraphs "About Report", in Annex 1 of the Report, also in the notes to the indicators in the Report text (hereinafter "the Criteria").

### The Company's responsibilities

The Company's management is responsible for selecting the Criteria, and for presenting the Report in accordance with the Criteria, in all material respects. This responsibility includes establishing and maintaining internal controls, maintaining adequate records and making estimates that are relevant to the preparation of the Report, such that it is free from material misstatement, whether due to fraud or error.

### Practitioner's responsibilities

Our responsibility is to express a conclusion on the presentation of the Report based on the evidence we have obtained.

We conducted our assurance engagement in accordance with International Standard for Assurance Engagements (revised) "International Standard for Assurance Engagements Other Than Audits or Reviews of Historical Financial Information" (hereinafter "ISAE 3000"). ISAE 3000 requires that we plan and perform our engagement to obtain limited assurance about whether, in all material respects, the Report is presented in accordance with the Criteria, and to issue a report. The nature, timing, and extent of the procedures selected depend on our judgment, including an assessment of the risk of material misstatement, whether due to fraud or error.

We believe that the evidence obtained is sufficient and appropriate to provide a basis for our limited assurance conclusions.

### Our Independence and Quality Control

We apply International Standard on Quality Control 1 (ISQC 1), and accordingly, we maintain a robust system of quality control, including policies and procedures documenting compliance with relevant ethical and professional standards and requirements in law or regulation.

We comply with the independence and other ethical requirements of the IESBA Code of Ethics for Professional Accountants, which establishes the fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behavior.

### Summary of work performed

The assurance engagement performed represents a limited assurance engagement. The nature, timing and extent of procedures performed in a limited assurance engagement is limited compared with that necessary in a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is lower.

Although we considered the effectiveness of management's internal controls when determining the nature and extent of our procedures, our assurance engagement was not designed to provide assurance on internal controls. Our procedures did not include testing controls or performing procedures relating to checking aggregation or calculation of data within information technology systems.

A limited assurance engagement consists of making inquiries, primarily of persons responsible for preparing the Report and related information and applying analytical and other appropriate procedures.

Our procedures included:

- Inquiries of the representatives of the Company management and specialists responsible for its sustainability policies, activities, performance and relevant reporting,
- Analysis of key documents related to the Company sustainability policies, activities, performance and relevant reporting,
- Obtaining understanding of the process used to prepare the information on sustainability performance indicators of the Company,
- Benchmarking of the Report against sustainability reports of selected international and Kazakhstani peers of the Company and lists of sector-specific sustainability issues raised by stakeholders,
- Review of a selection of corporate and external media publications with respect to the Company sustainability policies, activities, events, and performance in reporting period,
- Analysis of material sustainability issues identified by the Company,
- Identification of sustainability issues material for the Company based on the procedures described above and analysis of their reflection in the Report,
- Review of data samples regarding key production, transportation and refining of oil and gas, economics and finance, personnel management, use of energy resources, environmental protection, industrial safety, labor safety and social and charitable activities indicators for the reporting period, to assess whether these data have been collected, prepared, collated and reported appropriately,
- Collection on a sample basis of evidence substantiating other qualitative and quantitative information included in the Report at the headquarters level,
- Assessment of compliance of the Report and its preparation process with Company's sustainability reporting principles,
- Assessment of compliance of information and data disclosures in the Report with the requirements of the Core option of reporting "in accordance" with the GRI Standards.

We also performed such other procedures as we considered necessary in the circumstances.

### Conclusion

Based on the procedures performed and evidence obtained, nothing has come to our attention that causes us to believe that the Report is not represented fairly, in all material respects, according to the Criteria.

*Ernst & Young Advisory LLP*

Almaty  
July 15, 2021



## APPENDIX 1. REPORTING LIMITS, AMENDMENTS AND NOTES

102-45, 102-46, 102-48, 102-49

### REPORTING LIMITS

The Report covers KMG subsidiaries and associated companies where fifty or more percent of voting shares (participation shares) are directly or indirectly owned or held in trust by KMG as well as legal entities whose operations KMG has the right to control.

*The list of legal entities included in the consolidated financial statements comprises the following entities:*

JSC Kazmunaigas Exploration Production, JSC KazTransGas, JSC KazTransOil, AR LLP, POGR LLP, KazMunayGas Onimderi LLP, KazMunaiTeniz LLP, KazMunayGas-Service LLP, KMG International N.V., KMG-Karachaganak LLP, Kazmorttransflot LLP, KMG Drilling & Services LLP, Cooperative KazMunayGas PKI U.A.

*Use of Energy Resources and Energy Efficiency section covers 14 SACs, which fully represent the Group's energy-consuming enterprises.*

- Oil and Gas Production — JSC Ozenmunaigas, JSC Embamunaygas, JSC JV Kazgermunai, JSC Karazhanbasmunai, LLP KazGPP, JSC Mangistaumunaigas, LLP Kazakhturkmunay, LLP KazakhOil Aktobe.
- Oil and gas transportation – JSC "NMSC" Kazmorttransflot", JSC KazTransGas, JSC KazTransOil.
- Oil and gas refining – Atyrau Refinery LLP, Pavlodar Oil Chemistry Refinery LLP, PetroKazakhstan Oil Products LLP

*Use of Water Resources section covers:*

JSC Karazhanbasmunai, JSC Mangistaumunaigas, JV Kazgermunai LLP, Kazakhturkmunay LLP, JSC Ozenmunaigas, JSC Embamunaigas, Kazakhoil Aktobe LLP, KazGPP LLP, JV CASPI BITUM LLP, Pavlodar Oil Chemistry Refinery LLP, PetroKazakhstan Oil Products LLP, Atyrau Refinery LLP, JSC KazTransOil, "NMSC" Kazmorttransflot" LLP, JSC Intergas Central Asia, Asia Gas Pipeline LLP, JSC KazTransGas-Aimak LLP, Amangedy Gas LLP, Beineu-Shymkent Gas Pipeline LLP, Magistralniy Vodovod LLP, DWPT LLP – these subsidiaries and affiliates of the Company are the major operating assets of KMG and have a significant impact on use of water resources in Kazakhstan.

*Greenhouse gas emissions section covers:*

Kazakhoil Aktobe LLP, Kazakhturkmunay LLP, JSC Mangistaumunaigas, JSC Embamunaigas, JSC Ozenmunaigas, JV Kazgermunai LLP, JSC Karazhanbasmunai, KazMunaiTeniz LLP, KazGPP LLP, JSC KazTransGas, JSC KazTransOil, Pavlodar Oil Chemistry Refinery LLP, Atyrau Refinery LLP, PetroKazakhstan Oil Products LLP, JV CASPI BITUM, Romanian Refinery, Batumi Oil Terminal and oil service companies

*Air quality section covers:* Kazakhoil Aktobe LLP, Kazakhturkmunay LLP, JSC Mangistaumunaigas, JSC Embamunaigas, JSC Ozenmunaigas, JV Kazgermunai LLP, JSC Karazhanbasmunai, KazGPP, LLP "Urikhtau Operating", Pavlodar Oil Chemistry Refinery LLP, Atyrau Refinery LLP, PetroKazakhstan Oil Products LLP, JV CASPI BITUM, JSC KazTransGas, JSC KazTransOil, Beineu-Shymkent Gas Pipeline LLP, JSC Intergas Central Asia, LLP "Amangeldy Gas", LLP "Asian Gas Pipeline", LLP "NMSC" Kazmorttransflot "and oil service organizations.

*Beneficial Use of Raw Gas section covers the following subsidiaries and associated companies of KMG:* LLP Kazakhoil Aktobe, LLP Kazakhturkmunay, JSC Mangistaumunaigas, JSC Embamunaygas, JSC Ozenmunaigas, JSC JV Kazgermunai, JSC Karazhanbasmunai.

*Waste Management section covers:*

JSC Ozenmunaigas, JSC Embamunaigas, JSC Karazhanbasmunai, JV Kazgermunai LLP, Kazakh Gas Refinery LLP, Ural Oil and Gas LLP, Kazakhturkmunay LLP, Kazakhoil Aktobe LLP, JSC Mangistaumunaigas, Zhambyl Petroleum LLP, Urikhtau Operating LLP, JSC KazTransOil, Magistralniy Vodovod LLP, JSC "NMSC" Kazmorttransflot", JSC Intergas Central Asia, JSC KazTransGas-Aimak, Asia Gas Pipeline LLP, Amangedy Gas LLP, Beineu-Shymkent Gas Pipeline LLP, Atyrau Refinery LLP, Pavlodar Refinery LLP, PetroKazakhstan Oil Products LLP, JV Caspi Bitum LLP, Oil Services Company LLP, OzenMunaiServis LLP, Oil Construction Company LLP, Ken-Kurylys-Service LLP, KMG EP-Catering LLP, DWPT LLP, UTTIOS LLP, Mangistauenergomunai LLP, Oil Transport Corporation LLP, Tulpar Munay Service LLP, Argymak TransSevice LLP.

*Environmental Costs section covers:* JSC Ozenmunaigas, JSC Embamunaigas, JSC Karazhanbasmunai, JV Kazgermunai LLP, Kazakh Gas Refinery LLP, OzenMunaiServis LLP, Argymak Trans Service LLP, Tulpar Munay Service LLP, Kazakhturkmunay LLP, Kazakhoil Aktobe LLP, JSC Mangistaumunaigas, JSC KazTransOil, JSC KazTransGas, "NMSC" Kazmorttransflot" LLP, Oil Construction Company LLP, Oil Services Company LLP, Zhambyl Petroleum LLP, Urikhtau Operating LLP, KMG Systems & Services LLP, Atyrau Refinery LLP, Pavlodar Oil Chemistry Refinery LLP, PetroKazakhstan Oil Products LLP, JV Caspi BITUM LLP.

*HSE Training section covers:*

JSC Ozenmunaigas, JSC Embamunaigas, JSC Karazhanbasmunai, JV Kazgermunai LLP, Zhambyl Petroleum LLP, "Upravleniye Tekhnologicheskogo Transporta i Obsluzhivaniya Skvazhin" LLP, DWPT LLP, Argymak TransService LLP, Ken-Kurylys-Service LLP, KMG EP-Catering LLP, KazGPP LLP, OzenMunaiServis LLP, Ural Oil and Gas LLP, Tulpar Munay Service LLP, Kazakhturkmunay LLP, JSC Mangistaumunaigas, Kazakhoil Aktobe LLP, Urikhtau Operating LLP, JSC KazTransOil, JSC Intergas Central Asia, JSC KazTransGas-Aimak, Beineu-Shymkent Gas Pipeline LLP, Amangedy Gas LLP, Asia Gas Pipeline LLP, "NMSC" Kazmorttransflot" LLP, KMG Systems & Services LLP, JV CASPI BITUM LLP, Pavlodar Refinery LLP, PetroKazakhstan Oil Products LLP, Atyrau Refinery LLP, KMG Drilling & Services LLP, KMG-Security LLP, Oil Construction Company LLP, Oil Services Company LLP, Mangistauenergomunai LLP, Munaitelcom LLP, Oil Transport Corporation LLP, JSC NC "KazMunayGas".

Employment section covers KMG subsidiaries and associated companies where more than fifty percent of voting shares (participation shares) are directly or indirectly owned or held in trust by KMG as well as legal entities whose operations KMG has the right to control. Earlier in 2018 and 2019, the calculation of the number was carried out for subsidiaries and affiliates of KMG, in which fifty or more percent of voting shares are directly or indirectly owned by KMG on the basis of ownership or trust.

The actual number of employees is understood as the number taken to calculate the average wage on average for 2020.

Calculation of the employment turnover factor included:

- Employees who quit on their own initiative – employees who wrote a letter of resignation on their own initiative, that is, at their own request, notifying the employer about it at least one month in advance;
- Employees who quit by agreement of the parties – this is when one of the parties (employee or employer) expressed a desire to terminate the employment contract, that is: 1) employees who also wrote a letter of resignation at their discretion and indicated this basis for termination; 2) employees who agreed to dismissal upon notifying the employer;
- Through the fault of the employee, this is the termination of the employment contract on the initiative of the employer, that is, all the cases described in Article 52 of the Labor Code of the Republic of Kazakhstan.

### Updates, assumptions and description of the data collection, consolidation and calculation methodology

The data in the Report may slightly differ from the data presented in the consolidated financial statements (CFS) since the estimates are rounded. In such cases, the data presented in the relevant CFS posted on KMG's website are true and final. Due to different calculation methodologies and approaches to information disclosure in the Report, the data given may slightly differ from the data published earlier.

## APPENDIX 2. ENVIRONMENTAL INDICATORS

	Production			Transportation			Refining		
	2018	2019	2020	2018	2019	2020	2018	2019	2020
<b>Greenhouse gas (GHG) emissions</b>									
Direct GHG emissions (CO <sub>2</sub> , mln tonnes)	2.5	2.3	2.0	2.4	2.7	2.1	4.4	4.8	4.6
GHG emission intensity (CO <sub>2</sub> tonnes per 1,000 tonnes of HCs)	101	93	87	-	-	-	-	-	-
<b>APG flaring</b>									
Flaring (CO <sub>2</sub> , mln tonnes)	0.3	0.2	0.13	-	-	-	-	-	-
Flared gas per unit of produced RWC (tonnes per 1,000 tonnes of produced RWC)	6.0	2.95	2.2	-	-	-	-	-	-
Flaring (mln m <sup>3</sup> )	0.15	0.08	0.06	-	-	-	-	-	-
<b>Energy intensity</b>									
Energy consumption (mln GJ)	55.2	55.5	48.2	55.6	66.0	44.6	56.8	61.3	63.8
<b>Pollutant emissions</b>									
Sulfur oxides (SO <sub>x</sub> ) (thousand tonnes of SO <sub>2</sub> )	6.7	4.8	5.6	0.2	0.2	0.3	6.5	7.2	6.9
Nitrogen oxides (NO <sub>x</sub> ) (thous. tonnes of NO <sub>2</sub> )	4.8	5.3	5.4	5.5	6.2	5.6	5.9	6.9	6.7
<b>Spills</b>									
Unauthorized incuts – volume (thous. tonnes)	-	-	-	-	-	-	-	-	-
Unauthorized incuts – quantity	-	-	-	1	2	-	-	-	-
Oil spills – volume (onshore) (thous. tonnes)	0.78	0.65	0.29	0.005	-	-	0.063	-	-
<b>Water</b>									
Total water intake (mln m <sup>3</sup> )	52.2	52.4	47.7	25.3	24.9	22.7	16.2	16.2	15.4
Water discharge (mln m <sup>3</sup> )	1.1	0.9	0.7	1.0	1.0	0.8	8.8	9.2	9.2
<b>Waste</b>									
Hazardous (thous. tonnes)	220.6	846.4	824.9	2.9	46.6	40.3	39.1	62.2	128.5
Non-hazardous (thous. tonnes)	5.9	12.6	28.8	5.2	4.9	6.8	8.0	7.3	1.9
Total waste (thous. tonnes)	226.5	859	853.7	8.1	51.5	47.1	47.1	69.5	130.4*
* of them drill cuttings, onshore (thous. tonnes)	174.2	193.2	178.7	-	-	-	-	-	-
* of them drill cuttings, offshore (thous. tonnes)	2.2	0	0	-	-	-	-	-	-

\* The main reason for the growth of waste in the oil refining business is the start of the implementation of the Tazalyk project at the Atyrau refinery due to an increase in the utilization of oil sludge from cleaning tanks and an increase in waste from dismantling mechanical treatment facilities.

## ENVIRONMENTAL PROTECTION COSTS

GRI 103-3

Costs		2018		2019		2020	
		mln KZT	mln USD	mln KZT	mln USD	mln KZT	mln USD
<b>1</b>	<b>Costs associated with waste, emissions and pollutant discharge handling, total</b>	<b>11,844.6</b>	<b>34.3</b>	<b>14,847.3</b>	<b>38.79</b>	<b>18,312.1</b>	<b>43.0</b>
1.1	Waste treatment and disposal	5,833.9	16.9	9,733.2	25.43	13,190.3	30.9
1.2	Purification of emissions and pollutant discharges	4,531.5	13.1	3,177.6	8.3	4,787.9	11.2
1.3	Costs of development and approval of GHG emission document packages	104.4	0.3	101.9	0.27	149.3	0.4
1.4	Environmental liability insurance	58.6	0.2	118.2	0.31	125.1	0.3
1.5	Costs of elimination of environmental damage, including spill response costs	1,278.8	3.7	1,460.7	3.8	0.3	0.001
1.6	Costs of environmental compensatory measures	34.3	0.1	255.7	0.7	59.2	0.1
<b>2</b>	<b>Investments in prevention of environmental impact and environmental management, total</b>	<b>1,035.8</b>	<b>3</b>	<b>1,198.1</b>	<b>3.1</b>	<b>21,535.3</b>	<b>50.5</b>
2.1	Employee training and education personnel	58.6	0.17	18.8	0.5	9.3	0.02
2.2	External certification and environmental management system development	47.8	0.14	43.4	0.1	24.1	0.06
2.3	Personnel for general environmental management activities	2.6	0.008	196.7	0.5	2.0	0.005
2.4	Research and development	548.5	1.6	366.0	1.0	820.5	1.93
2.5	Additional expenses on introduction of cleaner technologies	158.4	0.5	123.5	0.3	20,665.4	48.49
2.6	Additional expenses on "green purchasing"	2.3	0.007	360.3	0.9	7.2	0.02
2.7	Other environmental management costs	217.6	0.6	89.4	0.2	6.8	0.02



## ENVIRONMENTAL PAYMENTS (REGULATORY)

	2018		2019		2020	
	KZT million	mln USD	KZT million	mln USD	KZT million	mln USD
Air emissions from APG flaring	1,998	5.8	1,054	2.7	1,170	2.7
Air emissions (other than APG flaring)	1,258	3.6	1,584	4.1	1,843	4.3
Water pollution	30	0.1	63	0.2	102	0.2
Waste disposal	258	0.7	131	0.3	109	0.3

## LOCATION AND SCALE OF PRODUCTION OPERATIONS IN RELATION TO KEY BIODIVERSITY AREAS

304-3

Site	Location	Key biodiversity areas (KBA)	Location in relation to KBA	Contract territory (sq. km)	Impact mitigation plan
Kansu	Karakiya District Mangistau region	Kenderli-Kayasan Nature Conservation Area and Ustyurt Nature Reserve	Located in the nature conservation area and near the reserve	4,374.6	Decision is made to exit the Project
Samtyr	South-east of Mangistau region	Kenderli-Kayasan Nature Conservation Area and Ustyurt Nature Reserve	Located next to a reserve	10,396.9	Exploratory design stage
Urikhtau	Mugalzhar District of Aktope Region	Kokzhide-Kumzhargan Local State Nature Reserve	Covers part of the territory	239.9	Hydrogeologocal monitoring
Alibekmola and Kozhasay	Mugalzhar District of Aktope Region	Kokzhide Sands Kokzhide underground water	Located in close proximity	156.5	Hydrogeologocal monitoring
Zhambyl	Kazakhstan Sector of the Caspian Sea, Atyrau District	Special environmentally sensitive zone of Kazakhstan Sector of the Caspian Sea, Novinsky nature reserve	Located in the nature conservation area and covers part of the territory	1,935.2	Regular environmental monitoring, restrictions on offshore oil operations
Isatay	Central area of the KSCS, north Mangistau region	Special environmentally sensitive zone of Kazakhstan Sector of the Caspian Sea	Located in the nature conservation area	1,060.0	Seasonal baseline environmental studies, regular environmental monitoring
Satpayev	North-west of Kazakhstan Sector of the Caspian Sea, Atyrau District	Special environmentally sensitive zone of Kazakhstan Sector of the Caspian Sea	Located in the nature conservation area	1,481.0	Procedures to return the territory and surrender the Contract have started

## APPENDIX 3. GRI CONTENT INDEX

102-55

For the Materiality Disclosures Service, GRI Services reviewed that the GRI content index is clearly presented and the references for Disclosures 102-40 to 102-49 align with appropriate sections in the body of the report. The service was performed on the English version of the report.



GRI Standard	Disclosure	Page number	Omission/ reason for omission	Association with the UN Global Compact Principles	Association with 17 Sustainable Development Goals
GRI 101: Foundation 2016					
General disclosures					
GRI 102: General Disclosures 2016	102-1 Name of the organisation	3, 5, 7, 9, 11, 13, 21			
	102-2 Activities, brands, products, and services	3, 5, 7, 9, 11, 13, 21			
	102-3 Location of headquarters	153			
	102-4 Location of operations	21			
	102-5 Ownership and legal form	21			
	102-6 Markets served	21			9
	102-7 Scale of the organisation	3, 5, 7, 9, 11, 13, 119			9
	102-8 Information on employees and other workers	3, 5, 7, 9, 11, 13, 119			8
	102-9 Supply chain	21, 78			12
	102-10 Significant changes to the organisation and its supply chain	43, 78			9, 12
	102-11 Precautionary Principle or approach	57		7	14, 15
	102-12 External initiatives	64			17
	102-13 Membership in associations	64			17
	102-14 Statement from senior decision-maker	16, 18			
	102-15 Key impacts, risks, and opportunities	40, 49, AR*			9
	102-16 Values, principles, standards, and norms of behaviour	28, 56		1, 2, 4	5, 10, 16
	102-17 Mechanisms for advice and concerns about ethics	57		2, 6, 10	5, 10, 16
	102-18 Governance structure	31			16
	102-20 Executive-level responsibility for economic, environmental, and social topics	32			
	102-21 Consulting stakeholders on economic, environmental, and social topics	32			
	102-22 Composition of the highest governance body and its committees	34			
	102-23 Chair of the highest governance body	34			
	102-24 Nominating and selecting the highest governance body	35			
	102-25 Conflicts of interests	35, 80			

\*AR- Annual Report 2020 [https://www.kmg.kz/uploads/reports/KMG\\_AR2020\\_ENG.pdf](https://www.kmg.kz/uploads/reports/KMG_AR2020_ENG.pdf)

GRI Standard	Disclosure	Page number	Omission/ reason for omission	Association with the UN Global Compact Principles	Association with 17 Sustainable Development Goals
	102-26 Role of highest governance body in setting purpose, values, and strategy	36			
	102-27 Collective knowledge of highest governance body	36			
	102-28 Evaluating the highest governance body's performance	36		7	
	102-29 Identifying and managing economic, environmental, and social impacts	37			
	102-30 Effectiveness of risk management processes	40, AR			
	102-31 Review of economic, environmental, and social topics	32, 40			
	102-32 Highest governance body's role in sustainability reporting	14, 32, 40			
	102-33 Communicating critical concerns	32, 40			
	102-34 Nature and total number of critical concerns	32, 41			
	102-35 Remuneration policies	41, AR			
	102-36 Process for determining remuneration	41, AR			
	102-37 Stakeholders' involvement in remuneration	42, AR			
	102-38 Annual total compensation ratio	AR			
	102-39 Percentage increase in annual total compensation ratio	AR			
	102-40 List of stakeholder groups	59			17
	102-41 Collective bargaining agreements	123, 126		3	17
	102-42 Identifying and selecting stakeholders	59			17
	102-43 Approach to stakeholder engagement	59			17
	102-44 Key topics and concerns raised	16, 18, 26			
	102-45 Entities included in the consolidated financial statements	136			
	102-46 Defining report content and topic Boundaries	14, 136			
	102-47 List of material topics	61			
	102-48 Restatements of information	136			
	102-49 Changes in reporting	136			
	102-50 Reporting period	14			
	102-51 Date of most recent report	153			
	102-52 Reporting cycle	14			
	102-53 Contact point for questions regarding the report	153			
	102-54 Claims of reporting in accordance with the GRI Standards	14			
	102-55 GRI content index	141			
	102-56 External assurance	14			

GRI Standard	Disclosure	Page number	Omission/ reason for omission	Association with the UN Global Compact Principles	Association with 17 Sustainable Development Goals
<b>Specific topics</b>					
<b>GRI 103: Management Approach 2016</b>	103-1 Explanation of the material topic and its Boundary	71			
	103-2 The management approach and its components	71			
	103-3 Evaluation of the management approach	71			
<b>GRI 201: Economic Performance 2016</b>	201-1 Direct economic value generated and distributed	72			8
	201-2 Financial implications and other risks and opportunities due to climate change	49			7, 13
	201-3 Defined benefit plan obligations	72			8
	201-4 Financial assistance received from government	72			
<b>GRI 103: Management Approach 2016</b>	103-1 Explanation of the material topic and its Boundary	123			
	103-2 The management approach and its components	123			
	103-3 Evaluation of the management approach	123			
<b>GRI 202: Market Presence 2016</b>	202-1 Ratios of standard entry level wage by gender compared to local minimum wage	123			8
	202-2 Proportion of senior management hired from the local community	123			10
<b>GRI 103: Management Approach 2016</b>	103-1 Explanation of the material topic and its Boundary	71			
	103-2 The management approach and its components	71			
	103-3 Evaluation of the management approach	71			
<b>GRI 203: Indirect Economic Impacts 2016</b>	203-1 Infrastructure investments and services supported	75, 129			8
	203-2 Significant indirect economic impacts	75			8
<b>GRI 103: Management Approach 2016</b>	103-1 Explanation of the material topic and its Boundary	78			
	103-2 The management approach and its components	78			
	103-3 Evaluation of the management approach	78			
<b>GRI 204: Procurement Practices 2016</b>	204-1 Proportion of spending on local suppliers	78			8
<b>GRI 103: Management Approach 2016</b>	103-1 Explanation of the material topic and its Boundary	80			
	103-2 The management approach and its components	80			
	103-3 Evaluation of the management approach	80			



GRI Standard	Disclosure	Page number	Omission/ reason for omission	Association with the UN Global Compact Principles	Association with 17 Sustainable Development Goals
<b>GRI 205: Anti-Corruption 2016</b>	205-1 Operations assessed for risks related to corruption	80, 82		10	16
	205-2 Communication and training about anti-corruption policies and procedures	80, 82		10	16
	205-3 Confirmed incidents of corruption and actions taken	80, 82			
<b>GRI 103: Management Approach 2016</b>	103-1 Explanation of the material topic and its Boundary	80			
	103-2 The management approach and its components	80			
	103-3 Evaluation of the management approach	80			
<b>GRI 206: Anti-competitive Behavior 2016</b>	206-1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	83			
<b>GRI 103: Management Approach 2016</b>	103-1 Explanation of the material topic and its Boundary	71			
	103-2 The management approach and its components	71			
	103-3 Evaluation of the management approach	71			
<b>GRI 207: Tax 2019</b>	207-1 Taxation approach	73			8
	207-2 Tax administration and control, risk management	40, 74, 75			8
	207-3 Stakeholder engagement and taxation regulation	75			8
<b>GRI 103: Management Approach 2016</b>	103-1 Explanation of the material topic and its Boundary	71			
	103-2 The management approach and its components	71			
	103-3 Evaluation of the management approach	71			
<b>GRI 301: Materials 2016</b>	301-1 Materials used by weight or volume (partial disclosure)	24			
<b>GRI 103: Management Approach 2016</b>	103-1 Explanation of the material topic and its Boundary	100			
	103-2 The management approach and its components	100			
	103-3 Evaluation of the management approach	100			
<b>GRI 302: Energy 2016</b>	302-1 Energy consumption within the organisation	101			
	302-2 Energy consumption outside the organisation	101			
	302-3 Energy intensity	102			
	302-4 Reduction of energy consumption	102		8	7
<b>GRI 103: Management Approach 2016</b>	103-1 Explanation of the material topic and its Boundary	102			
	103-2 The management approach and its components	102			
	103-3 Evaluation of the management approach	102			

GRI Standard	Disclosure	Page number	Omission/ reason for omission	Association with the UN Global Compact Principles	Association with 17 Sustainable Development Goals
<b>GRI 303: Water and Effluents 2018</b>	303-1 Interaction with shared water resources	103		8	6
	303-2 Management of water discharge-related impacts	103		8	6
	303-3 Water intake	103		8	6
	303-4 Water discharge (partial disclosure)	103		8	6
	303-5 Water consumption (partial disclosure)	103		8	6
<b>GRI 103: Management Approach 2016</b>	103-1 Explanation of the material topic and its Boundary	107			
	103-2 The management approach and its components	107			
	103-3 Evaluation of the management approach	107, 139			
<b>GRI 304: Biodiversity 2016</b>	304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	107			14, 15
	304-2 Significant impacts of activities, products, and services on biodiversity	110			14, 15
	304-3 Preserved or rehabilitated habitats	140		8	14, 15
	304-4 Total number of IUCN Red List species and National Conservation List species with habitats in areas affected by operations (partial disclosure)	107		8	14, 15
<b>GRI 103: Management Approach 2016</b>	103-1 Explanation of the material topic and its Boundary	113			
	103-2 The management approach and its components	113			
	103-3 Evaluation of the management approach	113			
<b>GRI 305: Emissions 2016</b>	305-1 Direct GHG emissions	114			
	305-2 Energy indirect GHG emissions	114			
	305-3 Other indirect GHG emissions	114			
	305-4 GHG emissions intensity	114			
	305-5 Reduction of GHG emissions	115, 116		8	13
	305-6 Emissions of ozone-depleting substances (ODS)	114			
<b>GRI 103: Management Approach 2016</b>	305-7 Emissions of Nox, Sox, and other major pollutants	115			
	103-1 Explanation of the material topic and its Boundary	102, 105			
	103-2 The management approach and its components	102, 105			
	103-3 Evaluation of the management approach	102, 105			
<b>GRI 306: Effluents and Waste 2016</b>	306-1 Water discharge by quality and destination	103			
	306-2 Waste by type and methods Appeals	105			12
	306-3 Significant spills	90			
	306-4 Transport of hazardous waste	105			
	306-5 Water bodies affected by water discharges and/or runoff	103			

GRI Standard	Disclosure	Page number	Omission/ reason for omission	Association with the UN Global Compact Principles	Association with 17 Sustainable Development Goals
<b>GRI 103: Management Approach 2016</b>	103-1 Explanation of the material topic and its Boundary	116			
	103-2 The management approach and its components	116			
	103-3 Evaluation of the management approach	116			
<b>GRI 307: Environmental Compliance 2016</b>	307-1 Non-compliance with environmental laws and regulations	116			
<b>GRI 103: Management Approach 2016</b>	103-1 Explanation of the material topic and its Boundary	89			
	103-2 The management approach and its components	89			
	103-3 Evaluation of the management approach	89			
<b>GRI 308: Supplier Environmental Assessment 2016</b>	308-1 New suppliers that were screened using environmental criteria (partial disclosure)	89			
<b>GRI 103: Management Approach 2016</b>	103-1 Explanation of the material topic and its Boundary	119			
	103-2 The management approach and its components	119			
	103-3 Evaluation of the management approach	119			
<b>GRI 401: Employment 2016</b>	401-1 New employee hires and employee turnover	119			8
	401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	119			8
	401-3 Parental leave	119			8
<b>GRI 103: Management Approach 2016</b>	103-1 Explanation of the material topic and its Boundary	85, 93			
	103-2 The management approach and its components	85, 93			
	103-3 Evaluation of the management approach	85, 93			
<b>GRI 403: Occupational Health and Safety 2018</b>	403-1 Occupational health and safety management system	85, 93			3
	403-2 Hazard identification, risk assessment, and accident investigation	89			3
	403-3 Occupational health services	93			3
	403-4 Worker participation, consultation, and communication on occupational health and safety	93			3
	403-5 Worker training on occupational health and safety	93			3
	403-6 Promotion of worker health	93			3
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	93			3
	403-9 Work-related injuries (partial disclosure)	89			3

GRI Standard	Disclosure	Page number	Omission/ reason for omission	Association with the UN Global Compact Principles	Association with 17 Sustainable Development Goals
<b>GRI 103: Management Approach 2016</b>	103-1 Explanation of the material topic and its Boundary	127			
	103-2 The management approach and its components	127			
	103-3 Evaluation of the management approach	127			
<b>GRI 404: Training and Education 2016</b>	404-1 Average hours of training per year per employee	127			4
	404-2 Programs for upgrading employee skills and transition assistance programmes	117, 127			4
<b>GRI 103: Management Approach 2016</b>	103-1 Explanation of the material topic and its Boundary	123			
	103-2 The management approach and its components	123			
	103-3 Evaluation of the management approach	123			
<b>GRI 405: Diversity and Equal Opportunity 2016</b>	405-1 Diversity of governance bodies and employees (partial disclosure)	123			10
	405-2 Ratio of basic salary and remuneration of women to men	123			10
<b>GRI 103: Management Approach 2016</b>	103-1 Explanation of the material topic and its Boundary	123			
	103-2 The management approach and its components	123			
	103-3 Evaluation of the management approach	123			
<b>GRI 406: Non-Discrimination 2016</b>	406-1 Incidents of discrimination and corrective actions taken	123		10	16
<b>GRI 103: Management Approach 2016</b>	103-1 Explanation of the material topic and its Boundary	123			
	103-2 The management approach and its components	123			
	103-3 Evaluation of the management approach	123			
<b>GRI 407: Freedom of Association and Collective Bargaining 2016</b>	407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	123		3	16
<b>GRI 103: Management Approach 2016</b>	103-1 Explanation of the material topic and its Boundary	123			
	103-2 The management approach and its components	123			
	103-3 Evaluation of the management approach	123			
<b>GRI 408: Child Labor 2016</b>	408-1 Operations and suppliers with significant risk of child labour usage	123		5	16



GRI Standard	Disclosure	Page number	Omission/ reason for omission	Association with the UN Global Compact Principles	Association with 17 Sustainable Development Goals
<b>GRI 103: Management Approach 2016</b>	103-1 Explanation of the material topic and its Boundary	123			
	103-2 The management approach and its components	123			
	103-3 Evaluation of the management approach	123			
<b>GRI 409: Forced or Compulsory Labor 2016</b>	409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labour	123		4	16
<b>GRI 103: Management Approach 2016</b>	103-1 Explanation of the material topic and its Boundary	49, 53			
	103-2 The management approach and its components	49, 53			
	103-3 Evaluation of the management approach	49			
<b>GRI 410: Security Practices 2016</b>	410-1 Security personnel trained in human rights policies or procedures	58			16
<b>GRI 103: Management Approach 2016</b>	103-1 Explanation of the material topic and its Boundary	49			
	103-2 The management approach and its components	49			
	103-3 Evaluation of the management approach	49			
<b>GRI 412: Human Rights Assessment 2016</b>	412-1 Operations that have been subject to human rights reviews or impact assessments	58			16
	412-2 Employee training on human rights policies or procedures	58			16
<b>GRI 103: Management Approach 2016</b>	103-1 Explanation of the material topic and its Boundary	129			
	103-2 The management approach and its components	129			
	103-3 Evaluation of the management approach	129			
<b>GRI 413: Local Communities 2016</b>	413-1 Operations with local community engagement, impact assessments, and development programs (partial disclosure)	129			
<b>GRI 103: Management Approach 2016</b>	103-1 Explanation of the material topic and its Boundary	80			
	103-2 The management approach and its components	80			
	103-3 Evaluation of the management approach	80			
<b>GRI 414: Supplier Social Assessment 2016</b>	414-1 New suppliers that were screened using social criteria (partial disclosure)	80			
<b>GRI 103: Management Approach 2016</b>	103-1 Explanation of the material topic and its Boundary	71			
	103-2 The management approach and its components	71			
	103-3 Evaluation of the management approach	71			

GRI Standard	Disclosure	Page number	Omission/ reason for omission	Association with the UN Global Compact Principles	Association with 17 Sustainable Development Goals
<b>GRI 415: Public Policy 2016</b>	415-1 Political contributions	72			
<b>GRI 416: Customer Health and Safety 2016</b>	416-1 Assessment of the health and safety impacts of product and service categories		No reported impact of products and service categories of services on health and safety.		
	416-2 Incidents of non-compliance concerning the health and safety impacts of products and services		No reported impact of non-compliance concerning on health and safety.		
<b>GRI 418: Customer Privacy 2016</b>	418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data		No reported substantiated complaints concerning on privacy and losses of customer data.		
<b>GRI 103: Management Approach 2016</b>	103-1 Explanation of the material topic and its Boundary	80			
	103-2 The management approach and its components	80			
	103-3 Evaluation of the management approach	80			
<b>GRI 419: Socioeconomic Compliance 2016</b>	419-1 Non-compliance with laws and regulations in the social and economic area	83			
<b>GRI Sector Disclosures: Oil and Gas</b>	OG3 Total amount of renewable energy generated by source	49, 101		9	7
	OG4 Number and percentage of significant operating sites in which biodiversity risk has been assessed and monitored	107, 110		8	14, 15
	OG5 Volume and disposal of formation or produced water	103			
	OG6 Volume of flared and vented hydrocarbons	116			
	OG7 Amount of drilling waste and strategies for treatment and disposal	107			
	OG8 Benzene, lead and sulphur content in fuels	24			
	OG12 Operations where involuntary resettlement took place, the number of households resettled in each and how their livelihoods were affected in the process		No reported substantiated involuntary resettlement took place		

## APPENDIX 4. ABBREVIATIONS AND ACRONYMS

<b>AG</b>	Amangedy Gas Limited Liability Partnership
<b>AGDS</b>	Automated gas distribution station
<b>AGIS</b>	Analytical geographic information system
<b>AGP</b>	Asia Gas Pipeline Limited Liability Partnership
<b>AMP</b>	Administrative and managerial personnel
<b>APCS</b>	Advance process control system
<b>APG</b>	Associated petroleum gas
<b>AR</b>	Annual report
<b>AR</b>	Atyrau Refinery Limited Liability Partnership
<b>BASF</b>	Badische Anilin- & Soda-Fabrik, the largest chemical group in the world
<b>BC</b>	Business centre
<b>bln</b>	Billion(s)
<b>BoD</b>	Board of Directors
<b>BP</b>	British Petroleum
<b>BPD</b>	Bird protection devices
<b>BSGP</b>	Beineu-Shymkent Gas Pipeline Limited Liability Partnership
<b>CAPEX</b>	Capital expenditure
<b>CB</b>	Joint venture CASPI BITUM Limited Liability Partnership
<b>CC</b>	Corporate Centre
<b>CC</b>	Crisis centre
<b>CD&amp;ES</b>	Civild defence and emergency situations
<b>CDP</b>	Carbon Disclosure Project
<b>CFS</b>	Consolidated financial statements
<b>CMT</b>	Crisis management teams of JSC NC "KazMunayGas"
<b>CNG</b>	Compressed natural gas
<b>COVID-19</b>	Coronavirus Disease 2019
<b>CPC</b>	Caspian Pipeline Consortium Limited Liability Partnership
<b>CRMS</b>	Corporate risk management system
<b>CS</b>	Compressor station
<b>CSC</b>	Computer simulator complex
<b>CVI</b>	Coronavirus infection
<b>DAPICG</b>	Detailed Action Plan to Improve Corporate Governance at KMG for 2019–2020
<b>DBK</b>	Joint Stock Company Development Bank of Kazakhstan
<b>DCS</b>	Distributed control system
<b>DED</b>	Design-and-estimate documentation
<b>DWPT</b>	"Department of the water production and transportation" Limited Liability Partnership
<b>EI</b>	Electroic invoice
<b>EIA</b>	Environmental impact assessment
<b>EITI</b>	Extractive Industries Transparency Initiative
<b>EMG</b>	Embamunaygas Joint Stock Company
<b>EOSR</b>	Emergency oil spill response
<b>EP</b>	JSC KazMunaiGas Exploration Production

<b>ERP</b>	Enterprise Resource Planning
<b>ES</b>	Emergency situation
<b>ESG</b>	Environmental, Social, and Governance
<b>ETE</b>	Engineering and technical employees
<b>FAR</b>	Fatal Accident Rate (per 100 million man-hours)
<b>FERs</b>	Fuel and energy resources
<b>FS</b>	Feasibility study
<b>GMI</b>	Global Methane Initiative
<b>GMS</b>	Gas-measuring station
<b>GRI</b>	Global Reporting Initiative
<b>GWS</b>	Goods, works, and services
<b>H&amp;S</b>	Health and safety
<b>HCs</b>	Hydrocarbons
<b>HF</b>	Hydraulic fracturing
<b>HSE</b>	Health, Safety and Environment
<b>HSE</b>	Health, safety, and environmental protection
<b>HSE</b>	Health, safety, industrial and fire safety, environmental protection, emergency prevention
<b>HSE</b>	Occupational health, safety, and environmental protection
<b>HSESDC</b>	Health, Safety, Environment and Sustainable Development Committee of the Board of Directors of JSC NC "KazMunayGas"
<b>IAOT</b>	International Association of Oil Transporters
<b>ICA</b>	Intergas Central Asia Joint Stock Company
<b>IFRS</b>	International Financial Reporting Standards
<b>IGCC</b>	Integrated gas chemical complex
<b>IOGP</b>	International Association of Oil & Gas Producers
<b>IPIECA</b>	International Petroleum Industry Environmental Conservation Association
<b>ITS</b>	Information trust system
<b>IUCN</b>	International Union for Conservation of Nature
<b>IUCN</b>	International Union for Conservation of Nature
<b>JSC</b>	Joint Stock Company
<b>KazGPP</b>	Kazakh Gas Processing Plant Limited Liability Partnership
<b>KBM</b>	JSC Karazhanbasmunay
<b>KCP</b>	Kazakhstan-China Pipeline Limited Liability Partnership
<b>KGM</b>	Joint venture Kazgermunai Limited Liability Partnership
<b>KMG</b>	Joint-Stock Company "National Company "KazMunayGas"
<b>KMGE</b>	KazMunayGas Engineering Limited Liability Partnership
<b>KMGI</b>	KMG International N.V.
<b>KMTF</b>	National Maritime Shipping Company "Kazmortransflot" Limited Liability Partnership
<b>KOA</b>	KazakhOil Aktobe Joint Stock Company
<b>KPI</b>	Kazakhstan Petrochemical Industries Inc.
<b>KPI</b>	Key performance indicator
<b>KSCS</b>	Kazakhstan sector of the Caspian Sea
<b>KTG</b>	KazTransGas Joint Stock Company
<b>KTGA</b>	KazTransGas Aimak Joint Stock Company



<b>KTGO</b>	KazTransGas Onimderi Limited Liability Partnership
<b>KTM</b>	Kazakhturkmunay Limited Liability Partnership
<b>KTO</b>	KazTransOil Joint Stock Company
<b>LLP</b>	Limited Liability Partnership
<b>LTIR</b>	Lost Time Injury Rate (per million man-hours)
<b>MBA</b>	Master of Business Administration
<b>MCV</b>	Modular Capture Vessel
<b>MGDS</b>	Main gas distribution station
<b>mln</b>	Million(s)
<b>MMG</b>	Mangistaumunaigas Joint Stock Company
<b>MS</b>	Maangement system
<b>MT</b>	MunaiTas North-West Pipeline Company Limited Liability Partnership
<b>NC</b>	National company
<b>NMSC</b>	National Maritime Shipping Company
<b>NR</b>	Nature reserve
<b>NRC</b>	Nomination and Remuneration Committee of the Board of Directors of JSC NC “KazMunayGas”
<b>OCC</b>	Oil Construction Company Limited Liability Partnership
<b>OCIMF</b>	Oil Companies International Marine Forum
<b>OCR</b>	Oil chemistry refinery
<b>OMG</b>	Ozenmunaigaz Joint Stock Company
<b>OPEC</b>	Organization of the Petroleum Exporting Countries
<b>OPL</b>	Overhead power lines
<b>OR</b>	Oil refinery
<b>OSC</b>	Oil Service Company Limited Liability Partnership
<b>OSHA</b>	Occupational Safety and Health Administration
<b>OSRL</b>	Oil Spill Response Limited
<b>OTC</b>	Oil Transport Corporation Limited Liability Partnership
<b>PC</b>	Personal computer
<b>PCS</b>	Procurement Category Strategy
<b>PJSC</b>	Public joint stock company
<b>PKI</b>	PetroKazakhstan Inc.
<b>PKOP</b>	PetroKazakhstan Oil Products Limited Liability Partnership (Shymkent Oil Refinery)
<b>POCR</b>	Pavlodar Oil Chemistry Refinery Limited Liability Partnership
<b>PPE</b>	Personal protective equipment
<b>PRC</b>	People’s Republic of China
<b>PS</b>	Pump station
<b>PwC</b>	PricewaterhouseCoopers
<b>RES</b>	Renewable energy sources
<b>RoC MA</b>	Republic of Kazakhstan Ministry of Agriculture
<b>RoK</b>	Republic of Kazakhstan
<b>RPM</b>	Reservoir pressure maintenance
<b>RTA</b>	Road traffic accident

<b>S&amp;P</b>	Standard and Poor’s
<b>SACs</b>	Subsidiaries and affiliates
<b>SDG</b>	United Nations Sustainable Development Goals
<b>SDM</b>	Meeting of the KMG Board of Directors and Management Board on Sustainable Development Issues
<b>SIEC</b>	Specialized Interdistrict Economic Court
<b>SNR</b>	State nature reserve
<b>SoE</b>	State of emergency
<b>SR</b>	Sustainability report
<b>SSDR</b>	Semi-submersible drilling rig
<b>TAP</b>	Tax accounting policy
<b>TCO FGP</b>	Tengiz field future growth project
<b>TS</b>	Training centre
<b>UN</b>	United Nations
<b>UNGC</b>	United Nations Global Compact
<b>UNESCO</b>	United Nations Educational, Scientific and Cultural Organization
<b>UTTios</b>	“Upravleniye Tekhnologicheskogo Transporta i Obsluzhivaniya Skvazhin” LLP
<b>WDP</b>	Water Disclosure Project
<b>WWF</b>	World Wildlife Fund
<b>WVO</b>	Well workover

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