



ҚазМұнайГаз
NATIONAL COMPANY ҰЛТТЫҚ КОМПАНИЯСЫ



SUSTAINABILITY REPORT JSC NC "KAZMUNAYGAS" 2023

ESG-CODE

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THE CONCEPT OF THE REPORT

ESG-CODE

Like a gene that determines the characteristics of an organism, the concept of sustainability forms the unique business code of any company. ESG principles should be embedded in every business aspect. These elements are not just part of the strategy, they represent the foundation that determines the viability and evolution of the Company. Environmental responsibility, social support, and effective governance of corporate behaviour are becoming an integral part of a sustainable business model. KMG strives for harmony with the environment, ensures the social well-being of its employees and communities, and maintains high standards of corporate governance. The Company does not just follow the demands of the times – it shapes them by creating a sustainable and responsible business for the long term, embedding its ESG code into every business process.

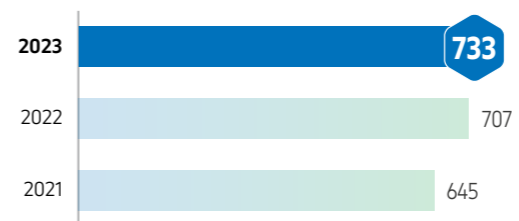


OIL AND GAS PRODUCTION

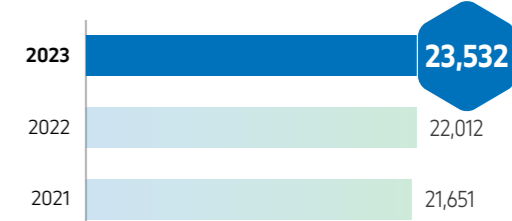
KEY INDICATORS

2-6

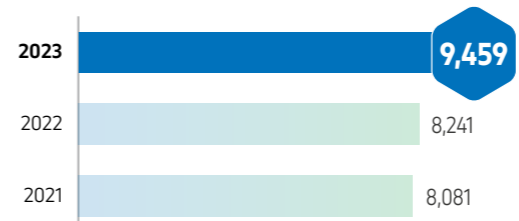
PRMS RESERVES, CATEGORY 2P
Mtoe



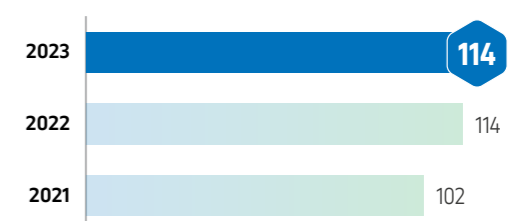
OIL AND CONDENSATE
thous. tonnes



NATURAL AND ASSOCIATED GAS
mln m³



CO₂ EMISSION RATE¹
tonne per 1,000 tonnes of HCs



¹Intensity of CO₂ emissions per 1,000 tonnes of produced HCs





OIL TRANSPORTATION

KEY INDICATORS

2-6



VOLUME OF OIL TRANSPORTATION PER KMG SHARE¹

thous. tonnes

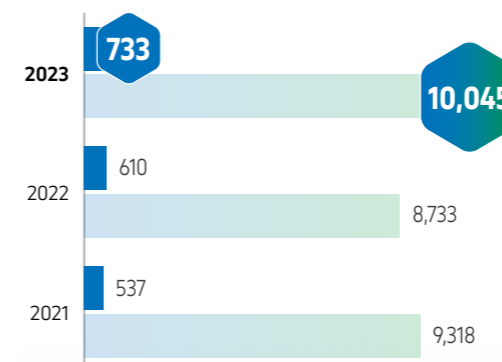


¹Consolidated oil transportation volume takes into account the transportation volume of each individual pipeline company, taking into account KMG's operating share (excluding KTO). Some oil volumes may be transported by two or three pipeline companies and, accordingly, these volumes are accounted for more than once in the consolidated oil transportation volume.



SEA OIL TRANSPORTATION VOLUME

thous. tonnes

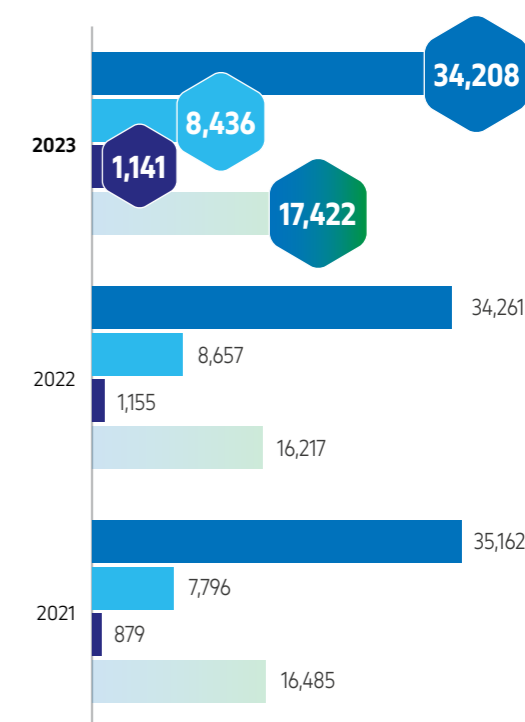


- Volume of oil transportation in the Caspian region
- Volume of oil transportation in the Black and Mediterranean Seas



OIL TURNOVER PER KMG SHARE²

mln tonnes * km



- KazTransOil (100%)
- Kazakh-Chinese Pipeline (50%)
- MunaiTas (51%)
- Caspian Pipeline Consortium (20.75%)

²Oil turnover of each individual pipeline company is calculated taking into account the operating share of KMG (excluding KTO).





PROCESSING AND MARKETING

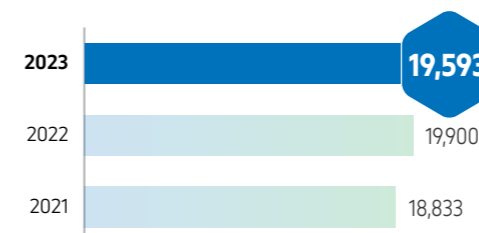
KEY INDICATORS

2-6



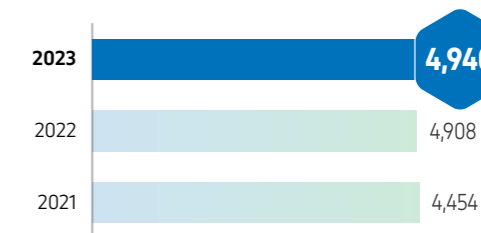
OIL AND GAS PROCESSING

thous. tonnes



WHOLESALE SALES OF KMG OIL PRODUCTS PRODUCED IN THE REPUBLIC OF KAZAKHSTAN

thous. tonnes



SERVICE



LAND TRANSPORT, INCLUDING CARGO AND PASSENGER TRANSPORTATION, LOGISTICS AND PROCESS SUPPORT FOR FIELDS



OFFSHORE OPERATIONS SUPPORT



OIL AND GAS WELL DRILLING AND DEVELOPMENT



WELL SERVICING AND WORKOVER



OIL AND GAS EQUIPMENT MANUFACTURING



PROCESS AUTOMATION



MAINTENANCE OF MEASURING INSTRUMENTS, AUTOMATION AND TELEMECHANICS SYSTEMS, PROVISION OF TELECOMMUNICATION, RADIO COMMUNICATION AND CABLE AND SATELLITE TELEVISION SERVICES AT OILFIELDS; INSPECTION AND REPAIR OF MEASURING INSTRUMENTS; MAINTENANCE OF SECURITY ALARMS



OIL SPILL RESPONSE SERVICES



EXTRACTION AND TRANSPORTATION OF POTABLE WATER, TRANSPORTATION OF SEA WATER



CATERING AND MAINTENANCE OF SOCIAL FACILITIES, ETC.

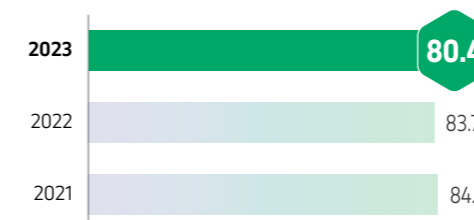


ENVIRONMENTAL RESPONSIBILITY

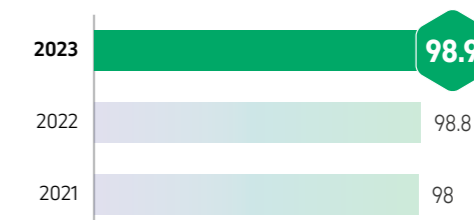
KEY INDICATORS

2-6

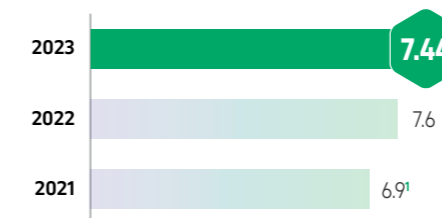
WATER WITHDRAWAL mln m³



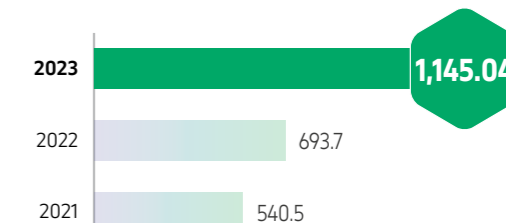
ASSOCIATED PETROLEUM GAS UTILISATION %



CO₂ EMISSIONS mln tonnes

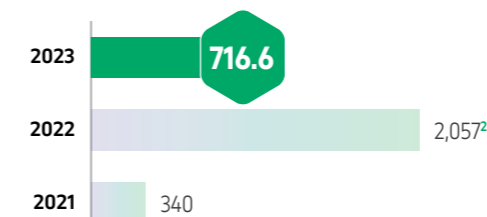


DISPOSAL OF HISTORICAL WASTE thous. tonnes

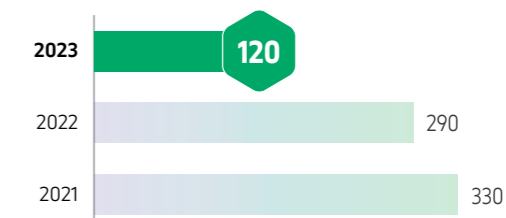


¹Information for 2021 in the Report on this indicator is given for KMG Group, excluding KTG. Information for 2020 is given including KTG. 6.7 tonnes of CO₂ are verified, 0.2 thousand tonnes of CO₂ from non-quota plants are calculated by the Company independently.

ENERGY SAVING thous. GJ



ONSHORE OIL SPILLS tonnes



²The increase in the energy saving indicator in 2022 is due to the implementation of the 2022-2027 Energy Saving and Energy Efficiency Action Plan, in accordance with the recommendations of the energy audit conducted in 2020-2021.

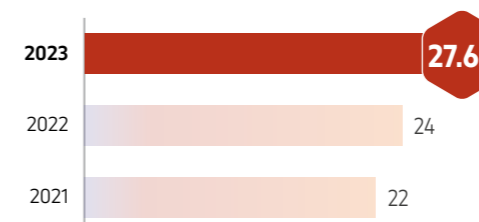


SOCIAL RESPONSIBILITY AND OHS INDICATORS

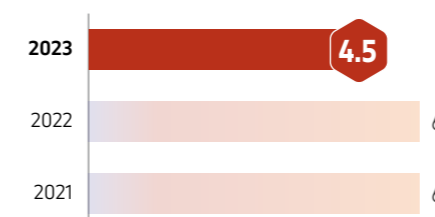
KEY INDICATORS

2-6, 2-7

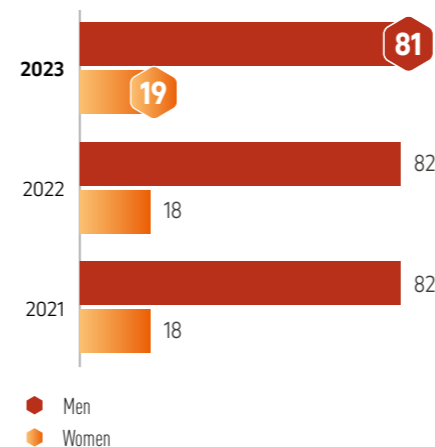
SOCIAL ASSISTANCE TO EMPLOYEES KZT bln



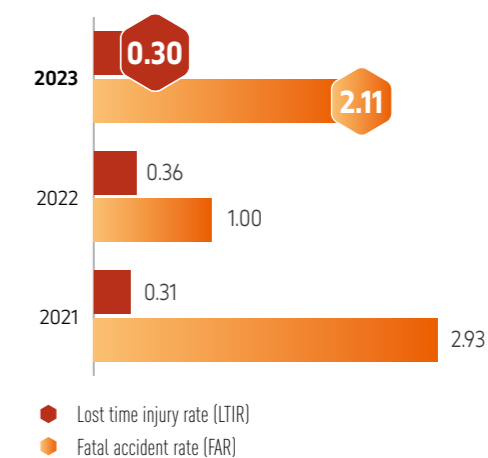
EMPLOYEE TURNOVER %



EMPLOYEES BY GENDER %



LTIR AND FAR RATES OF EMPLOYEES



AVERAGE ACADEMIC HOURS OF TRAINING PER YEAR PER EMPLOYEE





GOVERNANCE

KEY INDICATORS

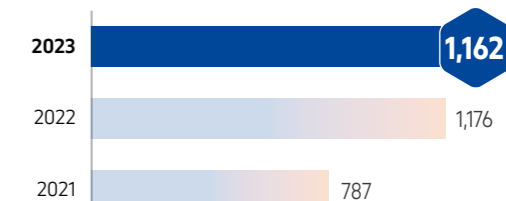
2-6



ESG RISK RATING



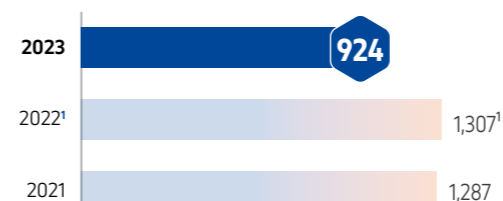
TAXES² KZT bln



² Paid taxes and other mandatory payments to the country's budget.



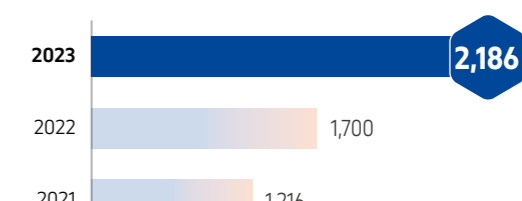
PROFIT KZT bln



¹ Under IFRS, KMG's indicators for 2022 have been restated to include 100% of Polymer Production LLP.



PROCUREMENT³ KZT bln

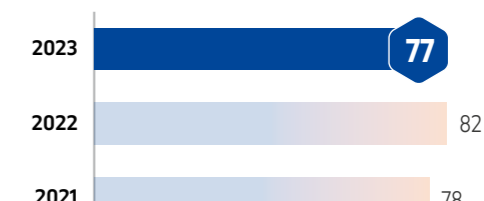


³ Volume of goods, works and services supplied across the KMG Group of Companies



LOCAL CONTENT IN PROCUREMENT

%



ABOUT THE REPORT

2-14, 2-3, 2-5, 3-1

JSC NC "KazMunayGas" (hereinafter, KMG) has been preparing reports on its sustainable development activities on an annual basis since 2008, and since 2012 has been publishing reports in accordance with the Global Reporting Initiative (GRI).

In order to demonstrate its clear and transparent operations to its stakeholders, KMG discloses its approach to sustainable development, social, economic and environmental responsibility on an annual basis.

This Report has been prepared **in accordance** with the Global Reporting Initiative Sustainability Reporting Standards and the GRI 11: Oil and Gas Sector 2021.

Selection of the external verifier of KMG Report is made on the basis of the Procedure for Procurement by Samruk-Kazyna Sovereign Welfare Fund Joint Stock Company (hereafter – Samruk-Kazyna JSC) (https://online.zakon.kz/Document/?doc_id=39101813) and on the basis of the Tender Procurement Decision by means of competitive negotiations. As a result of the selection procedure for procurement of services for 2021–2025 held on 12 May 2021, KMG and Ernst & Young Business Advisory Services LLP entered into a contract for the procurement of services for the verification of the Report prepared in accordance with GRI international standards. Independent verification report is presented on page 210 of this Report.

The Report provides consolidated data about KMG, its subsidiaries and dependent entities for calendar year 2023 calendar year (hereinafter referred to as KMG, the Company, the Group).

The Report covers KMG's subsidiaries and dependent entities with fifty or more percent of voting shares (participation interests) directly or indirectly owned or held in trust by KMG, as well as the legal entities which activities KMG is entitled to control (the detailed description of reporting scope broken down by sections is given in Appendix 1 to the Report).

The Company's financial standing and production performance are presented using the Company's consolidated data with the organizational support of the relevant Company's Units. KMG's management and audited financial statements prepared in accordance with International Financial Reporting Standards, which are published with the same frequency as non-financial financial statements – annually, were used in the preparation of this Report.

Read more about the process of preparing the Report, identifying material topics and engaging with stakeholders in the Sustainable Development Management section.

In order to enable collation and comparability of data by indicators, the information is presented over time for several years.

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

KMG Sustainability Reports are available electronically in the state, Russian and English languages at: <https://www.kmg.kz/en/sustainable-development>.

The online version of the Report is available on KMG website in the state, Russian and English languages at: <https://www.kmg.kz/en/sustainable-development>.

Guided by international sustainable development initiatives, KMG adheres to the principles of the UN Global Compact (hereinafter, UNGC) and integrates the Sustainable Development Goals (SDGs) into its operations.

UN GLOBAL COMPACT PRINCIPLES

Human Rights	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.
Labour	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.
	Principle 6	Businesses should uphold the elimination of discrimination in respect of employment and occupation.
Environment	Principle 7	Businesses should support a precautionary approach to environmental challenges.
	Principle 8	Businesses should undertake initiatives to promote greater environmental responsibility.
	Principle 9	Businesses should encourage the development and diffusion of environmentally friendly technologies.
Anti-Corruption	Principle 10	Businesses should work against corruption in all its forms, including extortion and bribery.



Since 2006, KMG is a member and active participant of UNGC and is committed to UNGC Ten Principles and 17 SDGs.

The Company's Annual Sustainability Report is our progress message under the UN Global Compact.

<https://unglobalcompact.org/what-is-gc/participants/6810>

MESSAGE FROM THE CHAIRMAN OF THE BOARD OF DIRECTORS

2-22



Dear stakeholders,

It is my pleasure to present 2023 Sustainability Report of JSC NC "KazMunayGas", which highlights our achievements and strategic course.

Despite the challenges and difficulties of recent years, we continue to move towards the set goals and implement initiatives in accordance with the KMG 2022–2031 Development Strategy. At the centre of our efforts is the Strategic Goal 'Sustainable Development and Gradual Carbon Emission Reduction' implemented through three main Initiatives: 'Energy Transition and Carbon Footprint Reduction', 'Personnel Health Management', and 'Sustainable Development in All Business Areas'. The implementation of these Initiatives includes the integration of sustainability principles into all key business

processes, operations, and decision-making processes.

In 2023, as part of the environmental aspect of the ESG agenda, the Company implemented 60 significant activities under KMG's Low-Carbon Development Programme to reduce its carbon footprint. Active implementation of decarbonisation projects is an important step in our pursuit of sustainable development and reduction of environmental impact.

Moreover, the Company has developed a Water Management Programme aimed at preventing water scarcity, maintaining ecosystem stability, and improving water management system for the long term. Through such processes as implementing effective internal standards, enhancing environmental culture and maintaining management system, KMG endeavours to improve the environmental and process safety of its operations.

As part of the social aspect, KMG Group has approved and is implementing a Programme of Activities aimed at managing personnel health, which includes a new Corporate Standard on Organising Mandatory and Periodic Health Checkup. In addition, a Unified Standard Programme of Industrial Sanitary Control is being implemented to improve the level of occupational health and safety of employees at all Company facilities. These activities will make it possible to create a more transparent process of personnel health management, improve the system of medical and preventive care, and strengthen industrial sanitary control in the Company.

The Company strictly respects the rights of employees of its subsidiaries and contractors and makes efforts to improve their living conditions and well-being, which is reflected in a social stability index of 75%.

Moreover, KMG fulfils its social commitments in a timely manner through the allocation of significant funds for the development of the regions where it operates and for charitable purposes. Thus, in 2023, KMG subsidiaries allocated more than KZT 1.1 bln for charitable assistance to local communities.

Going forward, the Company intends to implement programmes aimed at promoting diversity and inclusiveness, developing local communities, and protecting human rights and gender equality.

In terms of corporate governance, special attention is paid to accountability, transparency, ethical behaviour and compliance with accepted International Standards. To this end, the Company actively reviews its ESG indicators and integrates relevant targets into the system of strategic and medium-term KPIs for managers. In particular, KMG has implemented a Risk Management System that allows it to effectively identify and assess risks, make reasoned decisions and take actions to mitigate risks that include ESG issues.

KMG's ESG risk rating for 2023, which was 32.3 according to Sustainalytics, shows the quality of our ESG management. Ranked 40th among 315 oil and gas companies in the global rating, we demonstrate our commitment and performance towards sustainability. To further improve our ESG rating and mitigate the impact of potential ESG risks, the ESG Plan was updated with 42 actions to improve ESG risk management.

KMG's Board of Directors gives high priority to sustainability issues. During the reporting year, the Health, Safety, Environment, and Sustainability Committee held five meetings where more than 30 items related to these issues were discussed. It is worth noting separately that the Board of Directors' annual special meeting on sustainable development was held for in-depth

analysis of the Company's ESG aspects. This meeting covered key aspects of the ESG Plan, implementation of TCFD recommendations, and analysis of the current status and progress of our Low-Carbon Initiatives.

KMG's efforts in applying ESG practices demonstrate its commitment to the Ten Principles of the UN Global Compact, the Sustainable Development Goals, and the UN Guiding Principles on Business and Human Rights.

In conclusion, I would like to note that good ESG practices are an integral part of high engagement of all KMG managers and employees, which directly affects production and financial performance, and forms the Company's value and reputation.

***Best regards,
Ernat Berdigulov
Chairman of the Board of Directors
of JSC NC "KazMunayGas"***

MESSAGE FROM THE CHAIRMAN OF THE MANAGEMENT BOARD

2-22



Dear shareholders, investors, colleagues and partners,

The Company's annual report is a report on its sustainability progress. Confirming our commitment in this direction, we continue to implement our strategic goals that meet both the interests of our shareholders and investors, employees and partners, residents in the regions where we operate, and Kazakhstan as a whole. Striving to improve the Company's ESG performance year on year remains at the centre of our focus.

We are consistently implementing the Strategic Goal 'Sustainable Development and Gradual Carbon Emission Reduction'. In support of this goal, KMG has approved the 2022-2031 Low-Carbon Development Programme. The Company

aims to implement state-of-the-art conservation technologies and reduce its carbon footprint to contribute to the global fight against climate change.

We are actively working to reduce greenhouse gas emissions and implement joint projects in the field of renewable energy. We have started developing design documentation for the construction of the 1 GW Mirny Wind Plant with Total Eren. This year we plan to start construction of the Hybrid Power Plant with Eni S.p.A. These activities demonstrate our determination in moving forward with sustainable development and creating an efficient, clean energy infrastructure.

In line with our principles, we pay special attention to the implementation of environmental activities to minimise our environmental impact. There is a positive trend in a number of environmental indicators: the share of raw gas utilisation reached 98.9%, and the volume of historical waste utilised increased to 1,145,000 tonnes. We take actions to reduce atmospheric emissions and improve the efficiency of water management.

Taking care of our employees is an important aspect of our activities. At the end of 2023, the Company had 49 thousand employees. Under the Strategic Partnership Agreement between KMG and Abu Dhabi Ports (ADP), an initiative to employ Kazakhstani specialists from Mangistau and Turkestan Regions in ADP was implemented.

KMG Group has 42 trade unions that protect the interests of employees. Meetings are held between the management and SDE trade unions on a quarterly basis to address the most pressing issues. To improve labour and recreation conditions for employees, work is done to build new and overhaul existing social infrastructure facilities.

Along with this, we pay attention to the development of the regions where we operate and to the charity. More than KZT 5 bln has been allocated for the implementation of social projects under subsoil use contracts. Under the Zharkyn Bolashak Project, KMG allocated KZT 678 mln for educational grants to 449 high school students in Mangistau Region. Children are provided with full non-gratuitous financial assistance, which includes education, dormitory accommodation and transport costs, as well as monthly scholarship allowances.

In 2023, KMG Group launched the KMG-Volunteer Movement. Our volunteers actively contribute by helping those in need, as well as supporting social and environmental initiatives.

The most important priority in our activities is to ensure a high level of occupational health and safety. In the reporting period, the number of people injured in occupational accidents decreased by 19% year-on-year. At the same time, despite the reduction in occupational injuries, there were fatal accidents among employees of KMG Group and contractors. We are taking systematic measures to enhance safety and prevent such accidents.

Continuing the implementation of investment and infrastructure projects, thanks to the Enhanced Model Contract mechanism, we have managed to intensify work on the complex and capital-intensive Kalamkas Sea – Khazar, Karaton Subsalt and Urikhtau Projects.

In the reporting year, the Company demonstrated positive dynamics of its production performance. Despite the reduction in the average price of Brent crude oil, net profit for the reporting period amounted to KZT 924 bln. KMG paid KZT 1,162 billion in taxes and other obligatory payments to the budget. The total amount of goods, works and services supplied to KMG Group was KZT 2,186 bln, which is almost twice as much as last year's figure. The local content share in our procurement also increased and amounted to 77%.

I would like to emphasise that it is important for us to achieve production and financial stability, while taking into account social and environmental aspects in our activities. We are confident that only in this way can we ensure stable and sustainable development of our Company in the future.

During 2023, Sustainability Initiatives were actively discussed internationally. The issues of environment and climate change, human rights and labour relations, gender equality and anti-corruption were priorities at international meetings, such as COP28, UN Global Compact and others. Our Company actively participates in these events, and we aim for annual sustainability progress of the Company in all respects.

We meet the requirements of the time, creating a sustainable and responsible business for the long term, embedding our ESG Code into every business process. In the future, this will lead to improved performance in all areas of KMG's operations and to financial stability.

Thank you for your attention and trust in our Company.

**Best regards,
Magzum Mirzagaliyev
Chairman of the Management Board
of JSC NC "KazMunayGas"**



ABOUT THE COMPANY

ABOUT THE COMPANY

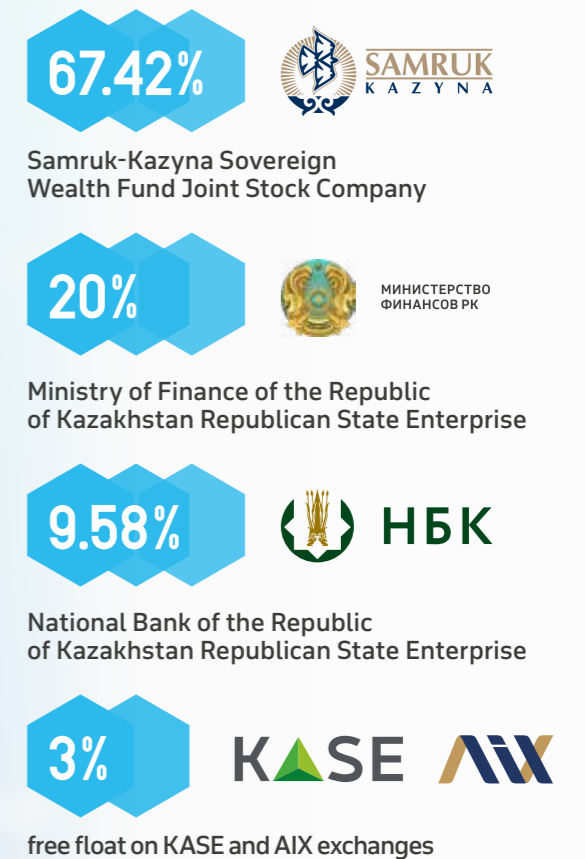
2-1, 2-6

Joint Stock Company "National Company "KazMunayGas" is a unique vertically integrated oil and gas operator that implements the full production cycle from exploration and production of hydrocarbons, their transportation and processing to provision of specialised services.

KMG was established pursuant to Decree No. 811 of the President of the Republic of Kazakhstan (hereinafter, the RoK) dated 20 February 2002 on Actions to Further Pursue the State Interests in the National Oil and Gas Sector, and RoK Government Resolution No. 248 dated 25 February 2002 on Actions to Enforce Decree No. 811 of the RoK President dated 20 February 2002. KMG is the legal successor of closed joint stock companies National Oil and Gas Company "Kazakhoil", National Company "Oil and Gas Transportation" and Joint Stock Company "KazMunayGas – Refining and Marketing". KMG was founded by the RoK Government represented by the State Property and Privatisation Committee of the RoK Ministry of Finance.

As of 31.12.2023, KMG Group includes 108 companies with fifty or more voting shares (participation interests) directly or indirectly owned by KMG, of which 56 companies are located in the RoK. The remaining assets are located in such countries as Romania, Georgia, Switzerland, the Netherlands, Canada, Bulgaria, Moldova, Russia, Turkey, the United

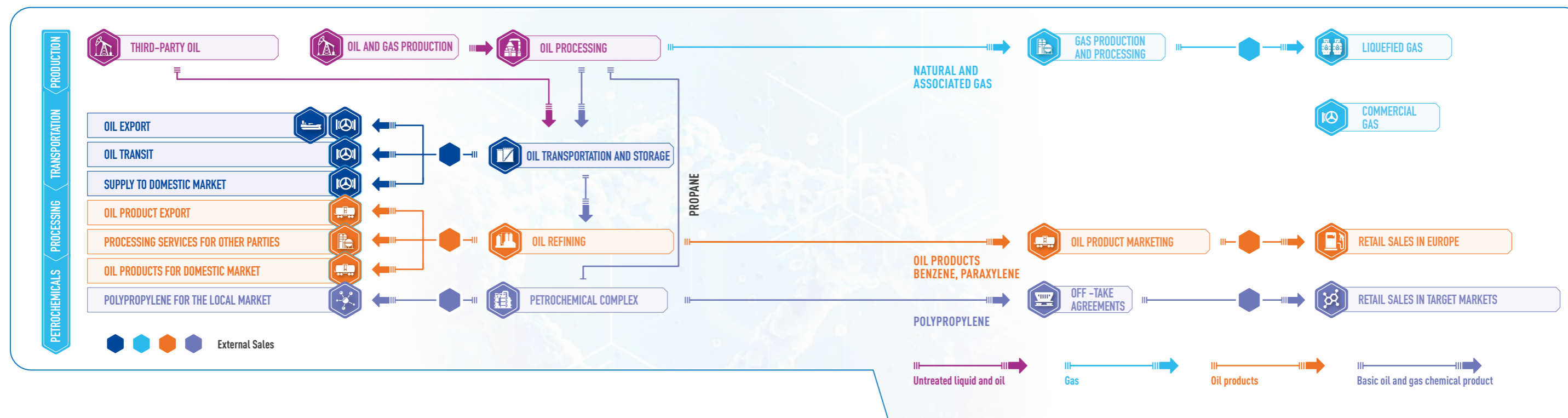
KMG SHAREHOLDERS



Kingdom, the United Arab Emirates, Canada, Gibraltar, the British Virgin Islands, the Marshall Islands, the Bahamas, the Isle of Man.

KMG is headquartered in Astana and has a Representative Office in Aktau.

PRODUCTION VALUE CHAIN



Reduction of legal entities in the Group, including by means of liquidation/reorganisation of sub-holdings, is pursued under privatisation and divestment programmes.

Decree No. 523 of the Government of the Republic of Kazakhstan dated 02 August 2022 amended and supplemented the 2021–2025 Comprehensive Privatisation Plan.

The amended 2021–2025 Comprehensive KMG Privatisation Plan includes:

- 53 companies for sale;
- 94 companies are included in the KMG IPO perimeter;
- 7 companies in KMG Group, the procedure and conditions for the sale and reorganisation of which are established by the Management Board of Samruk-Kazyna JSC.

On 1st November 2023, KMG’s Board of Directors approved an updated KMG’s Non-Strategic Assets List (hereinafter – the NSA List), which provides for the withdrawal of nine companies from 2023 to 2025.

For 2023, three companies were planned to be withdrawn under the NSA List, two of which by winding-up and one by sale of participation interest.

In 2023, the following changes were made in the structure of KMG’s assets:

- 3 companies wound up;
- 2 companies incorporated;
- 2 companies acquired;
- interests in 2 companies sold.

PRODUCTION VALUE CHAIN

2-6, 417-1

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

Also, in 2023, KMG sold aviation fuel through its subsidiary KMG-Aero LLP and exchange trading platforms for the Aviation Services of the Ministry of Defense, the National Security Committee and the National Guard of the Republic of Kazakhstan, as well as for local airports and airlines of the Republic of Kazakhstan.

The remaining oil product volumes are sold in bulk to third-party consumers on the domestic market of the Republic of Kazakhstan and for export.

The structure of oil product exports in 2023 was dominated by shipments of dark oil products to Europe. Paraxylene, benzene, coke, and sulphur were supplied to Europe, China, Russia, Tajikistan and Turkey.

EXPORTS OF PETROLEUM PRODUCTS PRODUCED FROM KMG RESOURCES, BROKEN DOWN BY SHARE AND DIRECTIONS OF SUPPLY

Sr. No.	Petroleum products	Actual for 12 months of 2023		
		Volume, t	Countries	Share, %
1	Fuel oil	496,582	Europe	99%
		6,955	Uzbekistan	1%
2	VGO	80,704	Europe	100%
3	Paraxylene	7,579	China	100%
4	Benzene	11,621	China	100%
		82,236	China	84%
5	Total coke	7,821	Turkey	8%
		5,280	Russia	5%
		2,836	Tadjikistan	3%
6	Calcined coke	3,761	Russia	72%
		1,499	China	28%
7	Sulphur	3,558	Europe	40%
		5,239	Turkey	60%
Total:		715,672		

In 2023, KMG purchased oil from four 100% oil producing subsidiaries (Ozenmunaigas JSC, Embamunaigas JSC, Kazakhturkmunay LLP and Urikhtau Operating LLP) located in Western Kazakhstan for further processing at three refineries (Atyrau Refinery, Pavlodar Oil Chemistry Refinery and PetroKazakhstan Oil Products).

Oil and refining services value totalled KZT 685 bln.

In connection with the completion of the trial production phase of the oil field and preparation for the signing of an improved model subsoil use contract, Urikhtau Operating LLP suspended

oil supply to Pavlodar Oil Chemistry Refinery in the second half of 2023. In total, KMG processed 16.4 thousand tonnes of Urikhtau Operating LLP's oil at Pavlodar Oil Chemistry Refinery at the end of 2023, while the plan was 28.3 thousand tonnes.

Also, in the Republic of Kazakhstan, in accordance with the plans of oil products supply, approved by the Ministry of Energy of Kazakhstan, exchange trade in motor gasoline, aviation fuel and bitumen was carried out. Since November 2023, additional diesel fuel in the amount of 10% of the total sales under the plans of petroleum products supply began to be offered for exchange trading.

In accordance with Technical Regulations of the Customs Union 013/2011 on Requirements for Motor and Aviation Gasoline, Diesel and Marine Fuels, Aviation Fuel and Heating Oil (hereinafter, TR CU), the quality of produced fuel corresponds to environmental classes K4 and K5 (similar to Euro-4 and Euro-5).

In accordance with TR CU, no metal-containing additives (containing manganese, lead and iron) may be used in motor gasoline and diesel fuel, the sulphur content maximum is 50 mg/kg and the benzene content maximum is 1%.

The purpose of completed upgrading of the RoK refineries is to improve the quality of motor fuels produced to K-5 level (equivalent to Euro-5 standard).

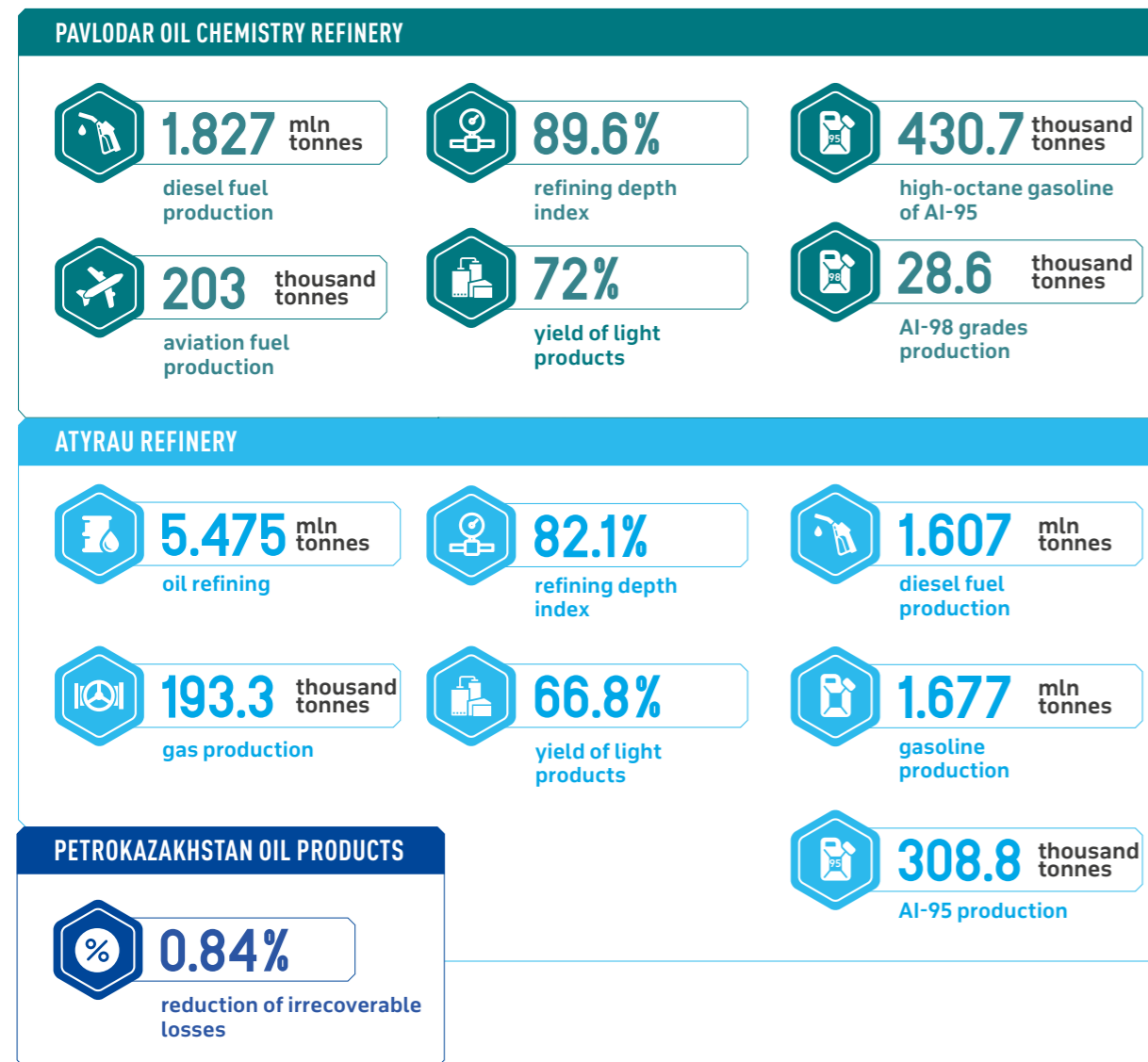
At that, we have decreased the content of harmful substances in the produced motor fuels, the main source of human-induced health impacts from vehicle exhaust emissions:

- by a factor of 10 for sulphur (source of sulphur oxides);
- by a factor of 1.5 for aromatic substances (source of soot);
- by a factor of 5 for benzene (source of benzoperene, which is a carcinogen and is classified as hazard class 1).

WHOLESALE SALES OF KMG OIL PRODUCTS PRODUCED IN THE REPUBLIC OF KAZAKHSTAN, THOUS. TONNES

Product	2021			2022			2023		
	domestic market	export	total	domestic market	export	total	domestic market	export	total
Gasoline	1,195	-	1,195	1,333	7	1,340	1,529	-	1,529
Diesel fuel	1,291	57	1,348	1,513	-	1,513	1,512	-	1,512
Aviation fuel	120	-	120	161	-	161	165	-	165
Fuel oil	241	542	783	265	588	853	205	504	708
Vacuum gas oil	-	166	166	-	105	105	-	81	81
Bitumen	83	-	83	125	-	125	87	-	87
Coke	79	66	144	56	65	121	50	103	154
Sulphur	3	17	20	5	14	19	12	9	21
Benzene	-	4	4	-	3	3	-	12	12
Paraxylene	-	25	25	-	34	34	-	8	8
Liquefied gas	162	1	163	204	-	204	230	-	230
Heating fuel	4	-	4	-	-	-	3	-	3
Process fuel	382	-	382	408	-	408	411	-	411
Other	18	-	18	22	-	22	21	-	21
Total	3,577	877	4,454	4,091	816	4,908	4,224	716	4,940

ACHIEVEMENTS IN OIL REFINING IN 2023



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



https://www.pnhz.kz/en/product/quality_of_product/



<https://www.anpz.kz/en/product/>



<https://petrokazakhstan.kz/en/bu-downstream-en/>



More detailed information about the Company's operations and financial performance is available in the 2023 Annual Report:

<https://www.kmg.kz/en/investors/reporting/>

COMPANY STRATEGY AND KEY RESULTS

2-19, 2-22, 2-23, 2-24



VISION

A national vertically-integrated oil and gas company that meets high safety and sustainability standards and is focused on maximising the financial performance.



MISSION

We develop natural resources in an effective and sustainable manner to ensure energy security, development and prosperity of Kazakhstan, caring about future generations.

KMG Development Strategy for 2022–2031 was approved by the resolution of KMG Board of Directors in November 2021.

Our main task is to expand the value chain, stability of cash flows from the core business within the framework of the sustainable development agenda.

The oil and gas industry continues to be influenced by various factors shaping its dynamics. New trends affecting the oil and gas sector emerged in 2023.

The industry has experienced several significant fluctuations over the past decade, from the price boom in 2014, when a barrel of oil reached over \$100, to the crisis of 2020, when prices temporarily went into negative territory. However, in 2022, the impact of economic, geopolitical, trade and financial factors has intensified the challenges of underinvestment in the industry.

Disrupted energy trade between Europe and Russia, feedstock shortages for renewable energy development, and problems in low-carbon supply chains have slowed the energy transition. These imbalances have resulted in record high energy prices and strong growth in oil and gas company cash flows in 2022, although investment policy remains uncertain.

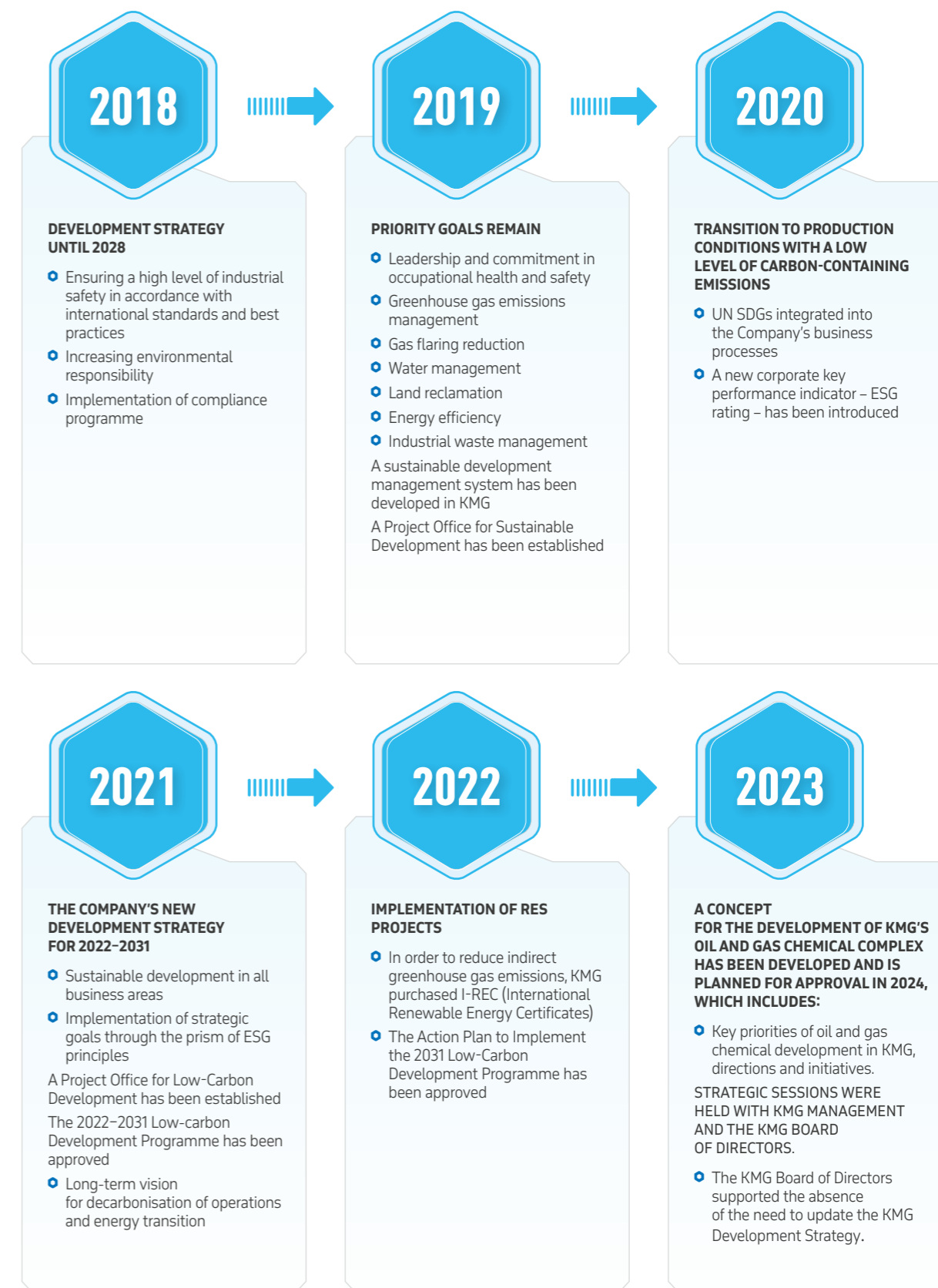
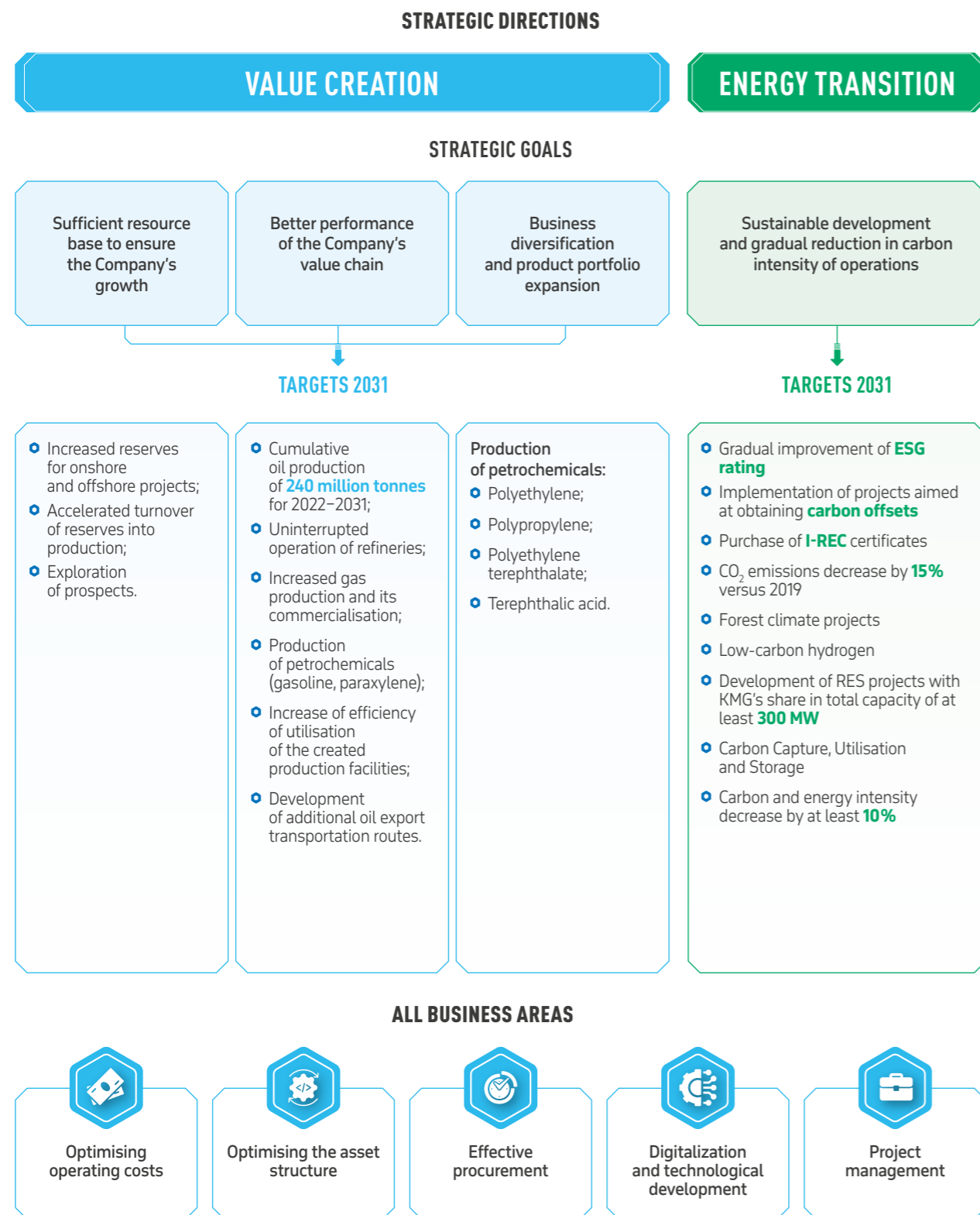
In the context of global trends in 2023, energy security, supply and business diversification, and a focus on low-carbon development become key drivers for balanced development of oil and gas companies in 2024. Thus, KMG's current challenge is to maintain a balance between increasing investment and maintaining capital discipline.

KMG maintains its competitive advantage through a stable production cycle of hydrocarbon production, transportation and processing. The Company is actively exercising its priority right to obtain subsoil use assets, which contributes to replenishing the resource base.

Access to cheap raw materials identifies oil and gas chemistry as a natural growth point for KMG, allowing it to expand its value chain. Stable cash generation through production growth and the implementation of a sustainable development strategy are key success factors. Given the trends towards energy transition, KMG is implementing its Low-Carbon Development Programme, including through the implementation of low-carbon projects.

The Company's growth is planned to be achieved by increasing the resource base, improving the efficiency of current production, developing oil and gas chemistry, introducing modern technologies to conserve resources and reducing the carbon footprint.

Taking into account external and internal challenges, KMG implements a balanced strategy between oil, petrochemical and green projects.



STRATEGIC GOAL 1

Sufficient resource base to support the Company's growth

To ensure stable production levels in the next decade, KMG is implementing geological exploration projects both onshore and offshore in the Caspian Sea.

As part of this strategic goal, KMG plans to ensure an increase in reserves sufficient for both traditional activities and prospects through organic and inorganic growth.

Exploration and development of new reserves in Kazakhstan is implemented by KMG, including through strategic partnerships with international oil and gas companies.

In 2023, we moved into the active phase of the Abai offshore projects, Turgai Palaeozoic, Karaton Subsalt, Taisogan onshore projects; KMG and LUKOIL PJSC entered into a number of agreements on the Kalamkas-Sea, Khazar, Auezov subsoil area development project in the Kazakhstan sector of the Caspian Sea. KMG also put the Eastern Urikhtau field into commercial production. Urikhtau Operating LLP was one of the first in Kazakhstan to transition to commercial development of the field under the Enhanced Model Contract.

In 2022, the Geological Exploration Programme was adopted and implementation of the following promising areas started: Mugodzhary, Berezovsky, Zharkyn, Bolashak, North Ozen. Field work and data interpretation are expected to be completed in 2024.

STRATEGIC GOAL 2

Better performance of the Company's value chain

KMG focuses on its core business in order to maximise the benefits of its oil production, refining, transportation and marketing activities and to improve operational performance in all key segments.

In order to compensate for the natural decline in production levels at its operating assets, the Company will continue to work on increasing oil recovery rates and intervals between workovers, as well as on taking other actions to improve operational efficiency in order to maximise well productivity. In 2023, the Ozenmunaigas field rehabilitation project was launched, which has already started introducing well pumps at 83 wells, drilled 23 additional wells, and provided a daily increment of more than 140 tonnes/day. The Company plans to launch new fields Karaton Subsalt and Turgai Poleozoic.

For the major Tengiz, Karachaganak and Kashagan projects, the Company is focusing on successful implementation of projects to expand, extend and maintain the production shelf.

The Company aims to efficiently utilise the established oil transportation infrastructure to increase export and transit volumes. Taking into account external factors and geopolitical challenges, KMG continues to develop additional export routes for Kazakh oil.

Additional export routes were introduced: to Germany via the Druzhba pipeline and in the direction of Baku-Tbilisi-Ceyhan. KMG started studying the development of the Trans-Caspian route together with international oil companies. The joint venture (JV) with Abu Dhabi Ports is active, in particular tankers Taraz and Liwa have started transportation in the Caspian Sea, 4 tankers of the JV are involved in transportation of TCO oil in the open seas, and an agreement has been signed to build its own shipbuilding and ship repair yard in Kazakhstan.

An important task of KMG is to ensure uninterrupted operation of refineries and the domestic market needs for oil products. Today, due to the modernisation of refineries in the country, the Company meets this strategic goal for the country and, moreover, supplies some oil products for export. In order to increase bitumen production, expansion projects have been launched at Caspian Bitumen and Pavlodar Oil Chemistry Refinery. Additional bitumen storage tanks are under construction.

The Company is constantly working to optimise operating costs and improve the efficiency of the supply chain.

STRATEGIC GOAL 3

Business diversification and product portfolio expansion

As part of the development of the oil and gas chemical business to diversify its activities, KMG will utilise existing and attract additional hydrocarbon resources to provide oil and gas chemical projects and produce new conversion products under the conditions of redistribution of global demand for oil in the long term.

In November 2022, Kazakhstan Petrochemical Industries (KPI) Integrated Gas Chemical Plant was launched with a capacity of 500 thousand tonnes of polypropylene per year. In 2023, the plant produced 6 different product grades. In 2024, the range will be expanded to 12 brands, including premium ones. The needs of the domestic market will be fully met.

The second important project is the 1.2 million tonne capacity polyethylene plant project, in 2023 the Enhanced Basic Design (EBD/FEED) agreements have been signed and the legal entry of SIBUR into the project has been completed and the legal entry of Sinopec as the 2nd partner is ongoing.

In addition to the main project, an auxiliary project for the construction of a gas separation plant is underway. In December 2023, the project was agreed to be financed by the National Fund of RoK.

Other important projects include the gas separation plant, terephthalic acid and polyethylene terephthalate production, and urea production.

STRATEGIC GOAL 4

Sustainable development and gradual decline of carbon intensity of operations

In 2023, KMG continues to actively integrate the principles of sustainable development into its business processes, recognising the importance of its impact on the economy, environment and society. The Company's focus is on ensuring alignment of economic, environmental and social priorities, as well as improving ESG performance.

KMG aims to improve its ESG rating by integrating ESGs into management's strategic and medium-term KPIs. As a result of assessment by Sustainalytics, an international rating agency,

in 2023, the Company's ESG risk rating is estimated at 32.3 points, placing KMG in the high risk category.

As part of the Employee Health Management initiative, the Company is developing a corporate Health Programme, including pandemic control, prevention of occupational diseases and promotion of healthy lifestyles.

In line with the climate agenda, KMG is implementing the 2022–2031 Low-Carbon Development Programme with the aim of reducing greenhouse gas emissions by 15% by 2031. The Company also plans to introduce renewable energy projects with a total capacity of at least 300 MW per share of KMG.

PERFORMANCE ASSESSMENT

The employee performance assessment is applied as part of the processes of monitoring and controlling the implementation of the Company's Development Strategy, as well as motivating personnel to achieve strategic and priority goals expressed in measurable, interrelated, logically structured and balanced motivational key performance indicators (KPIs). The KPI balance provides for the inclusion of indicators in the areas of sustainable development, corporate governance, social and environmental development along with production, financial and economic indicators. Corporate KPIs are unified for all KMG employees.

Having joined the OGMP 2.0 initiative, the Company is actively involved in methane emissions management and is successfully completing the CCUS pilot project phase. RES projects are also under development.

The Company actively selects and prioritises investment projects, investing only in highly efficient and strategically important ones. KMG supports prudent capital allocation, maximising benefits for shareholders and respecting the interests of the state in the oil and gas sector.

All these steps are aimed at contributing to the diversification of the national economy, reducing the carbon footprint and maintaining environmental sustainability for future generations in the Republic of Kazakhstan.

As part of the performance assessment process, the effectiveness of employees' contribution to the achievement of the Company's strategic and priority goals for the reporting period is assessed. The performance assessment based on motivational KPIs is used to calculate employee remuneration.

KEY PERFORMANCE INDICATORS OF JSC NC "KAZMUNAYGAS" FOR 2023

The Corporate KPIs for 2023 have been developed to reflect management's continued need to focus on improving operational efficiency, maintaining financial sustainability, as well as the environmental, social and corporate governance aspects of KMG's operations.

The following Corporate KPIs (motivational KPIs of the Chairman of the Management Board) related to the implementation of the sustainable development system were approved in order to ensure the implementation of strategic objectives on sustainable development.

- Implementation of investment projects, including, inter alia, the sustainable development projects Construction of a seawater desalination plant in the Kenderli Village, Construction of a new gas processing plant in Zhanaozen, Reconstruction and modernisation of the Astrakhan-Mangyshlak water pipeline.
- Comprehensive Occupational Safety Indicator, which is aimed at reducing the accident rate, as well as identifying and reporting unsafe conditions, hazardous factors, etc. across KMG Group.







Among the motivational KPIs at the level of members of the Management Board (Deputy Chairmen of the Management Board), Directors of KMG's departments, as well as Top Managers of subsidiaries and dependent entities for 2023, KPIs in the area of sustainable development have been determined, including:

- Implementation of investment projects, including a number of sustainable development projects.
- Implementation of the Action Plan to Implement the KMG 2022–2031 Low-Carbon Development Programme in the supervised areas.
- ESG rating.
- Development of KMG's internal carbon pricing mechanism.
- Social stability index for KMG Group.
- Reduction of the associated petroleum gas flaring intensity indicator.
- Recovery of historical oil waste.
- Automation of OHS management functions.
- Development of the Water Management Programme.
- Implementation of the Action Plan "Personnel Health Management in KMG Group for 2023–2025".
- Reduction in the rate of non-labour related fatalities.
- Carbon footprint size (an indicator aimed at monitoring and gradual reduction of carbon footprint of subsidiaries and dependent entities).



SUSTAINABLE DEVELOPMENT 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 MANAGEMENT

3-3

KMG is committed to building an effective sustainability management system that includes the following elements:

- commitment to the sustainable development principles at all the management levels;
- analysis of the external and internal situation in terms of the three sustainable development aspects – economic, environmental and social;
- determination of sustainable development risks in economic, environmental and social spheres;
- stakeholder engagement and building a stakeholder map;
- definition of goals and KPIs of sustainable development;
- implementation of priority areas (initiatives) of sustainable development;
- integration of sustainable development into the key business processes;
- advanced training of the Company's employees in sustainable development;
- organisation of annual sustainable development reporting process;

- sustainable development performance measuring;
- upgrading the sustainable development process.

In its 2022–2031 Development Strategy, KMG has defined the Sustainable Development and gradual reduction in carbon intensity of operations as one of the strategic goals. Based on it, all business and decision-making processes should integrate the principles of sustainable development.

The management of KMG's sustainable development aspects is based on the implementation of the following sustainable development principles:

- **openness** – we are open to meetings, discussions and dialogue; we strive to build long-term cooperation with stakeholders based on consideration of mutual interests, respect for rights and balance between the interests of the organisation and stakeholders;

- **accountability** – we recognise our accountability for our impact on the economy, environment and society;
- **transparency** – our decisions and actions must be clear and transparent to stakeholders;
- **ethical conduct** – our values such as respect, honesty, openness, team spirit and trust, integrity and fairness underpin our decisions and actions;
- **respect** – we respect the rights and interests of stakeholders, which follow from legislation, concluded contracts or indirectly through business relationships;
- **lawfulness** – our decisions, actions and behaviour comply with the laws of the Republic of Kazakhstan and the decisions of the organisations' bodies;
- **respect for human rights** – we respect and promote human rights provided for in

the Constitution of the Republic of Kazakhstan and international documents;

- **intolerance to corruption** – we declare zero tolerance to corruption in all its manifestations in co-operation with all stakeholders;
- **no conflict of interest** – personal interests of an official or employee should not influence the impartial fulfilment of his/her official or functional duties;
- **personal example** – every day each of us contributes to the implementation of sustainable development principles in our actions, behaviour and decision-making; officials and employees in management positions should motivate the implementation of sustainable development principles by their personal example.

Sustainability Report, action plans and other internal documents on sustainability, the approval of which falls under the authority of BoD, implementation of social, economic and environmental components of sustainability, formation of a sustainability management system, setting sustainable development goals and KPIs, monitoring the implementation of sustainability in KMG, integrating sustainability into KMG's key processes.

KMG's Management Board ensures proper implementation and integration of sustainability principles, policies, standards and action plans in the Company. It monitors sustainable development activities, evaluates the achievement of sustainable development targets and KPIs and SDGs.

Deputy Chairman of KMG's Management Board oversees the sustainability issues, coordinates the approaches to achieving SDGs and KPIs for sustainability initiatives and oversees implementation of corporate sustainability standards, preparation of the Sustainability Report and achievement of SDGs.

The Sustainability Sector of KMG's Strategy and Portfolio Management Department is responsible for initiation, coordination and implementation of the sustainability management system and SDGs achievement, assistance in its integration into the Company's business processes, methodological support in sustainable development issues, annual preparation and approval of the Sustainability Report, assistance to responsible business units in identifying and managing the sustainable development risks, in developing a stakeholder map and engagement mechanisms, as well as training in sustainable development.

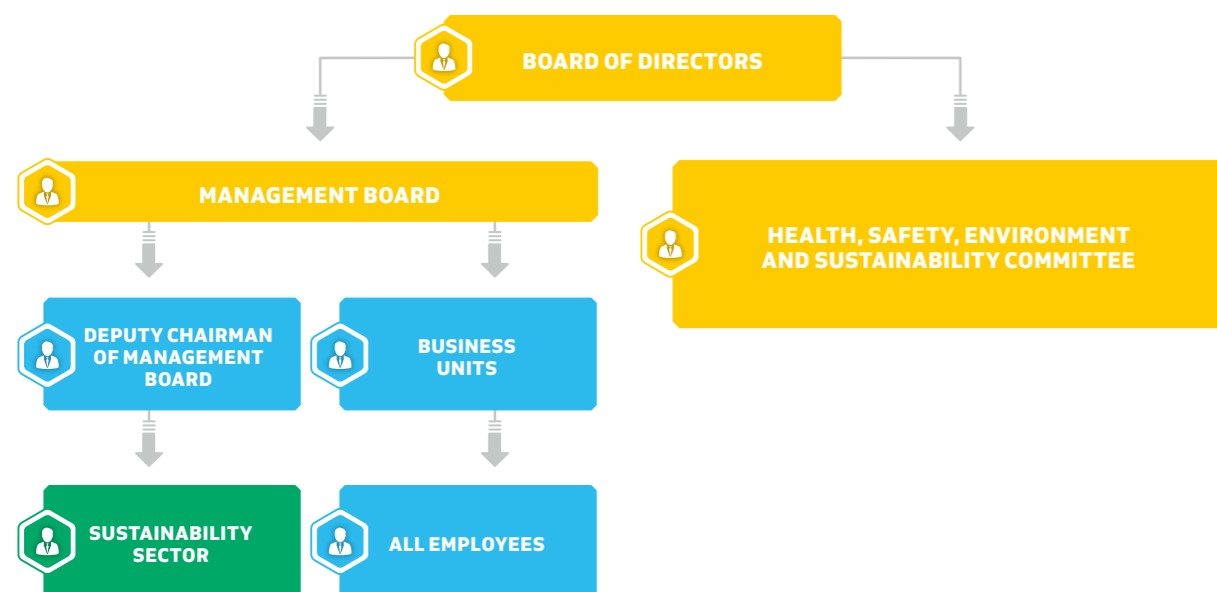
KMG's Business Units implement the sustainability system, implement initiatives to achieve SDGs, analyse the internal and external situation, identify sustainable development risks, develop a stakeholder map and engagement mechanisms, implement sustainable development initiatives and prepare information for the Sustainability Report in accordance with international standards.

All KMG employees, each at their own level, implement the sustainability and SDG achievement principles and actions through personal behaviour and compliance with relevant policies and standards.

Progress on a comprehensive systematic approach to the implementation of ESG principles in the Company's operations in 2023 was achieved by the following activities:

- KMG has passed an independent assessment by Sustainalytics, an international rating agency. The Company received a risk management score of 32.3 points.
- In order to improve the Company's performance in terms of sustainable development indicators for 2023, the corporate KPIs was approved by the decision of the KMG Board of Directors – **implementation of investment projects** (the indicator is aimed at sustainable development projects, among others), **a comprehensive OHS indicator** (the indicator is aimed at reducing the number of labour-related accidents).
- In 2023, members of KMG's Management Board were set motivational KPIs – **implementation of investment projects, implementation of RES projects, ESG rating, implementation of actions under KMG's 2022-2031 Low-Carbon Development Programme**, development of KMG's internal carbon pricing mechanism, social

SUSTAINABLE DEVELOPMENT MANAGEMENT IN KMG



KMG's Board of Directors provides strategic guidance and oversight for implementation of sustainable development principles and achievement of SDGs, approves the consolidated annual Sustainability Report of the Company.

Health, Safety, Environment and Sustainability Committee (HSESC) of KMG's Board of Directors considers and manages sustainability issues, the status of SDG achievement, prepares recommendations for approval of the sustainability policy, annual KMG

stability index for KMG Group, reduction of the associated petroleum gas flaring intensity indicator, recovery of historical oil waste, automation of OHS management functions, development of the Water Management Programme, and implementation of the Action Plan "Personnel Health Management programs in KMG Group for 2023–2025". SDEs within the Low-Carbon Development Programme implementation, were set KPIs for reducing their carbon footprints within the defined volumes.

- The annual Sustainable Development Meeting of KMG’s Board of Directors was held on 6 October 2023. It discussed topical issues on the Company’s sustainable development, action plan to improve ESG risk rating, disclosure of information according to TCFD recommendations, as well as the status of implementation of low-carbon projects.
- The implementation of sustainability system is regularly **reviewed by the Health, Safety, Environment and Sustainability Committee of the Board of Directors of KMG**. In general, five meetings of the Committee were held in 2023, where 31 issues were addressed. In 2023, the Committee was mainly focused on health, safety and environment, strategic management of the ESG aspects, and implementation of a sustainable development system.
- Confirming its commitment to the principles of sustainable development, KMG has adopted the following documents for KMG Group:
 - Sustainable Development Policy
 - Human Rights and Public Relations Policy
 - KMG Group’s Employee Health Management Programme
 - 2022–2031 Low-Carbon Development Programme
 - Action Plan to Implement the 2022–2031 Low-Carbon Development Programme

- Site Closure and Land Reclamation Policy for Exploration Sites and Fields
- Information Disclosure Policy
- Energy Policy
- Economic Security Regulations
- Crisis Management Regulations of JSC NC "KazMunayGas"
- Rules for Conducting Anti-Corruption Monitoring and Internal Analysis of Corruption Risks
- Corporate Risk Management System Policy
- Policy on Conflict of Interest Management for Employees and Officials
- Confidential Informing Policy
- Anti-Corruption Standards
- Anti-Corruption Policy
- HR Policy 2018–2028
- Standard Regulations for Interaction of SDEs with Contractors Operating at KMG Facilities
- Standard Rules of Social Assistance
- Standard Regulations of the Unified System of Internal Communications
- Guidelines on Sustainable Development Management System in KMG Group
- Guidelines on Health, Safety and Environment Management in KMG Group
- Uniform Occupational Safety Management System
- Information Security Management System Manual
- Quality Manual
- KMG Group Regulations on the Application of Qorgau Card
- Corporate Regulations for Physical Security and Counter-Terrorism Protection
- Corporate Standard for PPE Provision
- Corporate Standard for Process Safety Management in KMG Group
- Corporate Occupational Health and Safety Standard of KMG Group
- Corporate Standard to Ensure Health, Safety and Environment Competencies

CASE STUDY



KazMunayGas enhances ESG culture among employees of its subsidiaries

In autumn 2023, JSC NC "KazMunayGas" held a number of practical trainings for employees of its subsidiaries and dependent entities.

In November, a specialised training on sustainable project management based on the Green Project Management Global methodology was held for project managers of 8 major subsidiaries and dependent entities.

The training participants studied best practices in applying the concept of sustainable development to projects, programmes and portfolios, and learned practical tools for assessing, mitigating risks and improving project success. Based on the results of the testing, 13 project managers in subsidiaries and dependent entities will receive international GPM-b certification in sustainable project management.

Also, experts of ESGQ Rating Agency LLP together with employees of KMG Corporate Centre held a practical training – "ESG in the System of Sustainable Development of the Company".

During the training, 50 employees of KMG and SDEs learnt about global trends in sustainable development, implementation of ESG practices and the impact of ESG ratings on the Company's operations. In addition to theory, the training participants also learnt the practical application of the role of stakeholders in shaping the Company's reputation.









On the eve of the professional holiday – International Energy Saving Day, celebrated on 11 November, KMG together with Energy Partner LLP organised the Energy Saving, RES and Low-Carbon Development Online Workshop.

During the workshop, guest lecturers highlighted the most relevant topics related to the prospects of development in the field of energy saving and energy efficiency. The workshop became a platform for discussion on topical directions in the field of energy saving and low-carbon development, formation of energy-saving thinking among all KMG employees, regardless of their position and professional duties.

- Corporate Standard for Interaction with Contractors
- Corporate Standard on Water Management in KMG Group

- Emission Management Policy in KMG Group
- Policy on Alcohol, Narcotic Drugs, Psychotropic Substances and their Analogues

METHODS OF STAKEHOLDERS ENGAGEMENT

Key stakeholder groups	Information needs in engagement	Disclosure methods and communication channels	
 SHAREHOLDERS	Information on the Company's activities, corporate events affecting the interests of security holders	<ul style="list-style-type: none"> Providing access to information Representation of shareholders' interests in Board of Directors of KMG Publication on the corporate website 	<ul style="list-style-type: none"> Publication on the website of the Kazakhstan Stock Exchange Disclosure of information on the Internet resource of the depository of financial statements
 INVESTMENT COMMUNITY	Information on the Company's activities, corporate events affecting the interests of investors and the investment community as a whole Interest is expressed in ensuring return on invested investments, opportunities for investing in KMG	<ul style="list-style-type: none"> Providing access to information Publication on the corporate website, including in the Investors section (www.kmg.kz) Publication on the website of the Kazakhstan Stock Exchange Organisation of roadshows and other public events for investors 	<ul style="list-style-type: none"> Conducting meetings, conference calls Providing work with requests via e-mail (ir@kmg.kz), telephone consultations Press releases Publication on the Internet resource of the depository of financial statements
 ASSOCIATIONS, LOCAL COMMUNITIES, PUBLIC ORGANISATIONS	Any information other than that which is confidential in accordance with the laws of the Republic of Kazakhstan and KMG's internal documents. Information related to employment, corporate social responsibility, environmental safety and environmental activities Interest is expressed in the endeavour to inform the public about the Company's activities and increase the level of KMG's information openness, as well as in solving social problems of the local population, development of social infrastructure, transparency of the Company's activities, and improvement of the environment	<ul style="list-style-type: none"> Providing access to information Publication on the corporate website Public meetings Public consultations Publication in the media Reception of citizens Organisation of work with complaints and appeals Participation in the work of local authorities and projects of local communities Membership in associations 	<ul style="list-style-type: none"> Conducting public events with the participation of representatives of local communities International initiatives Participation in industry forums and conferences Membership in working groups on social and environmental issues Surveys and research Working with enquiries
 MASS MEDIA	Any information other than that which is confidential in accordance with the laws of the Republic of Kazakhstan and KMG's internal documents Interest is expressed in the endeavour to inform the public about the Company's activities	<ul style="list-style-type: none"> Publication on the corporate website Publication in the media and responding to media enquiries Distribution of press releases 	<ul style="list-style-type: none"> Organising press conferences, briefings, press tours, forums, infessions and other media events Working with enquiries
 GOVERNMENT, LOCAL PUBLIC AUTHORITIES	Information of socio-economic, environmental and sectoral nature affecting public and government interests Interest lies in compliance with KMG's activities, legal requirements, tax revenues, economic growth and solution of social tasks	<ul style="list-style-type: none"> Providing access to information Publication on the corporate website Meetings, conference calls Publication in the media 	<ul style="list-style-type: none"> Entering data into the electronic system Notification by means of communication Working groups on improvement of the RoK laws
 SUBSIDIARIES AND DEPENDENT ENTITIES OF KMG	Information on the Company's operations, its strategic development plans, the corporate governance mechanisms, methods of interaction, corporate events affecting the interests of SDEs Interest is expressed in the promotion of sustainable development, financial sustainability, assistance in liaising with government authorities	<ul style="list-style-type: none"> Providing access to information Publication on the corporate website Representation of the shareholder's interests at general meetings of shareholders/members, as well as in Boards of Directors/ Supervisory Boards 	<ul style="list-style-type: none"> Holding meetings, consultation panels, conference calls Participation in committees, working groups Organisation of trainings, workshops
 CUSTOMERS, SUPPLIERS, PARTNERS, OTHER ORGANISATIONS	Information on management decisions that may affect the terms of mutually beneficial cooperation, corporate events affecting the interests of partners, suppliers, customers Interest lies in respecting the rights of the parties to cooperation, in ensuring that they fulfil their obligations	<ul style="list-style-type: none"> Providing access to information Publication on the corporate website Meetings, conference calls 	<ul style="list-style-type: none"> Organisation of work with complaints and appeals Organisation of partner/supplier days Sending notifications Audits
 TRADE UNIONS, KMG EMPLOYEES	Information on the Company's development plans, working conditions, career growth, observance of social and labour rights, corporate events affecting the interests of KMG employees Interest is expressed in ensuring harmonious and safe working conditions, observance of rights and obligations in accordance with the labour laws of the Republic of Kazakhstan	<ul style="list-style-type: none"> Providing access to information Publication on the corporate website Meetings Reporting meetings of management with employees Health and safety councils and committees 	<ul style="list-style-type: none"> Organisation of trainings, workshops Internal messages Distribution of materials through internal communication channels Surveys, questionnaires Contests

INITIATIVES AND MEMBERSHIPS

2-28

MEMBERSHIP



National Chamber of Entrepreneurs of the RoK "Atameken"

KMG and the National Chamber of Entrepreneurs of the RoK "Atameken" entered into an agreement on 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.



Kazakhstan Association of Oil, Gas and Energy Sector Organisations "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 is 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 Sector Organisations "KAZENERGY" have entered into a Memorandum of Cooperation.

The Memorandum provides for joint activities in such key legal areas as improvement of the RoK legislation; development of joint programmes and projects aimed at raising legal culture; cooperation in holding round tables, workshops, 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 (IOGP).

Over the years of its membership in IOGP, KMG has learnt and used international best IOGP recommendations and practices, which has helped to improve KMG's HSE performance and overall management system, as well as increased KMG's capabilities and rating at the international level.

Starting from 2022, KMG has adopted the Life-Saving Rules, which replace the Gold Rules previously in force for the Group.

IOGP has analysed two thousand fatal accidents in about one hundred IOGP member companies from 1991 to the present. As a result of the analyses, the association identified the most frequently recurring safety violations.

To prevent these violations, 9 Life-Saving Rules have been developed. These rules inform workers of actions they can take to protect themselves and their co-workers from fatalities.



"Qazaq Green" RES Association

As part of the Low-Carbon Development Programme, KMG intends to implement its own RES projects, for which it is developing its competencies in the field of renewable energy and is actively involved in legislative work to improve legislation. To this end, in early 2022 KMG joined "Qazaq Green" RES Association, established to promote the principles of green economy and contribute to achieving carbon

neutrality of the Republic of Kazakhstan. The key tasks of the Association include representing and protecting the interests of its members in government bodies, participating in the rule-making process, and making specific proposals to government bodies to create favourable conditions for the implementation of RES projects in Kazakhstan.



Kazakhstan Welding Association “KazWeld”

Goals and objectives: to improve the quality and competitiveness of welding production products in the Republic of Kazakhstan, to increase the number and improve the quality of welding specialists in accordance with international standards, to establish a network of welding training centres capable of training the required number of specialists in accordance with international standards, to introduce

international standards of education, to train and certify welding production personnel, to authorise welding training centres in accordance with international standards, to authorise welding training centres in accordance with IIW standards, to collect and disseminate information on new welding technologies, welding materials and equipment and to assist in their introduction.



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

The Association of Legal Entities “Union of Mechanical Engineers of Kazakhstan” was founded in 2004. It unites more than 694 enterprises of mechanical engineering and metalworking industry.

The purpose of the Union is to support and develop the domestic mechanical engineering industry and consolidate

domestic mechanical engineering enterprises. The mission of the Union is to achieve a competitive and export-oriented level in domestic mechanical engineering.

INITIATIVES



New Kazakhstan Taxpayers Association

New Kazakhstan Taxpayers Association (NKTA) is a non-profit organisation established to help protect the legitimate rights and interests of taxpayers, improve their knowledge to ensure voluntary and timely payment of taxes. NKTA systematises and analyses problematic issues, proposals and comments in the field of taxation. The results of systematic work are

dialogues between state authorities and taxpayers within the framework of round tables, conferences, forums and working groups, as well as a set of proposals for amendments and additions to the legislation of the Republic of Kazakhstan on taxation.



The World Bank Initiative “Zero Routine Flaring by 2030”

The initiative brings together governments, oil companies and development organisations who agree to cooperate to stop the practice of routine flaring of associated petroleum gas (APG) by 2030 at the latest.

KMG supported this initiative in 2015 and has set itself the goal of increasing the beneficial use of crude gas (APG) and reducing routine gas flaring to zero.



Association of Producers and Consumers of Petrochemical Products

On 7 August 2020, it was decided in Astana to establish the “Association of Producers and Consumers of Petrochemical Products” (Petro Gas Chemical Association).

The purpose of the Association is to unite legal entities to represent common interests and promote sustainable development of the oil and gas chemical industry in Kazakhstan.



CDP Climate Programme

In 2023, KMG published a 2022 Greenhouse Gas Emissions Report as part of the CDP (Carbon Disclosure Project) Climate Programme. The Report contains data on direct and indirect

greenhouse gas emissions for all KMG assets, including subsidiaries in Romania and Georgia. CDP 2022 Water Safety Questionnaire was also published.



Global Methane Initiative

KMG supports the Global Methane Initiative (GMI) and regularly discloses information on its environmental performance to all stakeholders as part of its 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 entities, financial institutions, and other governmental and non-governmental organisations interested in methane emission reduction projects, and in methane recovery and use.



The Oil and Gas Methane Partnership (OGMP 2.0)

Understanding the importance of reducing methane emissions into the atmosphere, KazMunayGas became the first Kazakh national company in 2023 to join the OGMP 2.0 Partnership organised by UNEP and IMEO on the margins of the COP28 Climate Change Conference. Thus, KazMunayGas signed a Memorandum of Understanding with UNEP as part of the COP28 conference.

The Oil and Gas Methane Partnership 2.0 (OGMP 2.0) is the United Nations Environment Programme's flagship

programme for reporting and reducing methane emissions from the oil and gas industry. OGMP 2.0 is the only comprehensive measurement-based reporting system for the oil and gas industry that improves the accuracy and transparency of methane emissions reporting. This is key to prioritising actions to reduce methane emissions in the industry.



Oil and Gas Decarbonisation Charter (COP28)

As part of its participation in the Conference of Parties (COP-28), KMG became one of 52 oil and gas companies to join the Oil and Gas Decarbonisation Charter, a global industry initiative aimed at achieving high performance and accelerating climate action in the sector. The key goals

of the Initiative are to achieve carbon neutrality by 2050, reduce routine gas flaring by 2030 and achieve near-zero methane emissions.



National ESG Club

In 2022, KMG joined the National ESG Club, whose priority objectives are to develop recommendations and expert assessments in the following areas: reducing environmental impact in the Republic of Kazakhstan, developing

sustainable finance at a new level, attracting investment in decarbonisation of the economy and social projects, and creating favourable conditions for Kazakhstani businesses in ESG transformation.



Caspian Environmental Protection Initiative (CEPI)

In September 2020, a Memorandum of Understanding was signed in Baku between JSC NC "KazMunayGas", the State Oil Company of the Republic of Azerbaijan, BP Exploration (Caspian Sea) Limited, Equinor Apsheron AS and TOTAL E&P Absheron B.V. The Memorandum envisages the establishment of the Caspian Region Environmental Protection Initiative. The main objectives of the Initiative are to create the first platform for environmental protection and joint research of international oil companies

operating in the region. The activities of the participating companies will be aimed at active joint efforts to resolve the climate change problem, which poses threats to the environmental sustainability of the Caspian region, and to prevent emissions of greenhouse gases and harmful substances into the environment.



Vision Zero Global Initiative

On 1 March 2022, KMG officially joined the global initiative to promote the concept of Vision Zero.

Vision Zero is a qualitatively new approach to organising prevention, combining three areas – safety, occupational health and employee well-being at all levels of production. The ISSA's Vision Zero concept is flexible and can be adapted to specific prevention activities prioritised for employee safety, occupational health and well-being.

This concept implies a sequence of actions by the employer in order to protect the employees as much as possible, to create optimum working condition. On behalf of the employee – working safely, growing responsibility not only for themselves, but also for colleagues.



International Association for Emergency Oil Spill Response, Oil Spill Response Limited (OSRL)

Oil Spill Response Limited (OSRL) is a British company established in 1985, specialising in oil spill response and offering its services worldwide. More than a hundred world companies

are members of OSRL. The Company pays primary attention to prevention and removal of oil contaminations not only offshore but also in coastal areas.



Oil Spill Preparedness Regional Initiative (OSPRI)

The aim of the Initiative is to encourage and support the oil industry and governments in the region to work together to promote recognised, robust, integrated and sustainable national, regional and international oil spill response solutions. The Initiative is implemented through IPIECA, the global oil and gas industry association for environmental and social issues

(www.iecea.org). For IPIECA, OSPRI is the regional means of implementing the international efforts on assistance to Oil Spill Preparedness, in close cooperation with International Marine Organisation (IMO – www.imo.org) and other international organisations.



Initiative of Engagement with Republican Public Association “Oil & Gas Industry Veterans” (VNGK)

The mission of RPA “Oil & Gas Industry Veterans” is creating the conditions for interactive communication of industry veterans, meeting their professional and amateur interests aimed at development of the oil and gas industry, using their potential and experience in operations, active participation in the life of society, transferring their life and professional experience to the younger generation of oil workers.

In 2021, a Memorandum of Understanding and Cooperation was signed between JSC NC “KazMunayGas” and RPA “Oil & Gas Industry Veterans”. It was agreed in the Memorandum to utilise the practical experience, scientific, technical and intellectual potential of oil &

gas industry veterans. The Expert Council of oil & gas industry veterans of JSC NC “KazMunayGas” has been established. The key objectives of the Council are developing the recommendations for implementation of KMG’s strategic programmes in the field of technological and digital development of the oil and gas industry, discussing public initiatives related to oil and gas industry development, participating in developing expert recommendations for the regulatory framework of the oil and gas industry, preparing expert opinions on issues significantly affecting the operations of KMG, providing analytical, expert, informational and advisory support in the operations of KMG.



Kazakhstan Association of Regional Environmental Initiatives “Ecojer”

KMG joined the Kazakhstan Association of Regional Environmental Initiatives “Ecojer” in 2021. The purpose of the Association is to consolidate the business community and civil society to protect common interests

in the field of environmental protection. The Association strives to achieve a balance between the directions of state policy, the interests of the public and the needs of economic development.



PwC Kazakhstan Top 50 Companies to Disclose Non-Financial Information in Corporate Reports

The rating is conducted by PwC Kazakhstan among Kazakh companies. The survey assessed the quality and availability of ESG information in annual reports and sustainability reports.

The purpose of the rating is to assess how Kazakh companies disclose ESG information, identify best practices and provide recommendations for further development. The rating methodology includes 129 criteria. A score is given for each criterion (from 1 to 10). The assessment criteria included such disclosures units as sustainable development strategy, corporate governance, society, environment, and reporting practices. Additional points were awarded for the clarity, timeliness and quality of information presentation.

JSC NC “KazMunayGas” ranked first among the top 50 companies

To see the rating, please visit

<https://www.pwc.com/kz/en/assets/esg-2023-final-draft.pdf>.

for disclosure of non-financial information in corporate reports.

The best scores of the top 50 Kazakh companies on average are for disclosure of sustainable development strategy. At the same time, the strategic section assessed disclosures on the process of identifying material sustainability issues, the availability of goals, as well as stakeholder engagement and integration of the UN Sustainable Development Goals. Also, one of the most challenging tasks is to disclose information on social impacts, i.e. to understand these impacts: to determine how the company affects people’s lives and to assess the extent of this impact. Here KMG also received high score from experts and a special nomination for the best disclosure of social issues.

A subsidiary of KazTransOil JSC was also among the top 10 leaders of the rating.



CASE STUDY

KASE awarded KazMunayGas for its contribution to the development of the stock market

On 16 November 2023 KMG took part in the international exchange forum held by KASE “The Role of Exchanges in the Transformation of Financial Markets”, timed to coincide with the 30th anniversary of the Kazakhstan Stock Exchange. The forum discussed topical issues of exchange markets development, IPO development trends, digitalisation of financial services and growth of retail investors’ activity in the capital markets, development and promotion of ESG-principles and ESG-products in the financial market.

During the ceremony of awarding organisations, experts and specialists of the financial sector, which for 30 years have made a significant contribution to the development of the stock market of Kazakhstan, KMG took two awards: “Leader of the Stock Market” and “For the Implementation of ESG Standards”.



ABOUT THE COMPANY'S CONTRIBUTION TO ACHIEVING THE SDGs

KMG's approach to sustainable development issues is based on the alignment of the Company's interests and plans with the basic principles of the United Nations, universal human values, global trends and priorities of Kazakhstan's development. The Company adheres to all 17 UN Sustainable Development Goals. Based on KMG's strategic goals, the Company has identified 10 UN Sustainable Development Goals and 24 targets as priorities.

Their implementation determines the Company's contribution to achievement of the UN's global Sustainable Development Goals.

<https://www.kmg.kz/en/sustainable-development/un-global-compact/>



The goals and objectives align with strategic and business initiatives implemented in KMG.

IMPLEMENTATION OF THE SUSTAINABLE DEVELOPMENT GOALS IN KMG

Priority Targets

KMG's Contribution



ENSURE HEALTHY LIVES AND PROMOTE WELL-BEING FOR ALL AT ALL AGES

3.6. Reduce the number of deaths and injuries from road traffic accidents

Travel Management Project

In order to improve transport safety and create a culture of safe driving, a phased replication of the project for the introduction of an automated vehicle monitoring system "Travel Management" in SDEs, which account for the largest number of vehicles of KMG Group, is planned for the period from 2023 to 2025.

Result

The following work has been carried out as part of the replication:

- 7 KMG subsidiaries and dependent entities carried out diagnostics of transport management processes (KBM, OMG, MMG, OSC, OTC, KTO, KMG-S).
- 5 KMG subsidiaries and dependent entities approved the Roadmap for replication of the "Travel Management" project (KBM, OMG, MMG, OSC, OTC).

Road traffic accident frontal collision simulator (convincer)

In order to raise awareness among employees of KMG subsidiaries and dependent entities of the need to use seat belts, KMG Group purchased 3 convincers (KTO, OMG, OTC).

Result

As part of the "Stop Road Traffic Accident" campaign in 2023, a practical demonstration of the convincer was conducted with the involvement of employees of other KMG subsidiaries and dependent entities, in which 7,783 employees of KMG subsidiaries and dependent entities participated.

1,451 employees of subsidiaries and dependent entities and 454 employees of contractors were trained in **Defensive Driving** in accordance with RoSPA International Standards.

Priority Targets

KMG's Contribution

3.8. Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all

Staff wellness programme

A staff wellness programme is being developed for 2024–2028 and the main areas of focus are:

an information system that will ensure control and monitoring of employees with chronic diseases, production personnel; introduction of comprehensive prevention programmes for chronic diseases; innovative methods of pre-shift examinations; reduction of personnel morbidity, improvement of accessibility and quality of medical care.

Medical health insurance

Medical examinations and immunisations for employees are carried out on a regular basis.

Result

100% of KMG's employees are covered by the health insurance programme.

3.9. Significantly reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination

Leadership initiatives

The Code of Leadership and Commitment of Employees on Compliance with Health, Safety and Environment Requirements is introduced and implemented.

Qorgau Card

A Programme is implemented to identify and report an unsafe condition / unsafe behaviour / unsafe act / hazard.



ACHIEVE GENDER EQUALITY AND EMPOWER ALL WOMEN AND GIRLS

5.1. End all forms of discrimination against all women and girls everywhere

KMG 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 exercise of their 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.

Competitive recruitment procedures have no restrictions on gender, age or other grounds. Uniform labour remuneration and the same conditions of social support are established for all.

5.5. Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life

Increasing the share of women in the Board of Directors and Supervisory Boards of KMG Group to 20% by December 2023 and 30% by 2030.

Promoting WEP's, an initiative created by UN Women and the UN Global Compact. WEP's (Women's Empowerment Principles) are based on international labour and human rights standards and on the recognition that business has a stake in and responsibility for gender equality and women's empowerment.

As part of this initiative, it is planned to:

- sign the Company's CEO Statement of Support for the Women's Empowerment Principles;
- conduct a self-assessment using the WEP's Gender Gap Analysis Tool. It assesses the strategic approach to gender equality, identifies gaps and opportunities for continuous improvement, and helps set goals and targets;
- disclose gender-disaggregated data in sustainable development reports to communicate progress to stakeholders.

Priority Targets
KMG's Contribution


ENSURE ACCESS TO AFFORDABLE, RELIABLE, SUSTAINABLE AND MODERN ENERGY FOR ALL. IMPROVE THE ENERGY EFFICIENCY OF PRODUCTION. INCREASE THE SHARE OF AVAILABLE CLEAN ENERGY

7.1. Ensure access to affordable, reliable and modern energy services

The main strategic areas of energy saving and energy efficiency development in the Group are upgrading of process equipment, introducing energy saving technologies, optimising heating energy generation and consumption as well as developing own generation sources, including those using RES.

Our initiatives:

The 2031 Low-Carbon Development Programme has been approved and priority areas for action have been identified.

To improve energy efficiency:

- implementation of the best available techniques (BAT);
- upgrade of boiler and furnace equipment;
- upgrade of process units consuming heat energy;
- upgrade of the mechanical stock;
- implementation of management programmes aimed at optimisation of mechanical stock and pumping equipment with introduction of VFD;
- thermal insulation of main and auxiliary equipment;
- optimisation of transport equipment;
- introduction of automated systems for metering and management of fuel and energy resources;
- establishment of energy management services.

Targeted energy audit of process furnaces and boiler equipment

KMG Group's production assets (OMG, EMG, MMG and KBM) carried out a process audit of furnaces and boiler equipment. Based on the results of the work, additional actions to reduce the consumption of boiler and furnace fuel will be included in the Action Plans of the audited SDEs for the implementation of KMG's 2022-2031 Low-Carbon Development Programme.

Result

This year, 8 measures have been implemented to prepare design and estimate documentation, as well as 52 LCDP activities, the estimated annual savings of fuel and energy resources of which amounted to 22,289 tonnes (716.6 thousand tonnes. GJ) (0.6% of total energy consumption by the end of 2023), which is equivalent to a reduction in emissions by 45,054 tonnes of CO₂.

On 20 December 2023, the Management Board of KMG approved the Regulations on Energy Saving and Energy Efficiency Management in KMG Group. This Regulation is a mechanism for the implementation of KMG's 2022-2031 Low-Carbon Development Programme and provides a framework for setting and analysing energy targets and energy objectives.

Sustainable Aviation Fuel (SAF) Production

In September 2023, together with Air Astana and with the support of the European Bank for Reconstruction and Development, work began on a feasibility study of the market for sustainable aviation fuel (SAF) and the prospects for production in the Republic of Kazakhstan.

Following a working meeting of the study participants held on 23-24 November 2023, SAF production technologies most promising for Kazakhstan were jointly identified.

The next stages of the study will include a more detailed study of the selected SAF production technologies to determine the feasibility of SAF production for KMG, as well as a study of the regulatory and legal framework of the Republic of Kazakhstan for SAF production. The results of the feasibility study will be presented in the first half of 2024.

Priority Targets
KMG's Contribution

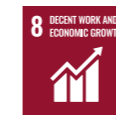
7.b. Expand infrastructure and upgrade technology for supplying modern and sustainable energy services

Development of RES projects:

1 GW wind power station with Total Eren;
 120 MW hybrid power plant with Eni;
 green electricity purchase of at least 15% by 2031;
 10,000 I-REC green certificates were purchased in December 2023 to confirm electricity consumption from RES generation sources.

Result

2031:
 15% – share of RES in KMG's electricity mix;
 implementation of RES projects of at least 300 MW;
 hydrogen energy development in Kazakhstan;
 100% coverage of SDEs with energy management services.
 For more information, see the Low-Carbon Development Programme section.



PROMOTE SUSTAINED, INCLUSIVE AND SUSTAINABLE ECONOMIC GROWTH, FULL AND PRODUCTIVE EMPLOYMENT AND DECENT WORK FOR ALL

8.5. Achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value

KMG provides employment for over 49,000 people, including 81% men and 19% women.

8.6. Significantly reduce the proportion of youth not in employment, education or training

KMG Group implements programmes to develop and attract young specialists in production.

Result

Zhas Maman – a programme to attract and develop young specialists at Atyrau Refinery and Pavlodar Oil Chemistry Refinery. From 2022 to 2023, 31 people are studying and working at Atyrau Refinery, 7 of them are employed, and 1 person is employed at Pavlodar Oil Chemistry Refinery.

Dual Training – a programme including training, probation and further employment in KMG Group. Thus, in the period from 2022 to 2023, 4 out of 99 people trained under this programme were employed at Embamunaigas; 17 out of 62 people were employed at Atyrau Refinery; 36 out of 53 people were employed at Pavlodar Oil Chemistry Refinery.

Probationary Employee – a programme started in 3 professions: process plant operator, process pump and compressor operator, instrumentation and control technician. Probationary employees are trained and undergo on-the-job training at Atyrau Refinery. In the period from 2022 to 2023, 60 people are trained under this programme, 29 of them are employed.

8.8. Protect labour rights and promote safe and secure working conditions for all workers

Social support of KMG employees is provided in accordance with collective bargaining agreements and internal instruments of the employer. Collective bargaining agreements are in force in 24 entities of KMG Group. The social package of the entities includes more than 50 types of social benefits; today all terms and conditions of collective bargaining agreements and instruments are fully complied with in all KMG entities.

Priority Targets
KMG's Contribution

BUILD RESILIENT INFRASTRUCTURE, PROMOTE INCLUSIVE AND SUSTAINABLE INDUSTRIALIZATION AND FOSTER INNOVATION

9.1. Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all

KMG's Digital Transformation Programme enhances scientific research and improves the technological capabilities of industrial sectors. KMG invests heavily in scientific research and build-up of local potential in this area. The development of domestic technological capacities for industrial diversification will also have a positive impact on the country's climate.

ABAI Information System Development Project involves centralising all KMG Group production information in a single database on a Big Data platform, as well as processing and analysing it using artificial intelligence and machine learning.

ABAI Information System is 17 autonomous modules, each aimed at solving specific industrial problems.

Result

6 ABAI modules ("Database", "Map Builder", "Downhole Pumping Equipment Selection", "Selection and Analysis of Efficiency of Geological and Technical Activities", "Process Mode", "Production Planning and Monitoring") were implemented.

Achieved effects:

- automated data collection and production report upload function were implemented;
- additional production was obtained due to more efficient process mode at OMG and KGM;
- the number of underground well workovers was reduced due to the reduction of failures of downhole pumping equipment at OMG and MMG;
- efficiency of geological and technical activities at OMG and MMG was increased;
- additional production was obtained due to a more efficient system of formation pressure maintenance at KGM.

9.4. Upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes

The 2031 Low-Carbon Development Programme has been approved, and priority areas for energy efficiency improvement have been identified: optimisation of energy management and establishment of energy management services, introduction of automated systems for metering and management of fuel and energy resources, determination of the applicability of breakthrough projects at the assets of specific subsidiaries and dependent entities, introduction of best available techniques (BAT), update of the mechanical stock, optimisation and update of transport equipment.

Result

2031:

100% coverage of SDEs with energy management services;

Reduction of energy intensity by 10% versus 2019.

Priority Targets
KMG's Contribution

MAKE CITIES AND HUMAN SETTLEMENTS INCLUSIVE, SAFE, RESILIENT AND SUSTAINABLE

11.2. By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons

KMG is working on the implementation of additional decarbonisation activities, including the introduction of carbon capture, storage and use technologies (CCUS), the launch of pilot projects on power stations, the implementation of forest climate projects, etc.

In February 2023, the 2060 Low-Carbon Development Strategy of the Republic of Kazakhstan was adopted. One of the promising directions of decarbonisation of the transport sector is the development of electric vehicles. In addition, as part of the Low-Carbon Development Concept of Samruk-Kazyna JSC, all portfolio companies have a goal to gradually switch from petrol to electric vehicles. The Government welcomes all forms of cooperation, including corporate sector initiatives that contribute to the achievement of climate goals, KMG is considering the possibility of implementing a project to develop charging infrastructure for electric vehicles in Kazakhstan.

11.6. By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management

Implementation of the best available techniques aimed at step-by-step reduction of negative environmental impact

A number of KMG companies, which are among the 50 major polluters in terms of pollutant emissions in Kazakhstan, intend to develop an environmental efficiency improvement programme in 2024 based on the national sectoral BAT reference books, followed by obtaining a comprehensive environmental permit from the Ministry of Ecology and Natural Resources of the Republic of Kazakhstan.

Development of a programme to reduce pollutant emissions

In order to reduce pollutant emissions, KMG Group plans to develop a programme to reduce pollutant emissions and set targets.

Implementation of the World Bank Initiative "Zero Routine Flaring by 2030"

KMG is a participant of the World Bank's initiative to completely stop routine flaring of associated petroleum gas by 2030. As part of the above initiative, the Company is guided by the KMG Emissions Management Policy aimed at zero routine flaring by 2030.

Creation of a "green belt" – greening projects

Atyrau Refinery will plant 10,000 trees over three years as part of the Memorandum of Cooperation on Greening Atyrau City signed between Atyrau Region Akimat and KMG during an environmental conference on 5 June 2023.

Result

- In order to create a favourable living environment for the population and improve the environmental situation, including improvement of atmospheric air quality, the refineries take actions that comply with the indicators of the Green Kazakhstan National Project. Under the Project, emissions are expected to be reduced by 20% over five years.
- Work is underway to install automated pollutant emission monitoring systems. At present, construction and installation works are underway to install this system in accordance with the Roadmaps.
- In order to create a "green belt" between Atyrau Region Akimat and Embamunaigas JSC, a Memorandum was signed to carry out landscaping works on a 243 hectare plot in Talkayran Village allocated by Atyrau Region Akimat.
- In 2023, Atyrau Refinery transferred 200 ash trees with closed root system to Atyrau Region Akimat. The trees were planted on the territory of the Retropark. In 2022–2023, EMG planted about 22 thousand seedlings under the Memorandum.

Priority Targets
KMG's Contribution

ENSURE SUSTAINABLE CONSUMPTION AND PRODUCTION PATTERNS

12.4. Achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment

Water Management Programme

A long-term Water Management Programme for KMG Group has been developed in order to set targets for reducing water withdrawal and increasing water reuse.

TAZALYQ

Atyrau Refinery is actively implementing TAZALYQ, a large-scale environmental project, to improve the environment.

Historically Accumulated Oil Waste Disposal Programme

Implementation of a programme to dispose of historically accumulated oil waste and oil-contaminated lands.

12.5. By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse

Result

Disposal of historical oil waste: 3.2 million tonnes of oil waste recovered in 2018–2023.

12.6. Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle

Carbon Disclosure Project

The Company calculates the water footprint and posts a Water Safety Questionnaire on the Carbon Disclosure Project platform.

Green Office

The corporate green direction is being actively developed and green office principles, such as the introduction of separate waste collection, water and energy saving in office premises, are being gradually introduced.

Result

As part of our green office implementation and to reduce plastic and metal waste generation, a recycling kiosk was installed on the ground floor of our office. During the entire period, 18,741 plastic bottles and 3,619 aluminium bottles were handed in using the recycling kiosk in the Izumrudny Kvartal BC.

CDP 2022 Water Safety Questionnaire was published.

Priority Targets
KMG's Contribution

TAKE URGENT ACTION TO COMBAT CLIMATE CHANGE AND ITS IMPACTS

13.2. Integrate climate change activities into national policies, strategies and planning

Reducing methane emissions

A Memorandum was concluded with Carbon Limits (a world leader in methane leak management). As part of the Roadmap to the Memorandum, KMG specialists were trained in methane leak management, and a demonstration of the LDAR methane leak detection and repair programme is planned for 2024.

In addition, in order to reduce and mitigate methane emissions, the Company signed a Memorandum of Cooperation with Tetra Tech ES, Inc. implementing the USAID-funded Central Asia Energy Project (PCA).

KMG signed an agreement with Baker Hughes Services Kazakhstan LLP in December 2023 to cooperate on the implementation of low-carbon projects, including the implementation of projects to monitor and repair methane leaks and reduce routine flaring.

Joining OGMP 2.0

The Company joined the UNEP OGMP 2.0 methane initiative, which involves setting its own methane emission reduction target and reporting methane emissions to UNEP.

Joining the Oil and Gas Decarbonisation Charter

The Company joined this Initiative at the Climate Change Conference of Parties (COP-28).

Forest Climate Projects

A 2,000 ha area has been identified in Pavlodar Region and the potential for greenhouse gas uptake is being assessed

RESULT

- The Action Plan to Implement the 2022–2031 Low-Carbon Development Programme has been developed and approved.
- KMG's pilot project on CO₂ capture, storage and utilisation (CCUS) and determination of injection potential for enhanced oil recovery of depleted oil reservoirs is being developed.
- A benchmark for light oil products is developed.

Priority Targets
KMG's Contribution

13.3. Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning

Concept of Internal Carbon Pricing

In order to implement planning and ensure activities to reduce the carbon footprint of subsidiaries and dependent entities, as well as to fully take into account the impact of carbon regulation on financial and economic indicators, internal carbon pricing mechanisms have been developed. Currently, work is underway to integrate them into the business processes of KMG Group.

CDP

The company Calculates its carbon footprint and posts a Climate Questionnaire on the CDP platform.

According to the Oil and Gas Benchmark ranking from the World Benchmarking Alliance, based on the assessment of low-carbon transition and performance on social indicators, KMG is ranked 37th among 100 key oil and gas companies in the world in 2023, up from 77th place in 2022.

Task Force on Climate-related Financial Disclosures (TCFD)

Climate-related risk disclosure in accordance with recommendations of Task Force on Climate-Related Financial Disclosures (TCFD).

Expanding the coverage of greenhouse gas emissions reporting

In order to improve reporting on greenhouse gases and improve the greenhouse gas emissions management system for KMG Group, work was carried out to inventory indirect greenhouse gas emissions of Scope 3 by 12 categories, and a methodology for collecting information was developed for its subsequent implementation into the Methodology for Monitoring and Reporting of KMG's Greenhouse Gas Emissions.

Result

A corporate methodology for quantitative assessment of greenhouse gas emissions was introduced.

A methodology for calculating greenhouse gas emissions by Scope is being developed.

Priority Targets
KMG's Contribution

PROTECTING AND RESTORING TERRESTRIAL ECOSYSTEMS AND PROMOTING THEIR SUSTAINABLE USE, SUSTAINABLE FOREST MANAGEMENT, COMBATING DESERTIFICATION, HALTING AND REVERSING LAND DEGRADATION AND HALTING BIODIVERSITY LOSS

15.3. Combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world

KMG implements projects and actions aimed at reducing pollutant discharges and reducing water withdrawal from natural sources.

Carbon Disclosure Project

The Company calculates the water footprint and posts a Water Safety Questionnaire on the CDP platform. A Water Resources Management Programme is being developed for KMG Group.

TAZALYQ

Atyrau Refinery is actively implementing TAZALYQ, a large-scale environmental project, to improve the environment of Atyrau.

Desalination Plants Construction

The desalination plant is a unique project in addressing the issue of water supply in Mangystau Region. The plant will release at least 6.2 mln m³ of Volga water per year for development of the region.

The desalination plant near the Kenderli recreation area in Mangystau Region.

The estimated capacity will be 50 thous. m³ of water per day.

Land Restoration

The Company is working on recovery of historical oil waste and clean-up of oil-contaminated lands.

RESULT

TAZALYQ: the Reconstruction of Mechanical Treatment Facilities (closed type MTF) project is nearing completion at Atyrau Refinery. Currently, implementation of the 1st stage of the project has been completed and construction of the 2nd stage of the project is being completed.

The Reconstruction of Regulatory Treated Effluent Canal and Reclamation of Atyrau Refinery Evaporation Fields project is being implemented. The evaporation fields are divided into 4 sectors, which are being rehabilitated in stages. Sectors 1 and 2 are fully drained and rehabilitated. A pipeline was installed in place of the existing open canal, which was used to discharge Atyrau Refinery wastewater to the Atyrau Refinery evaporation fields.

15.5. Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity, and protect and prevent the extinction of threatened species

Forest Climate Projects

As part of KMG's 2031 Low-Carbon Development Programme, it is planned to implement forest climate projects that will have a beneficial effect on the conservation of terrestrial ecosystems.

Hierarchy of Biodiversity Mitigation Activities

The Company applies a hierarchy of biodiversity impact mitigation activities when planning and implementing its operations based on four key actions: prevention, minimisation, restoration and compensation of potential significant direct impacts.

Biodiversity Conservation Programme

Development of a Biodiversity Conservation Programme including targets and timelines related to biodiversity conservation, cooperation with local or international conservation organisations on biodiversity conservation issues.

Result

A 2,000 ha area has been identified in Pavlodar Region and the potential for greenhouse gas uptake is being assessed



STRENGTHEN THE MEANS OF IMPLEMENTATION AND REVITALISE THE GLOBAL PARTNERSHIP FOR SUSTAINABLE DEVELOPMENT

17.1. Strengthen domestic resource mobilization, including through international support to developing countries, to improve domestic capacity for tax and other revenue collection

KMG discloses tax information in accordance with the **GRI standard and the Country by Country OECD Action 13 initiative.**

Payments to States

The Company provides information in the Report on Payments to States on an annual basis for the following types of payments:

- **Taxes**

All taxes other than mineral extraction tax.

- **MET**

Mineral extraction tax is a mandatory payment by a subsoil user separately for each type of extracted minerals, oil, underground water and therapeutic mud.

The object of the mineral extraction tax is the physical volume of crude oil, gas condensate and natural gas extracted by a subsoil user during the tax period.

- **Subscription Bonus**

Subscription bonus is a one-time fixed payment of a subsoil user for acquisition of the subsoil use right in the contractual territory (subsoil plot), as well as in case of expansion of the contractual territory (subsoil plot) in accordance with the procedure determined by the legislation of the Republic of Kazakhstan.

- **Other Payments**

Other payments comprise all other payments to States, including export customs duty.

RESULT

KMG follows the best international practices in increasing transparency in payments to the state, strengthening the responsibility of extractive companies in matters of revenues from the sector, and raising public awareness of the company's activities in the regions.

17.16. Enhance the Global Partnership for Sustainable Development, complemented by multi-stakeholder partnerships that mobilize and share knowledge, expertise, technology and financial resources, to support the achievement of the Sustainable Development Goals in all countries, in particular developing countries

In order to implement the UN SDGs, KMG actively cooperates with industry companies, international agencies and is a participant in intergovernmental organisations in the field of energy saving, labour and environmental protection, combating climate change, reducing emissions, as well as promoting green energy and other similar areas.

17.17. Encourage and promote effective public, public-private and civil society partnerships, building on the experience and resourcing strategies of partnerships

ESG RISK MANAGEMENT

The Company has introduced and effectively operates a corporate risk management system (CRMS), which is integrated into the key business and management processes of the Company and is aimed at achieving an optimal balance between KMG's value growth, its profitability and risks. Risk management in the Company allows preventing the occurrence of risk events affecting the achievement of strategic and operational objectives and limiting their impact when they occur.

The CRMS is a key component of KMG's corporate governance system, with a vertical risk management process built at all management levels and aimed at timely identification, assessment and monitoring of all material risks, as well as taking timely and adequate actions to mitigate risks.

The Board of Directors, supported by the Audit Committee of the Board of Directors, determines the main vector of risk management development to provide assurance of compliance with the Company's strategic goals, timely identification of the Company's key risks, their assessment and management methods, and reviews reports on the effectiveness of the risk management system.


The Management Board is responsible for the organisation and effective functioning of the CRMS, timely submission of quarterly risk reports to the Fund, the Audit Committee and the Board of Directors, ensuring implementation of the CRMS Policy, improvement of internal regulatory documents in the field of risk management of the Company and taking necessary risk management actions. The Management Board has a Risk Committee, which is a permanent consultative and advisory body established for preliminary consideration of KMG Group's risk management issues and preparation of recommendations to the KMG Management Board for decision-making. The Committee considers the Company's risks and the effectiveness of activities to manage them, methodological documents on risk management, proposals for the development



of risk management policies, procedures and structure; new approaches to risk management, and work plans to improve the CRMS.

In accordance with the concept of three lines of defence at KMG, the first line of defence (business functions) – managers and employees of structural divisions – is responsible for risk assessment and management at their level, as well as for ensuring an effective internal control system; the second line of defence (monitoring functions) – managers and employees of structural units – is responsible for ensuring and monitoring the implementation of effective risk management practices, internal control, compliance with legislation, internal documents and investigation of unfair practices on the part of KMG's employees; and the third line of defence (independent function) – Internal Audit Service – provides confirmation to the Board of Directors and KMG's Management Board on the effectiveness of the management systems and operation of the first and second lines of defence.

Identification of risks/risk factors inherent in KMG Group's activities, the occurrence of which may adversely affect the ability to achieve the planned goals and realise the set objectives, assessment and development of an action plan for their management is carried out by the owners of risks/risk factors at all management levels. In 2023, the Company updated the consolidated Risk Register, including risks affecting the sustainable development of KMG Group.


KEY ESG RISKS AND ACTIONS TAKEN TO MANAGE AND MITIGATE THEM


Trend (over the year)	Risk description and possible consequences	Actions taken to mitigate and manage risk
Environmental aspects		
	<p>Climate risks and low-carbon development</p> <p>In its activities, the Company faces risks associated with energy transition and climate change, which include the following risk factors:</p> <p>1. Risks related to energy transition (restrictions in the sale of carbon units, significant costs of actions, low profitability of low-carbon projects, lack of legislative and permitting regulations, increased electricity tariff).</p> <p>2. Physical impact of climate change on the Company (short-term: floods, landslides, mudslides, drought, fires, hurricanes; systematic: prolonged period of abnormally high air temperatures, sea level rise and waterlogging of onshore wells, drop in the Caspian Sea level).</p> <p>Impact</p> <p>These risks may adversely affect the Company's business as a major fossil fuel producer and greenhouse gas emitter by increasing costs, reducing profitability and limiting opportunities for further development.</p> <p>In certain counterparty countries, an increase in the production of energy from renewable sources can be expected, which may lead to a decrease in the consumption of products supplied by the Company.</p>	<p>As part of minimising the risk associated with climate change and its consequences, KMG Group has been taking the following actions:</p> <ol style="list-style-type: none"> In 2023, with the support of the European Bank for Reconstruction and Development, an Action Plan to improve corporate governance in the field of climate change (in accordance with TCFD recommendations) has been developed; an Agreement of Understanding in the field of carbon capture and utilisation (CCUS) has been signed with Baker Hughes; a Memorandum of Cooperation on the project of construction of solar power plants has been signed with Samruk-Energy JSC; an updated Internal Carbon Pricing Programme has been approved; a draft corporate standard on investments in green projects has been prepared; participation in working groups to improve the legislative framework in the field of low-carbon development, energy efficiency and energy saving, RES and alternative energy, taking into account corporate interests; assessment of the potential for implementing a pilot project to build a "Full Chain" of CO₂ capture, utilisation and storage (Stage 2); a Forest Climatic Project has been implemented. Stantec is a contractor; a methodology for inventory of greenhouse gas emissions (Scope 3) has been developed for implementation into the Methodology for Monitoring and Reporting of Greenhouse Gas Emissions of the Company; a Memorandum has been signed with Tetra Tech Inc., implementing the Central Asian Energy Project (to inventory the sources of methane emissions at the Company's facilities and reduce emissions). KMG has joined the OGMP 2.0 (Oil and Gas Methane Partnership) Initiative for reporting on methane emissions among oil and gas companies.


Trend (over the year)	Risk description and possible consequences	Actions taken to mitigate and manage risk
	<p>Risk of adverse environmental impact</p> <p>The Company is exposed to the risk of adverse environmental impact and the risk of stricter liabilities for non-compliance with environmental legislation.</p> <p>Impact</p> <p>The realisation of environmental risk may entail financial costs in the form of fines, excessive payments, environmental remediation costs, as well as statutory liability and increased social and environmental tension.</p>	<p>In the field of environmental protection, the Company's priority areas of focus are:</p> <ul style="list-style-type: none"> control of atmospheric emissions and reduction of raw gas flaring; water management; production waste management; land reclamation; improving energy efficiency. <p>To minimise the risk of adverse environmental impact, the Company implements:</p> <ul style="list-style-type: none"> preventive management of significant environmental aspects based on project management and risk-based approach to improve environmental performance; interaction with stakeholders on environmental issues; implementation of the memorandum of cooperation in the field of environmental protection signed with the authorised body for the purpose of utilisation and recycling of SDEs' waste; monitoring of inventory of accumulated waste and oiled land reclamation projects; full development of the corporate environmental direction, as well as ensuring the Company's commitment to the principles of green economy; work is underway to introduce the best available technologies (BAT) and an automated information system (AIS) for environmental monitoring at SDEs.
	<p>Oil spill risk from offshore operations</p> <p>Disturbances of process conditions, pipeline accidents, abnormal operation of production and process equipment, gas and oil spills during drilling of exploration and appraisal wells, as well as the closed ecosystem of the Caspian Sea, shallow water, abnormally high formation pressure in the field, the presence of high hydrogen sulphide content and seasonal freezing of the surface may lead to oil spills.</p> <p>Impact</p> <p>These factors may result in significant environmental damage, shutdown of the production process and financial costs to eliminate the accident and its consequences.</p>	<p>In order to minimise the risk of oil spills, the Company takes the following actions:</p> <ol style="list-style-type: none"> Constant control and monitoring of process conditions. Continuous monitoring of the operation of production and process equipment and pipelines. Timely scheduled preventive maintenance and repairs. Oil spill response preparedness, training and Level 1, 2 and 3 drills together with the Ministry of Emergency Situations of the Republic of Kazakhstan. Ensuring effective functioning of the North Caspian Environmental Spill Response Base. Monitoring the condition of abandoned wells. Participation in committees, working groups of the North Caspian Production Sharing Agreement (NCPISA) to review planned preventive actions with relevant recommendations and amendments.


Trend (over the year)	Risk description and possible consequences	Actions taken to mitigate and manage risk
	<p>Risk of emergencies and man-made disasters at industrial facilities</p> <p>The Company's operations are potentially hazardous. There is a risk of damage to property, third parties and the environment as a result of accidents, emergencies and man-made disasters at industrial facilities.</p> <p>In the reporting period, an accident was registered in the oil and gas production department of Embamunaigas JSC: on 16 November 2023, a gas, oil and water inflow occurred during the drilling process while extracting core from the well. There were no casualties.</p> <p>Impact</p> <p>Industrial accidents can lead to the following consequences:</p> <ol style="list-style-type: none"> 1. Injuries and deaths of workers 2. Partial or complete destruction of equipment, buildings and structures 3. Costs to eliminate environmental impact, extinguish fire, restore production 4. Payment of fines for excessive environmental impact 	<p>The following preventive actions are taken to prevent incidents during drilling operations:</p> <ul style="list-style-type: none"> • studies to clarify geological characteristics; • control of drilling fluid flow parameters, readings of gas concentration in the drilling fluid and technological process; • mandatory control of drilling mud formulation and methodology by specialists of author's supervision over well construction; • monitoring of direct and indirect signs for early detection of gas, oil and water inflow; • during the RIH/POOH operations, check for compliance of the volume of drilling mud to be added (displaced) with the volume of drill pipes being lifted (run down). <p>In order to minimise industrial risks, the Company implements:</p> <ul style="list-style-type: none"> • ensuring timely maintenance and repairs of equipment in accordance with the requirements of regulatory documents; • timely diagnostics and identification of potential hazards, as well as industrial safety expertise of industrial facilities; • control over the implementation of actions to carry out industrial safety expertise of equipment with expired service life; • briefings on safe operation of equipment (technical devices); • training and testing of knowledge of the requirements of technical regulations for safe operation with the issuance of qualification certificates (permits). <p>Voluntary property insurance contracts are concluded annually against damage (risk of accidental loss, loss or damage) as a result of an insured event.</p>

Trend (over the year)	Risk description and possible consequences	Actions taken to mitigate and manage risk
Social aspect		
	<p>Risk of occupational injuries</p> <p>Failure of employees to comply with the established OHS rules, violation of production discipline is a source of threat to life and damage to health of employees. By the end of 2023, 29 employees of KMG Group suffered injuries, compared to 2022; there is a 19% decrease.</p> <p>Due to the increase in lost time accidents involving contractors in 2023, actions are being taken to improve contractor liaison processes to minimise HSE risks.</p> <p>Impact</p> <p>Failure to comply with OHS rules may result in personal injury, as well as production disruption, financial losses and damage to the Company's business reputation.</p> <p>For more information, see the Health, Safety and Environment section.</p>	<p>In order to prevent occupational accidents, the Company takes organisational and technical activities to ensure:</p> <ul style="list-style-type: none"> • safe work practices and prevent occupational injuries and diseases; • timely training and knowledge testing; • internal control in the field of occupational health and safety; • introduction of new technologies and means of labour mechanisation; • improve of the level of industrial safety of production facilities; • A Near Miss reporting programme is being implemented through the use of the Qorgau Card and the cards under the Workplace Safety Behavioural Observation Programme and the Driving Safety Behavioural Observation Programme; • work continues on the implementation of the Workplace Safety Behavioural Observation Programme and the Driving Safety Behavioural Observation Programme in SDEs; • comprehensive occupational health and safety inspections were carried out in a number of SDEs.

Trend (over the year)	Risk description and possible consequences	Actions taken to mitigate and manage risk
	<p>Pandemic risk</p> <p>The emergence of new viruses/ strains poses a threat to worker health. The epidemiological situation in the Republic of Kazakhstan regarding the incidence of coronavirus infection (CVI) is relatively favourable, with a decrease in the incidence of the disease. In May 2023, the World Health Organisation cancelled the status of "public health emergency of international concern" for COVID-19. However, this does not mean that the virus is no longer a threat.</p> <p>Impact</p> <ol style="list-style-type: none"> 1. Spread of infection and increase in the number of contact persons in KMG Group. 2. Dissatisfaction, refusal to go to work, misinformation, panic and protest moods, xenophobia. 3. Health damage, temporary disability, fatalities, compensation. 4. Lack or shortage of qualified operating personnel and engineering and technical staff (reduced labour productivity). 5. Forced isolation and hospitalisation of infected and contact persons, restrictive actions on the part of state authorities (quarantine). 	<p>Depending on the current epidemiological situation and the epidemiological risk zone in a particular region, the corporate centre and subsidiaries and affiliates comply with the requirements and recommendations of the current resolutions of the chief state sanitary doctors.</p> <p>A set of actions is taken in accordance with approved algorithms to ensure preparedness and continuity of KMG and its SDEs in case of deterioration of the situation related to the spread of new strains.</p>

Trend (over the year)	Risk description and possible consequences	Actions taken to mitigate and manage risk
	<p>Terrorism risk</p> <p>Terrorist and other violent actions against the Company's personnel, contractors and assets.</p> <p>Impact</p> <p>The Company operates in a number of countries where terrorist acts and other criminal attacks against the Company's assets are likely to occur. In the reporting period, no facts of realisation of this risk in KMG Group were identified.</p>	<p>The Company implements a set of preventive actions, including:</p> <ul style="list-style-type: none"> • checking the condition of technical security equipment, warning systems, the relevance of evacuation schemes, the current condition of exits and evacuation routes; • training of security and service employees on anti-terrorist protection of facilities and personal safety in case of emergency; • inspections for physical security and anti-terrorist protection of SDEs' facilities; • interaction with law enforcement and specialised agencies on issues related to physical security and anti-terrorist protection of facilities; • verification of employees of contractors allowed to work at the Company's facilities; • training sessions on the actions of security personnel, service and technical units in case of emergency situations at facilities; • ensuring control over the maintenance of video surveillance systems, routine maintenance of the integrated security system, access control and management systems and barriers; • testing the knowledge of security personnel on how to act in the event of various emergencies; • keeping up-to-date the developed regulations on the organisation of access and facility security; • certification of facilities vulnerable to terrorism in accordance with the requirements of anti-terrorism legislation.

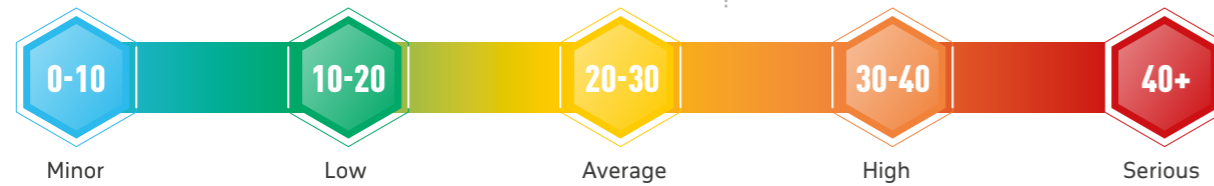
Trend (over the year)	Risk description and possible consequences	Actions taken to mitigate and manage risk
	<p>Social situation in the regions of operations</p> <p>The Company is exposed to the risk of unauthorised industrial action.</p> <p>Impact</p> <p>Negative impact on the Company's reputation, resulting in disruption to operations and higher operating costs, and impact on capital expenditure and project schedules. Higher commodity prices, higher domestic inflation or the continued weakening of the tenge could impact negotiations over pay changes.</p> <p>During 2023, there were a number of unauthorised strikes amongst contractor employees and some employees of SDEs. Negotiations with leaders of trade union committees and meetings with employees were held, as well as actions were taken to reduce the wage gap between the Company's employees and contractors.</p> <p>At the end of 2023, the number of strikes in KMG SDEs and their contractors decreased by 59% in Mangistau Region (9 strikes in 2023 compared to 22 strikes in 2022).</p>	<p>To mitigate social risks, the Company takes the following actions.</p> <ol style="list-style-type: none"> 1. For timely settlement of social and labour conflicts in the Mangistau Region, KMG representative office in Aktau is operating. KMG takes part in the work of the Interdepartmental Headquarters for solving problematic issues of Zhanaozen, Mangistau Region. 2. Continuous monitoring of the social situation at KMG entities and their contractors has been organised. Within the framework of the developed Algorithm of Actions for the settlement of protests, a unified position has been developed jointly with authorised state bodies. In order to prevent possible conflicts and improve the social situation, continuous monitoring of industrial relations in the contracting organisations of KMG's SDEs has been organised. 3. SDEs have developed roadmaps to improve labour and recreation conditions for employees, implementation period 2023–2027, including construction of social infrastructure facilities and overhauls of existing social infrastructure facilities. In 2023, the Corporate Centre developed a uniform form of the SRS (Samruk Research Services) improvement plan for all SDEs, and introduced the practice of visiting SDEs and assisting in developing action plans to improve the social stability index. In the current year, PetroKazakhstan Oil Products LLP jointly with the Social Engagement and Communications Centre conducted in-depth sociological survey. At the end of 2023, the SRS index was 75%. 4. KMG Group has a Unified System of Internal Communications (Regulations). All entities hold mandatory scheduled meetings of the management with employees to discuss social, household and production issues and jointly develop solutions. In 2023, 101 reporting meetings were held covering 14,000 employees of KMG SDEs, where employees raised more than 500 questions and provided explanations for all of them. 5. KMG actively contributes to reducing unemployment in the Mangistau Region. Since the beginning of 2023, a total of 2,216 people have been employed by KMG's SDEs and contractors under the direct coordination of KMG's Representative Office together with Mangistau Region Akimat. Also, under the agreement signed by between KMG and Abu-Dhabi Ports Group (ADP), a competition to fill vacant positions at ADP was launched among the residents of the Region. 6. In order to consolidate employees, build team spirit and a healthy psychological atmosphere, various events are regularly held to develop corporate culture (KMG Spartakiade with participation of all KMG SDEs, professional skills competition "Uzdik Maman"). 7. To improve the educational level of young people in Zhanaozen, a programme has been launched to finance the education of schoolchildren in the best specialised boarding schools and colleges of the country. The programme is designed to educate an average of 1,300 schoolchildren annually.

Trend (over the year)	Risk description and possible consequences	Actions taken to mitigate and manage risk
Corporate governance aspects		
	<p>Compliance risks</p> <p>Deliberate actions of corruption aimed at obtaining personal benefit and property interests, including for third parties. Any facts of corruption are absolutely unacceptable in the Company's activities, regardless of the amount of financial damage.</p> <p>Impact</p> <p>Financial loss, damage to reputation.</p>	<p>The Company carries out consistent work to introduce and strengthen compliance control systems, to establish a unified policy to prevent unlawful and unfair acts of both third parties and the Company's employees, to establish a procedure for internal investigations of unlawful and unfair acts of employees. The Company has policies and standards in place, taking into account the world's leading practices, as well as commitments to:</p> <ul style="list-style-type: none"> • improve and strengthen internal and compliance control systems. In the reporting period, additions were made to the rules for planning, organizing, and conducting procurement of goods, works, and services in KMG regarding the validity of the application of grounds for single-source procurement; • conduct anti-corruption monitoring; • analyze corruption risks; • foster an anti-corruption culture, carry out preventive actions, and educate employees about possible violations and measures; • establish organizational and legal mechanisms to ensure accountability and transparency of decision-making procedures; • adopt and comply with business ethics; • organize anti-corruption workshops and training sessions; • review draft internal documents for corruption-related factors; • prevent conflicts of interest; • conduct due diligence checks on counterparties and candidates for positions at CEO-1 and CEO-2 levels; • compile an insider list and send notices of restrictions, obligations, and responsibilities to insiders; • handle incoming hotline enquiries with reports to the Board of Directors.

KMG's ESG Risk Rating

32.3

High risk



Sustainalytics conducted an annual comprehensive analysis of the environmental, social policy and corporate governance (ESG) performance of NC KazMunayGas JSC.

KMG's ESG risk management was rated by the rating agency at the level of 32.3 points, while the rating was previously 28.5 points.

In the comparative ranking, KMG moved from 18th place to 40th among 315 global oil and gas companies assessed by Sustainalytics.

According to analysts, the high value of ESG risk exposure rating corresponds to the average values for the industry, i.e. risks inherent to the oil and gas industry. The score reflects the ESG risks faced by the Company in terms of emissions and waste volumes, operational safety performance and corporate governance issues.

At the same time, KMG received a positive expert assessment on risk management on anti-corruption issues, increased the level of risk management

on human capital issues, and maintained a stable level of risk management on resource utilisation, biodiversity and business ethics.

KMG recognises the importance of strengthening actions and works on ESG aspects. The key ESG challenges for KMG are reducing emissions, waste, continuing the implementation of the Low-Carbon Development Programme, strengthening work on health and safety of employees, as well as supporting the corporate governance system at the level of international best practice.

Sustainalytics gives ESG rating to the companies by assessing their environmental, social responsibility and governance risks, and their capability to manage such risks as compared to competitors. More detailed information about Sustainalytics rating is available at:

<https://www.sustainalytics.com/esg-rating/national-company-kazmunaygas-jsc/1028382256>.

DIGITAL DEVELOPMENT

2-6

In the reporting period, the implementation of KMG's digital projects aimed at achieving the Sustainable Development Goals on industrialisation, innovation and infrastructure continued.

To date, APC has been implemented at the primary oil refining unit AT-2 and at the AVT-3 unit.

2. DIGITALISATION PROJECTS IN PROGRESS

2.1. Travel Management Project

In order to create a culture of safe driving, improve transport safety and make it easier for owners to manage their vehicles, work is underway to replicate the Travel Management Project in Ozenmunaigas JSC, Karazhanbasmunay JSC and Mangistaumunaigas JSC:

- diagnostics of the maturity of processes in SDEs, taking into account the level of automation, equipment with GPS-trackers;
- preparation of individual programmes for the development of transport management processes for each SDE;
- a phased introduction of a transport management system with a focus on traffic safety.

Roadmaps for project implementation in the above SDEs have been approved.

1. DIGITALISATION PROJECTS IMPLEMENTED

In order to improve the process of issuing permits and enhance employee safety, Embamunaigas piloted a digital system of electronic permits. The project is aimed at simplifying and speeding up the issuance of work permits and will improve monitoring of hazardous operations and reduce associated costs by approving and signing permits remotely.

In addition, work is underway to implement the Advanced Process Control (APC) system at Atyrau Refinery units. APC automatically adjusts parameters of the process mode of the units to achieve stable yields of target petroleum products and avoids emergency shutdowns by eliminating the influence of the human factor.



MORNINGSTAR | SUSTAINALYTICS

Sustainalytics International Rating Agency (Amsterdam, Netherlands)

Sustainalytics is a leading independent company engaged in environmental, social and corporate governance research, ratings and analysis, supporting investors around the world in development and implementation of responsible investment strategies.

For reference

ESG Rating (Environmental, Social and Governance) is an the ecological and social business risk assessment as well as corporate governance risk assessment in a company.

When making investment decisions, the investors use the ESG Rating as a strategic tool that helps to identify risks and opportunities of a company to define its long-term sustainability.

2.2. Electronic Permit-to-Work (WL/WO)

In order to facilitate operational work and reduce the amount of paperwork, Ozenmunaigas JSC started to improve the efficiency of work of the WL/WO crews by introducing a unified automated system for forming and approving PTW to reduce the time and stages of approval. As part of the digitalisation of the process of forming, coordinating and approving PTW for workover and wireline operations, the Electronic PTW project will be implemented, which will enable the creation and editing of PTW, automatic checking of fields for correctness, automatic generation of a unique PTW number, as well as multi-level coordination of PTW with various process participants. The project will allow employees at Ozenmunaigas JSC to receive notifications on the status of PTW and their changes, as well as generate reports on various parameters related to PTW. The concept of this solution is planned to be replicated in other SDEs.

2.3. HR Process Automation

In terms of automation and digitalisation of HR processes, an information system for HR management of KMG Corporate Centre is being implemented, which will improve the quality and speed of HR processes, facilitate operational work, reduce labour costs of managers and specialists of KMG's HR Management Department through the introduction of automated operations of HR processes and refusal from paper carriers, and introduce regular management tools for the implementation of strategic initiatives, projects and actions.

2.4. Online Acceptance Certificate Project

In order to ensure transparency and de-bureaucratisation of the processes of approval and signing of Acceptance Certificates, work was started on replication of the Online Acceptance Certificate Project in Ozenmunaigas JSC, Karazhanbasmunay JSC and Mangistaumunaigas JSC. This project will reduce routine operations related to the approval of Acceptance Certificates between employees of KMG SDEs and contractors.



DIGITAL KMG

For the first time, the Digital KMG First Practical Forum on Digitalisation of was held in KMG Group. The main purpose of the forum is to provide a platform for sharing digitalisation experience between companies, discussing approaches to the implementation of digital solutions, identifying the needs of companies in IT products, forming the concept of digital development and increasing the competence of IT and digitalisation employees.

The event was attended by about 100 managers and employees of the departments of production automation, information technologies and digitalisation of KMG Corporate Centre and Subsidiaries involved in oil exploration, production, refining and transportation, as well as oil service companies.

The forum discussed the impact of digital trends on the oil and gas industry, current and planned digitalisation projects, and the integrated IT architecture of companies. The meeting programme included a session on design thinking, which included a list of open questions on the digitalisation of KMG SDEs.

LEAN 6 SIGMA FORUM

In the current year, IV Conference on LEAN 6 SIGMA Programme was held in the business areas "Oil and Gas Production" and "Oil Refining" of KazMunayGas.

The main purpose of the conference is to effectively involve employees of KMG Group in the process of optimising operations and increasing their productivity, to increase the competence of employees of oil producing organisations and refineries in the culture of continuous improvement, to organise the process of continuous improvement at all levels of the Company, as well as to hold a competition for the best Lean 6 Sigma project 2023.

The conference programme included training of Lean 6 Sigma executive sponsors, who are selected from among KMG executives, group work, as well as presentation of the best Lean 6 Sigma projects of Embamunaigas JSC, Mangistaumunaigas JSC, Kazgermunai JV LLP, Pavlodar Oil Chemistry Refinery LLP, Atyrau Refinery LLP, PetroKazakhstan Oil Products LLP and Caspi Bitum JV LLP.

Within the framework of the conference, the project aimed at optimising the consumption of chemically treated water at the ELOU-AVT-3 unit from Atyrau Refinery under the leadership of Medet Zinulliev was awarded a high prize in the nomination "Best Lean 6 Sigma Project among SDEs of KazMunayGas".



PRINCIPLE 7. Business should support a precautionary approach to environmental issues.

PRINCIPLE 8. Business should take initiatives to increase environmental responsibility.

PRINCIPLE 9. Business should promote the development and diffusion of environmentally sound technologies

OUR MANAGEMENT APPROACH

3-3, 306-2, 403-1, 403-7

We recognise the nature and scale of the impact of our activities and relate them to the importance of sustainable use of natural resources, protecting the health of our employees in all business areas and the communities in which we operate, and preserving a healthy environment.

The Company has made significant progress in making its operations more environmentally friendly. This is due to the implementation of effective internal standards, an environmental culture and continuous improvement of the management system. The Company has a "zero result" target aimed at avoiding negative environmental impacts.

Health, Safety and Environment (HSE) management objectives are directly linked to the KMG Company's Development Strategy for 2022–2031. The Strategy includes strategic initiatives to increase environmental responsibility. Priority areas for KMG Group

in terms of environmental protection include management of air emissions, reduction of flaring of crude gas, water management, production waste and land reclamation, and biodiversity conservation.

The management of KMG and its SDEs follows the principle of zero tolerance for losses and damages related to environmental pollution. In accordance with the requirements of the new Environmental Code of the Republic of Kazakhstan, the Company is guided by KMG's Environmental Policy to ensure the collection, storage, analysis and dissemination of environmental information in its operations.

The Company has adopted an Emissions Management Policy consisting of eight key principles, six of which are directly related to climate change issues, aimed at completely eliminating regular gas flaring.



ECOLOGY AND INDUSTRIAL SAFETY

In an effort to minimise the regular flaring of crude gas, in 2015 the Company supported the World Bank Initiative "Zero Routine Flaring by 2030". One of our most important tasks in reducing atmospheric emissions is to increase the beneficial use and utilisation of associated petroleum gas and to minimise gas flaring. Crude gas flaring volumes under this initiative are reported on an annual basis to the World Bank office in Kazakhstan.

KMG's main water use principles are the "Eight Water Principles", which systematise

the approach to water management in KMG SDEs. Several large-scale projects are underway to treat wastewater and saline water for industrial needs in order to release volumes of fresh water for the benefit of the population. To address the issue of preventing water resources deficit, ensuring the planned growth of the economy, as well as to improve the water resources management system in KMG, a long-term Water Management Programme has been developed in KMG Group.

HEALTH, SAFETY AND ENVIRONMENT (HSE) MANAGEMENT SYSTEM

3-3, 403-1, 403-4, 403-7

The **Health, Safety and Environment Management System (MS)** has been developed in accordance with the requirements of laws of the Republic of Kazakhstan, industry and international standards ISO 14001 and ISO 45001, internal HSE guidelines using best international practices and approaches, and recommendations of the International Association of Oil and Gas Producers (IOGP),

and includes 10 key elements that are based on such fundamental principles as goal achievement, leadership, risk management, and continuous improvement

Since 2006, KMG has implemented an integrated quality, environment, health and safety management system (IMS) in accordance with ISO 9001, ISO 14001 and ISO 45001. SDEs with



INTERNAL CONTROLS AND IMPROVEMENTS

- HSE Assessment Management System
- HSE committee System
- HSE Compliance and RT Audits
- Set of HSE culture Improvement Actions

MONITORING

- HSE Reporting Rules
- HSE Traffic Safety Automation
- HSE KPI System
- Accident Investigation Procedure
- Automated Accident Investigation Module
- Benchmarking

IMPLEMENTATION

- Health Management System
- Transport Safety Programme
- Crisis Management Standard
- Methane Leak Detection Programme
- Waste Management Standard
- Water Supply Management Standard
- Energy Efficiency Roadmap

PRODUCTION INTEGRITY

- Fire Safety Preparedness
- LOTO
- Production Safety Management System

RISK MANAGEMENT SYSTEM

- EIA Risk Assessment Standard
- Behaviour-Based Safety Observations Programme

STAKEHOLDERS

- Contractor Management Standard
- Contractor Reporting
- Public Hearings

STANDARDS

- Development and implementation of HSE standards based on global best practice

COURSE

- HSE Policy
- Transport Policy
- Alcohol Policy
- Atmospheric Emission Management Policy

STRATEGY

- Ensuring Occupational Safety
- Environmental Responsibility

GOALS

- Zero:
- incidents
 - spills
 - discharges
 - routine flaring

LEADERSHIP

- Management commitment: Forum of managers, SPE
- Three-tier HSE Committee System

significant energy consumption are certified to the ISO 50001 standard. The effectiveness of the IMS is regularly confirmed by independent auditors.

To improve its management system, KMG is certified for Occupational Health and Safety Management System for compliance with the international standard ISO 45001.

The management system provides an environment for managing HSE risks and opportunities. The expected results of the management system are to prevent injuries and damage to the health of the Company's employees, as well as to ensure safe working conditions. Elimination or minimisation of HSE risks through effective preventive actions is critical for the Company.

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

- **First Level** – the Health, Safety, Environment and Sustainability Committee of KMG's Board of Directors (HSESC);
- **Second Level** – the HSE Committee at KMG level;
- **Third Level** – the HSE Committees of SDEs.

In 2023, a new version of the MS Manual was updated and approved to include amendments and additions aimed at improving HSE in KMG Group in terms of:

- responsibility of managers to ensure compliance of KMG Group employees with KMG Vital Rules;

- providing KMG Group employees with a guarantee of the legal right to refuse or stop work in the event of a potential hazardous situation that reasonably poses a threat to the life and health of employees or the environment;
- development and implementation of a programme for personnel health management in KMG Group based on health risk assessment;
- involving KMG Group employees and contractors in risk management processes, identifying and reporting potential hazardous situations through the use of the Qorgau Card.

A number of internal regulatory documents have been revised in 2023 in order to maintain the suitability and consistency of the MS documentation:

- Regulations on HSE Risk Management during High-Hazard Operations in KMG Group;
- Regulations on the Organisation of Emergency Medical Service in KMG Group;
- Rules on Accident Notification and Investigation at JSC NC "KazMunayGas";
- Corporate Standard for Provision of Workwear, Footwear and Personal Protective Equipment in KMG Group.

HSE risks, including environmental, climate change and water scarcity risks are monitored on a quarterly basis. KMG regularly analyses environmental performance and benchmarks against leading international oil and gas associations (IOGP, CDP). The Company pays particular attention to environmental aspects and environmental risk assessment.

Every year, the KMG's Health, Safety and Environment Department holds a Group Health, Safety and Environment CEO Forum.

CASE STUDY



On 5 October 2023, the Eighth Annual Forum "Leadership in Occupational Health and Safety. Leadership in the Development of Safety Culture" was held.

Members of the Board of Directors and management of Samruk-Kazyna and KMG, CEOs of more than 30 subsidiaries and dependent entities, representatives of a number of KMG's partners with foreign participation were invited to the forum.

Welcoming the forum participants, Magzum Mirzagaliyev, Chairman of KMG's Management Board, underlined: "KazMunayGas gives priority attention to creating safe working conditions and protecting the health of all those involved in our activities, as well as preserving environmental sustainability in the regions where we operate. These values are indisputable for us. Zero incidents is an important principle that we must strive to fulfil at all levels of management".

The Company summarised the results of the year, the indicators achieved by the Company's enterprises and highlighted the areas where organisational improvement actions need to be taken to achieve zero incidents.

The Forum also included discussion workshops on safety leadership in KMG with the participation of JMJ consultants, where the Company's top executives engaged in an open dialogue to discuss the invisible aspects of safety and discussion groups to create common ground.

At the HSE awards ceremony, it was stated that all forum participants were united by the common goal of creating a systematic corporate safety culture. The best employees recognised for their contribution to HSE were awarded, and leading companies in HSE were also distinguished.

Magzum Mirzagaliyev, Chairman of KMG's Management Board, delivered a message to all employees of the Company on the need to strictly comply with the KMG Vital Rules adopted in the Company and in line with the Life-Saving Rules of the International Association of Oil and Gas Producers (IOGP).



WATER MANAGEMENT PROGRAMME

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

Water resources are vulnerable and already exposed to the impacts of climate change and variability, resulting in a wide range of impacts on communities, human health, economy and the natural environment. KMG's priority is to reduce and, where possible, avoid negative impacts on water resources arising from operations and product deliveries.

The Company's approach to sustainable development issues is based on the alignment of the Company's interests and plans with the basic principles of the United Nations, universal human values, global trends and priorities of Kazakhstan's development. The Company adheres to 17 UN Sustainable Development Goals, one of which is Goal 6 Water and Sanitation. Sustainable Development Goal 6 – ensure availability and sustainable management of water and sanitation for all – is closely interrelated with all other SDGs.

SDG 6 expands the scope centred on drinking water supply and basic sanitation to include water management, wastewater treatment and ecosystem conservation across all kinds of boundaries. The inclusion of these aspects is a crucial first step towards addressing sectoral fragmentation and ensuring coherent and sustainable management, i.e. towards a sustainable water future.

According to the Environmental Policy, KMG and its Subsidiaries and Dependent Entities express their commitment to the principles of sustainable development and include environmental protection and prevention of negative environmental impact among the main priorities of their activities.

The Company has committed to ensuring continuous improvement of water management processes, implementation of water conservation and recycling projects, assessment and management of risks associated with water scarcity.

In order to improve the efficiency of water resources use and protection, define actions and targets to reduce water withdrawal and water consumption, increase water recycling and water reuse, reduce pollutant discharges and environmental impact of KMG in 2023, the Water Management Programme for a 10-year period in KMG Group (hereinafter referred to as the Programme) was developed. The Programme is aimed at addressing the issue of preventing water scarcity to preserve ecosystems, to ensure the planned economic growth, and to improve the water management system across KMG Group. The boundaries of the Programme included KMG's main operating SDEs, and an analysis of KMG's investment projects was also carried out. The Programme is expected to be approved in 2024.



Within the framework of the Programme, 3 scenarios of water management development for KMG Group were defined: the baseline scenario, the green development scenario, and the intensive reduction scenario. Under the Programme, an aggregated comparative analysis of water management development scenarios of KMG SDEs was carried out and possible rational options for achieving the greatest effect on water conservation and preservation were presented.

The baseline scenario includes activities with an approved budget that are being implemented or are planned to be implemented as part of SDEs' business plans.

The activities of the green development scenario include activities of the "baseline scenario", as well as activities on technical audits of water consumption and sanitation systems: audits to assess the remaining service life of equipment and its suitability for operation, audits at pumping facilities, treatment facilities, evaporation ponds; audits of the water footprint of the final product.

The intensive reduction scenario is the implementation of additional actions implying intensive reduction of water consumption and sanitation, requiring significant financial investments, which is the most expensive development scenario. This scenario

includes actions of the baseline and green development scenarios, as well as actions to carry out basic designs with subsequent implementation of process solutions to achieve "Zero Water Discharge", installation of SMART systems of measuring devices-analysers and geomembranes on evaporation ponds, etc.

Based on the analysis of development scenarios, the Programme recommends to implement the green development scenario with full implementation of the action plan with gradual transition to the intensive reduction scenario after the audits planned in the Programme.

In addition, the Programme analysed the Company's water footprint, identified categories of water management risks and recommendations for their minimisation, studied the topic of best available techniques and correlated them with the proposed actions.

Improving our approach to water management in line with the Programme will provide greater certainty about the nature of water resources, the diverse needs for these resources and the dynamic balance between water supply and demand. Most importantly, these steps will enable us to value water for its diverse uses and make decisions that enhance efficient, equitable and sustainable water management.

KMG WATER PRINCIPLES

Water is the basis of life, the source of all things existing.

The stability and security of the state is determined by the abundance of clean fresh water, and the success and sustainability of business – by responsible, caring attitude to it. These principles express the Company's commitment and demonstrate its intention to conserve water resources for people, nature and well-being of current and future generations of our country.

We constantly use water – from daily needs to the extraction and processing of oil. And at the same time, within the daily routine, we must not forget how much water is priceless. Every employee of the Company can and should contribute to its preservation.

KazMunayGas NC JSC CEO



WATER CONSERVATION AND SUSTAINABLE USE

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

The Company strives to improve the efficiency of water resources utilisation, reduce the volume of fresh water consumption, and increase the volume of recycling and reuse of treated wastewater.

KMG's mission is to develop natural resources in an effective and sustainable manner to ensure energy security, development and prosperity of Kazakhstan, caring about future generations.

The main principles of KMG in terms of water resources utilisation are the "Eight Water Principles". These principles are reflected in the Water Management Corporate Standard approved in 2018 (hereinafter – the Standard).

The Standard systematises the approach to water management in KMG's SDEs, and helps to increase the commitment of the Company's managers and employees to the issue of fresh water conservation. Following the approval of the Water Management Programme, an update of this corporate standard is expected this year. The Company operates in full compliance with international requirements, environmental and water legislation. The Company develops draft standards for pollutant discharges, conducts calculations in accordance with methodologies approved by the authorised body, obtains environmental permits and special water use permits.



 Atyrau Refinery's closed-type mechanical treatment facility

In order to improve the efficiency of water resources use, reduce the volume of fresh water consumption, increase the volume of recycling and reuse of treated wastewater, the following actions are being taken and are planned to be taken on a permanent basis in KMG SDEs:

- update, reconstruction of existing units for mechanical, chemical and biological treatment of domestic wastewater, replacement of old treatment equipment with more modern modular units;
- design of works to reconstruct evaporation fields;
- retrofitting of treatment plants with additional technologies (reverse osmosis), which will subsequently make it possible to use this water to produce steam for industrial needs;
- replacement of old drinking water pipelines with new ones to reduce leaks and process losses of fresh drinking water;
- reconstruction of mechanical treatment facilities (MTF) within the framework of the TAZALYQ project, which will increase the capacity of MTF by 2 times and achieve the maximum permissible discharge limits for the content of oil products and suspended solids in wastewater sent to the biological treatment unit.
- reconstruction of regulatory treated effluent canal and reclamation of Atyrau Refinery evaporation fields;
- construction of a wastewater post-treatment unit using reverse osmosis under the TAZALYQ project;
- complete reconstruction and update of the system of wastewater treatment facilities of PetroKazakhstan Oil Products LLP, subsequently the efficiency of industrial wastewater treatment for oil products and suspended solids was improved from 76 to 98%, which reduced the environmental load by reducing air emissions.

Ensuring wide accessibility of environmental information and transparency of the Company's environmental activities to the public, shareholders, interested governmental authorities and other parties is one of the postulates of the Environmental Policy of KMG.

Since 2020, the Company has been calculating its water footprint and posting information on water management on the Carbon Disclosure Project site as part of the Water Security Questionnaire.

In 2023, based on the results of the published questionnaire for 2022, KMG was assigned a "C" rating for water safety. However, the Company plans to gradually improve this rating as part of the implementation of Programme.

More detailed information can be found in KMG's published reports, which are publicly available here: [CDP Water Security Questionnaire](#).

KMG implements social projects aimed at solving water supply issues in the regions where it operates, such as "Reconstruction of the Astrakhan-Mangyshlak Water Main" and "Construction of Seawater Desalination Plant in Kenderli".

In December 2023, the implementation of the first stage of the project "Reconstruction and Expansion of the Astrakhan-Mangyshlak Water Main" was completed. The project is aimed at increasing the capacity of the Astrakhan-Mangyshlak Water Main and renewing worn-out equipment to supply water to the population, agricultural producers, industrial and oil and gas producers of Atyrau

and Mangistau regions. The Astrakhan-Mangyshlak Water Main is the only centralised source of water supply for consumers in Kurmangazy, Isatai and Zhylyoi Districts of Atyrau Region, as well as for Zhanaozen, Beineu, Mangistau, Karakiya and Tulparagan Districts of Mangistau Region. Every year, the population's water consumption grows by 4-5%.

The construction of a 50,000 m³/day Seawater Desalination Plant in Kenderli has also started. This project will solve the problem of drinking water shortage for the residents of Zhanaozen and will also have a multiplier effect on the development of tourism, entrepreneurship and agriculture. Construction is planned to be completed by the end of 2024, and the plant is expected to reach its design capacity in spring 2025.

Earlier, at the Karazhanbas field of Karazhanbasmunay JSC in Mangistau region, a formation water desalination plant was launched to solve the issue of water supply to the field.



When reaching full capacity, the processing of formation water will amount to 42.5 thousand m³/day, while the production of desalinated water will reach 17.0 thousand m³/day, which will release a significant amount of water for the needs of the population of the region. Due to the implementation of this project, by the end of 2023, the volume of fresh water withdrawal at KBM decreased by 2.2 million m³ compared to 2022.

Also, Ozenmunaigas utilised underground water intake wells of albsenomanic water for production needs, thus reducing seawater intake by 25%.

In 2023, a 2000 m³ vertical stock tank for an emergency supply of production water was constructed at CASPI BITUMEN, thereby increasing the reliability of the plant's water supply by increasing the emergency supply of production water to 2000 m³ (up to 3.5 days of operation of the plant in case of incidents on the pipeline). A project is being implemented to optimise the reuse of treated wastewater for irrigation of green areas. Work was carried out to divert treated wastewater from the WWTP to the WTP section of the bitumen plant using the NK-2 Du-400 line.

At KGM's head office, a block-module of deep bio-treatment facilities was replaced in 2023, which will allow up to 50% of treated water to be reused for irrigation of green areas.

WATER FOOTPRINT

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

Water intake for the KMG Group of Companies in 2023 amounted to 80.44 mln m³, including: surface sources – 35.40 mln m³, underground sources – 21.02 mln m³, municipal water supply systems – 10.63 mln m³, sea – 13.29 mln m³, wastewater from other companies – 0.1 mln m³. The volume of water consumption for production needs in the category with salinity up to 1000 mg/l was 37.58 mln m³ and 1000 mg/l or more – 42.85 mln m³.

The PetroKazakhstan Oil Products LLP reconstructed and updated the treatment plant system. As a result, the following facilities were put into operation:

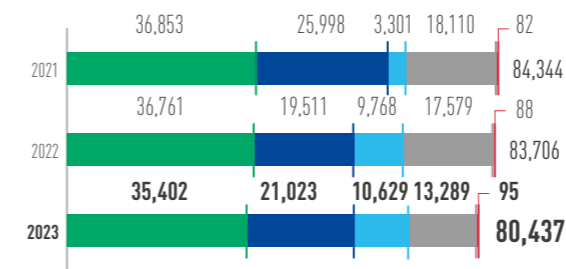
- wastewater pretreatment facility for reuse;
- ultrafiltration and reverse osmosis system. The output water is used as make-up water for the recycled water facility after mixing partially with water from wells;
- new sections "vertical oil trap" and vertical tank for dissolved air flotation were installed instead of the existing part of wastewater pretreatment;
- automatic oil and sludge removal devices were installed in the wastewater pretreatment section;
- caps were installed at the head of the wastewater pre-treatment section to collect odour gases and transport them to the deodorisation system;
- a deep wastewater treatment unit.

Thanks to the completion of the update of treatment facilities at PetroKazakhstan Oil Products, the efficiency of industrial wastewater treatment for oil products and suspended solids was improved from 76 to 98%, which reduces the environmental load by reducing air emissions.

Information on Water Supply Projects can be found in the Implementation of Investment Projects Section.

At the same time, we note that the total volume of water withdrawal of 80.44 mln m³ also includes the volume of the subsidiary providing services for supply of fresh technical water to consumers of Atyrau and Mangistau regions – 24.16 mln m³, i.e. this volume is not used by KMG for its economic, drinking and/or production needs. In this regard, excluding the above mentioned volume, the total volume of water consumption by KMG Group for own needs was 56.27 mln m³ in 2023.

WATER WITHDRAWAL FOR KMG GROUP BY SOURCE thous. m³



- Surface sources
- Underground sources
- Urban water supply systems
- Sea
- Wastewater from other facilities

According to studies conducted and published by the World Resource Institute (WRI), Kazakhstan is classified as a critical level of water resource exploitation and a very high level of water stress is predicted in the next 15-20 years.

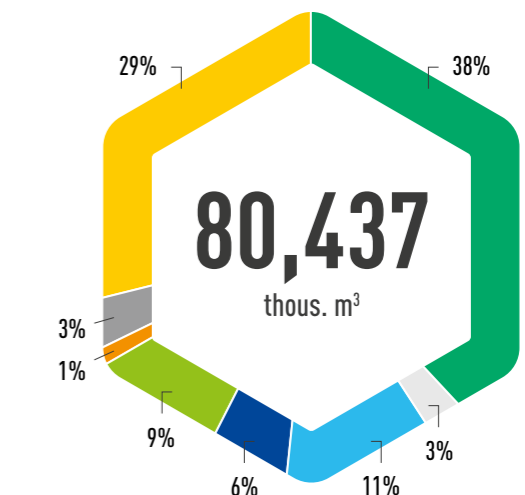
The Company also analyses and records the facilities of KMG SDEs located in regions with increased water scarcity according to WRI Aqueduct¹, relating to the basins of the Caspian Sea, the Syrdarya and the Ural Rivers. The total water withdrawal of these facilities was 27.32 mln m³.

In regions with high water scarcity, KMG is developing water management actions to use less fresh water, increase recycled water and closely monitor water use.

At the same time, we note that the need for water resources in production activities is a prerequisite for technological processes.

In 2023, 11.23 mln m³ of wastewater was removed by KMG Group After wastewater treatment at treatment facilities, the standard-quality treated water is discharged to dedicated collectors: gathering ponds, evaporation and filtration fields. There is no discharge to surface water bodies or terrain. Facilities that have no own collectors have their wastewater treated and discharged by dedicated companies under contracts.

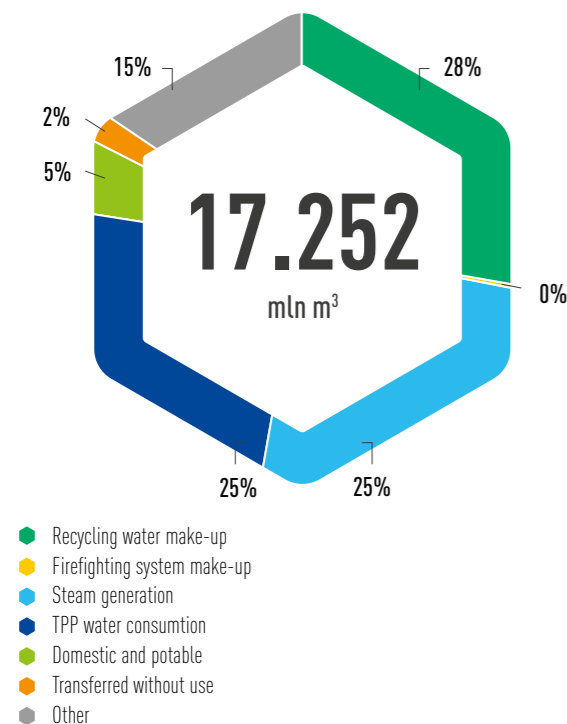
WATER USE BY TYPE OF OPERATIONS (within KMG Group in 2023)



- Injection for formation pressure maintenance
- Drilling, injection, well workover and fracturing
- Other production needs
- Refinery recycling water make-up
- Steam generation at refineries
- Lost
- Domestic and potable
- Transferred without use

¹ According to WRI Aqueduct: high category – total water load 40-80%, extremely high category – > 80%.

WATER USE BY TYPE OF DOWNSTREAM OPERATIONS
(in 2023)



The total volume of wastewater transferred was 0.77 mln m³ (with salinity over 1000 mg/l). There is no discharge of wastewater with salinity up to 1,000 mg/l.

At the same time, the discharge of wastewater from facilities in regions with water scarcity was 2.9 mln m³, of which 2.86 mln m³ were discharged to their own receivers and 0.04 mln m³ were transferred to dedicated companies (receiving facilities).

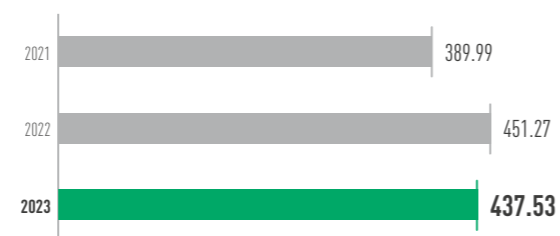
Wastewater should be considered as a sustainable source of water, energy, nutrients and other recoverable by-products, not as a heavy burden.

Our treatment facilities are designed to treat wastewater contaminated with petroleum products and suspended solids. For example, at the refinery, wastewater undergoes separate parallel mechanical and physical-chemical treatment in sand traps, oil traps, radial settling tanks and flotators. The treated industrial wastewater after the flotators goes to biological treatment.

One of the most important tasks of the Company is to increase the reuse of treated wastewater by returning it to the technological process, using it for irrigation of green areas, dust suppression at construction sites and roads. Portion of treated wastewater is reused to wash vehicles, suppress dust and make up firefighting systems. However, a considerable portion of treated wastewater is only reused by refineries, which reused 4.28 mln m³ of treated wastewater in 2023, mainly to make up recycling water supply units. KMG plants reused 25% of water (of water withdrawal for oil refining).

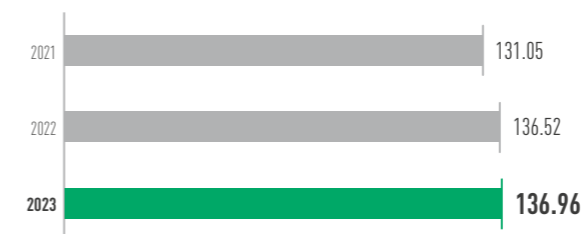
In 2023, recycling water supply systems of KMG refineries used (recycled) a total of 437.53 mln m³ of water.

CIRCULATING WATER SUPPLY SYSTEMS OF KMG REFINERIES CONTAINED
(Recycling water volume, mln m³)



REINJECTED TO MAINTAIN FORMATION PRESSURE

(Produced associated formation water, mln m³)



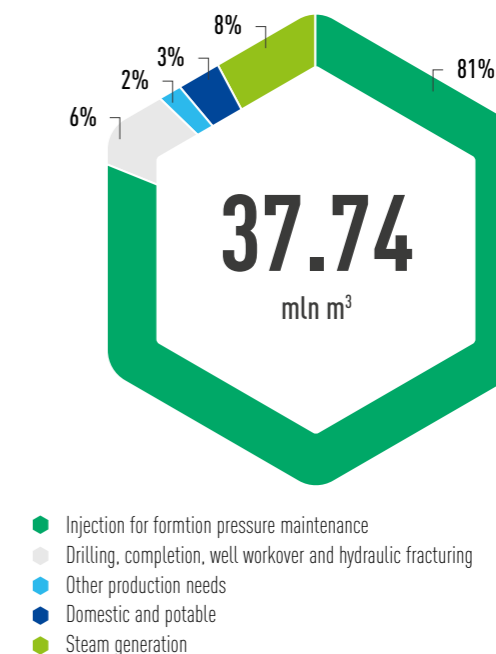
Oil production generates large volumes of so-called associated formation water: water-oil emulsion is brought to surface, which is then separated into water and oil by gravity. After settling in this manner, water is injected into the formation.

Out of **136.96 mln m³** of produced associated formation water in 2023, **97%** was reinjected to maintain formation pressure.

The Company has a considerable impact on water bodies in the West Kazakhstan (Ural River, Kigach River, Kokzhide Sands), which have special environmental, economical,

historical and cultural, and recreational value. Regular environmental monitoring is conducted by regulatory authorities to prevent adverse impact on susceptible ecosystems.

WATER USE BY TYPE OF UPSTREAM OPERATIONS
(in 2023)



ENVIRONMENTAL PROTECTION

3-3, 2-27, 305-5

KMG strives to minimise its environmental impact by preserving biodiversity, using natural resources sustainably, recycling production and consumption waste and raising environmental awareness among the population.

Environmental issues are one of KMG's top priorities, and the Company is constantly working to improve its environmental performance.

KMG's environmental activities are carried out in various areas, such as air protection, sustainable use of water resources, protection of subsoil and land resources, and waste management. KMG's environmental policy is aimed at minimising environmental impact by reducing emissions into the atmosphere as a result of production activities. The main principles of the policy are: minimising environmental impact by reducing emissions of pollutants from production activities, increasing environmental safety of production and improving environmental performance.

KMG recognise our responsibility to society for sustainable use of natural resources and preservation of a favourable environmental situation in the regions where we operate.

The Company intends to use natural resources sustainably, minimise the impact of pollutants on the environment, promote energy and resource conservation, produce waste at a minimum, and introduce technologies, equipment and materials that do not harm the environment. In addition, we take actions to adapt to climate

change and compensate for possible environmental damage.

To this end, a number of activities aimed at ensuring environmental safety have been implemented, such as work on recycling historical oil waste and cleaning oil-contaminated land, strengthening environmental awareness among employees, participation in tree planting campaigns, development of action plans to reduce air emissions, implementation of environmental programmes, etc.

A number of the Company's subsidiaries and dependent entities have implemented the automated air quality monitoring systems at the sanitary protection zone, as well as directly at emission sources, which display information on the state of the environment.

AUTOMATED ENVIRONMENTAL MONITORING INFORMATION SYSTEM PROJECT

The Automated Environmental Monitoring Information System (AEMIS) is designed to create a unified information space in the field of environmental protection.

The aim of the project is:

- To create a unified environmental information space;
- To increase transparency, efficiency and minimise human error to avoid potential environmental fines.

The main objectives of the AEMIS are:

- Automation of processes of environmental reporting to public authorities;
- Maintenance of a database of regulatory permits and calculation of payments for environmental emissions;
- Prompt response to potential excess emissions by promptly correcting faults in the process by the production units;
- Operational environmental monitoring based on the results of industrial environmental control;
- Generation of corporate reports via synchronisation with HSE system of KMG.

Key Figures of 2023

- SOx emission intensity – 0.23 (IOGP – 0.09)
- NOx emission intensity – 0.36 (IOGP – 0.35)
- APG flaring rate – 1.4 (IOGP – 8.6)
- APG utilisation rate – 98.9%
- Restoration of historical waste and oil-contaminated land: 1,145.04 thous. tonnes (2022 – 693.7 thous. tonnes)
- CDP climate rating: 'C'
- CDP water security rating: 'C'

ENVIRONMENTAL PERFORMANCE, TONNES PER 1,000 TOE OF HCS PRODUCTION

Year	SOx emission rate	NOx emission rate	Raw gas flaring rate	Raw gas utilisation rate, %
2021	0.22	0.24	2.09	98
2022	0.21	0.31	1.5	98.8
2023	0.23	0.36	1.4	98.9

AIR PROTECTION

305-5, 305-7

KMG pays close attention to environmental protection, as it is directly related to the health and well-being of the population. One of KMG Group's objectives within the framework of its environmental policy is the continuous improvement of environmental protection processes through their digitalisation.

Priority areas for KMG in terms of environmental protection include management of air pollutant emissions, reduction of flaring of raw gas, management of water resources, production waste and land reclamation, and preservation of biodiversity.

The reduction of gas flaring has also reduced air pollutant emissions across KMG Group.

One of the key areas for minimising the environmental impact is reduction of air pollutant emissions from the Company's operations. Actions to reduce air pollutant emissions include the following activities:

- Obsolete burners on oil heaters are being gradually replaced.
- Integrated gas treatment and processing facilities are under construction.
- Work is underway to install pontoons for vertical oil tanks to prevent evaporation of hydrocarbons.

- Catalytic converters for pollutant emissions are installed on oil heaters, etc.;
- The condition of the furnace burners is monitored systematically, according to the schedule of maintenance and adjustment work;
- The water injection system is being expanded by transferring wells from production to injection;
- The wellhead equipment of production oil wells is updated;
- New steam generation and well sites are commissioned.
- A medium-pressure inter-flare injection burner is installed, designed to burn oil and associated gases in the furnaces of boilers and oil and water reheating furnaces.

In order to reduce the impact on atmospheric air, within the framework of the program "Action Plan with targets for energy and resource conservation and reduction of emissions into atmospheric air

until 2031", the Atyrau Refinery continues work on retrofitting existing oil and petroleum product reservoirs with pontoons.

In the period from 2022 to 2025, work is underway to install pontoons on gasoline and light oil storage tanks in the amount of 12 units. In 2024–2025, work is planned to install pontoons on three gasoline storage tanks and two light oil storage tanks. Also, according to the Tengiz Oil Refining program, it is planned to install pontoons on 9 storage tanks for straight-run gasoline and light oil.

The presence of pontoons prevents evaporation of oil product into the atmosphere, reduces its losses, preserves its quality, reduces fire and explosion safety of the facility, and reduces the negative impact on the environment. Installation of pontoons on tanks is envisaged by the draft Best Available Techniques Guide. The design was developed and manufactured

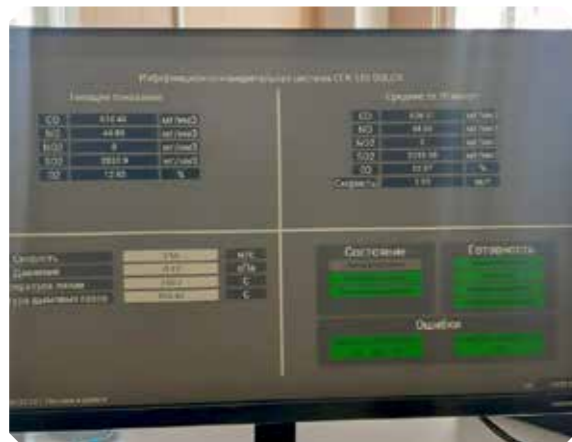


by Maxwell Continental Tank Serv Engineering B.V. (Netherlands) by special order of the Atyrau Refinery in order to reduce its loss, preserve quality, reduce fire and explosion safety of the facility, and to reduce the negative impact on the environment.

The Tazalyq project continues the second stage of the reconstruction of closed-type mechanical wastewater treatment plants: work is underway on the construction of averaging tanks, pumping station buildings, self-washing filter sites and flotators. After completion of the first phase, the upgraded mechanical treatment facilities process an average of 12,000 m³ of oil sludge per month. By the end of 2023, the efficiency

of wastewater treatment from oil products reached 83%. The efficiency of wastewater treatment from suspended solids increased by 20%. Due to stable oil sludge processing, the volume of oil returned for processing averages 3,280 tonnes per month.

Thus, in 2023, 39,653 tonnes of commercial oil product were returned to refining. This resulted in improved environmental situation and reduced anthropogenic impact on the environment, improved flora and fauna and reduced impact of harmful factors on human health.



The Company pays special attention to monitoring air emissions and natural resources from its production facilities, which are mainly located near or within populated areas. KMG continuously monitors environmental components (atmospheric air, water resources, soil cover, etc.) in order to effectively reduce the negative impact of its operations on the environment.

Environmental monitoring is an integrated system of observations, measurements, collection, accumulation, storage, recording, systematisation, compilation, processing and analysis of the obtained data on the quality of the environment, as well as generation of environmental information on their basis.

To ensure air quality in populated areas, KMG Group is implementing projects to reduce the level of air pollutants, and is also taking actions to organise air quality control systems and install stationary air quality observation posts at the boundaries of sanitary protection zones.

For operators of Category I facilities, in accordance with paragraph 16 of Article 418

of the Environmental Code of the Republic of Kazakhstan from 1 January 2023, the requirement to have an automated emission monitoring system (AMS) is applied. The AMS monitors air emissions at the main stationary emission sources and has an online link with the information system of the authorised body.

In 2023, Mangistaumunaigas JSC and Kazakhoil Aktobe LLP implemented online data transmission from the automated monitoring system (AMS) to the Ministry of Ecology and Natural Resources of the Republic of Kazakhstan (MENR RoK) through connection to National Information Technologies JSC (NIT). At the rest of KMG's facilities, work on AMS installation is ongoing.

The permitted volume of air pollutant emissions in KMG Group was 119.5 thous. tonnes in 2023 (120.6 thous. tonnes in 2022).

This fact of reduction in air pollutant emissions by 0.9% compared to 2022 is observed from auxiliary sources (welding, painting).

GROSS AIR POLLUTANT EMISSIONS IN KMG GROUP, THOUS. TONNES

	2021	2022	2023
Total air pollutant emissions, including:	110.2	120.6	119.5
NOx emissions	12.7	16.0	15.2
SOx emissions	12.2	10.5	11.0
other pollutant emissions	85.3	94.1	93.2

The completed projects for upgrade of oil refineries enabled better environmental performance of fuel produced by the refineries

through production of K4-K5 oil products to the European quality standards in compliance with the Customs Union Technical Regulations.

SPECIFIC POLLUTANT EMISSIONS IN KMG GROUP

	2021	2022	2023
HCs production, t / 1,000 toe of raw hydrocarbons produced	1.9	2.1	2.2
Oil refining, t / 1,000 t of oil refined	2.8	3.1	3.0
Oil transportation, t / 1,000 t of oil transported	0.5	0.5	0.4

In 2023, the average ratio of NOx emissions to the total produced raw hydrocarbons in oil equivalent for KMG Group amounted to 0.36 tonnes per 1,000 tonnes of HCs produced, while average IOGP value is 0.35. Specific NOx emissions have increased by 13% versus 2022 due to addition of new emission sources from contractors.

The average ratio of SOx emissions to the total produced raw hydrocarbons in oil equivalent for KMG Group amounted to 0.23 tonnes per thousand tonnes of produced HCs, while average IOGP value is 0.09. Compared to 2022, there is a 9.5% increase in the specific emissions of SOx.

305-7

In its operations, the Company does not emit persistent organic pollutants.

RAW GAS MANAGEMENT

3-3, 305-5

Managing the greenhouse gas emissions and reducing the gas flaring are among the top priorities for KMG Group. According to the approved Environmental Policy, the Company aims to achieve zero routine gas flaring and to reduce atmospheric emissions from flares. We aim to increase the use and utilisation of raw gas and minimise flaring. Through its oil gas development and processing programme, the Company has increased the use of gas for heat and power generation, thereby

reducing emissions of hazardous substances and greenhouse gases from the combustion of oil gas.

Raw gas utilisation in 2023 was 98.9%. Raw gas flaring decreased by 89.4% compared to 2017. The gas flaring rate is at 1.4 tonnes per 1,000 tonnes of HCs produced (2.1 in 2021 and 1.5 in 2022), 7% below the 2022 figure and 84% below the IOGP industry average.

In 2015, KMG supported the World Bank Initiative "Zero Routine Flaring by 2030". The Company aims to minimise the flaring of raw gas. Raw

gas flaring under this initiative is reported on an annual basis to the representative office of World Bank in the RoK.

RAW GAS FLARING VOLUME

Indicator	2019	2020	2021	2022	2023
Total raw gas flaring, mln m ³	80.2	57.6	52.5	35.7	33.35
Raw gas utilisation rate, %	97	98	98	98.8	98.9
Raw gas flaring rate, tonnes per 1,000 tonnes of HCs produced	2.95	2.2	2.1	1.5	1.4

WASTE MANAGEMENT AND LAND RECLAMATION

2-25, 3-3, 306-1, 306-2, 306-3, 306-4, 306-5.

KMG's production activities lead to the generation of production wastes, such as: drilling wastes (waste drilling muds and cuttings), oily wastes (bottom sediments, oil-contaminated soil, oil sludge), waste catalysts and chemical reagents.

All facilities also generate waste from ancillary activities such as construction waste, oily rags, waste lubricating oil, etc.

KMG strives to strictly comply with the principles of the state environmental policy in the field of waste management, as well as the implementation and enforcement of the principles of KMG's Environmental Policy in relation to waste management:

- Ensure that waste generation is reduced and managed safely.
- Apply a set of waste recovery technologies that prevent secondary contamination of soil, air or water resources.
- Introduce resource-saving, low-waste, environmentally friendly technologies

Waste generated at the facilities is collected separately at the initial stage of generation, generated waste is weighed on weighing equipment, for liquid waste the volume of waste is measured in standardised or graduated containers.

All KMG facilities keep records of waste by type, quantity and properties.

The results of waste record keeping are submitted to the authorised body in the field of environmental protection, as well as to the KMG HSE information system.

From the moment of waste generation, waste is accumulated, disposed of or sent for recovery and/or removal by own forces or with the involvement of dedicated companies.

Dedicated companies involved in waste recovery or removal must have all necessary permits:

- Licence for treatment, neutralisation, recycling and/or disposal of relevant hazardous waste.

- Notification of commencement of collection, sorting and (or) transportation of waste, recovery and (or) disposal of relevant non-hazardous waste.
- Environmental permit.

To reduce the impact of waste during transportation, KMG SDEs have established requirements for dedicated companies to minimise the movement of waste or its recovery within KMG SDEs.

Work on the recovery of newly generated and previously accumulated waste by dedicated companies is controlled by KMG SDEs for compliance with the technical specifications of the contract signed and the design solutions for waste recovery and removal, including visits to waste recovery facilities, if necessary control laboratory analyses of the recovered waste are carried out.

In 2023, KMG spent KZT 22.9 billion on recovery of generated and accumulated waste.

Work also continues on the disposal of historical oil waste and the clean-up of oil-contaminated land at MMG, OMG and KBM facilities under the Memorandum of Cooperation between the Ministry of Ecology, Geology and Natural Resources of the Republic of Kazakhstan and KMG dated 6 August 2019.

EMG also carry out works on elimination of historical contamination, in 2022 they completed works on cleaning of historical oil-contaminated land within the contract areas, works on elimination of historical contamination outside the contract areas in accordance with the reclamation project and the opinion of the State Environmental Expertise to it are being carried out.



BEFORE



AFTER

 KC-1 – historical contamination site in EMG territory

A total of 1,145.04 thous. tonnes of historical wastes were disposed of in 2023, the areas of their disposal sites were rehabilitated, and work

is underway to clarify the remaining volumes of historical oil wastes.

Waste composition (tonnes)	Waste generated	Waste sent for recovery	Waste sent for removal
Hazardous waste	383,096.52*	1,561,543.06**	115.50
drilling waste (drilling mud and cuttings)	228,355.8	228,355.8	--
Non-hazardous waste	52,758.55	31,702.58	20,246.98
Total waste	435,855.07	1,593,245.63	20,362.49

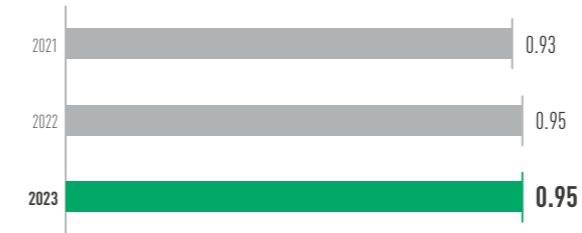
* – the amount of waste generated is presented taking into account the waste generation volumes of contractors performing work at the facilities of KMG SDEs.

** – taking into account historical waste disposal volumes as well as the previous year’s carryover volume.

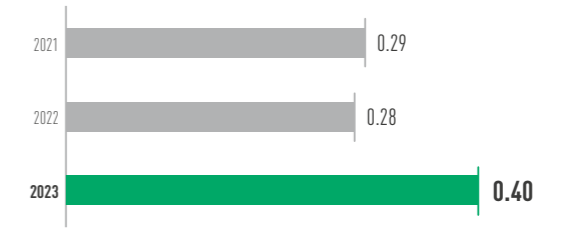
WASTE SENT FOR RECOVERY AND REMOVAL (TONNES)

	At the facilities of SDEs	At the facilities of contractors	Total
Hazardous waste			
Waste recovery (recycling/disposal)	825,150.70	736,392.36	1,561,543.06
drilling waste (drilling mud and cuttings)	--	228,355.8	228,355.8
Waste disposal (burial/placement)	115.50	--	115.50
drilling waste (drilling mud and cuttings)	--	--	--
Non-hazardous waste			
Waste recovery (recycling/disposal)	2,241.20	29,461.37	31,702.58
Waste disposal (burial/placement)	929.11	19,317.87	20,246.98
Total			1,613,608.12

RATIO OF DISPOSED WASTE AMOUNT TO NEWLY GENERATED WASTE AMOUNT (t/t)



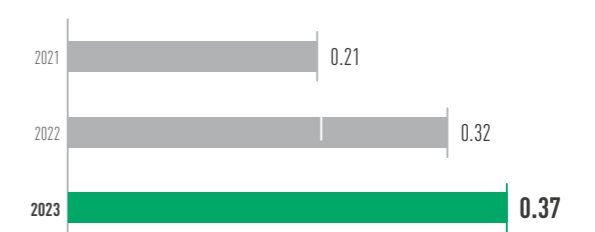
RATIO OF DISPOSED WASTE AMOUNT TO ACCUMULATED AND NEWLY GENERATED WASTE AMOUNT (t/t)



RATIO OF CONTAMINATED LAND AREA AT THE END AND BEGINNING OF THE YEAR (ha/ha)



RATIO OF RECLAIMED LAND AREA DURING THE YEAR TO CONTAMINATED LAND AREA DURING THE YEAR (ha/ha)



DECOMMISSIONING AND RECLAMATION OF WORK SITES

ASSET DISPOSAL EXPENSES

Oil and gas assets

Under the terms of certain contracts, the KMG is statutorily liable to dispose of fixed assets and restore the land at each of the fields in accordance with laws and regulations. In particular, KMG’s obligations include: the gradual shut-in of all unproductive wells and final shutting down of operations, such as the removal of pipelines, buildings and reclamation of the contract area; decommissioning and environmental liabilities at the production site. As the licences are not renewable at the discretion of the KMG, it is

assumed that the estimated settlement date of the final shut-in liabilities at the field is the end of each licence period. The extent of the KMG liabilities to finance the well decommissioning and final shut-in costs depends on the terms of the respective contracts and applicable laws.

No liability is recognised where neither the contract nor the legislation implies a definite liability to fund such final decommissioning and shut-in costs at the end of the licence period. There is some uncertainty and significant judgement involved in making this determination. The assessment as to the existence or otherwise of such liability may change with changes in government policy and practice or local industry practice.



The total area of disturbed land reclamation in 2023

The KMG calculates asset disposal liability separately for each contract. The amount of the liability is the present value of the estimated costs expected to be required to settle the liability adjusted for expected inflation and discounted using average long-term risk-free interest rates for sovereign debt of countries with economies in transition adjusted for risks specific to the Kazakhstan market.

As at 31 December 2023, the carrying amount of KMG Group's reserve for oil and gas asset disposal liability was KZT 123,785 million (as at 31 December 2022: KZT 88,207 million).

According to the Code of the Republic of Kazakhstan "On Subsoil and subsoil use":

- Elimination of the consequences of subsurface use it is carried out in accordance with the approved subsoil user and received positive conclusions provided for by this Code and other laws The Republic of Kazakhstan expertise project for the elimination of consequences of subsurface use.
- The conservation of the subsurface area is carried out in accordance with the project of conservation of the subsurface area approved by the subsoil user and received positive conclusions provided for by this Code and other laws of the Republic of Kazakhstan.
- Technological facilities are liquidated or preserved in accordance with the project of liquidation or conservation of technological facilities, provided for by this Code and other laws of the Republic of Kazakhstan, approved by the subsoil user and received positive

conclusions from the examinations provided for by this Code and other laws of the Republic of Kazakhstan, with the exception of certain categories of wells provided for in the rules of conservation and liquidation during exploration and production of hydrocarbons, approved by the authorized body in the field of hydrocarbons, liquidation or the conservation of which is carried out in accordance with the liquidation and conservation plan.

The requirements for well liquidation are set out in the rules of conservation and liquidation during exploration and production of hydrocarbons and uranium extraction, approved by Order No. 200 of the Minister of Energy of the Republic of Kazakhstan dated May 22, 2018. Registered with the Ministry of Justice of the Republic of Kazakhstan on June 19, 2018 No. 17094 (Chapter 4. Liquidation of oil, gas and injection wells for various purposes in the exploration and production of hydrocarbons).

Guided by the current legislation of the Republic of Kazakhstan, in 2023 the Company approved a Policy in the field of closure of facilities and land reclamation at KMG exploration sites and fields.

Trunk Oil and Gas Pipelines

In accordance with the Trunk Pipeline Act of the Republic of Kazakhstan, which came into force on 4 July 2012, KazTransOil JSC has a statutory liability to decommission the trunk pipeline upon termination of operation and then carry out environment remediation actions, including land reclamation. The reserve for pipeline decommissioning and land reclamation liability is estimated on the basis of the cost of dismantling and reclamation calculated by KMG. As at 31 December 2023, the carrying value of KMG reserve for pipeline decommissioning and land reclamation liability was KZT 45.649 million (as at 31 December 2020: KZT 40.665 million).

OFFSHORE WELL CONTROL

KMG, together with strategic partners, is engaged in geologic exploration in Zhenis, Abai and Al-Farabi areas in the Kazakhstan Sector of the Caspian Sea. Given the high cost of offshore exploration, KMG seeks to share exploration risks with international partners (Eni, Lukoil, etc.). Under Subsoil Use Contracts and Joint Operating Agreements, all necessary obligations for offshore well control are delegated to specially created joint ventures.

At the same time, management decisions on offshore drilling and seismic acquisition in the joint ventures are made by KMG and Partners within the Operating Committees and their subcommittees (financial, technical, HSE, procurement) in full compliance with international standards and RoK laws.

All responsibilities relating to offshore well control are set out in the Operating Committee Regulations and Joint Operating Agreement.

OIL SPILL PREVENTION AND RESPONSE

306-3

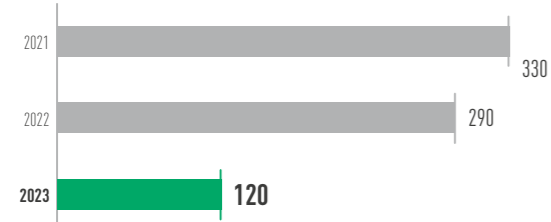
Continuous preparedness for emergency oil spill response is an absolute priority for us.

The Caspian Sea is a unique natural water body which fragile ecosystem is particularly sensitive to oil pollution due to its enclosed nature. We have high requirements for environmental safety of offshore oil operations: before commencing any work, we conduct baseline environmental surveys in contract areas and assess our potential social and environmental impacts, as well as impact monitoring, emission monitoring and emergency monitoring – during and after operations.

Prior to offshore drilling operations, we ensure that we are always prepared to respond to all possible emergency oil spills. Once the work is completed, we conduct continuous environmental monitoring of abandoned wells. Monitoring of abandoned wells in the contract areas includes observation of air quality, sea water and bottom sediment pollution, biodiversity status, as well as laboratory testing, photo and video recording of the wellheads of abandoned wells.

In our offshore operations, we strictly adhere to the following principles:

- Strict compliance with design solutions
- Zero discharges principle – all waste and waste water are removed to the shore
- Provision of fish protection devices for all floating crafts, no bilge water
- Operations are prohibited during spawning season from 1 April to 15 July
- Fishing from industrial vessels is prohibited
- Well testing and raw hydrocarbon flaring are prohibited at night
- Observing of special use conditions.

OIL SPILL VOLUME (tonnes)


The main cause of oil spills in the Company is oilfield pipeline ruptures caused by corrosion processes. As a result of a manifold rupture and due to wear and tear of the steel part of the pipe, a spill may occur. The Company carries out work to clean up oily soil and transport oil-water emulsion to a wastewater tank with subsequent transfer to a third-party companies for treatment. During the biological remediation process, perennial plants appropriate to the species composition were planted.

In 2023, the KMG Group of Companies was 119 cases of oil spills were recorded. All incidents of oil spills are recorded on land during hydrocarbon extraction and transportation. There were no offshore oil spills.

The Company continues work to reduce the number of oilfield pipeline failures and ruptures by performing timely and high-quality pipeline inspection, reconstruction, replacement, inhibition and cleaning to improve pipeline integrity and reliability.

In close cooperation with law enforcement agencies, KazTransOil JSC has overcome the situation with criminal illegal tie-ins into the Company's pipelines. Over the last 4 years, **criminal tie-ins into trunk pipelines have been reduced to zero** (in 2019, two tie-ins were identified, the damage amounted to KZT 6.4 mln; in 2020, 2021, 2022 and 2023, no criminal tie-ins were detected).

This has been achieved largely as a result of the following actions:

- Strengthening the monitoring of mobile teams using GPS systems and timely rounds and inspections of oil pipelines by mobile teams;
- Oil pipeline protection by means of Optosense monitoring system.

Continuous preparedness for emergency oil spill response (EOSR) is an absolute priority for us.

CASE STUDY

The projects in the Caspian Sea is an important step in expanding resource base in a region that is strategic for the Company and has significant accumulated expertise

In 2024, it is scheduled to abandon the Abay-1 exploration well in Abay area and conduct seismic exploration in Al-Farabi area. Also in 2024, one exploration well is scheduled to be drilled in Abay area to study the geological structure and search for hydrocarbon deposits.

Initiative to Develop Volunteering in Emergency Oil Spill Response

KMG Group continues to focus on volunteering in EORS. Within the framework of the EOSR Volunteering Development Programme, KMG Systems & Services LLP conducted EOSR training for the 14th and 15th volunteer streams on 16 September, 29 October, 25 November 2023, attended by locals of Mangistau region. The training was attended by students of Aktau Universities. The total number of trained volunteers was more than 200 people.

The training was held in Aktau at EOSR base in Umirzak Village.

On 6 and 20 May 2023, EOSR training conducted for the 7th, 8th and 9th volunteer streams, attended by locals of Atyrau region. The training was attended by students of Atyrau Universities.

The total number of trained volunteers to date was more than 113 people. The training was held in Atyrau at the North Caspian Environmental Oil Spill Response Base (NCEOSR) in Damba.



BIODIVERSITY CONSERVATION AND SUPPORT OF SPECIALLY PROTECTED NATURAL AREAS

PROTECTED NATURAL AREAS WITHIN OUR FOOTPRINT AND AFFECTED SPECIES OF FLORA AND FAUNA

304-1, 304-2, 304-3, 304-4

North Caspian is the most productive part of the Caspian Sea. This part of the sea is rich with biological resources. The main commercial fish fauna includes 25 species, of which the most valued are sturgeons with 70-80% of their global reserve living in the basin.

Eastern water area of the North Caspian with deltas of Volga (within the RoK) and Ural is a part of the State Conservation Area in the North Caspian Sea. Wetlands of the North Caspian, particularly deltas of Volga, Ural and Emba, and the adjacent coast and the sea area 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 from the Red Book of Kazakhstan) migrate through open areas of the North-East Caspian 20-60 km away from the shore.

Little egret, spoonbills, pelicans, whooper swan, ferruginous duck and great black-headed gull are nesting near the shore. Swamphen, white-tailed eagle and osprey are also observed flying.

Land cenoses are nesting grounds for 5 species of birds from the RoK Red Book. 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 (pinniped) of the Caspian Sea is Caspian seal (*Phoca caspica*). It is an endemic mammal species. Seals are spread throughout the Caspian Sea, although they vary in number in the North part depending on 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 that freezes in winter. During feeding period from April to 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 moves to the deeper and colder South Caspian waters. 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 of 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.

“Isatai” area is in the northern part of the Caspian Sea, 45 km north of the coast of Bozashy Peninsula, in Mangystau Region.

“Abai” area is located in the north-western part of the Kazakhstani Sector of the Caspian Sea in the area of a water body of the Caspian Sea 60-70 km north of the coast of Buzachi peninsula and geographically belongs to Atyrau Region. The area is located in the preserved area of the Caspian Sea.

“Al-Farabi” area is located in the southern part of the Kazakhstani Sector of the Caspian Sea and geographically belongs to Mangystau region of the RoK. The western border of the Al-Farabi site is adjacent to the state border between the Republic of Kazakhstan and the Russian Federation in the area of a water body of the Middle Caspian Sea.

Mangystau Region. Mangystau Region has a vast system of specially protected natural areas including Ustyurt State Nature Reserve and Kenderli-Kayasan Conservation Area of republican status, as well as 8 reserves and 1 natural park of regional subordination. Blotched snake (*Elaphe sauromates*) is a reptile listed in the Red Book of the Republic of Kazakhstan (2010) and inhabiting Mangystau Region. Afghan tortoise is a common, well spread species that is quite numerous in certain areas

of Mangystau Region, nevertheless, according to criteria of the Red List of International Union for Conservation of Nature (IUCN) it is a vulnerable species.

Kenderli-Kayasan Conservation Area of republican status was established to preserve habitat and natural reproduction grounds of houbara bustard and saker falcon. Established status: conservation area, reserve, controlled status.

Karazhambas field is in the north-western part of Buzachi Peninsula, within Caspian Depression, in the territory bordering the Caspian Sea on the west. In the west, the field borders the State Nature Conservation Area of the North Caspian Sea. Industrial environmental monitoring includes biannual flora and fauna monitoring.



Aktobe region. Kokzhide-Kumzhargan State Integrated Nature Reserve of local status.

This reserve accommodates two sites of nature reserve fund of republican status: Kokzhide Sands and Kokzhide Groundwater, which are included in the List of Geological Sites of the State Nature Reserve Fund of republican and international status.

Urikhtau, Alibekmola and Kozhasai fields are located in Mugalzhar District of Aktobe Region of the RoK. Northwestern part of the contract

territory of Urikhtau field lays on the Kokzhide Sands, the fields also border the Kozhide-Kumzhargan State Integrated Nature Reserve of local status. To avoid groundwater pollution, environment is being regularly monitored both within the Group operations footprint and near the Kokzhide Sands adjoining the contract territory. Consultations are also underway with the authorized bodies in the field of environmental protection and subsoil use to develop the necessary actions for the management of this subsurface area and further safe work.



PRODUCTION SITES LOCATED WITHIN AND NEAR THE SPECIALLY PROTECTED NATURAL AREAS

Type of SPNA	Within borders	Adjacent borders (includes a part of territory)	Outside borders (located within 1-10 km)
Category IUCN I-IV	-	-	-
Category IUCN V-VI	Isatai Abai Kalamkas-Khazar	Urikhtau	Alibekmola Kozhasai Karazhanbas Rozhkovskoye
World heritage sites	-	-	-
Ramsar lands	-	-	-

- preventing illegal hunting, fishing and other use of flora and fauna by own employees and the employees of contractors and subcontractors in contract areas.

construction, disturbance of natural structure of bottom deposits due to intensive navigation among other things, physical effects of noise.

Baseline environmental studies, well drilling and testing took place on the sites within the North Caspian state nature conservation area. There are currently no significant mancaused 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. The impact factors are increased concentrations of suspended solids in water during offshore

Industrial environmental monitoring of the environment, abandoned wells and research and development (R&D) in the areas of hydrology, hydrochemistry, hydrobiology and ichthyology are within to compensate for unavoidable damage to fish resources caused by operations.

One of the negative impacts of industrial activities, which also have an impact on biodiversity, is power lines, which pose a serious threat to avifauna. The death of birds as

OUR CONTRIBUTION TO BIODIVERSITY CONSERVATION IN 2023

304-1, 304-2, 304-3

As part of the Environmental Policy, we are committed to:

- not operate in specially protected natural areas of special value as habitats for rare, endangered and valuable animal species, carry out risk assessments when operating in environmentally sensitive areas;
- applying a hierarchy of biodiversity impact mitigation actions when planning

and implementing its operations based on four key actions: prevention, minimisation, restoration and compensation of potential significant direct impacts;

- participating in research programmes and industry partnerships to further accumulate knowledge and develop innovative solutions for environmental and biodiversity protection;



CASE STUDY

In July 2023 under the contract with Aktau-Balyk LTD LLP, Zhenis Operating LLP carried out works on compensation of damage to fish resources during construction and liquidation of well V-1 by releasing fish seed (sterlet) in the quantity of 4,467 pcs into the Ural River (Atyrau Region, RoK). This work was carried out in order to compensate for unavoidable damage to fish resources and replenish the biodiversity of the Caspian Sea. The amount of compensation for damage to fish resources in monetary terms amounted to KZT 5.9 mln.

a result of collisions with wires and electrocution is becoming one of the most acute problems of wildlife protection, especially in steppe and semi-desert areas of the country, where the absence of woody vegetation makes overhead power transmission towers the most attractive for nesting and resting places for many species of birds of prey.

Identification and investigation of areas of increased danger of electrical installations for birds are carried out in the course of special surveys or as part of industrial environmental control.

	Onshore Operations			Offshore Operations		
	2021	2022	2023	2021	2022	2023
Areas for which biodiversity is covered by an EIA or similar document (%)	100	100	100	100	100	100
Areas subject to regular environmental monitoring (%)	100	100	100	100	100	100
Areas with abandoned wells subject to regular environmental monitoring (%)	100	100	100	100	100	100

The negative impact of KMG Group's operations on biodiversity is mitigated both within and outside the boundaries of protected areas. The biodiversity conservation policy provides for the preservation of habitats and migration routes of animals, minimisation and compensation of possible environmental damage, and reduction of disturbed areas. Actions to minimise negative impacts include reduction

of the duration, intensity, as well as direct and indirect levels of impact of operations at oil production and transportation facilities.

The Company is open for consideration of any initiatives, ideas and actions for biodiversity conservation and requests that they be sent to: hse@kmg.kz.

ENVIRONMENTAL MANAGEMENT TRAINING OF PERSONNEL

3-3, 404-2

Training in occupational health and safety, industrial safety, fire safety and environmental protection remains relevant in KMG Group. In this regard, compulsory education, training and advanced training of personnel in these areas are a priority.

NEBOSH (National Examination Board in Occupational Safety and Health) is an internationally recognised organisation offering qualifications and training in occupational health and safety. NEBOSH courses are known for their high qualifications and demand in various industries, including the oil and gas industry. NEBOSH training courses help employees of KMG and its SDEs to gain practical skills in risk assessment, safety management in the workplace, which, in turn, increases work efficiency and reduces the risks of industrial accidents.

Since 2022, compulsory training in occupational health and safety, industrial safety and fire safety basics for KMG CC employees take place on the KMG Engineering LLP's platform.

HSE training is based on a "70/20/10" (workplace / internal / external) based on existing in-house training facilities/centres. Mentoring and internal coaching programmes with the involvement of experienced employees are implemented, master classes and trainings are conducted, various contests among leading employees are held, which enables to improve internal communications and encourage people to be the best in their professions.

KMG Group organises annual training sessions and workshops on environmental protection issues for employees. Thus, in connection with the enactment of the new Environmental Code RoK from 01.07.2021 to clarify the introduced innovations, including on the EIA procedure, environmental design, State Environmental Expertise and its deadlines, the Company employees participated in workshops where the speakers were the drafters of the new Environmental Code and employees of the relevant structural units of the Ministry of Environment and Natural Resources. At the end

Ozenmunaygas JSC (Zhanaozen), KazTransOil JSC (Aktau), Pavlodar Oil Chemistry Refinery LLP (Pavlodar) and Oil Services Company LLP (Aktau) have their own training facilities/centres.

CASE STUDY

To exclude bird deaths from electric shock on overhead power lines at the main pipeline facilities of KazTransOil JSC, works on installation of bird protection devices (BPD) at Pavlodar Oil Pipeline Department for the amount of KZT 15,045 thousand, at Karaganda Oil Pipeline Department – for the amount of KZT 15,300 thousand were carried out in 2023.

In March 2023, KMG experts participated in the workshop meeting to develop a sensitivity map for oil spill response purposes in the Kazakhstan sector of the Caspian Sea, organised by the Oil Spill Preparedness Regional Initiative. Current methods of monitoring of offshore areas using new technologies were presented, the need to create

a sensitivity map in the Kazakhstan sector of the Caspian Sea was pronounced in order to ensure preparedness and response to oil pollution and to organise cooperation.

In September 2023, KMG experts took part in the Workshop "Birds of Prey and Energy" as part of the III International Scientific and Practical Conference "Palearctic Eagles: Study and Protection" organised by Biodiversity Research and Conservation Centre Public Foundation (BRCC). Such relevant topics as the development of practical actions to mitigate negative factors affecting raptors in steppe and desert regions, such as bird mortality at power grid facilities, RES, improvement of legislation in the field of avifauna, international experience in bird rescue, types of bird protection devices for overhead lines and substations were presented and discussed.



of the workshop, the participants received certificates.

Of KMG Group employees trained in 2023 on HSE issues, the level of those trained by category was as follows: 2,919 supervisors, 20,406 engineers, and 85,139 production staff. In 2023, 12,055 women and 96,409 men were trained and as a ratio to the total of 108,464 people – 11.1% women and 88.9% men.

ENVIRONMENTAL ASSESSMENT OF PLANNED ECONOMIC ACTIVITIES

The Company implements its environmental protection policy by conducting an environmental assessment of planned and ongoing environmental activities. In the process of such assessment, possible negative impacts resulting from the implementation of a particular activity are identified, studied and evaluated.

Planned project decisions or intentions to implement a new project take into account public opinion and are implemented with an assessment of possible environmental risks. Public opinion is taken into account through informal meetings, gatherings, collection of written and oral proposals, open meetings, where each opinion is subject to consideration and preparation of a response. Each project is submitted to public hearings with the participation of non-governmental organisations, state bodies, the public and other stakeholders. Public hearings are open to all interested parties. The results of the hearings are recorded in writing and presented to the public.

Since 2021, the Company has been guided by the **Corporate Standard on Environmental Impact Assessment**. The Standard defines the corporate principles of the process of assessing the environmental impact of planned activities, regulates the activities of KMG Group, its employees and contractors, including design

organisations, whose activities are related to the development of technical documentation and environmental impact assessment materials, organisation and carrying out of public opinion consideration on environmental impact assessment materials, as well as obtaining environmental permits. The Standard is expected to be updated in 2024.

PUBLIC ORGANISATION ENGAGEMENT

2-28, 3-3

In 2022, the Public Environmental Council (hereinafter, PEC) of Atyrau Refinery started its work. The panel of experts includes the refinery management, professional ecologists and eco-activists of the region, Candidates of Science, Doctor of Economics, deputies, media representatives and city residents. The purpose of the PEC is to enable the civil society to participate in the decision-making process of Atyrau Refinery operations, express the civil society's opinion on Atyrau Refinery's environmental activities, implement environmental projects and develop effective recommendations for solving environmental problems.

On 30 September 2023, a regular meeting of the PEC was held to discuss the implementation of environmental projects.

The public visited the site of the project "Reconstruction of Mechanical Treatment

Facilities" and familiarised themselves with the progress of the second phase. They also heard a report on actions taken to improve the reliability of power supply at Atyrau Refinery. During the Q&A session, the plan and format of the upcoming meeting of the PEC were discussed, and a recommendation to improve the human factor management system at the enterprise was pronounced.

On 2 June 2023, Embamunaigas JSC held a meeting on greening issues with the public of Atyrau. Embamunaigas JSC informed the public of Atyrau about the ongoing greening works in the regional centre. The meeting, organised by the EMG, was attended by representatives of the Department of Ecology of Atyrau Region, Department of Natural Resources and Nature Management Regulation, eco-activists, and media workers. During the meeting, representatives of state bodies, eco-activists and journalists received answers to their questions. As it was noted by the parties, it is important to get together more often, to communicate, discuss and develop a joint vision and approaches to solving urgent problems.

In 2023, the Company launched the KMG-Volunteer movement. As part of the Volunteer Movement Action Plan and implementation of the President's Address to the People of Kazakhstan, volunteers planted trees on the territory of the capital's school-lyceum No. 76 named after A. Bokeikhan. KMG donated 129 trees to the educational institution.

CASE STUDY



In 2023, 19 meetings with the local communities and public organisations and 90 public hearings held. For example, in June 2023, Embamunaigas JSC held a meeting with the public on greening issues, where it informed the public about the ongoing work on greening the territory of the regional centre. During the meeting, seedlings were planted in Talkayran Village. Also, eco-activists, journalists and representatives of state bodies received answers to their questions.

GREEN OFFICE CONCEPT IN KMG

2-28, 3-3, 302-4, 305-5

The Company adheres to **Green Office** principles which are aimed at the economical use of all resources and caring for the environment. KMG actively participates in the implementation of actions aimed at continuous improvement of working conditions, increasing comfort, improving office design and architecture, increasing the area of greenery and providing recreational opportunities for employees. By adhering to Green Office principles, the Company aims to reduce resource consumption, create a favourable environment and achieve economic efficiency in our operations. Our efforts include environmental education of employees, resource conservation (energy saving, electricity saving, separate waste collection, paper saving, etc.) and organising green events.

The following steps have been taken to date:

- installation of eco-bins in offices, hallways, lobby, parking area for separate waste collection: paper, plastic, glass and metal;
- installation of special containers for collecting run-down batteries;
- pop-up window to switch off computers and equipment on employees' screens at the end of the working day;
- sticker with slogans to save trees, minimise printing;
- electronic document flow. KMG Corporate Centre has set a target of "Reduce the consumption of writing paper by 3% compared to 2019 levels". At the end of the year, 3,264 reams of paper were used, which is 8.8% higher than the target of 3,000 reams, and 25.8% higher than in 2022. The increase in paper consumption was due to the increase in the number of KMG Corporate Centre employees by 1.12%, as well as due to the submission of various issues to the Management Board. According to the requirements, all materials should be printed in paper version in 2 languages. At the same time, we note that the primary goal to reduce the consumption of writing paper was set in 2019, and, in comparison with 2019, there is a decrease in paper consumption by 73.3% (12,228 reams were used in 2019);
- use of projectors for presentations;



- updating information on eco-bins in the adaptation training course for newly hired employees
- installation of a recycling kiosk – a terminal for accepting plastic bottles and glassware –

in the building of KMG's Corporate Centre. In 2023, 17,516 plastic bottles and 3,403 aluminium bottles were delivered for recycling.

CASE STUDY

Participation in the International Earth Hour Event

Earth Hour is an annual international event held around the world. It is a symbolic campaign of respect for nature, a public call for action to preserve the planet's climate and its limited resources. In 2023, KMG joined this campaign to energy saving.



CASE STUDY



On World Environment Day, KMG held a conference in Atyrau on the theme "Atyrau environmental dialogue: Ecology and industry. Partnership for the good of society".

During the event, environmental projects as well as measures to reduce emissions into the air on the Company's assets were widely discussed.

On the initiative of KMG, badges and certificates were awarded to distinguished employees of the Group on behalf of the Chairman of the Management Board of KMG. Similar awards were also initiated by the authorised body in the field of environmental protection.



CASE STUDY

Commitment to environmental responsibility is also reflected in the greening work in KMG SDEs.

Within the framework of fulfilment of the instruction of the President of the Republic of Kazakhstan Kasym-Jomart Tokayev, concerning planting of more than 2 billion trees in the forest area and 15 million trees in settlements, announced in the Address to the People of Kazakhstan, as well as within the framework of implementation of the Comprehensive Plan, implementation of the action "Greening by Major Oil Companies" for 2021-2024 in KMG SDEs located in the Atyrau Region is envisaged.

All KMG SDEs planted green areas in the territory of sanitary protection zones and in the regions of operation. As part of the republican environmental campaign "All-Kazakhstan Tree Planting Day", a green planting event was held at the sanitary protection zone (SPZ) of Atyrau Refinery. About 100 employees took part in the campaign. During the campaign, over 450 seedlings of elm and grey poplar trees, which are resistant to saline soil in the region, were planted on 0.7 hectares. 300 trees and bushes were planted on the territory of the plant.

As part of the Memorandum on Greening signed between EMG and Atyrau Region Akimat in 2021, seedlings were planted in Talkayran Village. Currently, about 9,000 seedlings have been planted on 10.5 hectares of land. The trees have successfully taken root and are being carefully cared for.

On 22 April 2023, employees of the central office of Embamunaigas JSC held a "Plant a Tree" campaign. During the event, 850 seedlings were planted. Since the beginning of 2023, Embamunaigas employees have greened 8 hectares of land, planting 7,200 young trees. These are mainly maple, poplar and elm trees, which have a high survival rate in the local soil.

Within the framework of the environmental action World Cleanup Day, where millions of people unite and show their care about nature, clearing it of garbage, as well as within the framework of the European environmental action "New Kazakhstan. Pure Nature" in KMG Group of Companies launched eco-challenge environmental cleanup.

OCCUPATIONAL HEALTH AND SAFETY

3-3, 403-1, 403-2, 403-3, 403-9

KMG and its subsidiaries adhere to the principle that the occupational health and safety takes precedence over operational performance. The Company's occupational health and safety policy is based on the commitment of top management in this area and aims to involve every employee in creating a safety culture. The Company's management is committed to zero tolerance for accidents and for the use of alcohol, drugs and psychotropic substances and traffic accidents. The Company is committed to complying with both national laws and the requirements of international and national standards. KMG pays particular attention to ensuring a high level of occupational safety according to global standards and best practices.

As part of IOGP membership, KMG Group has developed and implemented IOGP Vital Rules. To inform employees about compliance with the Vital Rules, campaigns were organised in SDEs by instructing employees and broadcasting videos. A message was sent on behalf of the Chairman of KMG's Management Board on the importance of compliance with

the Vital Rules and the right to refuse unsafe work. Moreover, in order to develop a culture of occupational safety among employees and in accordance with the Action Plan for Occupational Safety of Samruk-Kazyna JSC, in 2023, about 30 thousand employees of KMG and SDEs were trained under the Occupational Safety Culture programme.

At the end of 2023, the number of people injured in work-related accidents decreased by 19% compared to last year (from 36 in 2022 to 29 in 2023).

The number of road accidents decreased by 21% (from 24 in 2022 to 19 in 2023), the number of fires decreased by 100% (no fires in 2023 versus one fire in 2022).

In 2023, there were two work-related fatalities (1 employee of PetroKazakhstan Oil Products LLP as a result of a road accident and 1 employee of Ken-Kurylys-Service LLP as a result of exposure to moving objects).

Key OHS Indicators	UOM	2021	2022	2023	Deviation 2023/2022	%
Accidents	Case	28	35	28	-7	-20
Injured in accidents	Person	32	36	29	-7	-19
Including fatalities	Person	3	1	2	+1	+100
Road traffic accidents	Case	22	24	19	-5	-21
Fires	Case	6	1	0	-1	-100

LOST TIME INJURY AND FATALITY ACCIDENT RATES

Indicator	2021	2022	2023	IOGP ¹
Lost time injury rate (LTIR), per mln man-hours	0.31	0.36	0.30	0.26
Fatality accident rate (FAR), per 100 mln man-hours	2.93	1.0	2.11	0.30

The Company keeps records within KMG Group and for contractors, contractor data is not included in accident and fatality figures.

PROCESS SAFETY MANAGEMENT

During 2023, as part of the actions taken to prevent accidents and incidents, consultative and advisory work was carried out to explain to SDEs how to organise and ensure the safety of production processes / barrier management. Also in 2023, 23 scheduled inspections of SDEs' activities in the field of industrial safety were carried out. 220 items of recommendations were issued to improve the state of industrial safety at hazardous production facilities in KMG Group.

As part of the implementation of KMG Corporate Rules for Isolation of Energy Sources, explanatory work was carried out with SDEs on the implementation of the LOTO industrial safety system. According to the plan, in 2024, work will continue on the introduction and practical application of the LOTO industrial safety system in the production activities of KMG Group.

TRANSPORT SAFETY

3-3, 403-1, 403-2, 403-9

Today, the Company has over 11,000 vehicles and special machines, most of which are operated in major cities and towns in heavy urban traffic, which increases the risk of accidents caused by third parties. Thus, of 19 accidents occurred in 2023, 15 accidents were caused by other road users.

As part of ensuring transport safety, preserving human life and health in the operation and maintenance of vehicles, preventing accidents and reducing the potential risks of injury to Company employees, work is being carried out on a continuous basis to improve transport safety:

- In 2023, SDEs and contractors employees were trained in Defensive Driving in accordance with RoSPA International Standards.

- To raise awareness among KMG Group employees of the need to use seat belts and reduce injuries in road accidents, a practical demonstration of a simulator simulating a frontal collision in a road accident (convincer) is being conducted, which was attended by 7,783 employees of KMG SDEs.
- As part of the project of automated vehicle monitoring system "Travel Management", in 2023, diagnostics of transport management processes was carried out at KBM, OMG, MMG, OTC, OSC, KTO (roadmaps for project implementation were approved at KBM, OMG, OTC, OSC).

FIRE SAFETY

3-3, 403-1, 403-2, 403-9

In 2023 there were no cases of fire at KMG facilities (in 2022 there was one case of fire without injuries due to interruption of operation of electrical equipment).

At the same time, the following fire safety cases were registered: 11 ignitions (Atyrau Refinery (2), OMG (2), OMS, MMG, Petromidia Refinery (2), EMG, Kazgermunai, OSC), 1 flash (OMG), 3 smouldering (KazTransOil, Atyrau Refinery, MMG). According to the applicable laws, "fire", "ignition", "smouldering" and "flash" have different signs and definition, therefore all the above cases were not included in the statistics of fires.

To improve fire safety activities, in October 2021, KMG developed and approved a Comprehensive Fire Safety Plan for 2022–2024 with short-, medium- and long-term, as well as preventive actions.

In accordance with the Comprehensive Plan and as part of the execution of the instruction of Samruk-Kazyna JSC, scheduled fire drills were held in all SDEs during the year.

In July 2023, fire drills were held at Mangistaumunaigas JSC with the participation of representatives of Samruk-Kazyna JSC and the Ministry of Emergency Situations of the Republic of Kazakhstan.

CASE STUDY

To systematically improve industrial safety at the facilities of KMG SDEs, an emergency drill was conducted to eliminate an open flow at a well with fire and rescue a victim at the training area of the Zhetysaymunaigas Production Department of Mangistaumunaigas JSC, with the participation of Semser Ort Sondirushi Non-State Firefighting Service, a unit of the Mangistau Branch of Republican Central Paramilitary Headquarters of Professional Emergency Services. The event was observed by representatives of Samruk-Kazyna, KazMunayGas, Department of Industrial Safety Committee, Department of Emergency Situations in Mangistau Region and representatives of KMG SDEs.

During the training, actions were practised to cool the well equipment, reduce the intensity of heat radiation from the flow, determine the zone of contamination, seal the wellhead and kill the well by injecting weighted drilling mud.



¹ Available IOGP figures for 2022 (<https://www.iogp.org/>).

On 20 September 2023, fire tactical drills were held to eliminate a fire at the tank farm of JV Caspi Bitum LLP with the participation of the Minister for Emergency Situations of the Republic of Kazakhstan.

Two fire drills with evacuation of people and extinguishing a conditional fire in the building were conducted at KMG Corporate Centre in 2023.

To improve the organisation of work to ensure fire safety, activities to strengthen and explain fire protection standards were carried out

in KMG's SDEs during the year as methodological assistance.

The following initiatives aimed at improving fire safety in the Company are planned for 2024:

- implementation of long-term actions of the Comprehensive Fire Safety Plan for 2022-2024;
- inspection and assessment of the readiness of SDEs and non-state firefighting services to prevent and extinguish fires at the Company's facilities.

DIGITALISATION OF THE HSE FUNCTION

To improve transport safety, create a culture of safe driving and a single centralised digital platform, Travel Management, a pilot project to introduce the automated vehicle monitoring system was completed in 2022 at EMG.

As part of the digitalisation of industrial safety processes, the process of introducing an electronic PTW system at EMG continues. Starting from December 2023, the system of electronic PTW has been put into operation for all production units of EMG.

Given the positive effect on transport safety as a result of the introduction of Travel Management, an automated vehicle monitoring system at EMG, as part of the phased replication of the project to other KMG SDEs, in 2023, diagnostics of transport management processes was carried out at KBM, OMG, MMG, OTC, OSC, KTO (roadmaps for project implementation were approved at KBM, OMG, OTC, OSC).

Also in 2024, work was carried out to develop TUMAR, an automated intelligent system for industrial safety aimed at preventing incidents and reducing the negative impact on employees during hazardous process operations and during underground workover operations.

CONTRACTOR ENGAGEMENT

The Company seeks to improve its HSE processes with contractors, which are based on identifying, assessing and mitigating risks at all stages of work and service delivery by contractors and subcontractors at KMG Group production facilities.

The Company requires contractors to strictly observe and fulfil the legislative requirements of the Republic of Kazakhstan, KMG Vital Rules, requirements of the Company's HSE policies and standards.

To reduce incidents involving KMG's contractors, audits were conducted in 12 SDEs in 2023 for compliance with the processes of HSE contractor engagement, and 587 recommendations were issued to improve the situation.

Based on the analysis of organizational structures of services of HSE in organizations of the Company in 2023, SDEs were recommended a specialist on interaction with contractors in the HSE field should be included in the staff.

Also included in contractual agreements are penalties for contractors who violate the law requirements of Kazakhstan and requirements of KMG standards in the HSE field.

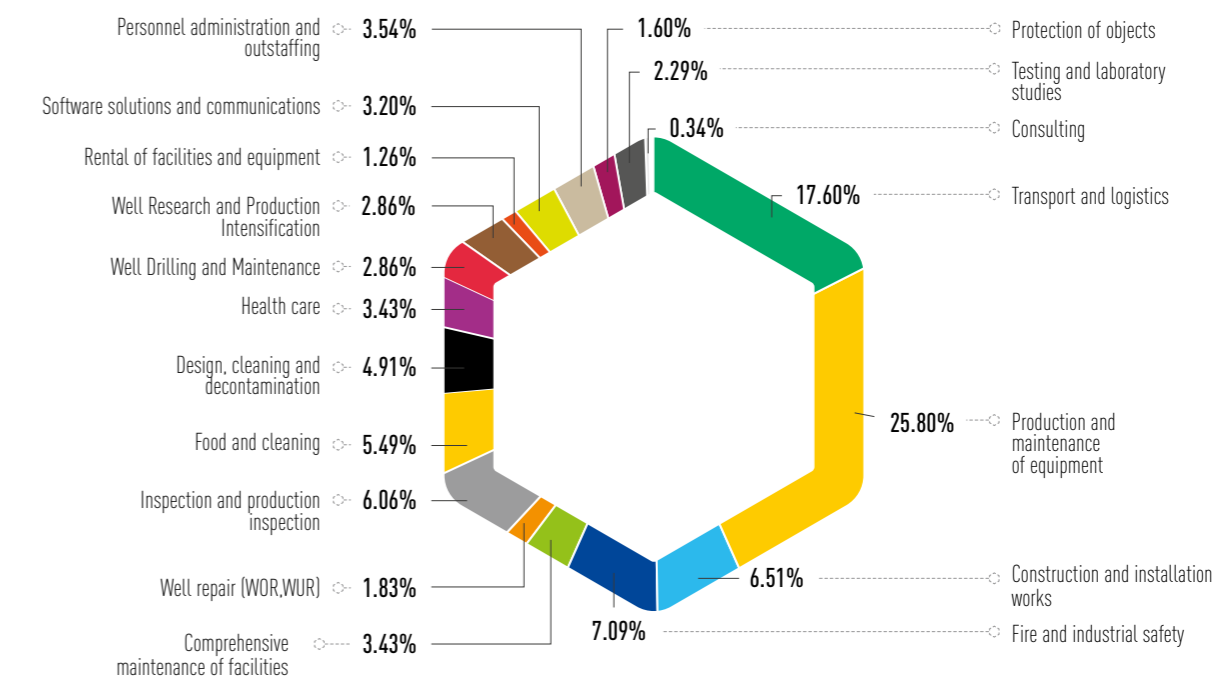
For the management of potentially dangerous situations and avoidance of accidents in the HSE

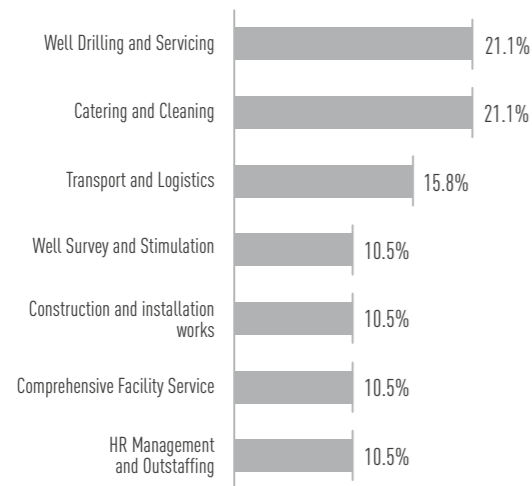
field "Vital Rules of KMG" have been introduced in the Company, which also apply to contractors, allowing employees to get acquainted with actions that they can take steps to protect yourself and your colleagues from accidents.

In accordance with the Policy and the MS, employees of the Company, including contractors, have a legal right to refuse or stop work in case of a potentially dangerous situation that reasonably endangers the life and health of employees or the environment.

In 2023, as part of process improvement SDEs has carried out a systematic assessment of the performance of contractors in HSE areas, which has enabled each SDE to identify potential gaps in its contractor management systems to set objectives for improvement.

VOLUME STRUCTURE BY TYPE OF SERVICES PROVIDE



PERCENTAGE OF INCIDENTS BY TYPE OF SERVICES PROVIDED


Based on the results of the work carried out in 2023, 873 contractors provided services and performed works for SDEs in all business areas of the Company. The most significant shares of the total volume of services and works are Production and maintenance of equipment – 25.8%, Transport and Logistics – 17.6%, Fire and Industrial Safety – 7.09%, Construction and Installation 6.51% while the total volume of Oilfield Services is 36.8%.

Evaluation of performance of contractors in the HSE field for 2023 showed that the most number of accidents related to production occurred in the directions “Well Drilling and Maintenance” – 21.1%, “Food and Cleaning” – 21.1% and “Transport and logistics” – 15.8%.

To improve communication and efficiency of HSE contractor engagement, a forum of heads of HSE Services of SDEs was held in 2023 on the topic “Efficiency of Incident Investigation and HSE Management of Contractors” with

the participation of representatives of Samruk-Kazyna JSC and consultants of Baitau Partners, a company providing training and consulting services on occupational health and safety.

The forum reviewed the most relevant cases on process approaches and HSE management of contractors, in particular, the analytical approach to finding solutions to problematic tasks in process management based on the Deming/PDCA cycle and its application to the management of contractors on the example of Chevron.

To reduce incidents involving KMG contractors, an analysis of the systemic causes of incidents (accidents, fires, road accidents) that occurred in 2023 was carried out, based on the results of which further work on contractor engagement will be focused and aimed at the following:

- audits of SDEs for compliance with corporate requirements for HSE contractor engagement, identification of gaps in contractor management systems for further improvement;
- improving communication and informing contractors in HSE (sending flashes and information sheets on incidents that occurred in the Company, holding meetings and forums, sharing experience, education and training);
- compliance with the requirements to conduct pre-mobilisation audits of contractors as the most important procedure for risk management prior to commencement of works;
- control and monitoring of HSE requirements to contractors within the framework of concluded contracts;
- generation of reports on contractors, as part of the process of information system development and automation of HSE management;

- ranking of contractors based on HSE performance and increasing requirements for HSE competence and training of contractors’ employees, development of HSE leadership and commitment.

The company requires contractors to strictly comply with the legislative requirements of the Republic of Kazakhstan, the Company’s policies and standards in the HSE field, which are taken into account when concluding contracts for the provision of services and performance of works.

The Company’s key HSE requirements are pre-mobilisation audit – compliance of the contractor’s machinery and equipment and personnel prior to commencement of works, development and implementation of the HSE Plan by the contractor (before, during and after works) and assessment of the contractor’s HSE performance.

The lost time injury rate (LTIR) per 1 mln man/hours involving contractors in 2023 was 0.15.

The fatality accident rate (FAR) per 100 mln people/hours – FAR (FATALITY ACCIDENT RATE) involving contractors was 5.08 in connection with the deaths of 8 contractor employees caused by fire.

The motor vehicle crash rate (MVCR) per mln km travelled involving contractors was 0.28 in 2023.

In order to confirm the GAP analysis data conducted by subsidiaries and their verification, audits of compliance of processes for interaction with contractors in subsidiaries and affiliates, compliance with the requirements of corporate policies and standards in the HSE field are planned in 2024, including: control and monitoring of the implementation of policies and standards, expertise, analysis and risk assessment, recommendations for the elimination of constraints (systemic causes) on interaction with contractors in the HSE field in SDEs.

RATES OF LOST TIME INJURY, FATALITY ACCIDENT AND MOTOR VEHICLE CRASH INVOLVING CONTRACTORS

Indicator	2020 ²	2021 ³	2022	2023 ⁴	IOGP ⁵
Lost time injury rate per 1 mln man-hours, (LTIR)	0.00	0.27	0.52	0.15	0.28
Fatality accident rate per 100 mln man-hours, (FAR)	0.00	0.00	1.28	5.08	1.62
Motor vehicle crash rate per 1 mln kilometres travelled, (MVCR)	0.00	0.24	0.17	0.28	0.076

² No data available

³ Data excluding KTG and its structural divisions

⁴ Data excluding SDEs providing services to organizations of the KMG Group of Companies

⁵ IOGP Available indicators for 2022 (<https://www.iogp.org/>).

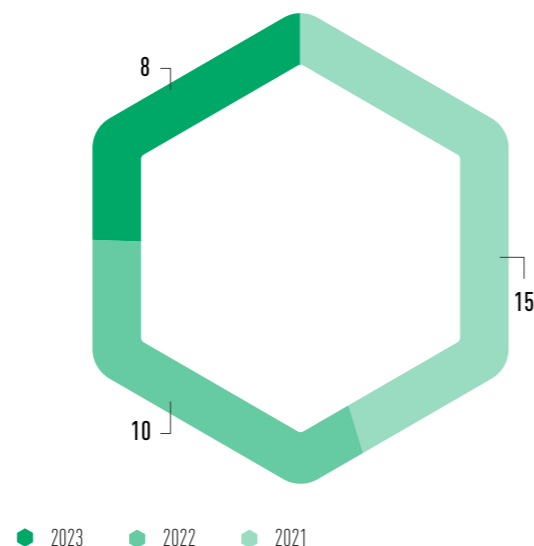
OCCUPATIONAL HEALTH, SAFETY, AND HYGIENE

3-3, 403-1, 403-3, 403-4, 403-5, 403-6, 403-7, 403-8, 403-9, 403-10

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

The number of non-injury-related fatalities among employees of SDEs decreased by 2 cases, or 20%, compared to 2022, this indicator is mainly due to the presence of cardiovascular disease among employees.

NUMBER OF NON-INJURY-RELATED FATALITIES



KMG PERSONNEL HEALTH MANAGEMENT PROGRAMME

As part of the implementation of the Strategic Initiative "Personnel Health Management", **KMG Group Personnel Health Management Programme** was approved by the decision of the KMG Management Board dated 23 December 2022 (Minutes No. 68). The purpose of the programme is to improve the quality of medical services and provision of medical care at production facilities, introduction and implementation of actions to improve the health of employees in KMG Group.

The main objectives of the KMG Personnel Health Management Programme are:

- Improving the quality of medical care and medical services to employees of KMG Group's production facilities;

- Developing the mechanisms to strengthen personnel engagement and motivation for healthy lifestyle;
- Improving working, recreation and living conditions for employees of KMG Group's production facilities.

In 2023, as part of the Personnel Health Management Programme, actions in the areas of industrial hygiene have been developed and approved:

- Action Plan for Personnel Health Management in KMG Group for 2023–2025;
- Corporate Standard on Organising Mandatory Medical Examinations in KMG Group;

- Regulations on the Preparation of a Unified Standard Programme of Industrial Sanitary Control in KMG Group;
- Regulations on the Organisation of Emergency Medical Service in KMG Group, new edition.



In 2023, a number of workshops were held with KMG SDEs on the following topics: Explanation of the requirements of the Regulations on the Preparation of a Unified Standard Programme of Industrial Sanitary Control in KMG

Group and the Corporate Standard Organising Mandatory and Periodic Health Checkups in KMG Group. In addition, the situation for 2023 in terms of the number of non-work-related fatalities due to a sharp deterioration in the health of employees was analysed, the experience in implementing an Electronic Health Checkup System (EHCS) in KazTransOil presented for consideration, and recommendations were given to improve the work of SDEs and medical service providers.

Medical Emergency Drills

In accordance with the Regulations on the Organisation of Emergency Medical Service in KMG Group, the Emergency Medical Response Plan is tested annually and on a regular basis at each production facility by conducting medical emergency drills. In 2023, more than 560 medical emergency drills were held at the facilities of SDEs, including with the participation of contractors located in the production areas. Medical emergency drills were held on the following topics: first aid in case of a fall from height, loss of consciousness, poisoning, cardiac arrest, etc. In Mangistau Oil Pipeline Department of KazTransOil JSC, a medical emergency drill was held with the involvement of emergency rescue, firefighting and ambulance medical services. Reports were drawn up for each medical emergency drill held, taking into account the non-compliances and corrective actions.



Electronic Health Checkup System

Starting from 2021, the Electronic Health Checkup System (EHCS) has been introduced in SDEs. The system automates and simplifies the process of examining the health of employees during checkups. Within 5 minutes, the EHCS hardware system can analyse up to 10 key health parameters of an employee and issue a report or a travel voucher. If the EHCS hardware system detects any abnormalities in the employee's health, he or she is referred to a doctor for examination.

By the end of 2023, 45 units of EHCS hardware complexes have been introduced in the following subsidiaries and affiliates: Embamunaigas JSC – 10 units, KazTransOil JSC – 25 units, Atyrau Refinery LLP – 3 units, Pavlodar Oil Chemistry Refinery LLP – 1 unit, Karazhanbasmunay JSC – 4 units and Mangistauenergomunai LLP – 2 units.

The automation of health checkups avoids the following disadvantages:

- errors due to human factor;
- obtaining unreliable information;
- concealment of true examination results;
- long time for examinations involving medical staff;
- physical logging and storage.

EHCS Advantages:

- Full automation of health checkup process, elimination of the human factor, the possibility of obtaining the most reliable, unbiased information;



- Relatively accelerated health checkup in time;
- Possibility of electronic logging;
- Possibility of photo and video recording of the process.

One of the important problems is the study of the combined effect of industrial health hazards in production conditions and joint exposure (e.g., microclimate, noise, vibration, aerosols, work stress, etc.), the prediction of the effects of their action, as well as the study of the development of occupational pathology.



To solve this problem, SDEs are obliged to conduct industrial control in accordance with the laws of the Republic of Kazakhstan and internal documents in KMG Group. Thus, based on Order No. 62 dated 7 April 2023 of the Minister of Health of the Republic of Kazakhstan On Approval of the Sanitary Rules "Sanitary and Epidemiological Requirements for Industrial Control", the Regulations for the Preparation of a Unified Standard Programme of Industrial Sanitary Control in KMG Group were developed and approved.

No occupational diseases have been registered in KMG Group.

The main tasks of industrial sanitary control include organisation of control over the state of industrial and environmental conditions, including during laboratory tests and research, organisation of industrial control over the quality and safety of food products, food raw materials, public catering products, organisation of control over compliance with standards and technical conditions, requirements of regulatory documents of products, works and services at all stages of production activity.



PRINCIPLE 7. Business should support a precautionary approach to environmental issues.

PRINCIPLE 8. Business should take initiatives to increase environmental responsibility.

PRINCIPLE 9. Business should promote the development and diffusion of environmentally sound technologies.

LOW-CARBON POLICY IN THE COMPANY

3-3, 305-1, 305-4, 305-5, 305-7

Kazakhstan's Strategy for Achieving Carbon Neutrality by 2060

Kazakhstan announced a new goal of achieving carbon neutrality by 2060, reaffirming its commitments under the Paris Agreement to prevent global temperature rise of more than 1.5-2°C. In February 2023, the Strategy for Achieving Carbon Neutrality of the Republic of Kazakhstan by 2060 was adopted.

The main goal of the Strategy is to achieve sustainable development of Kazakhstan's economy to climate change and carbon neutrality by 2060. As a medium-term goal, it is expected to reduce greenhouse gas emissions by 15% by 2030 relative to 1990 levels and by 25% subject to international support for decarbonisation of the economy.

This Strategy sets ambitious zero-carbon targets to combat climate change and defines the main technological transformations needed to decarbonise the country. To achieve these transformations, Kazakhstan will need to identify and implement effective and targeted economy-wide policies and programmes.

UPDATE OF THE 2060 LOW-CARBON DEVELOPMENT PROGRAMME

In accordance with the new Action Plan to improve KMG's ESG Risk Rating approved by KMG's Board of Directors on 5 October 2023, the Company is required to develop a 2060

Low-Carbon Development Programme to align it with the Strategy for Achieving Carbon Neutrality by 2060 approved by the Government of the Republic of Kazakhstan in 2023.



LOW-CARBON DEVELOPMENT

The new programme, in accordance with international standards, will set short-, medium- and long-term greenhouse gas emission reduction targets covering all Scopes (1, 2 and 3) and complying with the Paris Agreement. The second step will be to measure and set targets for reducing the Company's methane emissions. In addition, targets for RES development, energy efficiency and green investments, etc. will be set.

Energy efficiency and energy saving, RES development, introduction of methane management, production of low-carbon products with higher added value, implementation of offset projects, carbon regulation, financing and green investments will be identified as the main KMG areas of the 2060 LCD Programme.

DEVELOPMENT OF BENCHMARKS FOR LIGHT OIL PRODUCTS

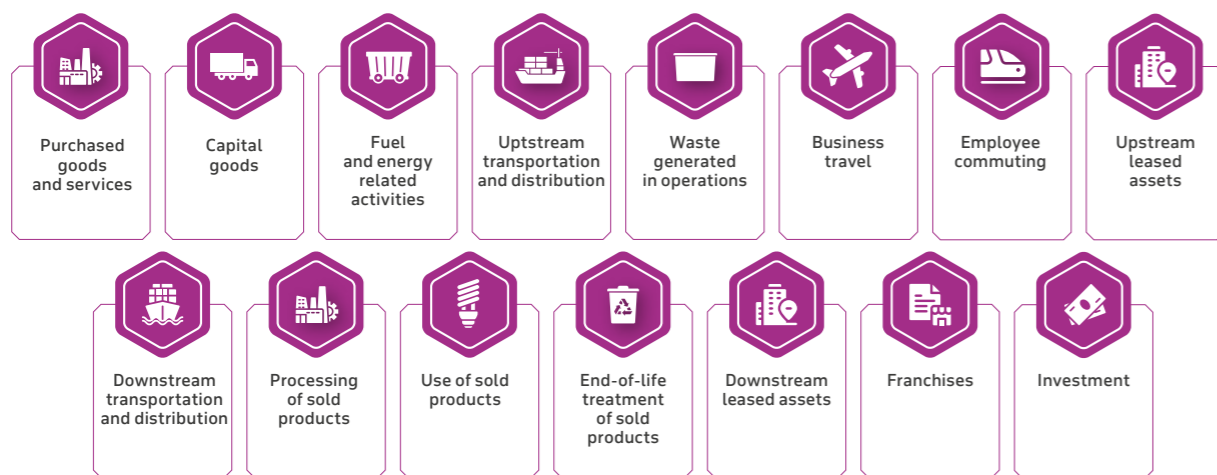
In accordance with the Environmental Code of the Republic of Kazakhstan, the allocation of carbon credits is calculated by applying benchmarks approved by Order No. 260 dated 19 July 2021 of the Acting Minister of Ecology, Geology and Natural Resources of the Republic of Kazakhstan. The current benchmark for oil products is based on data that takes into account mostly dark oil products. At the same

time, the production of light oil products is technologically more complex, with a large number of stages of product purification and, as a consequence, more energy- and carbon-intensive compared to the production of dark oil products, which is why the three largest refineries producing light oil products – Atyrau Refinery, PetroKazakhstan Oil Products and Pavlodar Oil Chemistry Refinery – annually have to request additional quotas to prove the validity of such a request.

In order to further justify the setting of a fair benchmark and to reduce the quota deficit at KMG's refineries, work was undertaken to calculate benchmarks for light oil products in 2023. In 2024, it is planned to continue work on harmonising and approving the draft new benchmarks with the Ministry of Ecology and Natural Resources of the Republic of Kazakhstan.

EXPANDING THE COVERAGE OF GREENHOUSE GAS EMISSIONS REPORTING

In order to improve reporting on greenhouse gases and improve the greenhouse gas emissions management system for KMG Group, work was carried out to inventory indirect greenhouse gas emissions of Scope 3 by 12 categories, and a methodology for collecting information was



developed for its subsequent implementation into the Methodology for Monitoring and Reporting of KMG's Greenhouse Gas Emissions. Previously, KMG disclosed Scope 3 emissions only for category 11 "Use of sold products". This initiative will lay the foundation for developing a strategy to engage with our suppliers and customers to systematically reduce indirect emissions from KMG's products.

INTERNAL CARBON PRICING PROGRAMME

In December 2022, the Management Board of KMG approved the Internal Carbon Pricing Programme, which describes the international experience in the implementation of the internal carbon pricing mechanism. In international practice, there are three types of internal carbon pricing:

- internal carbon fee – a fixed fee per tonne of carbon emissions for carbon-intensive facilities in order to form a reallocation of investments to finance the company's efforts to reduce emissions;
- hidden price – the theoretical price that the company is willing to pay to implement low-carbon projects. This price determines the ultimate ceiling of investments for the implementation of low-carbon projects;
- implicit price – involves estimating the cost of a tonne of CO₂ toe as part of the cost of reducing greenhouse gas emissions and/or the cost of complying with government regulations.

In accordance with the order of the Chairman of the Management Board of KMG, in 2023, the Working Group for the development of an internal carbon pricing mechanism, which included representatives of all interested units of KMG, developed a mechanism for the application of an implicit carbon price in order to assess the financial costs of KMG from carbon regulation.

In December 2023, the Management Board of KMG approved an updated Internal Carbon Pricing

Programme, which discloses the mechanism for determining the amount of implicit price and its application in the consideration of investment projects. The application of internal carbon fee and implicit price mechanisms will be considered in subsequent years.

In addition, we launched a number of initiatives aimed at improving reporting, enhancing the Company's investment attractiveness and improving international ratings.



Task Force on Climate-related Financial Disclosures

With the support of the European Bank for Reconstruction and Development within the framework of the Memorandum of Cooperation signed in June 2022, a project to implement climate reporting in accordance with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) was implemented in 2023. The project consisted of four stages.

At the first stage "Initial Diagnostics" of the Project implementation, the current practices of KMG's business processes in the field of decarbonisation and sustainable development were analysed for compliance with the TCFD recommendations. Comparative analysis (benchmarking) was performed to identify and present the best sectoral practices in the field of information disclosure in accordance with TCFD recommendations, including a list of climate risks was identified in order to conduct a deeper scenario analysis of their impact on the business model of KMG in the short- (up to 2030), medium- (up to 2045) and long-term (up to 2060) perspective.

The second stage of the Project "Risk Assessment, Climate Change Scenario, Analyses and Stress Tests" analysed the Company's value

chain to further analyse its relevant segments for exposure to climate risks.

Within each segment of the value chain (production, transportation, refining), including the Company's foreign assets, 30 strategic assets within 17 SDEs were identified for further scenario analysis. Further scenario analysis was performed for these assets to determine their exposure to climate risks under different scenarios of temperature change and regulation by an authorised body.

Based on the results of the analysis of exposure to climate risks, the financial impact of these risks on the key financial indicators of SDEs and consolidated financial indicators of KMG, such as net profit and EBIDTA margin, was calculated. The Company's assets and the relevant SDEs were then ranked according to their exposure to the main climate risks. The analysis also took into account energy transition opportunities and related decarbonisation projects planned to be implemented by KMG under the adopted LCD Programme.

During **the third stage** of the Project, an analysis of KMG's decarbonisation activities was performed to better understand the Company's current plans. Based on this analysis, methodological recommendations were provided to quantify the results of the implementation of priority climate change mitigation activities for both ex-ante and ex-post quantification.

Quantitative ex-ante assessments will be used for strategic planning and prioritisation of climate actions to be implemented, while quantitative ex-post assessments will be used for KMG's climate reporting. The proposed methodologies for quantitative assessment are based on international standards for greenhouse

gas accounting, such as the Greenhouse Gas Protocol. Recommendations on revision of targets already set by KMG (GHG emission target for 2031 and low-carbon projections for 2060) are also presented, including analysis of divergence from:

- international standards (e.g. SBTi recommends developing a short-term target for 5-10 years starting from the year of target setting and a long-term target no later than 2050);
- GHG accounting standards (e.g. GHG Protocol), including data boundaries and completeness.

In addition, recommendations are provided on how KMG's climate targets can be better aligned with international standards (e.g. in relation to the inclusion of Scope 3 emissions as recommended by SBTi). Based on the analysis, recommendations are provided for supplementing the list of decarbonisation activities with additional mitigation and adaptation activities for KMG to meet its climate targets, reduce risks and take advantage of climate opportunities. This list is largely based on the energy and resource conservation activities, as well as implementation/investment in renewable energy sources already identified by KMG.

During **the fourth and final stage** of the Project, summarising the results of the previous stages and the analysis, an Action Plan for Corporate Climate Governance was developed.

GREENHOUSE GAS EMISSIONS



In July 2023, the Carbon Disclosure Project published the 2022 Climate Questionnaire, which includes data on direct and indirect greenhouse

gas emissions for all KMG assets, including subsidiaries in Romania and Georgia.

According to the report, KMG Group's direct carbon dioxide emissions for 2022 amounted to 7.6 mln tonnes of CO₂ (8.1 mln tonnes of CO_{2toe}). Data in CO_{2toe} are presented using IPCC Fifth Assessment Report global warming potential factors (methane – 28, nitrous oxide – 265). The calculation includes carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O). The data on direct greenhouse gas emissions are confirmed by the conclusions of independent accredited organisations for each SDE.

Information for 2023 will be disclosed in the CDP report in Q4 2024. We adhere to the principle of consistency and comparability in our disclosures. We are continuously working to improve the completeness of our disclosures.

The CDP Questionnaires are available at: <https://www.kmg.kz/en/investors/reporting/>

The volume of direct greenhouse gas emissions (CO₂) in 2023 for KMG Group amounted to 7.44 mln tonnes of CO₂ (8.57 mln tonnes of CO_{2toe}).

Scope 1. Direct emissions		2021	2022	2023
Breakdown by business area				
Production	mln tonnes of CO ₂ / mln tonnes of CO _{2toe}	2.2/4.3	2.4/2.8	2.33/3.44
Refining	mln tonnes of CO ₂ / mln tonnes of CO _{2toe}	4.5/6.1	5.1/5.2	5.01/5.03
Transportation	mln tonnes of CO ₂ / mln tonnes of CO _{2toe}	0.2/0.2	0.1/0.1	0.1/0.1
Breakdown by country				
Kazakhstan	mln tonnes of CO ₂ / mln tonnes of CO _{2toe}	6.2/9.9	6.6/7.1	6.55/7.68
Romania	mln tonnes of CO ₂ / mln tonnes of CO _{2toe}	0.7/0.7	0.9/0.9	0.88/0.88
Georgia	mln tonnes of CO ₂ / mln tonnes of CO _{2toe}	0.01/0.01	0.02/0.02	0.02/0.02
Breakdown of emissions by greenhouse gas type				
CO ₂	mln tonnes CO ₂	6.9	7.6	7.44
CH ₄	mln tonnes CO _{2toe}	3.2	0.4	1.11
N ₂ O	mln tonnes CO _{2toe}	0.5	0.1	0.02
Scope 2. Indirect emissions (market-based method)	mln tonnes of CO ₂ / mln tonnes of CO _{2toe}	3.3/3.3	3.2/3.2	Information for 2023 will be disclosed in the CDP report in Q4 2024
Scope 2. Indirect emissions (location-based method)	mln tonnes of CO ₂ / mln tonnes of CO _{2toe}	3.3/3.3	3.3/3.3	
Scope 3. From use of sold products	mln tonnes of CO ₂ / mln tonnes of CO _{2toe}	61.9/62.1	61.6/61.8	

CO₂ EMISSION RATE

(tonnes per 1,000 tonnes of HCs produced)



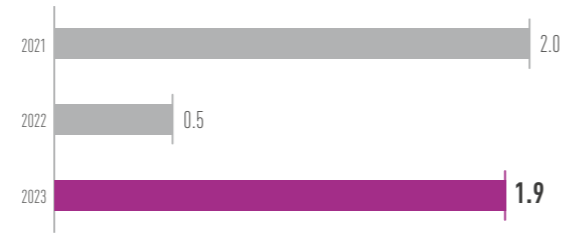
The CO₂ intensity rate was 114 tonnes of CO₂ per 1,000 tonnes of hydrocarbons produced, 3% below the International Association of Oil and Gas Producers (IOGP) industry average of 116.

The intensity of CO₂ emissions to HCS production remained unchanged from last year.

A significant increase in CH₄ emission intensity compared to 2022 is due to a change in the methodology for calculating methane emissions at the national level. By order

CH₄ EMISSION RATE

(tonnes per 1,000 tonnes of HCs produced)



of the Minister of Ecology and Natural Resources of the Republic of Kazakhstan on 18.03.2024, additions and changes to the existing methodology for calculating greenhouse gas emissions were adopted, including increases in applied emission factors for methane.

In its operations, the Company does not emit ozone-depleting substances that affect climate change. Periodic control and monitoring are carried out.

ENVIRONMENTAL INDICATORS

	Production			Transportation			Refining		
	2021	2022	2023	2021	2022	2023	2021	2022	2023
Greenhouse gas (GHG) emissions									
Direct GHG emissions (CO ₂ , mln tonnes)	2.2	2.4	2.3	0.2	0.1	0.1	4.5	5.1	5.01
GHG emission intensity (tonnes of CO ₂ per 1,000 tonnes of HCs)	102	114	114				226	236	238
APG flaring									
Flaring (mln tonnes of CO ₂)	0.11	0.09	0.08	-	-		-	-	
Intensity of associated gas flaring (tonnes per 1000 tonnes of hydrocarbons produced)	2.1	1.5	1.4	-	-		-	-	
Flaring (mln m ³)	52.5	35.7	33.3	-	-		-	-	

IMPROVING ENERGY EFFICIENCY AND ENERGY SAVING

3-3, 302-1, 302-3, 302-4, 302-5, 305-1, 305-2

The main decarbonisation activities are aimed at reducing direct emissions (Scope 1) through energy efficiency activities for stationary combustion sources, reduction of gas flaring and strengthening of methane leak control activities and a set of actions aimed at reducing emissions from vehicles.

Reduction of indirect emissions (Scope 2) will be carried out through energy efficiency improvements, increasing energy consumption from "clean" energy sources.

USE OF ENERGY RESOURCES AND IMPROVEMENT OF ENERGY EFFICIENCY

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

The Policy supports energy-efficient procurement and project activities, defines responsibilities in terms of energy management and, guided by economic feasibility, practices the implementation of the best available techniques, international practices, standards and administrative decisions aimed at energy saving and energy efficiency improvement, is an integral part of KMG's 2022-2031 Low-Carbon Development Programme and creates a basis for setting and analysing goals and energy targets.

ENERGY POLICY OF KMG

2-23

Within the framework of implementation of the KMG Low Carbon Development Program for the period 2022-2031. In December 2022, the corporate Energy Policy of KMG (hereinafter – Policy) was developed and approved, which applies to all subsidiaries and dependent organizations, as well as KMG contractors. You can read the Policy at: <https://www.kmg.kz/en/sustainable-development/corporate-governance/corporate-documents/>.

ENERGY CONSUMPTION

Consumption of the Company's Energy

A total of 124.1 mln GJ (4,088 thous. toe) of fuel and energy resources were consumed in 2023 (6% less than in 2022, the decrease in energy resources consumption is due to a decrease in consumption of natural gas and APG), including electricity – 12.9 mln GJ, heat energy – 4.0 mln GJ,

motor fuel – 1.6 mln GJ and boiler and furnace fuel – 105.8 mln GJ (at the same time, refinery gas is 24%, natural gas is 22%, stripped gas is 15% and boiler and furnace fuel is 12% of total energy resources consumption). The volume of energy consumption is distributed among three business areas: Oil and Gas Production, Oil Transportation, and Oil and Gas Refining.

In 2023, KMG Group's own generated energy totalled 740 000 thous. kW of electricity and 3,988 thous. Gcal of heat energy.

Renewable Energy Consumption

In 2023, in accordance with the Rules for Determining the Rate for RES support, Atyrau Refinery purchased electricity in the amount of 3,741 thous. kW for own needs generated by renewable energy facilities from Accounting and Financial Centre for Renewable Energy Support LLP. Electricity generation by solar panels of PetroKazakhstan Oil Products LLP and JV Caspi Bitum LLP for street lighting of the territory in 2023 amounted to 101 thous. kWh.

Energy Efficiency and Description of Energy and Resource Saving Activities

The main strategic areas of energy saving and energy efficiency development in KMG Group are upgrading of process equipment, introducing energy saving technologies, optimising heating energy generation and consumption as well as developing own generation sources, including those using APG.

This year, 8 design and costing exercises and 52 LCDP exercises, the estimated annual savings of fuel and energy resources amounted to 22,289 toe (716.6 thous. GJ) (0.6% of total

energy consumption by the end of 2023), which is equivalent to a reduction of 45,054 tonnes of CO₂ emissions. The largest energy saving effect was achieved for natural gas (69%) and other fuel resources (oil plant gas, fuel oil – 17%, heat and electricity – 14%).

The effect in physical terms is 13,287 thous. kW of electricity, 10,776 Gcal of heat energy, 2,489 tonnes of boiler and furnace fuel and 13,149 thousand m³ of natural gas. The total cost of implementing energy saving and energy efficiency activities amounted to KZT 3,509 mln.

Due to budget optimisation at SDEs and late tender procurement deadlines, 22 actions under the Low-Carbon Development Programme were not taken. These actions will be taken in 2024.

Specific Indicators of Energy Consumption

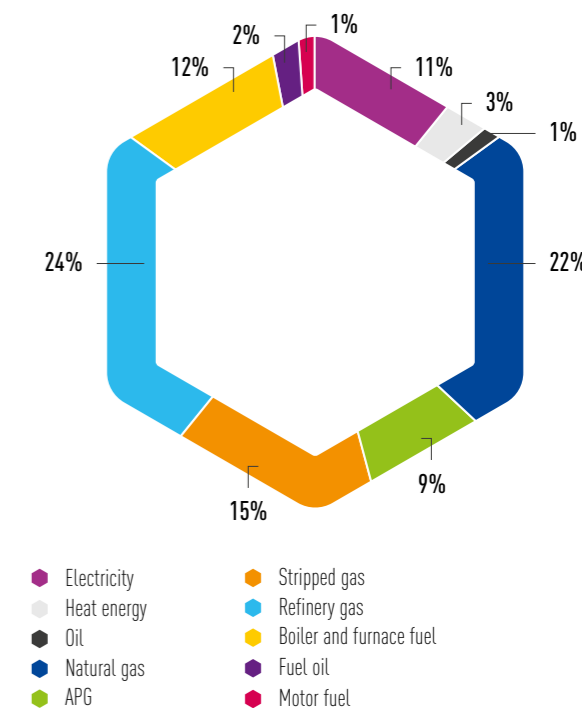
302-3

In 2023, specific energy consumption in the hydrocarbon production direction averaged 2.7 GJ per tonne of hydrocarbons produced across KMG Group, which remains 80% higher than the International Association of Oil and Gas Producers (IOGP) indicator of 1.5 GJ per tonne of hydrocarbons produced in 2022.

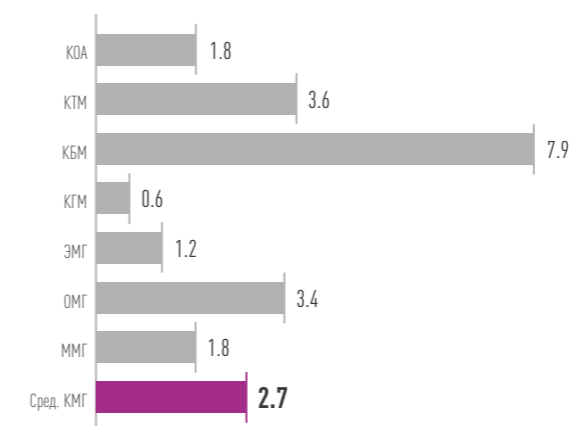
The average value for KMG Group is not representative due to a strong distortion due to high specific consumption by OMG and KBM. Specific energy consumption per tonne of hydrocarbons produced by KBM is 6 times higher than the world average according to IOGP data due to the fact that production at Karazhanbas field is possible only by displacing oil from underground formations by steam and hot water. This is due to the high content

of dissolved paraffins and the rheological properties of the produced oil, as a result of which it is necessary to heat it not only in winter but also in summer during oil production and transportation.

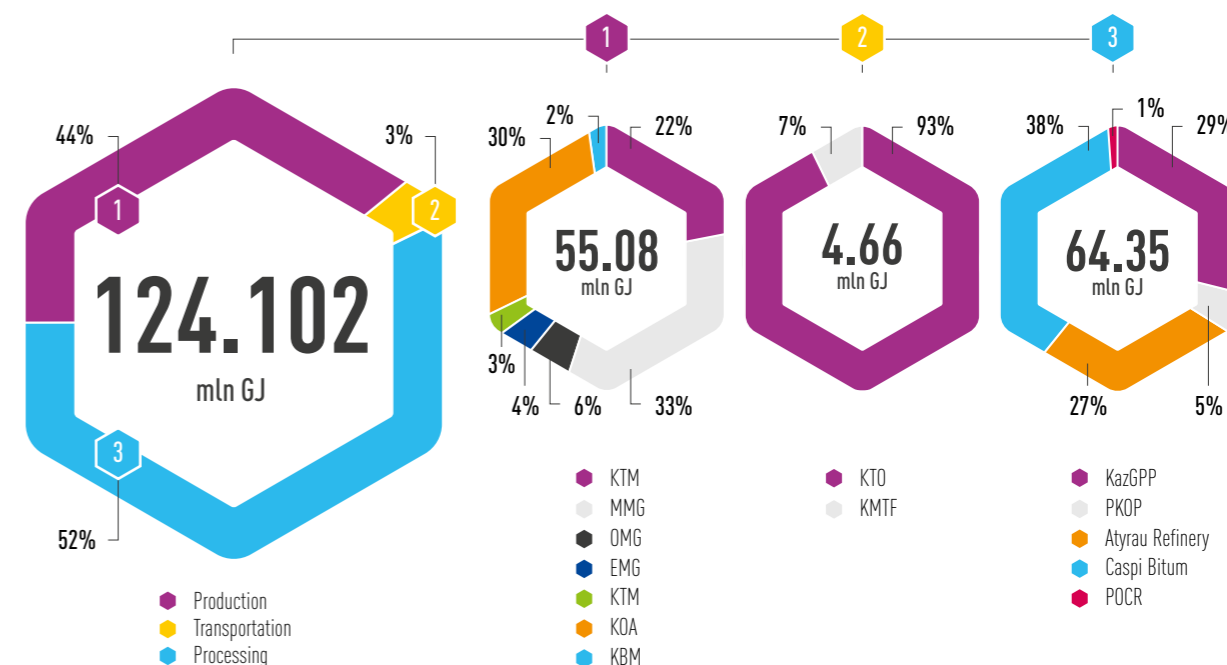
ENERGY RESOURCES CONSUMPTION BY FUEL TYPE (%)



SPECIFIC CONSUMPTION (GJ/tonnes of HCs)



ENERGY CONSUMPTION BY BUSINESS LINES (%)



FUEL AND ENERGY CONSUMPTION (mln GJ)

Energy Consumption Outside the Organisation

We are currently keeping records of energy consumption only within the Company, so the Report does not cover the energy consumption outside the organisation.

Regulations on Energy Saving and Energy Efficiency Management in KMG Group

On 20 December 2023, the Management Board of KMG approved the Regulations on Energy Saving and Energy Efficiency Management in KMG Group. The Regulations define the procedure for engagement, scope of authority, duties and responsibilities of KMG Group's units and employees within the framework of energy saving and energy efficiency management, which consists of the following processes:

- management of statutory requirements;
- planning of work in the field of energy saving and energy efficiency improvement;
- building/optimisation of the energy saving and energy efficiency management system;
- analysing the efficiency and effectiveness of works and activities in the field of energy saving and energy efficiency improvement.

Energy Saving, RES and Low-Carbon Development Online Workshop

In 2023, on the eve of the professional holiday International Energy Saving Day, celebrated on 11 November, the KMG Low-Carbon Development Department together with Energy Partner LLP held the Energy Saving, RES and Low-Carbon Development Online Workshop attended by KMG SDEs.

During the workshop, guest lecturers highlighted the most relevant topics related to the prospects of development in the field of energy saving and energy efficiency. The workshop became a platform for discussion on topical directions in the field of energy saving and low-carbon development, formation of energy-saving thinking among all KMG employees, regardless of their position and professional duties.

Reforming the Wholesale Electricity Market

Since July 1, 2023, the wholesale electricity market (WEM) has been reformed by introducing centralised purchase and sale of electricity (single buyer mechanism) and a real-time balancing electricity market.

Under the new mechanism, the same electricity rate is set for all WEM consumers across the country, and WEM entities are financially responsible for imbalances.

A number of KMG SDEs are already operating in the wholesale electricity market.

Targeted energy audit of process furnaces and boiler equipment of oil production companies EMG JSC, OMG JSC, MMG JSC, KBM JSC

In 2023, to assess the actual condition of process furnaces and boiler equipment, as well as the actual consumption of boiler and furnace fuel and to identify additional potential for reducing the consumption of fuel resources, a targeted audit of process furnaces and boiler equipment of boiler rooms of MMG JSC, OMG JSC, EMG JSC, KBM JSC was performed. Based on the results of the target energy audit, 23 actions were developed with a total energy saving potential of 56,667 toe, the CO₂ reduction potential from the implementation of these actions was 87,517 tonnes of CO₂. At the same time, 14 actions were approved as economically and technically feasible with a total energy saving potential of 32,145 toe and CO₂ reduction potential of 42,874 tonnes. Based on the results of the work, additional actions to reduce the consumption of boiler and furnace fuel will be included in the Action Plans of the audited SDEs for the implementation of KMG's 2022–2031 Low-Carbon Development Programme.

PLANNED PROJECTS 2024:

- Development of the KMG 2060 Low-Carbon Development Programme and an Action Plan for its implementation
- Implementation of recommended actions based on the results of the targeted audit of process furnaces and boiler equipment in the Action Plan to Implement the KMG Low-Carbon Development Programme
- Conducting a market research study on the sustainable aviation fuel (SAF) production market
- Assessment of the potential for implementing a pilot project to build a "Full Chain" of CO₂ capture, utilisation and storage (Stage 2)
- Analysis of the possibility of low-carbon hydrogen production (from associated petroleum gas/natural gas, from utilised formation water and/or wastewater generated at the fields)
- Consideration of the possibility of implementing the project "Development of Electric Filling Station Infrastructure for Electric Vehicles in Kazakhstan"
- Activities aimed at introducing methane management in KMG Group
- Implementation of offset projects

RENEWABLE ENERGY SOURCES

In addition to energy efficiency and conservation, the LCD Programme Implementation Plan places significant emphasis on renewable energy projects and the implementation of offset policies, which should reduce the carbon footprint.

KMG is carrying out a feasibility study to identify and assess the resource potential for low-carbon hydrogen production, the technical feasibility, commercial and economic viability of investment in construction, and to determine the potential for blue hydrogen production followed by carbon dioxide injection at oil and gas fields to enhance oil recovery.

Thus, the production of blue hydrogen in conjunction with technologies for carbon dioxide capture, transport and storage are inseparable to meet the classification.

KMG, as a hydrocarbon production operator, has the capability to produce hydrogen by steam reforming or pyrolysis of natural and/or associated petroleum gas with the provision of carbon dioxide capture and disposal, according to the requirements of carbon intensity of the processes.

ADDITIONAL DECARBONISATION ACTIVITIES

KMG is working on the implementation of additional decarbonisation activities, including the introduction of carbon capture, storage

and use technologies (CCUS), the launch of pilot projects on power stations, the implementation of forest climate projects, etc.



CASE STUDY



I-REC GREEN CERTIFICATES

In order to reduce indirect greenhouse gas (GHG) emissions, KMG purchased I-REC (International Renewable Energy Certificates) and extinguished them for 10.0 mln kWh, which corresponds to the expected electricity consumption by KMG Corporate Centre in 2023.

Voluntary I-REC Certificates confirm the information on the fact of electricity generation from a renewable energy source (RES). The Certificate is linked to 1 MWh of net electricity, geographical location of the power plant and time interval of electricity generation. KMG acquired certificates issued in 2023 from solar and hydro power plants located in Almaty and Turkestan regions. They are issued based on an international standard developed by The International REC Foundation and are recognised by international organisations such as GHGP, CDP, RE100, ISO, etc. I-REC Certificates are traded worldwide and issued in 51 countries.

CARBON CAPTURE, STORAGE AND UTILISATION (CCUS) PROJECT

KMG is working on the implementation of a pilot project on CO₂ capture, storage and utilisation (CCUS) and determination of injection potential for enhanced oil recovery of depleted oil reservoirs.

KMG SDEs completed screening analyses of CO₂ emission sources. The main groups of emission sources suitable for implementation of the pilot project on CO₂ capture, utilisation and storage technology were identified.

For the purpose of injection and storage of emitted CO₂, promising traps were searched and regions with the highest emissions within a 100 km radius of these emission sources

were selected. Potential storage volumes and approximate maximum injection duration were determined for all identified promising traps, taking into account the nearest emission source. As CO₂ can be utilised to improve oil recovery, suitable fields were screened and a database of development fields were compiled. Projected development indicators were calculated for these fields, taking into account CO₂ injection.

Calculations and design solutions were made for the development, including solutions for onshore equipment and pipelines for the system of collection and cooling of exhaust gases from CO₂ sources, CO₂ capture, CO₂ dehydration and accounting, compression and transportation, and CO₂ injection into injection wells.

DEVELOPMENT OF HYDROGEN ENERGY

As part of the hydrogen energy development work, a feasibility study is being carried out to identify and assess the resource potential for low-carbon hydrogen production, the technical feasibility, commercial and economic viability of investment in construction, and to determine the potential for blue hydrogen production followed by carbon dioxide injection at oil and gas fields to enhance oil recovery.

Blue hydrogen production involves the processing of hydrocarbons, in particular natural gas to produce hydrogen, and is the basis for virtually all large-scale natural gas processing technologies, which are currently carried out in three ways:

- steam conversion (steam reforming);
- carbon dioxide conversion (dry reforming);
- partial oxidation (oxidative conversion).

Carbon dioxide capture and storage technologies are then used.

Carbon dioxide capture in natural gas steam conversion technology for hydrogen production is a prerequisite for compliance with greenhouse gas emission reduction requirements, which is what makes hydrogen blue. The range of carbon dioxide capture technologies is quite broad.

Thus, the production of blue hydrogen in conjunction with technologies for carbon dioxide capture, transport and storage are inseparable to meet the classification.

KMG, as a hydrocarbon production operator, has the capability to produce hydrogen

by steam reforming or pyrolysis of natural and/or associated petroleum gas with the provision of carbon dioxide capture and disposal, according to the requirements of carbon intensity of the processes.

SUSTAINABLE AVIATION FUEL (SAF) PRODUCTION

In September 2023, together with Air Astana and with the support of the European Bank for Reconstruction and Development, work began on a feasibility study of the market for sustainable aviation fuel (SAF) and the prospects for production in the Republic of Kazakhstan. Today, ICF SH&E Limited, the winning bidder and research company, presented the findings from its study of global and local decarbonisation strategies in the aviation sector, and showcased SAF market research findings such as demand analysis, analysis of feedstock availability for SAF production, review of applicable SAF production technologies.

Following a working meeting of the study participants held on 23-24 November 2023, SAF production technologies most promising for Kazakhstan were jointly identified.

The next stages of the study will include a more detailed study of the selected SAF production technologies to determine the feasibility of SAF production for KMG, as well as a study of the regulatory and legal framework of the Republic of Kazakhstan SAF production. The results of the feasibility study will be presented in the first half of 2024.

DEVELOPMENT OF CHARGING INFRASTRUCTURE FOR ELECTRIC VEHICLES IN THE REPUBLIC OF KAZAKHSTAN

In February 2023, the 2060 Low-Carbon Development Strategy of the Republic of Kazakhstan was adopted. One of the promising directions of decarbonisation of the transport sector is the development of electric vehicles. In addition, as part of the Low-Carbon Development Concept of Samruk-Kazyna JSC, all portfolio companies have a goal to gradually switch from petrol to electric vehicles. The Government welcomes all forms of cooperation, including corporate sector initiatives that contribute to the achievement of climate goals, KMG is considering the possibility of implementing a project to develop charging infrastructure for electric vehicles in Kazakhstan.



FOREST-CLIMATE OFFSET PROJECTS

One of the ways of offsetting emissions and obtaining offset units has been identified as the implementation of forest-climate projects.

According to the Memorandum with Chevron, joint implementation of forest-climate project on the area of 2000 ha in Pavlodar region was defined as one of the directions of cooperation. In 2023, the first stage of research on this project was launched, which involves the development of a detailed design, calculation of the volume of CO₂ absorption by planted forest, as well as the development of the Concept of Forest Carbon Offset Project.

METHANE MANAGEMENT

In December 2023, on the margins of the Conference of Parties on Climate Change (COP28), Kazakhstan joined the Global Methane Initiative (The Global Methane Pledge).

Participants joining the Initiative commit to take voluntary actions to contribute to collective efforts to reduce global methane emissions by at least 30% below 2020 levels by 2030. This is a global, not a national, reduction target.

To date, 155 participating countries, representing just over 50% of global anthropogenic methane emissions, have joined the Initiative.

Implementation of the GMI will reduce methane emissions to a level consistent with the 1.5°C trajectory and provide significant benefits for human and ecosystem health, food security and our economy. It has the potential to reduce warming by at least 0.2°C by 2050 and prevent the annual loss of 26 million tonnes of crops, 255,000 premature deaths, 775,000 hospitalisations due to asthma and 73 billion hours of lost work time due to extreme heat.

In 2023, KMG carried out the following work on implementation of methane management.

Within the framework of the UN Climate Change Conference (COP28) in December 2023, KMG signed a Memorandum of Understanding with UNEP and joined the OGMP 2.0 (The Oil & Gas Methane Partnership) organised by UNEP and IMEO. Thus, KMG became the first Kazakh national company to join the OGMP 2.0 Initiative.

Joining the Initiative provides such opportunities for the Company as sharing experience with international companies that have established management in the management and reduction of methane leaks, methodological assistance in the inventory and calculation of methane emissions, in the selection of technical solutions to reduce methane leaks, improving the company's rating for investors, including when submitting the International CDP Climate Questionnaire.

In order to reduce and mitigate methane emissions, the Company signed a Memorandum of Cooperation with Tetra Tech ES, Inc. implementing the USAID-funded Central Asia Energy Project (PCA).

USAID will assist in assessing and reducing methane emissions, improving environmental sustainability, and promoting responsible business practices, which is in line with the Government of Kazakhstan's national goals to achieve carbon neutrality by 2060 as part of the National Climate Plan.

KMG signed an agreement with Baker Hughes Services Kazakhstan LLP in December 2023 to cooperate on the implementation of low-carbon projects, including the implementation of projects to monitor and repair methane leaks and reduce routine flaring.



In addition to the above, KMG, within the framework of the signed Memorandum of Cooperation and Mutual Understanding with Carbon Limits, held a workshop for KMG Group specialists in September 2023 on methane emissions management, including quantitative assessment of methane emissions, gas utilisation

and identification of the main sources of leaks, as well as ways to eliminate them.

In addition, a system of technologies and procedures for conducting LDAR at two of KMG's production facilities was presented in Q1 2024.



CASE STUDY

INCREASING EMPLOYEE POTENTIAL

In order to increase the capacity of KMG Group employees, trainings and workshops on various aspects of low-carbon development are held for specialists.

With the expert support of Carbon Limits, a 2-day workshop on "Methane Emissions Management" was held for employees of KMG subsidiaries in September 2023.



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 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.

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

OUR MANAGEMENT APPROACH

2-7, 2-8, 3-3, 401-1, 401-2, 401-3, 404-3, 405-1, 405-2

The concept of our HR policy is aimed at creating conditions for adding value to the human capital within KMG Group.

To achieve this goal, the following HR objectives are to be implemented:

- **Develop the corporate culture and improve managers' skills** – development of corporate culture based on the meritocracy and 'commercial' reasoning with a focus on succession, commitment to results, and readiness to assume responsibility. Development of leadership competencies;
- **Unify and improve HR efficiency** – building a customer-oriented HR function that would render a comprehensive support for KMG strategy implementation. Unification of the HR processes and standards that incorporate the best

international and internal practices of KMG subsidiaries. Creation of the common information space via the unified automation solutions. Transfer of routine operations that do not bring the added value to the Shared Services Centre;

- **Improve the personnel quality with due regard to business needs** – identification of the relevant job qualification requirements, ensuring that the employees meet these requirements through the system processes (selection, development, evaluation, etc.) and individual projects (such as assessment of fitness for the job). Enhancement of the key personnel competencies required to achieve the strategic goals;
- **Achieve a positive engagement rate and social stability** – more emphasis



OUR PEOPLE AND DEVELOPMENT OF THE REGIONS OF OPERATION

on the systematic approach to management of engagement and social stability via regular measurements, development and implementation of plans. Achievement and maintenance of positive values for engagement and social stability;

- **Implement a comprehensive talent management system from talent acquisition to succession and management of remuneration** – implementation of the talent management system ensuring transparency, conditions and motivation of personnel for the purpose of retention, promotion and appointment to key positions of the effective and potential employees of KMG Group. The key elements of the comprehensive talent management system will include:
 - employment transparency and neutrality;
 - dependence of the remuneration levels on the performance and market appraisal results;

- succession in the key positions;
- identification of talents and development of the talent pool;
- employees having development plans based on the evaluation of performance and business needs;
- priority to internal candidates when selecting for the key positions in KMG Group.

- **Effective headcount management to improve performance** – effective planning and forecasting of human resources with due regard to the current and target needs of KMG. Development of the uniform norms and standards of the staff size, implementation of staff size optimisation programmes (e.g., withdrawal of non-specialised functions) via economically feasible tools, and redistribution of personnel between manpower-surplus and manpower-deficit entities.

THE HR POLICY CONCEPT RELIES ON THE FOLLOWING KEY PRINCIPLES:

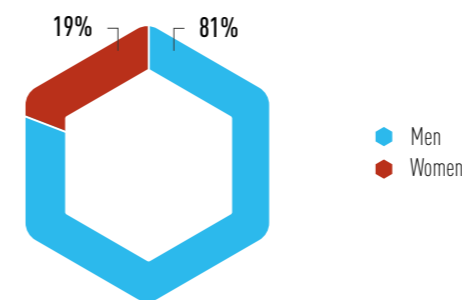


EMPLOYMENT

In 2023, KMG provided employment to over 49,000 people in the regions where it operates.

The actual headcount at the end of 2023 across KMG Group was 46,603, and 3,107 were outstaffed (2022 – 44,688, 2021 – 44,650, outstaffing 2022 – 2,838, 2021 – 2,787).

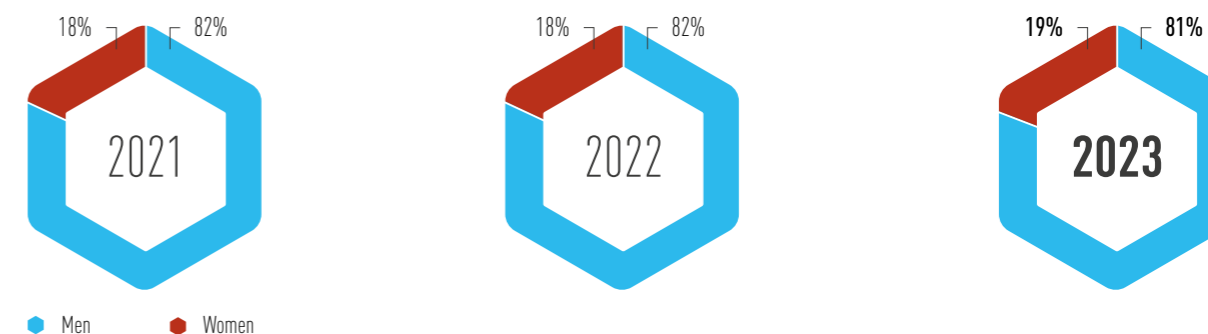
EMPLOYEES BY GENDER FOR THE REPORTING PERIOD (%)



Considering that the Company's operations are fraught with hard, hazardous and harmful working conditions, the share of male employees is 81%, female employees – 19%.

Production personnel make up 92% of the total workforce, while administrative and management personnel make up 8%.

EMPLOYEES BY GENDER FOR 2021-2023 (%)



EMPLOYEES BY GENDER AND CATEGORY FOR THE REPORTING PERIOD, %

Categories of employees	Men	Women	Share of employees of each category in the total headcount, %
Managers	85	15	10
Specialists	62	38	18
Workers	86	14	72

In 2023, the share of women in KMG Group was 19%. Compared to the previous year, the share of women increased by 1%. At the same time, the share of female managers decreased by 3% and was 15% of the total number of managers in KMG Group (2022 – 18, 2021 – 18), female specialists – 38% of the total number of specialists (2022 – 39, 2021 – 40), female workers – 14% of the total number of working professions (2022 – 12, 2021 – 12).

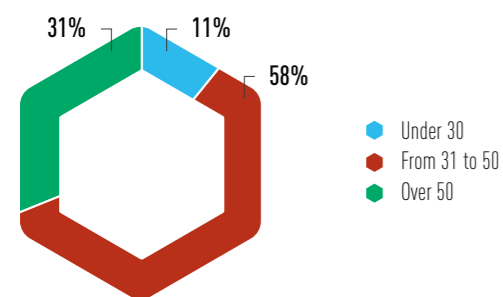
In terms of age categories, the major share of employees is in the group aged 31 to 50 – 58%, where men account for 81% and women for 19%.

The number of employees aged over 50 is 31% of the total headcount, where men account for 81% and women for 19%.

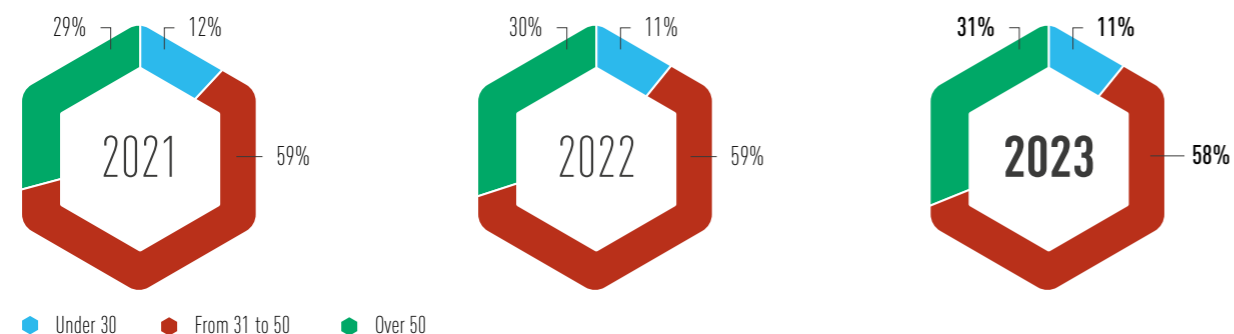
The share of youth aged under 30 is 11% of the total headcount, where men account for 88% and women for 12%.



EMPLOYEES BY AGE GROUPS FOR THE REPORTING PERIOD (%)



KMG EMPLOYEES BY AGE GROUPS FOR 2021–2023 (%)

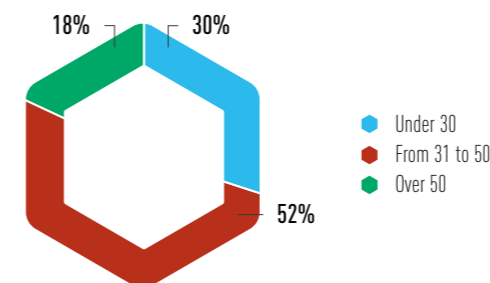


The number of newly hired employees in 2023 is 5,746 people or 12% of the average staff number.

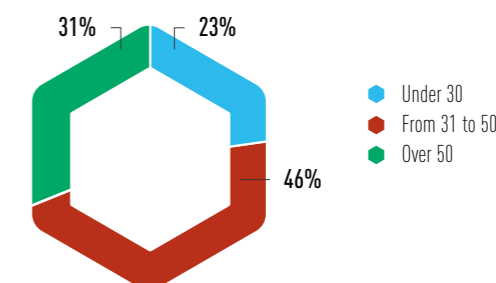
NEWLY HIRED EMPLOYEES IN 2021–2023, %

year	2021	2022	2023
% of hired employees	9	10	12

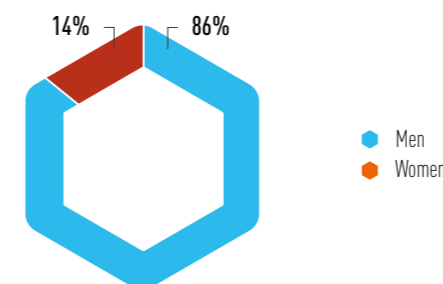
NEWLY HIRED EMPLOYEES BY AGE GROUPS FOR THE REPORTING PERIOD (%)



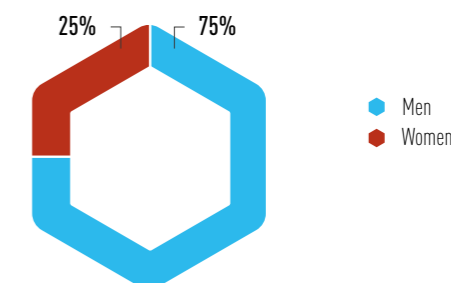
EMPLOYEES WITH WHOM THE LABOUR RELATIONS WERE TERMINATED DURING THE REPORTING PERIOD BY AGE CATEGORY (%)



NEWLY HIRED EMPLOYEES BY GENDER FOR THE REPORTING PERIOD (%)



EMPLOYEES WITH WHOM THE LABOUR RELATIONS WERE TERMINATED DURING THE REPORTING PERIOD BY GENDER (%)



Number of employees whose employment was terminated during the reporting period was 2,124 or 4.5% of the average staff number, including

by age groups: under 30 – 23% (27% in 2022, 29% in 2021), from 31 to 50 – 46% (45% in 2022, 44% in 2021), over 50 – 31% (28% in 2022, 27% in 2021).

CASE STUDY

GENDER INITIATIVES

In 2023, KMG and SDEs conducted a number of gender initiatives aimed at supporting women working in the oil and gas sector.

In April 2023, JSC NC "KazMunayGas" hosted a session on women's capacity building as part of the visit of the United States delegation to Kazakhstan under the **TechWomen Programme**. The mission of the visiting delegation was aimed at empowering women, supporting them in the fields of science, technology, engineering and mathematics, as well as professional and cultural exchange between the countries. The delegation consisted of 50 female experts and representatives of leading technology companies and public institutions of the USA, professional development and exchange organisations from Silicon Valley. At the event, KMG was represented by about 100 female participants, including from the regions, working in various business areas, including geology, production, oilfield services, oil transportation and refining.

Diana Aryssova, Deputy Chairman of the Management Board of JSC NC "KazMunayGas", took part in the plenary session of the **EmpowerHER Energy Forum** of the KAZENERGY Women's Energy Club. The plenary session discussed the creation of equal opportunities in the energy sector. Diana Aryssova spoke on 'Unlocking the business potential of women as part of KMG sustainability'. The plenary session was also attended by the heads of the largest oil and gas companies in Kazakhstan, government agencies, KAZENERGY Association and representatives of businesses.

In honour of the fifth anniversary of the **Munayshy Kyz Women's Club** of Embamunaigas JSC, a forum was held in Atyrau, attended by the Company's management, male and female employees of KMG subsidiaries, and representatives of major oil and gas projects, government agencies and the public. The theme of the anniversary event was ESG, gender equality and empowerment of women, especially those employed in the oil and gas sector.

Representatives of JSC NC "KazMunayGas" and KMG Engineering were trained under the OSCE programme together with the **Global Women's Network for the Energy Transition (GWNET)** ('Empowering Central Asian Women in Energy Sector').



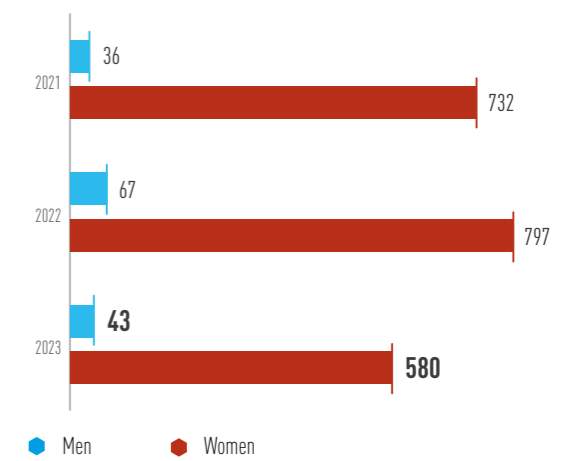
year	2021	2022	2023
Staff turnover rate ⁶ for KMG Group	6%	6%	4.5%

The performance of 32% of all Company's employees was assessed during the reporting period (46% in 2022, 43% in 2021). Including: 22% women, 78% men. By category of employees: managers – 9%, specialists – 21%, workers – 70%.

The number of employees on unpaid childcare leave at the end of the reporting period was 623, with the share of female employees being 93%, male – 7%.

Women on maternity leave in the reporting period totalled 184 people.

EMPLOYEES ON CHILDCARE LEAVE (persons)



WOMEN ON MATERNITY LEAVE FOR THE REPORTING PERIOD

year	2021	2022	2023
Number of women	231	352	184



⁶ Staff turnover rate = A/B*100, where A is the number of employees who left voluntarily, on agreement of the parties or through the employee's fault, at the end of the reporting period; B is the average staff number for the reporting period.

PERSONNEL DEVELOPMENT

2-24, 3-3, 404-1, 404-2

KMG provides personnel training and development, implements new approaches and programmes for development of employees of KMG Group on an annual basis.

KMG Group has implemented a unified personnel training and development process in accordance with the approved HR Policy. The need to train managerial, administrative and engineering personnel is based on Individual Development Plans following the results of regular comprehensive personnel performance assessments and needs stated by employees' direct supervisors based on the objectives of the business unit.

Production personnel training is based on assessment of professional knowledge, skills and business needs. Therefore, planning of employee training is strictly regulated, and depends on the specific business goals and objectives.

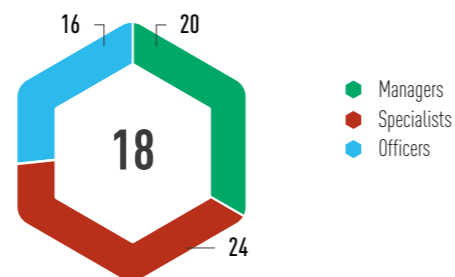
Employees are trained on an ongoing basis on compulsory programmes: industrial safety, occupational health and safety, fire-technical minimum.

Currently, these programmes for KMG employees are conducted on the platform of the distance learning system of KMG Engineering LLP, a KMG's subsidiary. The Competence Development Centre of KMG Engineering LLP has a licence permit to provide this training and issue certificates of a standard form. In-house training for our Company's employees allows adapting programmes according to the Company's internal requests and providing trouble-free access to training courses.

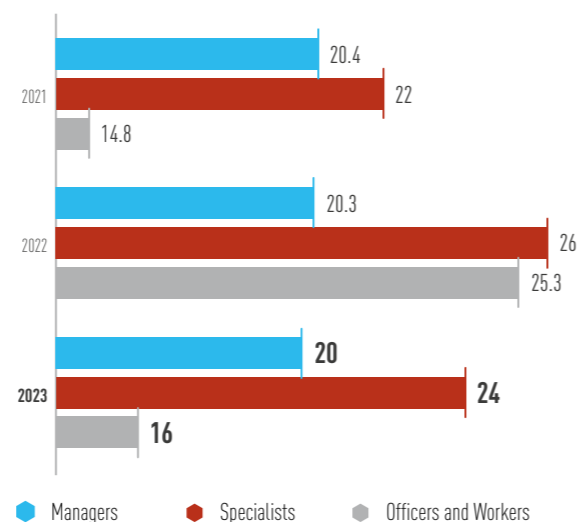
The average academic hours of training per year per employee is 18 hours (22 hours in 2022, 16.7 hours in 2021), including 16 hours per man (20 hours in 2022, 16.4 hours in 2021) and 31 hours per woman (31 hours in 2022, 18.6 hours in 2021).

At the same time, we would like to notice that employees are trained and developed irrespective of their gender and position.

ANNUAL AVERAGE NUMBER OF HOURS PER EMPLOYEE BY CATEGORY (hours)



AVERAGE ANNUAL NUMBER OF HOURS BY CATEGORY COMPARED BY YEAR (hours)



MAIN TOPICS OF THE IMPLEMENTED EMPLOYEE TRAINING AND PROFESSIONAL DEVELOPMENT PROGRAMMES

HR management	Personal and business skills	Management skills for supervisors and line managers	Communication skills	Time management	Financial literacy
Internal control and audit	Risk management	Economics and Finance	Integrated management systems, ISO standards	Laws and regulations	Kazakhstani content and procurement of goods, works and services
Corporate governance. Project management	Corporate security	Information technology	Language study	Production	Compulsory safety training
Ecology	Master's programmes	Certification training	Apprenticeship training	Course on diversity, equality and inclusion	Sustainable development

In addition, in order to prevent road accidents at the production facilities, KMG Group drivers were trained in Defensive Driving in accordance with **ROSPA** International Standards (UK). In 2023, training was provided to more than 691 drivers (350 in 2022), who are engaged

in the transportation of employees and hazardous cargoes: Oil Transport Corporation LLP – 420 people, KMG-Security LLP – 271 people. The Defensive Driving training of drivers of all categories of KMG Group will continue in the following years.

In 2023, based on the global Vision Zero concept to which KMG adheres, training on **the Occupational Safety Culture** course aimed at creating and maintaining an occupational safety culture was launched, which was attended by more than 16,000 KMG employees.

For example, Internal Auditor of the Integrated Management System in accordance with **ISO 9001, ISO 14001 and ISO 145001 and OHSAS** training was provided for KMG Group employees, which was attended by 12 people from the CC and 219 people from SDEs.

Company	Q-ty	Topic
OMG	2	Internal audit of the management system according to ST RoK ISO 19011-2019. Assessment of uncertainty of measurement results during verification (calibration) of measuring instruments and product testing
EMG	16	Internal auditor of the integrated management system according to ISO 9001:2015, ISO 14001:2015 and ISO 45001:2018
KMTF	31	Integrated management systems, ISO and OHSAS standards
KazGPP	10	ST RoK ISO 9001-2016; ST RoK ISO 14001-2016; ST RoK ISO 50001-2019; ST RoK ISO 45001:2019. Training and professional development of specialists in internal audit of the integrated management system
KMGE	73	Auditor/lead auditor of the quality management system according to ISO 9001:2015 GOST ISO/IEC 17043-2013 Compliance Assessment. Basic Requirements for Proficiency Testing, including the new requirements of ISO/IEC 17043-2022
ITC	23	Training in management systems ST RoK ISO 9001-2016 (ISO 9001:2015), ST RoK ISO 14001-2016 (ISO 14001:2015), ST RoK ISO 45001-2019 (ISO 45001:2018)
MEM	22	API Q2 specification requirements
KMG D&S	7	Internal auditor in accordance with API Q2 requirements
Pavlodar Oil Chemistry Refinery	31	General requirements for the competence of testing and calibration laboratories according to GOST (ISO/IEC 17025-2019)
KMG Security	4	Manager/ internal auditor of OHS management system according to ISO 45001:2018, internal audit of quality management system according to ISO 90001:2015
219		

Risk assessment skills training was also conducted, which was attended by 51 from the CC and 1,108 people from SDEs (2 from OMG, 1 from KTM, 1 from UO, 4 from KMTF, 1 from KMG Aero, 3 from KMGE, 3 from KMG D&S, 1 from KMG PetroChem, 49 from KMG International, 1 from KMG S&S, 1,040 from Pavlodar Oil Chemistry Refinery, 2 from Atyrau Refinery).

KMG promotes professional development of employees in accordance with International Standards. In 2023, 61 employees of KMG CC and 171 employees of SDEs were trained to obtain international qualifications and certifications under DiplFR, ACCA, IPMA, CIMA, PMP, CFA, CIA, etc. certification programmes.

Also in 2023, with the support of Samruk-Kazyna JSC, modular training in PR School, HR School and IR was implemented, which was attended by employees of KMG Group:

Company	HR School	IR	PR School
KMG CC	0	0	4
OMG	0	0	1
EMG	42	10	1
KTM	5	0	0
KMTF	1	0	0
ITC	1	0	0
MEM	19	0	0
Pavlodar Oil Chemistry Refinery	0	0	1
Total:	68	10	7

KMG and SDEs' key employees involved in the implementation of strategically important projects are annually certified according to **the IPMA International Project Management Standard**. In 2023, 106 employees of CC and 163 employees of SDEs were certified and examined.

Today, one of the main strategic goals of KMG is to reduce emissions and energy saving, and in order to successfully realise this goal, our employees are actively trained in this topic.



CASE STUDY

KAZMUNAYGAS FORMS A POOL OF PROJECT MANAGERS

In September 2023, the First two-day conference on project management in KMG Group organised by KMG's Strategy and Portfolio Management Department was held.

KazMunayGas has been systematically introducing a corporate project management system since 2020. The goal is to increase the maturity level of project management in KMG Group. To achieve this goal, a methodology has been developed, project management tools have been introduced, centralised training of project personnel and support of key projects are underway.

The conference provided an open exchange of views on topical issues in the planning and implementation of major capital projects. The forum agenda included consideration of key aspects of project design, construction and approval, analysing lessons learnt, and presenting best practices of project management. The speakers were project managers from KMG and its subsidiaries, as well as recognised project management experts.

In general, the conference, which is planned to be an annual event, started a whole set of activities to promote project management and form a pool of project managers among the employees of KMG Group.

In 2023, 75 employees of CC, 5 employees of SDEs were trained in **Methane Emissions in the Oil and Gas Sector and Energy Saving, RES and Low-Carbon Development**.

Sustainability issues, including energy transition, greenhouse gas emissions, decarbonisation and other aspects, are also important and relevant for the Company as a whole and for the implementation of its strategic goals. Employees annually improve their knowledge and skills in this area in accordance with global standards and trends.

In 2023, employees were trained under the Green Project Management programme, where the best practices of applying the concept of sustainable development in projects were studied, and under the Energy Transition programme, involving specialists and management of the Corporate Centre and SDEs. 15 employees of the Corporate Centre and 5 employees of SDEs (3 from EMG and 2 from Pavlodar Oil Chemistry Refinery) were trained under **the Green Project Management** programme.

In addition, KMG project management specialists and external providers conducted project planning courses for KMG and SDEs project personnel using MS Project Project Management, which were attended by 2 employees of the CC, 34 employees of the SDEs (2 from Barlau, 1 from PetroChem, 2 from EMG, 2 from KMTF, and 27 from KMG).

TALENT POOL

Work continues on the project of formation and development of the Succession Plan for Key Positions of KMG Group – MANSAP.

Succession Development Programmes for Pools A, B and C have been implemented in the period 2021–2023.

Two-day training events and workshops were held for managers and trade union leaders of such entities as Mangistaumunaigas, Karazhanbasmunay, Ozenmunaigas, Ozenmunaiservice, Oil Transport Corporation, Caspi Bitum, Kazakh Gas Processing Plant and others.

In 2023, **49** employees of KMG Group were trained under **the Master of Business Administration (MBA)** programme, including: 8 from JSC NC “KazMunayGas”, 15 from Ozenmunaigas JSC, 16 from Embamunaigas JSC, 3 from Kazturkmunai LLP, 3 from KMG Engineering LLP, 1 from Oil Service Company LLP, 1 from Oil Transport Corporation LLP, and 2 from KMG International.

In 2023, **660** employees from **24** KMG Group companies took part in **conferences and forums**.

As part of the development of the transparency policy, special attention is paid to the issues of procurement activities, thus, in order to improve the level of competence of specialists in the field of procurement activities, a programme was launched for procurement specialists of the Corporate Centre and SDEs of KMG Group – **New Procedure for Procurement and Management of Procurement Activities of Samruk-Kazyna JSC and Electronic Procurement Information System (EPIS 2.0)**. In 2023, **362** people took part in the programme, including 65 people from CC and 232 people from SDEs.

A Mentoring Programme has also been launched (2023–2024), under which the successors of Pools A and B act as mentors for Pool C. The Development Programme for Pool C (2023–2024) is under implementation.

In 2023, KMG and Abu Dhabi Ports Company signed a Strategic Partnership Agreement,



under which it was agreed to cooperate in the development of the maritime fleet and coastal infrastructure in the Caspian and Black Seas.

At the same time, ADP agreed with KMG's initiative to consider hiring Kazakhstani specialists from the Mangistau and Turkestan regions.

Samruk Business Academy was engaged to implement this project. The SBA project team implemented technical works on the Qsamruk recruiting platform, organised communication campaigns, and attracted business partners (employment centres, visa centres, language centres, etc.).

WORK WITH STUDENTS AND YOUNG SPECIALISTS

KMG Group also pays attention to work with students and young specialists. Taking into account the trend of industry development and modern technological requirements, work is actively carried out with educational institutions in the regions where production facilities are located.

Zhas Maman – a programme to attract and develop young specialists at Atyrau Refinery and Pavlodar Oil Chemistry Refinery. From 2022 to 2023, 31 people are studying and working at Atyrau Refinery, 7 of them are employed, and 1 person is employed at Pavlodar Oil Chemistry Refinery.

Dual Training – a programme including training, probation and further employment in KMG Group.

Thus, a company-based **dual training** programme is being implemented on an ongoing basis, and in 2023, it was completed at:

- Karazhanbasmunay JSC by 48 persons,
- Embamunaigas JSC by 64 persons,
- KMG International by 1 person;
- KPI Inc. LLP by 2 persons;
- Pavlodar Oil Chemistry Refinery LLP by 85 persons, and 21 persons were employed;
- Atyrau Refinery LLP by 52 persons, and 12 persons were employed;
- PetroKazakhstan Oil Products LLP by 19 persons.

Probationary Employee, a programme of Atyrau Refinery, was started in 3 professions: process plant operator, process pump and compressor operator, instrumentation and control technician. Probationary employees are trained and undergo on-the-job training at Atyrau Refinery. In the period from 2022 to 2023, 60 people are trained under this programme, 29 of them are employed.

In 2023, the following companies financed students' higher education:

- Karazhanbasmunai JSC – 435 students,
- Mangistaumunaigas JSC – 532 students,
- Ozenmunaigas JSC – 2 students,
- Embamunaigas JSC – 501 students,
- Kazakhoil Aktobe LLP – 36 students,
- Kurmangazy Petroleum LLP – 92 students,
- PetroKazakhstan Oil Products LLP – 50 students,
- UralOilGas LLP – 37 students,
- Urikhtau Operating LLP – 4 students,
- Atyrau Refinery LLP – 14 students,
- Kazgermunai JV LLP – 84 students.

In addition, in 2023 KMG, together with Mangistaumunaigas JSC, implemented a unique project to train young specialists from among **194** unemployed citizens of Mangistau region

at the premises of the State Engineering and Technological University named after Sh. Yessenov in connection with the need to take actions to ensure stability of social, labour and economic relations, as well as to achieve strategic goals and objectives in the field of sustainable development, namely in reducing unemployment in Mangistau region.

To prepare unemployed citizens for further employment, an Educational Intensive programme was prepared at the premises of Mangistaumunaigas JSC, which helped them to master the necessary knowledge and skills for further employment and adaptation at the workplace. As a result of the programme, the trained local residents were employed by Mangistaumunaigas JSC, most of them for the first time.

In addition, on a regular basis, KMG Group works with Kazakhstan Universities and Institutions of technical and professional education **to organise and conduct industrial and pre-graduation internships for students.**

In 2023, 2,378 students completed industrial and pre-graduation internships at KMG SDEs.

EQUAL OPPORTUNITIES AND PERSONNEL MOTIVATION

202-1,202-2

Our approach to motivate the personnel is based on the principles of ensuring a decent level of remuneration, transparency and respect for the rights of all employees. All changes to the remuneration system are made taking into account the opinions and suggestions of the parties concerned.

There are no differences in the basic salary and bonus system depending on the gender in KMG Group. The level of remuneration in KMG Group companies is tied to a position, i.e. male and female employees occupying similar positions receive equal remuneration and other payments provided by the company's remuneration rules.

The remuneration calculation system for the supreme management body and top managers is focused on 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 managers' performance reflects the economic, environmental and social objectives of the Group.

Upstream companies have a Uniform Remuneration System (URS) in place, aimed to provide a uniform procedure for paying remuneration in all business units and boost employees' interest in labour results. This system specifies a number of conditions under which employees are provided compensations, benefits and rewards; one of such criteria is the Regional Coefficient – a ratio of relative increase in remuneration in order to compensate for extra expenses and increased labour input due to working in regions with severe weather conditions. The highest coefficient is applicable to Mangystau and Atyrau Regions.

The ratio of entry-level remuneration in the Group to the national statutory minimum remuneration for 2023 is within 5.4:1 (5.8:1 in 2022, 5:1 in 2021 and 6:1 in 2020).

The share of top managers⁷ in the regions⁸ of operation, hired from the local population is 83% (78% in 2022 and 87% in 2021).

The share of management members is 10% of the total headcount. This includes women 15% (18% in 2022 and 2021) and men 85% (82% in 2022 and 2021).



⁷ Top managers – Chief Executive Officer and their deputies.

⁸ Region of operation – region (area, district) of operations.

RESPECT FOR HUMAN RIGHTS AND SOCIAL ASSISTANCE

2-23, 406-1, 408-1, 409-1

The Company is committed to internationally recognized human rights as enshrined in the International Human Rights Bill, ILO Standards at Work and strives to implement the UN Guiding Principles on Business and Human Rights.

KMG 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 exercise of their 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.

We do not use child labour or forced labour, we acknowledge the equal rights of all employees, irrespective of their race, religion and gender.

No facts of discrimination were recorded in the reporting period.

In 2022, the Board of Directors of KMG approved the Human Rights and Public Relations Policy. More detailed information on the Policy is available on KMG's website: <https://www.kmg.kz/en/sustainable-development/corporate-governance/corporate-documents/>.

In the field of human rights, we make the following commitments:

- respect human rights in accordance with international standards;
- adopt programs to address the impacts on human rights in the industry, with the approval of the top management of KMG and SDEs;
- monitor the impacts on human rights and report thereof;
- comply with the mechanisms adopted by KMG for handling complaints and claims;
- provide indemnities and remedies to eliminate or mitigate negative impacts;
- exercise due diligence in relation to human rights by monitoring the impacts on human rights and reporting thereof;
- provide our employees with remedies to eliminate negative impacts;
- disclose KMG's expectations of personnel and third parties with respect to human rights.

ETHICS AND INTEGRITY

2-23

VALUES, PRINCIPLES, STANDARDS AND RULES OF CONDUCT

The most important principle of the Company's operations is ensuring high corporate responsibility. The corporate responsibility includes transparent and ethical behaviour that contributes to sustainable development and corresponds to the legislation and international standards of conduct. The Company's activities in this area are system-based; therefore, in 2023, a number of activities aimed at building an anti-corruption culture were carried out.

KMG's activities are based on the following corporate values:

- Fairness
- Loyalty
- Development
- Safety
- Responsibility

Since KMG's business relations with shareholders, employees, subsidiaries and affiliated organisations, state bodies, partners and other interested parties are based on a harmonious combination of interests, mutual respect, trust, responsibility and observance of the rights and obligations of each party, the Company strictly follows the provisions of the Code of Business Ethics of JSC NC "KazMunayGas" when making business decisions and in everyday operations.

The Code is a public 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: <https://www.kmg.kz/en/sustainable-development/corporate-governance/corporate-documents/>.

MECHANISMS OF APPLYING FOR CONSULTATIONS ON UNETHICAL CONDUCT

2-25, 2-26

To ensure observation of employee rights, confidential and accessible means have been made available for real-time 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, counterparties, or any other persons interacting with KMG and its SDEs, may inform their direct supervisor, the Ombudsman Service and the Compliance Service.

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

For violations of the Code of Business Ethics, as well as unlawful actions on the part of officials and other employees of the Company, violation of the interests of employees and assistance in resolving labour disputes and conflict situations



TO THE OMBUDSMAN:

 **8 (7172) 78-65-61**


 ombudsman@kmg.kz

E-OTINISH UNIFIED INFORMATION SYSTEM FOR ALL CITIZEN APPEALS OPERATING

from 1 July 2022.

NYSANA UNIFIED CENTRALISED HOTLINE:

Free call:

 **8 (800) 080-30-30**

 **8 (702) 075-30-30**

 nysana.cscck.kz

For any violations of the Code of Conduct, including corruption, discrimination, unethical behaviour and other violations to the **Compliance Service** via a Single Centralised Hotline administered by KPMG, an independent operator:

Free call:

 **8 (800) 080-47-47**

 **8 (771) 191-88-16**

 mail@sk-hotline.kz

 www.sk-hotline.kz

The hotline contacts are available on KMG's corporate website in the state, Russian and English languages. Similar information is available on the websites of SDEs.

The hotline is a channel for reporting suspected violations of legislation and/or the Code of Business Ethics, cases of corruption, fraud, and unauthorised disclosure of confidential and insider information. All appeals received by the hotline are registered in an electronic log.

The process of registering incoming appeals and providing responses to the applicant is fully automated, and all appeals from the hotline operator are received by the Group's compliance officers in real time. The system also makes it possible to independently create appeals, send them to compliance officers for execution, specify statuses and comments, attach files and upload analytics.

All Company employees, officers and other stakeholders have the right to contact the Ombudsman. One of the main functions of the Ombudsman is to ensure that officials comply with the provisions of the Code of Business Ethics, monitor fairness and the interests of all employees.

In 2023, KMG's Nysana call centre received 223 appeals on safety issues, violation of rights and legitimate interests of employees, and social and labour conflicts. All appeals were answered in a timely manner, 12 appeals were considered with a visit to the regions.

The Compliance Service is able to analyse the quality of handling of appeals by the compliance services of SDEs.

To enhance the effectiveness of the control and prevention of offenses, improve communication and provide feedback with employees of the Company and third parties (legal entities and individuals), and protect the legitimate rights and interests of KMG and SDEs:

- All messages, including anonymous, will be received and processed by the operators and forwarded to KMG's Compliance Service, which is in charge of their confidential review.
- The Compliance Service will communicate the results of such review to the Audit Committee and KMG's Board of Directors on a quarterly basis.

For 2023, the hotline received 84 calls. There is a 23% decrease in the number of complaints compared to 2022. This dynamics indicates an improvement in the conflict and complaint resolution process in KMG and its SDEs.

Regarding the work with SDEs, KMG seeks to accelerate the processes of integrating entities into the corporate culture by introducing on-site functions and forming compliance programmes tailored to the specifics of the Company. At the same time, thanks to the calls received by the hotline, it was also possible to resolve issues not directly related to anti-corruption and fraud prevention. For example, the hotline received calls related to violation of business behaviour and abuse of authority. All calls were considered in accordance with the established procedure and deadlines, with the adoption of appropriate actions to reduce the likelihood of recurrence of similar situations in the future and notification of applicants of the results of consideration.

Communications from citizens are also received via e-Otinish, which has minimised anonymous communications with unconfirmed information, often aimed at discrediting a person due to personal animosity or conflict. Total number of communications received for 2023 is 1,795 (CC and SDEs) (832 in 2022).

KMG Group's corporate security units carry out comprehensive work to ensure that the rights of employees and other persons are respected. In doing so, they are strictly guided by the laws of the Republic of Kazakhstan and international regulations, as well as general corporate and internal documents of the Fund, KMG and SDEs.

In general, the management of KMG and SDEs pays serious attention to the issues of human rights observance and continuously works to improve this area of activity.

ANTI-CORRUPTION

2-15, 3-3, 205-1, 205-2, 205-3

KMG builds its business on the principles of legality, good faith and ethics. The Company strictly observes the human rights, takes all possible steps to prevent corruption, takes care to maintain an impeccable reputation and strives to implement high international standards of business ethics.

KMG has a Compliance Service (hereinafter, the Service). It is the responsibility of the Service to ensure that there is no risk of employees committing a corruption offence during their employment. While remaining an independent activity area of the Company, the Service is integrated with all business units of KMG.

In order to meet the standards of ethical and fair business conduct, KMG has taken steps to update existing internal compliance documents. In 2023, the Internal Control Rules of KMG were updated to delimit the rights of access to insider information and prevent the possibility of misuse of such information by insiders.

In the reporting period, the Service exercised internal control over the disposal and use of insider information.

The Service checks the Company's counterparties to ensure compliance with the standards of ethics and fair business conduct. This helps to prevent the conclusion of contracts with unreliable partners, reduce the risks of non-delivery of goods, non-performance of work or non-provision of services.

The Service also checks candidates for vacant positions in KMG related to the performance of organisational, managerial and administrative functions. Psychological checks and polygraph (lie detector) tests for applicants who will be involved in procurement procedures have become one of the conditions for employment.

Another important area of work for compliance specialists is internal analysis of corruption risks, which is one of the systemic anti-corruption activities; its results are used to identify causes and conditions that contribute to corruption offences, as well as deficiencies in the Company's business processes.

Thus, in 2023, an internal analysis of corruption risks was carried out in KMG CC and 23 SDEs. Based on the results of the analysis, recommendations and plans for their implementation were developed. There were no confirmed incidents of corruption during the reporting period.

KMG Group automated and put Compliance Control into commercial operation. It is a system for declaration of conflict of interest.

In the reporting period, KMG Group's employees disclosed information on the presence/absence of conflict of interest situations on a large scale.

In the reporting period, events aimed at building an anti-corruption culture in the Company were held, including with the participation of top management and representatives of the Anti-Corruption Service.

In September 2023, jointly with the Anti-Corruption Service, employees and officials were trained in effective anti-corruption methods at KMG CC. Also in the reporting period, anti-corruption training events were held in the following SDEs: Embamunaigas JSC, KazTransOil JSC, KMG Systems & Services LLP, Kazmortransflot NMSC JSC, KMG Barlau LLP, KMG Kumkol LLP, KMG PetroChem LLP, KMG Drilling & Services LLP, Atyrau Refinery LLP, KMG Engineering LLP, Ak Su KMG LLP, KMG Kashagan B.V.

The Compliance Service supports the development of professional competences and advanced training of compliance specialists of KMG Group.

From 5 to 8 December 2023, KMG Group's compliance officers passed training Anti-Corruption Compliance in the Private Sector conducted by the Council of Europe with the support of Atameken, and today the compliance teams have specialists with professional compliance certificates issued by international and national professional compliance organisations.

KMG carries out continuous work on the development, improvement and enhancement of the compliance system in order to increase the efficiency of control over compliance with internal and external rules and regulations.

SOCIAL POLICY OF THE COMPANY

3-3, 2-30, 401-2, 402-1, 406-1, 407-1

Each employee of the Company has equal opportunities in exercising their 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 functioning of appropriate commissions, provides information necessary to conduct negotiations, strictly fulfils the conditions of the collective bargaining agreement.

In accordance with the labour law, any employee has the right to participate through their representatives in collective negotiations and drafting of the collective bargaining agreement as well as to review the signed collective bargaining agreement.

The Company's activities impose no restrictions on the rights to freedom of association or collective bargaining by types of activities or on territorial basis. Being a socially responsible company, we fully support this right and create a favourable environment for exercise of employees' rights to freedom of association.

In order to maintain social stability in the workforce of KMG Group, the Company takes a set of actions aimed at preventing discontent and tension among employees of SDEs. The taken actions allow companies to control the situation and maintain business continuity.

For example, social assistance to employees contributes significantly to maintaining the social stability of workforce.

Currently, 25 production companies of KMG Group have collective agreements in place, which cover 50,163 employees, i.e. 96%.

In connection with the expiration of the deadlines for 2023, collective bargaining agreements were signed in a new edition at Mangistaumunaigas JSC, KazTransOil JSC, CASPI BITUM JV LLP, and an additional agreement was signed at OSC LLP and Kazakhoil Aktobe LLP, in which the amounts for a number of social payments were increased taking into account the current standards for KMG Group. At the initiative of employees, new collective bargaining agreements were signed at KPI LLP and KMG Security LLP.

In 2023, negotiations on conclusion of collective bargaining agreements with new conditions at OMG JSC, KBM JSC, OMC LLP, KazGPP LLP, PetroKazakhstan Oil Products LLP, ITC LLP were started.

All collective bargaining agreements of KMG Group provide for more than 35 forms of social assistance for employees and their family members as well as retirees.

KMG provides its employees with guaranteed social package that includes various types of social allowances, securities and compensations: material assistance for health improvement to annual leave, maternity benefits, monthly payments to employees on leave for childcare until children reach the age of 1.5, compensation for termination of employment in case of impossibility to transfer to another job, due to full loss of capacity, disability, one-time payment in case of death of the employee for funeral, one-time payment to the family of the employee who died as a result of a job-related accident.

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.

In addition, the employees may be provided with additional types of 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, retirement age, marriage, short-term leave in case of marriage, childbirth, death of relatives, for medical care and surgeries in case the costs exceed the insurance limit, benefits for disabled children of employees, benefits for employees in desperate need, school supplies for the first of September, assistance to employees in desperate need, etc.

In 2023, KMG Group retained all social benefits and securities and paid in accordance with collective agreements. Overall, in 2023, the social assistance to the employees and retirees was provided for the amount of over KZT 27.65 bln.

KMG places special emphasis on implementation of internal socially-oriented programmes. In promoting them, the emphasis is primarily placed on creating a favourable environment for the Company's employees. These are activities of material inducement, retention and professional development, and ensuring workplace safety. The prevention of social tension, labour disputes and conflicts is a particular area of focus.

There is constant and constructive communication with employees and their representatives. A unified internal communication system is designed to improve efficiency of feedback.

All facilities hold mandatory scheduled meetings between management and employees to discuss social, domestic, work issues.

The key objective of the internal communication system is to inform employees in a timely manner about the goals and objectives of operations, to communicate the current situation in the company to employees, and to "hear" the issues raised by employees.

All KMG's production companies allow each employee to address questions to the company's management and receive a timely response by introducing internal communication tools, according to which the systematic biannual performance assessment meeting are held between CEOs and employees. CEOs in their reports present the current situation to the team: economy, availability of work volumes, production plans, labour protection, personnel and social issues. At the meetings, employees may ask their questions and get answers to them. In 2023, 101 reporting meetings were held covering 14,000 employees of KMG SDEs, where employees raised more than 500 questions. The main issues raised by employees at the meetings were salary increases, employment of employees' children, point issues related to medical care, and issues related to improving working conditions, including the need to repair or construct buildings and premises. Appropriate explanations were given to employees on all issues and decisions were made.

In addition, in order to create and maintain effective channels of direct communication between employers and employees in SDEs, to inform employees in a timely manner about goals and objectives of operations in SDEs, to communicate the current situation in the company to employees, to create a positive image of the company among employees, to monitor the social and psychological climate among the workforce, the SDE CEOs receive employees on personal matters, each SDE has a CEO blog and a corporate information board, corporate information website, displays for video announcements are installed to communicate internal corporate information to employees. Information stands are used to bring prompt announcements and messages to the notice of employees.

If the working conditions change, the Company notifies the employee in writing at least fifteen calendar days in advance. The minimum notice period for significant changes in the Company's operations is 4 weeks.

Meetings are held between the management and SDE trade union on a quarterly basis to address the most pressing issues concerning the implementation of the collective agreement, labour discipline, handling of employees' appeals, health and safety issues, social benefits and compensation and other socially important issues in the company.

At the end of 2023, KMG's social stability index was satisfactory – 75%⁹. In 2022, the index was 74%.

For reference

The SRS social stability index is an indicator of social stability. Social stability is the systematic development of the company with a minimum of conflicts in the team. The SRS methodology suggests that social stability requires a favourable situation within the company (Engagement Index), a satisfying standard of living for employees (Social Wellbeing Index) and the absence of explicit conflicts and protest attitudes (Social Calmness Index).

Based on the results of the Samruk Research Services survey, each enterprise develops Action Plans to minimise and eliminate the areas of concern identified in the Social Stability Index measurement. The Plan's activities include actions to improve the level of satisfaction of employees, trust in the actions of the management, establishing a feedback system, improving working conditions, accommodation, catering, etc.

In 2023, the Corporate Centre developed a uniform form of the SRS improvement plan for all SDEs, and introduced the practice of visiting SDEs and assisting in developing action plans to improve the social stability index. In the current year, PetroKazakhstan Oil Products LLP jointly with the Social Engagement and Communications Centre conducted in-depth sociological survey.

During 2023, there were a number of unauthorised strikes amongst contractor employees and some employees of SDEs. Negotiations with leaders of trade union committees and meetings with employees were held, as well as actions were taken to reduce the wage gap between the Company's employees and contractors. At the end of 2023, the number of strikes in KMG SDEs and their contractors decreased by 59% in Mangistau Region (9 strikes in 2023 compared to 22 strikes in 2022).

⁹ The Social Engagement and Communications Centre notes that when interpreting the data, it should be borne in mind that the survey methodology was changed in early 2023. In this regard, direct comparison between the results of different years will be incorrect due to the new methodology.

KMG Group works to improve labour and recreation conditions on a systematic basis. The issues of organising accommodation and catering for employees are described in the plans of SDEs to improve social stability. In addition, in 2022, all KMG SDEs developed separate roadmaps for 5 years (2023–2027) to improve labour and recreation conditions for employees in order to strengthen this work.

In accordance with the plans of SDEs, in 2023, more than 40 social infrastructure facilities (canteens, administrative and production buildings, residential camps, etc.) were to be built, and 115 overhauls of social infrastructure facilities were to be carried out. However, based on the results of the audit of OMG’s financial and economic activities, a plan for construction, expansion and repair of facilities for 2023–2024 was developed. The list included about 100 facilities requiring prompt action.

TRADE UNIONS

The Company interacts with trade unions as part of the social partnership established by the labour law at the industrial and regional levels. At the industrial level, the main interaction parameters (social securities, labour organisation, principles of remuneration, employment, gender and youth policy, occupational health and safety, prevention and resolution of labour conflicts, etc.) are set forth in the Sectoral Agreement in Oil & Gas, Oil Refining and Petrochemical Industries of Kazakhstan, which was developed with active involvement of representatives of KMG and its companies.

KMG Group has 42 trade unions that protect the interests of 44,430 employees.

At the regional level, the regional committees for social partnership operate, which, apart from regional employment and occupational health issues, deal with specific collective labour disputes. All KMG companies have conciliatory committees in place.

KMG, together with its subsidiaries and affiliates, actively participates in the work of the **Sectoral Commission** on Social Partnership and Regulation of Social and Labor Relations in the Oil and Gas, oil refining and Petrochemical Industries, which examines the current situation among employees of companies, the development of sectoral qualifications frameworks and professional standards, issues of human resource development in the oil and gas, oil refining and petrochemical industries.

KMG is implementing the Sectoral Agreement in Oil & Gas, Oil Refining and Petrochemical Industries for 2023–2025.

The key provisions of this Agreement in terms of improving social security of employees, enhancing the role of trade unions, ensuring safe working conditions and labour protection, etc. are being implemented. KMG SDEs adhere to the minimum levels of inter-category coefficients and the minimum monthly wage rate of a first-category worker in terms of establishing industry-specific principles of the labour remuneration system.

In 2023, more than 166 appeals from employees of KMG SDEs and citizens were considered. A significant number of appeals were received from the Mangystau Region with a request for employment in KMG Group. Special attention was paid to the consideration of issues of violation of the rights of KMG Group employees. Each such appeal was reviewed by the HR Management Department in detail, the validity of decisions made, their compliance with the laws of the Republic of Kazakhstan and internal procedures of the enterprise were checked.

Appropriate responses were provided to the applicants. Practical recommendations were also given on the organisation of HR and social work at the enterprise.

COOPERATION WITH CONTRACTORS AND ENSURING THE SOCIAL AND LABOUR RIGHTS OF CONTRACTORS’ EMPLOYEES

3-3, 409-1

In order to ensure social stability in the Mangystau, Atyrau, and Pavlodar Regions, since the beginning of 2022, KMG has been working to reduce the wage gap between our SDEs and their contractors. The following actions have been taken for this purpose:

- wages for employees of contractors have been increased;
- a decision has been taken to index contractors’ wages annually to the inflation rate, similar to the client’s wages;
- a guaranteed social package has been introduced for employees of contractors.

The work has been coordinated with the Interdepartmental Headquarters for solving problematic issues of Zhanaozen city, as well as Atyrau and Pavlodar Regions.

KMG SDEs in Mangystau Region have entered into 158 additional agreements with contractors, providing for these changes and, accordingly, an increase in rates for services. The actions taken to increase wages cover more than 19 thousand employees. On average, the increase in wages is about 35-40%. In monetary terms, the amount of additional agreements signed is KZT 37.2 bln.

In Atyrau Region, Atyrau Refinery has entered into 12 additional agreements (2 additional agreements are in the process of signing). The actions taken to increase wages cover more than 1.3 thousand employees. On average, the increase in wages will range from 13 to 76%. In monetary terms, the amount of additional agreements signed will be KZT 3.5 bln.

In Pavlodar Region, Pavlodar Oil Chemistry Refinery has entered into 29 additional agreements. The actions taken to increase wages cover more than 2.4 thousand employees. On average, the increase in wages ranges from 14 to 56%. In monetary terms, the amount of additional agreements signed is KZT 5.9 bln.

Since June 2022, the Representative Office of KMG (hereinafter, the Representative Office) has been operating in Aktau. Close cooperation has been organised with government agencies through interdepartmental and regional headquarters and commissions. The Representative Office attended 38 meetings and solved problematic issues of 96 enterprises of the Region.



The work with trade unions is well established, 161 MoM decisions have been made based on the results of 25 meetings held with them, of which 125 have been implemented and 36 are in the process of implementation.

Within the framework of the existing Regulations of the Unified Internal Communications System, about 80 reporting meetings of the CEOs of SDEs with about 25,000 employees were held. All the issues raised have been reviewed and taken under control.

Legal and administrative advice has been provided, as well as legal assistance to teams. 18 internal mediators have been trained to participate in the settlement of conflicts, labour disputes, and to assist participants in finding a mutually acceptable solution. Information on all enterprises where there are risks of labour conflicts and protests has been systematised.

An algorithm of timely response to the emerging preconditions for complication of the situation among employees has been developed. Monitoring of the emerging situation among employees of SDEs and all their contractors continues. During the year, 63 cases with potential risks of social tension at 55 enterprises were under special control.

With the direct involvement of the Representative Office, 11 strikes were terminated by bringing labour conflicts into the legal framework (setting up conciliation commissions, reaching a compromise between the employer and strikers, etc.) and 52 protests were prevented at an early stage. In order to improve the social situation, continuous control over industrial relations in the contracting organisations of KMG SDEs was organised. As part of this work, 11 inspections and IR-screenings were conducted.

As a result of the actions taken, there was a significant reduction in the number of oil and gas enterprises with medium labour conflict risks (from 20 cases in January 2023 to 4 in December). At the moment, all enterprises of SDEs and contractors are operating in normal mode.

Inspection of contractors of Ozenmunaigas JSC and oilfield service SDEs of JSC NC "KazMunayGas"

On 05 June 2023 in Zhanaozen, a special group of employees of JSC NC "KazMunayGas", KMG Representative Office in Aktau, Ozenmunaigas JSC, Mangistaumunaigas JSC, Karazhanbasmunai JSC, as well as involved specialists from oilfield service SDEs of Mangistau Region (a total of 60 people) started its work. The purpose of the group is to inspect and analyse the activities of OMG contractors and oilfield service SDEs of KMG.

43 contractors were inspected, including 29 OMG contractors and 14 contractors of the above-mentioned oilfield services SDEs of KMG.

The working group carried out the inspection in two directions:

- inspection of compliance with labour law requirements, inspection of working conditions, sanitary and living conditions, occupational health and safety, as well

as conditions of medical care. Particular attention was paid to internal communications between the company's management and its employees (meetings of CEO with employees, reception of employees to consider personal matters and consideration of employees' appeals);

- inspection of contractors' performance of contractual obligations, including inspection of the targeted use of funds allocated under the contract (payment of production bonuses, year-end bonuses, lump-sum bonuses for holidays, health improvement payments for labour leave and provision of guaranteed minimum social package).

The inspections revealed 572 non-compliances. OMG and oilfield service SDEs of KMG were recommended to send instructions to contractors to eliminate the identified non-compliances and violations with deadlines for compliance.

The management of OMG and oilfield service SDEs was instructed to carry out additional inspections, following which appropriate actions will be taken against the above contractors and responsible persons of OMG and oilfield service SDEs of KMG.

In turn, a single checklist was prepared to check labour conditions, occupational health and safety, and medical care conditions.

OUR COMMUNITIES

3-3, 413-1, 413-2, 203-1

KMG contributes to the socio-economic development of the regions of its presence. The Company actively communicates with the local governments and maintains a constant dialogue with key stakeholders, actively works on developing and training young qualified experts, provides social assistance to the employees of KMG Group, strives to support domestic manufacturers by signing the off-take agreements. Under the contracts for subsoil use and the Comprehensive Development Plan, KMG's enterprises finance socially significant facilities, the construction of sports complexes, the social and economic development of the region, etc.

The subsoil use contracts of KMG's subsidiaries provide for the allocation of significant amounts of money to develop the regions of production presence and provide social assistance to the social groups living in need, as well as on the basis of agreements and memoranda entered into with the regional Akimats, SDEs of KMG transfer funds to the local executive authorities.

Ozenmunaigas JSC allocated KZT 1.7 billion for development of social infrastructure

SPONSORSHIP AND CHARITY

The Company's charitable and sponsorship activities are carried out through Samruk-Kazyna Trust Social Project Development Fund, which is the Single Charitable Operator of the Group of Companies of Samruk-Kazyna JSC.

The charitable activities of Samruk-Kazyna Trust are aimed at helping people, communities in the social and medical sectors, developing the media and cultural community, developing human potential, strengthening labour relations, interethnic relations, investing in a sustainable

in Zhanaozen city and Karakiya District of Mangystau Region

Embamunaigas JSC allocated KZT 783 million for the construction of a 280-seat kindergarten in Besikti Village, Atyrau Region.

Mangistaumunaigas JSC allocated KZT 140 million to the Akimat of Mangistau Region for social and economic development of the Region.

Karazhanbasmunay JSC allocated KZT 230 million for infrastructure development in Mangistau Region.

Kazgermunai JV LLP allocated KZT 2.3 billion for the construction of Schoolchildren Palace for 350 people in Kyzylorda Region.

Kazakhoil Aktobe LLP allocated KZT 206 million for the social and economic development of Aktobe Region and development of its infrastructure, and Kazakhturkmunai LLP allocated KZT 189 million, and KZT 85 million for the development of Mangistau Region.

development of society, and supporting regional business initiatives.

The portfolio of Samruk-Kazyna Trust projects from the 2023 budget is 46 projects totalling KZT 7.2 billion, of which 4 projects have been implemented, **taking into account the needs of KMG:**

- IQanat Educational Fund Public Fund – IQanat-Zharkyn Bolashak project to the amount of KZT 300 million, 50 students of schools

- in Zhanaozen became holders of educational grants to study at IQanat High School Burabai;
- Bilim Foundation Public Fund – the Zharkyn Bolashak project to the amount of KZT 378.3 million – 177 students of Zhanaozen became holders of educational grants to study at colleges across the country, 2 graduates of the project were employed;
- Mangystau Centre for Local Initiatives Public Fund – the Strengthening the Material and Technical Base of the Outpatient Clinic in Akshukur Village, Tupkaragan District, Mangystau Region by purchasing an X-ray machine to the amount of KZT 36.5 million;
- Twenty one children's sports grounds were constructed in two settlements of Mangistau Region: in Zhetybai and Zhanaozen for the period of 2022–2023 to the amount of KZT 1 billion.



Also, KMG subsidiaries – Ozenmunaigas JSC, Karazhanbasmunay JSC, Mangistaumunaigas JSC, Kazakhoil Aktobe LLP, Kazgermunai LLP, Pavlodar Oil Chemistry Refinery LLP, PetroKazakhstan Oil Products LLP – provided charitable assistance to various local communities in Atyrau, Mangistau, Aktobe, Kyzylorda, Turkestan, Pavlodar Regions to the amount more than KZT 1.1 billion.

GENERAL CORPORATE EVENTS

KMG Group holds corporate events on an annual basis to consolidate its workforce. Events such as Sports and Athletic Contest and Uzdik Maman are held to promote healthy lifestyle and improve professional skills.

In 2023, the Sports and Athletic Contest among KMG SDEs was held in Aktau. This time the traditional annual event was dedicated to the 60th anniversary of Mangistaumunaigas JSC. Over 500 employees from more than 20 KMG SDEs took part in the competition, which took place from 10 to 14 July 2023. All of them had previously passed the qualifying stage in 8 groups, where about 3,000 employees from more than 30 KMG SDEs took part. Employees played for awards in 11 sports: mini-football, volleyball, football, chess, table tennis, swimming, arm wrestling, togyz-kumalak, arkan tartu, asyk atu, cybersport. Also, from 18 to 20 August 2023, Astana hosted the superfinal of the VIII Sports and Athletic

Contest among the employees of the Companies of Samruk-Kazyna Group, dedicated to the 15th anniversary of the Fund. Large-scale competitions were held in 11 sports. 845 participants defended the honour of their companies in individual and team sports. According to the results of the competition, the first place was awarded to KMG. It should be noted that for the second year in a row, the Super Cup of the Sports and Athletic Contest among the Fund's portfolio companies went to KMG. The slogan "One Team – One Goal!" reflects the main idea of this event, which helps to strengthen corporate culture and ties within the team, encourages all participants to unite to achieve high results. Most SDEs of KMG Group have created conditions for mass sports activities of employees (rent of gyms, availability of gyms at the fields, etc.), which ensures wide involvement of employees in sports activities. Intra-workshop and inter-workshop sports competitions are held on a regular basis.



UZDIK MAMAN PROFESSIONAL CONTEST

The Uzdik Maman Professional Contest is held annually among employees of subsidiaries. In 2023, the Contest was held from 13 to 17 September in Aktau at the production base of Karazhanbasmunai JSC for 17 professions:

- Oil and Gas Production Operator
- Oil and Gas Well Diagnostics Operator
- Formation Pressure Maintenance Operator
- Oil Treatment Operator
- WO Crew
- WL Crew
- Process Equipment Repairman
- Electric and Gas Welder
- Electrician
- Chemistry Lab Technician
- Process Unit Operator
- Compressor Unit Operator
- Process Pump Operator
- Turner
- Car Driver
- Cementing Unit Operator
- Instrumentation Fitter

The Contest was held in two stages: the first stage was held at the level of KMG SDEs, in which 2,470 employees of KMG SDE participated. The winners of the first stage in the number of 157 people from 19 KMG SDEs who won first place prizes were admitted to the second stage of the Contest at KMG level. The theoretical part of the Contest was held in the form of online electronic testing organised by Samruk Business Academy, a private institution. In the practical part of the Contest, the contestants competed at the competition sites of Karazhanbas field for each profession. The closing ceremony of the Contest was held at Rixos Water World, the winners of KMG's Contest were awarded Uzdik Maman medals and diplomas, and a festive concert was held by employees of KMG's SDEs.

Also, a representative of KazGerMunai JV LLP became a finalist of the Uzdik Maman-2023 Contest of Samruk-Kazyna JSC.

In addition, in 2023, representatives of Pavlodar Oil Chemistry Refinery LLP in the nominations "Process Unit Operator" and "Compressor Unit Operator", at the invitation of Gazpromneft, took part in the Best in Profession-2023 Contest held in Omsk at Gazpromneft-Omsk Refinery on 28-30 August 2023. Representatives of various companies took part in the Contest: Gazpromneft-ONPZ JSC, Slavneft-YANOS PJSC, Gazpromneft-MNPZ JSC, NIS, Poliomi LLC, ANPZ LLP, SIBUR JSC, etc. The Contest consisted of various tasks: testing on profession, HSE, practical case study on computer simulators, gas hazardous works, first aid, solving practical tasks

on profession and fire relay race. Representatives of the teams performed in pairs, but individual points were scored. Despite the lack of experience in this Contest, our representatives showed quite a high level of qualification, losing only slightly to their rivals and taking fourth place in each nomination.

In August 2023, KazTransOil JSC also participated in the International Professional Contest for the title "Best in Profession" between workers of leading professions of Transneft PJSC, Gomeltransneft Druzhba JSC: Commercial Oil Operator; Pipeliner; Electric And Gas Welder; Chemistry Lab Technician; Process Equipment (Process Unit) Repairman; Instrumentation Fitter; Electrical Equipment Repairman; Oil Pump Station Operator.

DEVELOPMENT OF CORPORATE CULTURE IN KMG

In 2023, the Company started work on the renewal and development of corporate culture. The corporate culture was diagnosed using 3 methods: online survey, in-depth interviews with top management, focus group discussions. Based on the results of the screening, the current and target culture profile was determined, employee engagement, commitment to the Company and its values were assessed, and feedback on business process improvement was collected. Based on the obtained data and employees' feedback, recommendations on corporate culture development and an action plan for 2023-2024 on the transition from the current to the desired culture profile were developed. To establish feedback within the Company, the management met with the employees of the Corporate Centre on the implementation of the strategy and development of the Company's corporate

culture, the work is being done to implement changes in the organisational environment and create favourable working conditions, and to establish internal communications within the Company. A strategic session was held with top management on the implementation of culture, and a series of strategic sessions on the development of the Company's values was also held. Based on the results, 4 values (safety, efficiency, responsibility, team) were proposed and are being agreed upon by the Company's management. All these initiatives are aimed at increasing employee involvement in the Company's issues and efficiency in achieving the strategic goals of KazMunayGas. In 2024, work is planned to broadcast the Company's values and behavioural models, and a pilot project to develop corporate culture is planned to be implemented in Ozenmunaigas JSC and Embamunaigas JSC.



PRINCIPLE 1. The business community should support and respect the protection of internationally proclaimed human rights.

PRINCIPLE 2. The business community should not be involved in human rights violations.

PRINCIPLE 6. The business community should advocate for the elimination of discrimination in labor and employment.

PRINCIPLE 10. The business community should resist all forms of corruption, including extortion and bribery.

CORPORATE GOVERNANCE SYSTEM

2-9, 2-11

Pursuant to the laws of the Republic of Kazakhstan and KMG Charter, KMG's corporate governance structure is as follows:

- **The supreme body** is the General Shareholders Meeting;
- **The management body** is the Board of Directors, accountable to the General Shareholders Meeting;
- **The executive body** is the Management Board, accountable to the Board of Directors;
- **The Internal Audit Service**, a centralised body directly subordinated and accountable to the Board of Directors, exercising control over the financial and economic activities of the Company and other entities of KMG Group, which are members of the Fund in accordance with National Welfare Fund Act No. 550-IV ZRK dated 1 February 2012 of the Republic of Kazakhstan, assessment in the field of internal control and risk management, execution of documents in the field

of corporate governance and consulting for the purpose of improving the activities of KMG and KMG Group;

- **The Corporate Secretary**, who performs his/her functions on a permanent and independent basis, is not a member of the Board of Directors and (or) executive body of the Company, is appointed by KMG's Board of Directors and is accountable to KMG's Board of Directors, performs implementation and control and supervisory functions in KMG's corporate governance system within his/her competence;
- **The Compliance Service**, accountable to the Board of Directors, whose activities are aimed at ensuring compliance with mandatory regulatory requirements and international best practices on anti-corruption and formation of KMG Group's internal corporate culture, ensuring transparency, honesty among employees, as well as creating conditions for doing



CORPORATE GOVERNANCE

business in accordance with the best international standards, internal policies and laws of the Republic of Kazakhstan;

- **The Ombudsman**, a person appointed by KMG's Board of Directors, whose role is to advise KMG's employees who have applied to him/her and assist in resolving labour disputes, conflicts, social and labour issues, as well as in ensuring compliance with the principles of business ethics by KMG's employees.

KMG's corporate governance system is based on respect for the rights and legitimate interests of shareholders and key stakeholders: the state, strategic partners and counterparties (suppliers and buyers), investors, KMG employees, municipalities, local communities and residents of the regions where the Company operates.

The Company's corporate governance system is constantly being improved to meet the requirements and standards of Kazakhstan and international corporate governance practices.

In order to address the most critical issues and to develop recommendations to the Board of Directors, the dedicated committees are established at KMG under the Board of Directors. As of 31 December 2023, the Board of Directors had the following Committees:



Audit Committee was established to exercise effective control over financial and business operations, including the completeness and accuracy of financial statements, the effectiveness of internal control systems, risk management and corporate governance, as well as control over independence of external and internal audits.



Nomination and Remuneration Committee was established to address the succession planning for the Board of Directors and the Management Board, performance evaluation of KMG bodies, ensuring the efficient HR policy, remuneration and remuneration system, as well as social assistance, professional development and training of KMG officers and employees.



Health, Safety, Environment and Sustainability Committee was established to address the issues related to health, safety and environment, implementation of the sustainable development and social & economic development principles, social commitments and programs, ensuring business continuity and environmental efficiency. This Committee is responsible for initiation, in-depth review and decision-making on economic, environmental and social aspects of the impact caused by the organisation.



Strategy and Portfolio Management Committee was established to address the development strategy and investment policy, KMG operation priorities, improvement of KMG's investment attractiveness, KMG's financial and economic planning and transformation monitoring.

COMPOSITION OF THE MANAGEMENT BODY AND ITS COMMITTEES

As of 31 December 2023, KMG's Board of Directors has the following members¹⁰:

- **Ernat Berdigulov**, Chairman of the Board of Directors, Representative of Samruk-Kazyna JSC;
- **Magzum Mirzagaliyev**, Chairman of KMG's Management Board;
- **Holland Philip Malcolm**, Independent Non-Executive Director;
- **Uzakbay Karabalin**, Non-Executive Director, Representative of Samruk-Kazyna JSC;
- **Elzhas Otyshiev**, Representative of Samruk-Kazyna JSC;
- **Armanbay Zhubayev**, Independent Non-Executive Director;
- **Arman Argingazin**, Independent Non-Executive Director;
- **Saya Mynsharipova**, Independent Non-Executive Director;
- **Askar Shakirov**, Independent Non-Executive Director.

As of 31 December 2023, KMG's Board Committees are as follows (Resolution of KMG's Board of Directors dated 31 August 2023, Minutes No. 18/2023).

AUDIT COMMITTEE:

- **Arman Argingazin**, Chairman
- **Holland Philip Malcolm**, Member
- **Armanbay Zhubayev**, Member
- **Saya Mynsharipova**, Member

STRATEGY AND PORTFOLIO MANAGEMENT COMMITTEE:

- **Armanbay Zhubayev**, Chairman
- **Uzakbay Karabalin**, Member
- **Holland Philip Malcolm**, Member
- **Elzhas Otyshiev**, Member
- **Saya Mynsharipova**, Member

¹⁰ By the Resolution of KMG's General Shareholders Meeting dated 6 April 2023 (Minutes No. 1/2023), the powers of Gibrat Auganov and Asel Khairova, Non-Executive Director, as Members of the Board of Directors representing Samruk-Kazyna JSC were early terminated, and Ernat Berdigulov and Armanbay Zhubayev, Non-Executive Director, were elected as Members of the Board of Directors representing Samruk-Kazyna JSC.

By the Resolution of KMG's General Shareholders Meeting dated 30 May 2023 (Minutes No. 2/2023), the powers as Miller Timothy Glenn, Non-Executive Director, as Member of the Board of Directors were early terminated, and Arman Argazin, Non-Executive Director, was elected as Member of the Board of Directors.

By the Resolution of KMG's General Shareholders Meeting dated 27 June 2023 (Minutes No. 3/2023), the powers of Ernar Zhanadil, as Member of the Board of Directors representing Samruk-Kazyna JSC were early terminated, and Elzhas Otyshiev was elected as Member of the Board of Directors representing Samruk-Kazyna JSC.

By the Resolution of KMG's General Shareholders dated August 14, 2023 (Minutes No. 4/2023), a new Board of Directors consisting of 8 people was elected, 4 of them are Non-Executive Directors.

The Resolution of KMG's General Shareholders Meeting dated 6 November 2023 (Minutes No. 5/2023) determined the membership of the Board of Directors as 9 persons and elected Askar Shakirov as Member of the Board of Directors and Non-Executive Director.

NOMINATION AND REMUNERATION COMMITTEE:

- **Holland Philip Malcolm**, Chairman
- **Arman Argingazin**, Member
- **Saya Mynsharipova**, Member

HEALTH, SAFETY, ENVIRONMENT AND SUSTAINABILITY COMMITTEE:

- **Armanbay Zhubayev**, Chairman
- **Arman Argingazin**, Member
- **Uzakbay Karabalin**, Member

The Company complies with requirements of the Corporate Governance Code regarding the number of Non-Executive Directors on the Board of Directors, according to which

Of nine members of the Board of Directors, eight are citizens of the Republic of Kazakhstan, and one is from the United Kingdom.

TERM OF OFFICE

The term of office of the Board of Directors is three years. Members of the Board of Directors may be re-elected for a period exceeding six consecutive years subject to special consideration of a need for qualitative renewal of the Board of Directors. In exceptional cases, re-election for a term of up to nine years is allowed (in this case, for non-executive directors, a detailed and convincing explanation of such necessity should be prepared and disclosed by the Company to all stakeholders).

However, following an independent corporate governance audit carried out at KMG, the Company received a recommendation to consider discussing with the Shareholder an

the number of Non-Executive Directors is up to 50% of the total number of Members of the Board of Directors.

The Board of Directors is chaired by a representative of Samruk-Kazyna JSC, and all KMG's Board Committees are chaired by Non-Executive Directors.

AS OF 31 DECEMBER 2023, THE TOTAL NUMBER OF MEMBERS OF THE BOARD OF DIRECTORS IS 9, INCLUDING:

- Non-Executive Directors – 5,
- Representatives of Samruk-Kazyna JSC – 3;
- Executive Director (Chairman of the Management Board) – 1.

approach to retain shareholder representatives and non-executive directors on the Company's Board of Directors for a longer period of time. It was also recommended that consideration should be given to aligning the tenure of representatives with the period of the chosen Company Strategy. According to the independent consultant, this can have the following advantages: the term of office of individual directors of five to six years and their rotation in different years will ensure continuity of knowledge of the Company's operations and its corporate governance processes. A longer term on the Board of Directors contributes to the quality of performed work and accountability for successful implementation of the Company Strategy.

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 fair treatment of all shareholders and sustainable development principles. Pursuant to clause 4 of Article 54 of the Joint Stock Companies Act of the Republic of Kazakhstan and paragraph 9 of Chapter 5 of KMG's Corporate Governance Code, members of the Management Board, other

As of 31 December 2023, the Board of KMG consists of 9 people.

THE COMPOSITION OF KMG'S MANAGEMENT BOARD IS AS FOLLOWS:

Magzum Mirzagaliyev	Chairman of the Management Board
Dastan Abdulgafarov	Deputy Chairman of the Management Board
Diana Aryssova	Deputy Chairman of the Management Board
Serikkali Brekeshev	Deputy Chairman of the Management Board
Bulat Zakirov	Deputy Chairman of the Management Board
Kuanyshev Kudaibergenov	Deputy Chairman of the Management Board
Vasily Lavrenov	Deputy Chairman of the Management Board
Dmitry Makeyev	Deputy Chairman of the Management Board
Dauletzhan Khasanov	Deputy Chairman of the Management Board

The Management Board operates in accordance with the Work Plan of the Management Board of JSC NC "KazMunayGas" for 2023, approved by the Resolution of KMG's Management Board dated 23.12.2022 (Minutes No. 68).

According to the Work Plan, in-person meetings of the Management Board were held weekly.

These quantitative data indicate the regularity of in-person meetings of the Management Board, which fully complies with the provisions of the KMG Corporate Governance Code.

than the Chairman of the Management Board, cannot be elected to the Board of Directors, and the Chairman of the Management Board cannot be elected as Chairman of the Board of Directors.

For more details on the members of the Board of Directors, visit KMG's website: https://www.kmg.kz/en/sustainable-development/corporate-governance/directors_board/.

During **2023**, KMG's Management Board made **572 Resolutions (100%)** at in-person meetings. **59 minutes** of meetings of the Executive Body were drawn up.

From the total number of in-person resolutions of the Management Board made at the end of 12 months of 2023, **154 issues** were duly **submitted to KMG's Board of Directors for consideration.**

During January–December 2023, the following KMG's Management Board Resolutions were also approved:

- Basic Tariff Rate 2023 for Some Companies of KMG Group;
- KMG Group Roadmap for HSE Improvement 2023;
- KMG Group Adjusted Development Plan / Business Plan 2023;

- KMG Group Adjusted Budget 2023;
- KMG Group Business Plan 2024–2028;
- KMG's Management Board Work Plan 2024;
- KMG Group Budget 2024.

In addition, **36 Resolutions** approved amendments and supplements to certain KMG's internal documents.

ECONOMIC, ENVIRONMENTAL AND SOCIAL RESPONSIBILITY

2-13

Pursuant to the Corporate Governance Code, the Board of Directors and the Management Board establish and implement the appropriate sustainable development system within their competence, while every employee and officer at every level contribute to sustainable development.

As of 31 December 2022, the responsibilities for sustainable development were allocated as follows at the management body level:

- **The Compliance Service** is responsible for ensuring compliance with mandatory regulatory requirements and international best practices on anti-corruption and formation of KMG Group's internal corporate culture, ensuring transparency, honesty among employees, as well as creating conditions for doing business in accordance with the best international standards, internal policies and laws of the Republic of Kazakhstan;
- **The Ombudsman Service** is responsible for the observance of fairness and interests of all Company employees through: early prevention and settlement of disputes and conflicts; submission of problematic issues of a systemic nature requiring

resolution to the relevant bodies and officials for consideration; putting forward proposals to stabilise conflict situations.

The responsibilities for sustainable development were allocated as follows at the executive body level:

- **Deputy Chairmen of the Management Board** is responsible for development and implementation of the sustainability management system to ensure compliance with the principles of sustainable development and integration of sustainable development into the key processes, the Company's development strategy and decision-making processes, the Company's low-carbon development and ESG rating, as well as addressing a range of issues related to the economic component of sustainable development, including the promotion of economic development of the regions of operation;
- **Director of HSE Department** is responsible for development and implementation of KMG's health, safety and environment strategy and policies, and in general for health, safety and environment matters;

- **Director of the Department of Low-Carbon Development:** issues of greenhouse gas emissions management, implementation of an energy management system, as well as assistance in the implementation of low-carbon projects and improvement of activities in the supervised area, in accordance with KMG's targets in the field of reducing the carbon footprint;
- **Director of HR Department** is responsible for implementation of processes and management of labour, human and social aspects of sustainable development.

The above persons are accountable to the Chairman of KMG's Management Board. Accountability of those responsible for economic, environmental and social issues is governed in detail by the Company's internal regulatory documents, internal control and business

CONSULTING OF STAKEHOLDERS IN ECONOMIC, ENVIRONMENTAL AND SOCIAL MATTERS

2-12, 2-14, 2-16, 2-25

Economic, environmental and social consultations between the stakeholders and the Company's supreme corporate governance body are implemented in various ways and on a continuous basis.

For instance, the Health, Safety, Environment and Sustainability Committee of KMG's Board of Directors (hereinafter, the Committee) is in charge of general management of the activities of the above-mentioned officers.

Thus, **five meetings of the Committee** were held in 2023, where 31 issues were addressed.

Health, Safety, Environment and Sustainability Committee of KMG's Board of Directors considers and manages sustainability issues, the status

continuity procedures. These issues are regularly presented for review to the Management Board and the Board of Directors. Before the relevant issues are considered at Board of Directors meetings, the Board Committees make recommendations to the Board of Directors according to the following allocation comprehensive control over implementation of duties and actions aimed at improving the corporate governance is delegated to the Audit Committee under KMG's Board of Directors; initiation, in-depth review and decision-making on the economic, environmental and social aspects of the Company's impacts, and monitoring of sustainable development in KMG are assigned to the Health, Safety, Environment and Sustainability Committee (HSESC) of KMG's Board of Directors.

of SDG achievement, prepares recommendations for approval of the sustainability policy, annual KMG Sustainability Report, action plans and other internal documents on sustainability, the approval of which falls under the authority of BoD, implementation of social, economic and environmental components of sustainability, formation of a sustainability management system, setting sustainable development goals and KPIs, monitoring the implementation of sustainability in KMG, integrating sustainability into KMG's key processes.

In 2023, the Committee was mainly focused on health, safety and environment, strategic management of the ESG (Environmental – Social – Governance) aspects, and implementation of a sustainable development system.

The key issues on the Committee's agenda in 2023 are as follows:

- Health, safety and environment reports
- Status of implementation of KMG's 2022-2031 Low-Carbon Development Programme
- KMG's ESG (Environmental – Social – Governance) rating
- Approval of the Action Plan to Improve KMG's ESG Rating
- Status report on the implementation of the sustainable development system at KMG and its business units and incorporation of sustainable development principles into key business processes
- KMG's contribution to the sustainable development goals
- Results of the work on the Project Development of KMG's Action Plan to Improve Corporate Governance for Climate Transition and Disclosures in accordance with TCFD recommendations

Moreover, the Committee reviewed and approved the 2022 Sustainability Report of KMG in 2023.

KMG officers and employees were regularly invited to take part in the Committee's activities by attending the meetings of the Committee without the voting right.

COMMUNICATING THE CRITICAL ISSUES

2-16

Critical issues are communicated to KMG's Board of Directors through regular reports on the Company's operations including but not limited to the following: report by the Chairman of KMG's Management Board on key business developments, information on occupational health and environmental protection, report on preliminary results of financial and business activities, information on the impact of sanctions against the Russian Federation on KMG's

The KMG's Board of Directors has accepted every recommendation developed by the Committee.

Economic, environmental and social consultations are provided to a wide range of stakeholders via the Company's website, public relations service (media office), as well as by issuing the annual Sustainability Report that serves as the central communication channel between KMG and its internal and external stakeholders in terms of disclosing sustainable development information. At the same time, KMG has various communication methods in place, which enable a proper dialogue with the stakeholders and the Company. For example, information for the investment community is posted on a dedicated portal <https://www.kmg.kz/en/investors/>, employment issues are posted on the portal <http://work.kmg.kz>, violations of the rights and legitimate interests of employees can be addressed through nysana@cscs.kz, a confidential reporting system is available through <http://www.sk-hotline.kz/>, and there is functional communication on work of the Ombudsman through ombudsman@kmg.kz, on health, safety and environment through hse@kmg.kz and on sustainability through sustainability@kmg.kz.

activities*, report on non-arm's length transactions concluded, decisions on which were made by the Management Board, review of strategy implementation status, key performance indicators and investment projects, report on implementation of KMG's Consolidated Development Plan, risk report, report on the implementation of the Board of Directors' decisions, and reports of the chairmen of the Board of Directors' Committees.

In addition to the above reports, the BoD from time to time identifies matters that need to be reported on immediately, such as, for example, information on the current situation in KMG Group, operational performance, etc., financial performance, significant health and safety incidents in KMG Group companies, including reports on fires (even if such events occurred after the reporting period). The Health, Safety,

Environment and Sustainability Committee of KMG's Board of Directors regularly reviews and discusses reports on implementation of the sustainability system in KMG and its business units and incorporation of sustainability principles into key business processes, as well as information on the status of work on improving the ESG rating.

NATURE AND NUMBER OF CRITICAL ISSUES

As part of the review of KMG's HSE information, which is considered at each in-person meeting of the Board of Directors, the instructions were given to promptly inform the Board of Directors' members of any HSE incidents in KMG Group companies, regardless of the reporting period.

In addition, the Committee considers a status report on the implementation of sustainability at KMG and its business units and the integration of sustainability principles into key business processes, as well as KMG's ESG risk rating and the status of implementation of the Low-Carbon Development Programme.

KMG Group's HSE Policy is based on top management's commitment to HSE issues and is aimed at involving each employee in the development of a safety culture.

NOMINATION AND SELECTION OF MANAGEMENT BODY

2-10

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

The procedure for nomination and selection of candidates to the Board of Directors is determined by the KMG's Charter and other regulatory documents, and implemented by the General Shareholders Meeting together with the Chairman of the Board of Directors and the Chairman of the Nomination and Remuneration Committee, and is governed by the transparent, fair and professional approach to recruitment and employment of candidates.

Members of the Board of Directors are elected from among the candidates nominated as representatives of shareholders and other parties. Candidates to the Board of Directors must have the knowledge, skills and experience necessary to perform their duties and to ensure growth of long-term value and sustainable development, and must also have impeccable business reputation.

*For reference

The Company monitors the existing sanctions to minimise negative effects and consequences, taking into account the potential expansion of sanctions, which may have a point impact on the Company's promising projects. In order to mitigate risks, the Company provides for mechanisms to withdraw from projects or independently implement them in the event of a tightening of the sanctions regime. A working group has been formed to analyse the impact of sanctions on KMG's operations and develop the necessary actions. Consolidated information on the impact of sanctions on KMG's operations is periodically provided to KMG's Board of Directors, the Fund, the Ministry of Energy of the Republic of Kazakhstan and KMG's interested business units.

The Chairman of the Board of Directors is elected by the General Shareholders Meeting.

Non-executive directors are selected in accordance with the Regulations on Forming the Composition of the Board of Directors/ the Supervisory Board of Samruk-Kazyna JSC Companies, approved by the Management Board of Samruk-Kazyna JSC dated 26 September 2016, Minutes No. 35/16.

Conflict of Interest

2-15

The main processes for managing the conflicts of interest in the company are described in the Policy on Managing the Conflict of Interest of Employees and Officers in KMG and its SDEs approved by the Board of Directors of KMG, as well as in the Code of Conduct.

It is the responsibility of every employee, regardless of position, and of every officer of the Company to comply with requirements of this Policy. The Company has now implemented an Initial Disclosure of Potential Conflict of Interest Procedure for employees and/or officers when hiring/appointing/ assigning and taking up a new position. This Disclosure includes the following information: 1) Information on beneficial ownership/shareholding and management in companies – Counterparties/ Competitors of KMG and its SDEs; 2) Information on participation in the sole and collegial bodies of Counterparties/Competitors of KMG and its SDEs, 3) Information on interaction with Counterparties of KMG and its SDEs; 4) Information on intention to acquire assets and/or securities owned by KMG and/or its SDEs, etc. It is arranged to check for conflicts of interest and compliance with requirements and procedures of KMG's compliance policies and/

or other documents, including presence of signs of affiliation of officers of Samruk-Kazyna JSC Group with persons considered as candidates for employment, appointments to managerial positions, as well as when concluding non-arm's length transactions. In addition, consent to anti-corruption restrictions under Anti-Corruption Act No. 410-V ZRK dated 18 November 2015 of the Republic of Kazakhstan is collected from the above persons.

Role of the Management Body in Setting Goals, Values, Mission and Strategy

2-12

KMG's Board of Directors is actively involved in strategic planning and implementation of KMG's Development Strategy.

To monitor KMG's strategic initiatives and take timely corrective actions, the Board of Directors regularly hears the report by the Chairman of KMG's Management Board on key business developments, information on occupational health and environmental protection, report on non-arm's length transactions concluded, decisions on which were made by the Management Board, review of strategy implementation status, key performance indicators and investment projects, report on implementation of KMG's Consolidated Development Plan, reports of the chairmen of the Board of Directors' Committees, report on the implementation of decisions of the Board of Directors, as well as reports on the activities of the services reporting to the Board of Directors.

The Board of Directors is responsible for determining the priority areas of KMG's activities and approving KMG's Development Strategy, as well as monitoring the implementation of KMG's Development Strategy.

A scheduled meeting was held on 26 July 2023 to review the Development Strategy and analysis of external factors and their impact on KMG's Development Strategy 2022–2031 approved by the Board of Directors on 3 November 2021 (Minutes No. 17/2021). The relevance of the current KMG Development Strategy was considered, including its compliance with the ongoing reform of Samruk-Kazyna JSC and external factors, as well as the current status of KMG's strategy in relation to major oil and gas assets.

The Board of Directors considered a number of strategic issues in 2023:

- Alternative routes of oil delivery to foreign markets
- KMG Group Consolidated Business Plan 2024–2028
- Approval of KMG's corporate key performance indicators and their target values
- Approval of the structure of KMG's Central Office
- Report on the Implementation of KMG's Development Strategy 2028 in 2022
- Issues of implementation of investment projects
- Approval of maps of motivational key performance indicators for managers and their target values
- Conclusion of contracts by KMG for the procurement of oil, procurement and sale of oil products
- Procedure for distribution of KMG's net income for 2022 and the amount of dividend per common share of KMG
- Issue of KMG bonds and determination of the terms and conditions of KMG bonds issue
- Approval of the KMG Sustainability Report 2022

- Early redemption (repurchase) of medium-term Global Notes due 2025 and determination of early redemption (repurchase) price
- Implementation of buy-back of 50% of shares of KMG Kashagan B.V. Coöperatieve KazMunaiGaz U.A. from Samruk-Kazyna JSC
- Approval of Roadmaps for the Divestment of KMG's Non-Strategic Assets
- Approval of KMG's Non-Strategic Assets List
- Cybersecurity issues
- Relevance of KMG's Development Strategy 2022–2031

The annual meeting of KMG's Board of Directors on Sustainable Development was held on 6 October 2023, during which the following topical issues were discussed:

- Sustainable development system and ESG risk rating of KMG
- Disclosures according to TCFD recommendations and new financial reporting standards for KMG
- Status of implementation of KMG's Low-Carbon Development Programme

The Board of Directors recognises the high priority given to environmental issues, the lives and health of the Company's employees and its contractors at all its production facilities, human resource development and commitment to the generally recognised global goals of sustainable development, therefore, it defines sustainable development and progressive reduction of carbon intensity of production as one of KMG's main strategic goals, which is in line with Samruk-Kazyna JSC's vision, the Republic of Kazakhstan Development Strategy and the agenda of the global investment community.

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

2-14

In accordance with the Company's Charter, approval of Sustainability Report falls within the competence of KMG's Board of Directors.

Health, Safety, Environment and Sustainability Committee of KMG's Board of Directors is the body that reviews and makes a recommendation to the KMG Board of Directors on the approval of the Sustainability Report.

In accordance with the new GRI standards, the disclosure of material topics in the Sustainability Report (GRI 3: Material Topics 2021) is determined in each reporting period and with the direct participation of the members of the Board of Directors.

To confirm the data presented in the Sustainability Report, an independent party verifies it, which, in turn, contributes to increasing the reliability of the information disclosed in the Report and the confidence of investors and, as a result, improving the investment attractiveness of KMG.

MANAGEMENT BODY'S COMPETENCE AND PERFORMANCE REVIEW

Collective Knowledge of the Management Body Members

2-17

The members of the Board of Directors strive to regularly enhance their skills and professionalism, including those related to economic, environmental and social management. The Nomination and Remuneration

Committee regularly reviews the current balance of skills and knowledge among the members of the Board of Directors.

Information on training of the members of the Board of Directors is regularly updated on the Company's website and is available at <https://www.kmg.kz/en/sustainable-development/corporate-governance/directors-board/>.

Meetings of the Board of Directors, including the separate annual meeting of the Board of Directors on sustainable development, as well as of the Health, Safety, Environment and Sustainability Committee of KMG's Board of Directors regularly discuss the most relevant topics within ESG (environmental, social, governance) scope, including information on international trends and in-country initiatives.

MANAGEMENT BODY'S PERFORMANCE REVIEW

2-18

In accordance with the Corporate Governance Code and on the basis of Methodological Recommendations for Evaluating the Activities of the Board of Directors and its Committees, the Chairman, Members of the Board of Directors and the Corporate Secretary of Samruk-Kazyna JSC, a Regulation on Evaluating the activities of the Board of Directors, Committees of the Board of Directors, Chairman, Members of the Board of Directors and the Corporate Secretary of KMG was developed (hereinafter – Position). The Regulation stipulates that the Board of Directors, Committees and members of the Board of Directors should be evaluated on an annual basis within the framework of a structured process approved by the Board of Directors. At the same time, at least once every three years, the assessment is carried out with the involvement of an independent professional organization.

In 2021, an independent corporate governance audit was carried out in 11 portfolio companies of Samruk-Kazyna JSC, including KMG, by the team of PricewaterhouseCoopers LLP (PwC) for the period from 1 January 2020 to 31 May 2021. This audit assessed performance in five areas: efficiency of the Board of Directors and executive body; risk management, internal control and audit; sustainable development; shareholders' rights; transparency. Based on the results of the independent audit, KMG approved the 2022–2023 Action Plan to Improve the Corporate Governance of KMG.

Therefore, no separate independent assessment of the Board of Directors was carried out in 2023.

However, a self-assessment of the members of the Board of Directors at the end of 2022 was carried out in 2023 through a questionnaire survey as required in the Corporate Governance Code. The self-assessment questionnaire was developed jointly by the Chairmen of the Nomination and Remuneration Committee and the Board of Directors. The questionnaire consisted of two sections – Composition & Processes and Behaviour & Actions – and 30 questions. Self-assessment results were pre-reviewed at a meeting of the Nomination and Remuneration Committee of the Board of Directors, during which it was recommended that the Chairman of the Board of Directors together with the Chairman of the Nomination and Remuneration Committee of the Board of Directors discuss the following aspects when discussing the performance self-assessment of the Board of Directors for 2022:

- Diversity in all aspects;
- Succession plan and the process for electing the members of the Board of Directors;
- KMG's Strategy;
- Professional development and training.

At the December 2023 meeting of KMG's Board of Directors, the issue of assessment of the KMG's Board of Directors performance at the end of 2023

was considered. The purpose of the annual self-assessment is to identify the trends based on questionnaires completed by members of the Board of Directors. KMG's Board of Directors decided to assess KMG's Board of Directors' performance in 2023 through a self-assessment in order to identify provisions requiring attention and to compare the results with the previous ones.

At the meeting of the Board of Directors of KMG dated March 7, 2024, the Report on the results of the self-assessment of the activities of the Board of Directors for the year 2023 was considered. By the decision of the Board of Directors dated April 10, 2024, an action plan was approved to improve the activities of the Board of Directors of JSC NC KazMunayGas.

REMUNERATION DETERMINATION POLICY AND PROCESS

2-19, 2-20

The remuneration level for members of KMG's Board of Directors is set based on the Decision of the General Shareholders Meeting in accordance with the contracts with members of KMG's Board of Directors.

The remuneration of the members of KMG's Board of Directors is fixed. However, the Chairman of the Board of Directors also has additional remuneration for chairing the Board of Directors in addition to the fixed remuneration.

According to the Corporate Governance Code, "the remuneration level of the Board of Directors' members should be sufficient to attract, retain and motivate each Board of Directors member to the level required for successful management of the company. Remuneration to a member of the Board of Directors of the company is determined in accordance with the procedure developed by Samruk-Kazyna JSC considering

the expected benefit for the Company from participation of this person in the Board of Directors". Also, according to the Corporate Governance Code, no person may participate in decisions relating to their own remuneration.

The procedure for determining the remuneration is determined by the General Shareholders Meeting. Resolution of the Management Board of Samruk-Kazyna JSC dated 26 September 2016 (Minutes No. 35/16), approved the Regulations on Forming the Composition of the Board of Directors/the Supervisory Board of Samruk-Kazyna JSC Companies, including, among other things, the procedure for determining the remuneration for members of the Board of Directors.

Pursuant to Section 3 of the Regulations, Remuneration and Reimbursement of Expenses, the remuneration depends on responsibilities of directors, scale of the Company's operations, and the long-term goals and objectives set out in the development strategy and business plan. Remuneration is paid to non-executive directors. Representatives of Samruk-Kazyna JSC in the Board of Directors of SamrukKazyna JSC Group companies are remunerated on the basis of the resolution of the Management Board of Samruk-Kazyna JSC. In order to form competitive remuneration to attract and retain professional directors, the maximum annual remuneration amounts are set by the resolution of the Fund's Management Board for certain sectors of the Fund's assets. The maximum annual remuneration amounts (limits) are set in comparison with the remuneration amounts accepted in similar companies.

In 2023, KMG did not engage consultants to determine the remuneration of members of the Board of Directors.

STAKEHOLDERS' INVOLVEMENT IN REMUNERATION

2-20

The procedure for determining the remuneration is determined by the General Shareholders Meeting of KMG – Samruk-Kazyna JSC. In accordance with the Corporate Governance Code, the Nomination and Remuneration Committee of the Board of Directors makes proposals on the level of remuneration of candidates for non-executive directors.

Meetings of the Nomination and Remuneration Committee of KMG's Board of Directors discuss issues related to remuneration of members of KMG's Board of Directors, as necessary.

During the reporting period, the Nomination and Remuneration Committee of the Board of Directors has reviewed the results of the performance self-assessment of KMG's Board of Directors at the end of 2022, which included assessment of the level of remuneration of KMG's Board of Directors' members.

For more detailed information on GRI 2-12, 2-20, 2-21 (risk management, remuneration of the Board of Directors), see KMG's 2023 Annual Report at KMG website: <https://www.kmg.kz/en/investors/reporting/>.

ECONOMIC PERFORMANCE



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

The Company is committed to ensuring sustainable economic activity. Achieving financial and operational performance, strategic and business planning of the Company consider the principles of sustainable development. KMG annually makes a significant contribution to increasing the social and economic potential of the country and to the development of the regions where it operates.

The preparation and approval of the consolidated and separate Development Plan and the Budget of KMG is regulated by the Rules for Preparation, Approval, Adjustment and Monitoring of KMG's Development Plan. The Consolidated Business Plan includes the plans of SDEs for a 5-year period and is regulated by the Rules for Development, Coordination, Approval and Monitoring of Business Plans and Budgets of KMG SDEs. KMG's Development Plan and Budget are prepared in the automated planning system in accordance with the requirements of KMG's approved corporate accounting policy and International Financial Reporting Standards (IFRS).

To analyse the achievement of strategic goals, KMG monitors the implementation of Business Plans on the basis of monthly, quarterly and annual management reports.

The Company's net profit was **KZT 924 billion** in the reporting period.

Furthermore, as one of the largest taxpayers in the geography of operation, KMG makes its contribution to the national budget in form of taxes and other payments. In 2023, the Company paid **KZT 1,162 billion** in taxes and other obligatory payments to the budget.

The Company also employs over **49 thousand people**, providing them with steady remunerations along with social assistance for them and their families. In 2023, the Company paid **KZT 79 billion** of social and pension contributions for its employees.

Participation in domestic manufacturer support programmes and increasing the local content in procurements remain the KMG's priorities. At the end of 2023, the total volume of goods, works and services procured by KMG Group was **KZT 2,186 billion**. The local content share in procurement was **77%**.

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

ECONOMIC VALUE GENERATED AND DISTRIBUTED

3-3, 201-1, 201-4, 415-1

Indicator	UOM	2021	2022 ¹¹	2023
Economic value distributed				
Total income*	KZT billion	7,628	9,827	9,243
Economic value distributed				
Total expenses**	KZT billion	6,341	8,521	8,318
Economic value undistributed				
Net profit for the year	KZT billion	1,287	1,307	924

* Total income means total revenues and other income in the Consolidated Income Statement.

** Total expenses means total expenses and costs, including income tax expense, in the Consolidated Income Statement.

Indicator	UOM	2021	2022	2023
Other taxes and payments (excluding CIT)	KZT billion	1,453	1,764	1,728
Other taxes and payments (including CIT)	KZT billion	1,565	1,908	1,876
Income tax paid	KZT billion	111	144	147
Payments to capital providers	KZT billion	309	701	558

The data is taken from the Consolidated Statement of Cash Flows (Direct Method) of KMG for 2023.

Indicator	UOM	2021	2022	2023
Capital investment (accrual basis)	KZT billion	472	535	804

*The increase in capital investments is related to the replacement of pipelines, drilling and development of wells at KMG subsidiaries, as well as the reconstruction and expansion of the Astrakhan-Mangyshlak water pipeline

KMG did not receive financial assistance in monetary terms from the state during the reporting period and does not make donations for state/political needs.

¹¹ KMG's indicators for 2022 have been restated to include 100% of Polymer Production LLP.

EMPLOYEE PENSION PLANS

201-3

In accordance with the national law, the pension savings of citizens are kept in the Unified Pension Savings Fund, as well as in voluntary accumulative pension funds. The Company, in its turn, in accordance with the Collective Bargaining Agreements of companies, fulfils additional obligations for social assistance to the retirees, according to which the employees retiring due to achievement of retirement age as well as after retirement, receive social assistance in the form of financial aid on the national and state holidays of the Republic of Kazakhstan, on anniversaries,

in the Indicator form of health resort treatment vouchers with partial cost compensation and other.

KMG companies are implementing a project to provide employees of pre-retirement age with the possibility of early retirement with compensation upon termination of employment by agreement of the parties; employees who have reached the retirement age can receive compensation upon termination of employment.

Indicator	UOM	2021	2022	2023
Social expenditures and compulsory pension contributions	KZT billion	54	66	79

KMG'S TAX ACCOUNTING POLICY

207-1, 207-4

In order to unify tax accounting in the companies of KMG Group, KMG has developed and implemented a Corporate Tax Accounting Policy (hereinafter, Corporate TAP).

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

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

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

- performing subsoil use operations as a part of the production sharing agreement that provides a special stable taxation regime;
- registered outside the RoK, as well as the KMG branches and its subsidiaries' branches registered outside the RoK.

The Corporate TAP's **goal** at achieving the tax accounting uniformity in order to form in the reporting the most complete, objective and accurate information taking into account the organisational and industry-specific peculiarities of KMG and its subsidiaries.

The Corporate TAP's **objective** is to reflect the specifics of tax accounting of KMG Group in cases when the tax legislation:

- contains the norms requiring or allowing to choose from several options or methods provided by the RoK Tax Code;
- establishes only common norms and does not ensure clearness and specifics in the ways of tax accounting, procedure for defining taxable items and the items related to taxation;
- requires to reflect certain conditions and provisions in the TAP.

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

- Principle of Obligatory Taxation – KMG and its subsidiaries are obliged to timely and correctly calculate, withhold and pay taxes in full to the budget of the Republic of Kazakhstan;

- Taxation Equity Principle – operations of KMG and its subsidiaries cannot be subjected to double taxation with the same type of tax and payment for the same taxation unit for the same period;
- Fairness Principle of KMG and its subsidiaries – it is prohibited to get benefit from illegal actions in order to ensure tax saving and tax payments reduction.

Based on the Corporate TAP, KMG and all KMG subsidiaries have developed and implemented separate Tax Accounting Policies, taking into account the industry specifics of the Company's operations.

In case of amendments and supplements to the tax legislation of the Republic of Kazakhstan, the relevant amendments are made to the Corporate TAP and separate TAPs of KMG and its subsidiaries.

KMG's tax planning approach takes into account the specifics of KMG's business activities and social impacts of this approach, which are fully consistent with KMG's 2022–2031 Development Strategy.

As part of tax planning, information on tax payments in favour of states (GRI 207-4) is posted annually on KMG's corporate website <https://www.kmg.kz/en/investors/reporting/>.

Tax Governance, Control, and Risk Management

207-2

The approach to risk management, including tax risks, is set by the Corporate Risk Management System (CSMS).

For more detailed information about the risk management process, see the ESG Risk Management section

Stakeholder Engagement and Management of Tax-Related Issues

207-3

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

KMG regularly analyses problematic issues of tax legislation application in KMG Group with further development of proposals to amend the legislative acts as well as initiates amendments into the RoK legislation in order to create favourable conditions for taxation of KMG Group, systemic improvement of tax legislation, customs legislation of the Customs Union and the RoK, the RoK transfer pricing legislation, and increase of operating efficiency and value of KMG as a whole.

The relations and interaction with the state authorities are formed under the RoK Tax Code standards via business correspondence in order to determine a correct tax policy, participation in the meetings, discussions organized by the state authorities and shareholders and industry associations.

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

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

KMG's Strategic Goals for 2022-2031	Link between the Taxation Approach and Strategic Goals
Sufficient resource base to support KMG's growth	Fiscal incentives from government agencies
Increasing efficiency of KMG's value chain	Negotiations with the state regarding further optimisation of the tax burden for mature fields to increase production at such fields
Business diversification and product portfolio expansion	Changes in the tax environment and possibility of obtaining/ extending tax exemptions and preferences
Sustainable development and progressive reduction of carbon intensity of operations	Settlement of taxation procedure by obtaining clarifications from the tax authorities and amending tax law where necessary

IMPLEMENTATION OF INVESTMENT PROJECTS

203-1, 203-2

The investment portfolio is represented by a number of projects both in the Company's traditional areas (subsoil use, services, oil transportation and refining) and in new areas: oil

and gas chemical and low-carbon development projects, including green energy construction projects.

THE TOTAL VALUE OF THE INVESTMENT PORTFOLIO FOR 2023 IS KZT 50,461 BILLION, INCLUDING KMG'S SHARE OF KZT 18,636 BILLION.

Areas of activities	Diversification of 2023 investment portfolio, in KZT billion	Diversification of 2023 investment portfolio to KMG share, in KZT billion	Diversification of 2023 investment portfolio to KMG share, in %
Oil and gas exploration and production	41,857	12,713	68.2%
Oil transportation	419	155	0.8%
Oil refining and oil products marketing	797	732	3.9%
Oil and gas chemistry	6,131	4,329	23.2%
ESG projects	965	420	2.3%
Service projects	178	178	1.0%
Other	114	109	0.6%
Total	50,461	18,636	100%

OIL AND GAS EXPLORATION AND PRODUCTION

Oil and gas exploration and production projects, both onshore and offshore, account for a significant part of the investment portfolio.

In 2022, in order to improve the investment attractiveness of the oil and gas industry in Kazakhstan, the Government, with the participation of foreign investors and KMG, developed the Enhanced Model Contract (EMC) mechanism, which provides a number of regulatory and fiscal preferences for complex projects that require additional incentives (new complex onshore projects, offshore projects and gas projects). In December 2022, the relevant Package of Amendments to the Subsoil

and Subsoil Use Code and the Tax Code was signed by the Head of the Republic of Kazakhstan. These amendments affect a number of KMG's projects and will enable it to intensify work both on the Caspian Sea shelf and on a number of complex and onshore gas projects.

In 2023, thanks to UMK, work on the complex and capital-intensive Kalamkas Sea – Khazar, Karaton Subsalt and Urikhtau projects was enhanced, and relevant contracts were signed. In 2024, active exploration is planned for the Abai and Al-Farabi offshore projects.

In 2022, Exploration Licences (EL) were obtained for 5 areas (Mugodzhary, Berezovsky, Zharkyn, Bolashak and North Ozen). In 2023, an early seismic survey was carried out as part

of the exploration programme ahead of schedule. Field seismic surveys were completed at 3 areas in Mangistau and West Kazakhstan Regions. Field work is being performed at Mugodzhary area (Aktobe Region). The re-processing and re-interpretation of historical profiles for Bolashak area, processing and interpretation of seismic data for North Ozen, Zharkyn and Berezovsky areas are at the completion stage. In 2024–2025, it is planned to complete seismic surveys earlier with subsequent data processing and interpretation in order to reduce geological risks and obtain input data for geological and feasibility assessment.

As part of the Turgai Palaeozoic Project, preparatory work for drilling an exploration well was carried out in 2022–2023. In 2024, drilling of an exploration well to a depth of 5,500 m is planned. Also in 2023, contracts were obtained for Karaton Subsalt and Kalamkas Sea – Khazar subsoil areas, operating companies were established and strategic partners were engaged for each of the projects. At Karaton Subsalt area, the first exploration well is planned to be drilled in 2024 at the expense of the strategic partner, with testing to be completed in 2025. Design work is planned for Kalamkas Sea-Khazar area in 2024.

Pilot operations have been completed under the Eastern Urikhtau and Rozhkovskoye field development projects. The East Urikhtau project started production at the end of November 2023. Under the Rozhkovskoye field development project, well U-21 was brought into production on 22 December 2023.

Drilling of an exploration well at Zhenis prospect in the Kazakhstan sector of the Caspian Sea was completed in 2023. No oil and gas deposits were found as a result of the drilling, therefore a decision was made to stop further exploration at Zhenis area. The risk of non-discovery of oil

and gas deposits was realised at the expense of a strategic partner in the project.

Work continues to increase reserves through additional exploration of existing onshore fields. In particular, additional exploration is being carried out at West Karasor field of Embamunaigas JSC. Drilling of 2 appraisal wells and completion of design and survey works for development are planned for 2024.

TENGIZ, KASHAGAN AND KARACHAGANAK MEGAPROJECTS

KMG participates in projects at major fields: Tengiz (20%), Kashagan (16.87%) and Karachaganak (10%), together with the strategic investors.

The Wellhead Pressure Management / Future Growth Project is being implemented at Tengiz. The project will increase oil production by 12 million tonnes per year. At the end of 2023, the overall progress of work on the project was 99.3%. Mechanical operations are completed. The Integrated Operations Control Centre was put into operation. The systems have been prepared for operation and commissioning.

On Karachaganak field, the projects are being actively implemented to maintain the production plateau. In 2023, a concept was developed for the construction of a gas processing plant with a capacity of 4 billion m³ of commercial gas per year. Implementation of the project will allow commercialisation of produced raw gas from Karachaganak field and its refined products. In 2024, the 5th Injection Compressor (5IC) Installation Project is scheduled for completion. The 6th Re-Injection Compressor Installation Project is under active construction (43% of the total work progress).



Oil production at Kashagan field is carried out as past of Phase 1 of the field development. As part of Phase 2 of the field development, projects are currently being considered to increase oil and condensate production levels over the next 10 years to ~710,000 barrels/day (~89.5 thousand tonnes/day).

OIL TRANSPORTATION

In December 2022, the CPC Oil Pipeline System Bottleneck Elimination Project to increase the capacity of the CPC pipeline to 80 million tonnes per annum ensured readiness to increase oil pumping volumes to 81.5 million tonnes per annum. In 2023, work was completed and the Tengiz and Atyrau OPSs were commissioned.

In 2023, the joint project of KMTF and International Maritime Investments Ltd – Acquisition of 2 oil tankers with deadweight of 8,000 tonnes – was completed. The vessels were built at the Damen shipyard in the Netherlands. The tankers are 140 metres long, 16.7 metres wide, with a draft of 4.2 metres and a speed of 10 knots. They are equipped with advanced control systems, high technical characteristics and modern equipment, which ensures their reliability and efficiency. The tankers meet all international safety

standards and environmental requirements. Since 2024, the tankers Taraz and Liwa have been involved in oil transportation on the Aktau-Baku route. These tankers will fully cover Kazakhstan's obligations to transport 750,000 tonnes of oil per year via the Aktau-Baku route.

OIL REFINING AND OIL PRODUCTS MARKETING

One of the main tasks for KMG in the coming years is to resolve the issue of supplying the domestic market of Kazakhstan with domestic oil products due to the projected growth in consumption.

The Company has started implementing a set of actions to improve the reliability of equipment at Atyrau Refinery and Pavlodar Oil Chemistry Refinery, allowing the Company to switch to a three-year overhaul period. The Company also plans to increase production of light oil products by refining Tengiz crude oil as part of the Atyrau Refinery's operational efficiency improvement programme.

To address the problematic issues related to the shortage of bitumen in the domestic market, KMG has started implementing a project to increase the capacity of CASPI BITUM JV LLP for oil refining to 1.5 million tonnes per year with the production of road bitumen up to 750

thousand tonnes per year. The implementation of this project will make it possible to continuously supply bitumen to the country's road sector from 2025.

The expansion of PetroKazakhstan Oil Products's capacity continues to be explored. The Pre-Feasibility Study for the project is scheduled to be completed in 2024.

In the direction of oil marketing development, projects implemented by KMG-Aero were included in KMG's investment portfolio in 2023. The projects envisage investments in the construction and/or update of fuel refuelling complexes at key airports of the country for the storage of Jet A-1, RT/TS-1 fuel and will allow to provide in-wing fuel storage and refuelling services to domestic and foreign airlines without intermediaries.

OIL AND GAS CHEMISTRY

In order to diversify its business and expand its product portfolio, KMG has started active work on the creation of an oil and gas chemical cluster in the country, which is a transition to a new stage in the development of the national company. Since December 2022, polypropylene production has been launched at the plant of KPI Inc. with a capacity of up to 500 thousand tonnes of products annually.

In 2023, the plant produced 180 thousand tonnes of polypropylene. Sales markets for finished products are Kazakhstan, China, European and CIS countries. To date, production of 6 product grades has been mastered.

To further expand the petrochemical industry, KMG is currently implementing a project with strategic partners such as SIBUR and Sinopec to build a 1,250,000 tonnes per annum polyethylene plant. Design work is currently underway.

Moreover, to provide the necessary resources and infrastructure for the polyethylene production plant, KMG is simultaneously working on the implementation of projects for the construction of a gas separation complex and trunk pipelines (ethane, propane).

The company has decided to study the possibility of constructing a polyethylene terephthalate production plant. PetroChem LLP together with Sinopec started to develop a pre-feasibility study for the project.

PROJECTS AIMED AT THE DEVELOPMENT OF REGIONS OF OPERATION AND GREEN ELECTRICITY

Addressing water supply issues in the regions of operations: Reconstruction of the Astrakhan-Mangyshlak Water Main, Construction of a 50,000 m³/day Seawater Desalination Plant in Kenderli.

On 13 December 2023, a ceremony was held in Atyrau Region to launch the Astrakhan – Mangyshlak Water Main after reconstruction and expansion. Alikhan Smailov, the Prime Minister of the Republic of Kazakhstan, launched the work of the facility via teleconference. The project allowed to increase the throughput capacity of the water main from 110 to 170 thousand cubic metres per second.

The Astrakhan-Mangyshlak Water Main is a strategically important facility and is the only centralised source of water supply for consumers in Kurmangazy, Isatay and Zhylyoi Districts of Atyrau Region, as well as for Zhanaozen, Beineu, Mangistau, Karakiya and Tulparagan Districts of Mangistau Region. The population consuming water from it is about one third of the population of Mangistau and Atyrau Regions.



Infrastructure and desalination plant construction contracts have been awarded for the project "Construction of a 50,000 m³/day Seawater Desalination Plant in Kenderli". Design documentation for the construction of infrastructure has been developed. At present, survey works and development of design documentation for the plant are underway. The plant design documentation is expected to be finalised in 2024.

Ensuring uninterrupted gas processing, including to cover the gas demand of the region's population, a project to build a new gas processing plant in Zhanaozen is being implemented.

The EPC contract for the construction of the new gas processing plant in Zhanaozen was signed in November 2023. In February 2024, the EPC-contract entered into legal force. In 2024, it is planned to develop the Detail Design for the plant.

Addressing low-carbon footprint reduction through green electricity generation:

The project "Construction of a 120 MW RES hybrid power plant with Eni S.p.A." was initiated in spring 2023 together with strategic partner

Eni S.p.A. to ensure stable electricity supply for Ozenmunaigas and KazGPZ, as well as to reduce the carbon footprint of the Republic of Kazakhstan. The project involves electricity generation from renewable RES (wind and solar) and a gas-fired power plant. At the moment, the calculation of the wind and solar potential, the project location, and the feasibility assessment of the project have been finalised. In 2024, the construction of the project facilities is expected to start with full operation in 2025.

The project "Construction of a 1GW Onshore Wind Plant Combined with a 300MW/600MWh Energy Storage System in Kazakhstan. The Mirny Project" implemented by KMG together with Samruk-Kazyna and Total Eren, was initiated in the summer 2023. The facility will be constructed in Mirny Village, Moyinkum District, Zhambyl Region. The Mirny project is aimed at large-scale power generation in the southern region of the Republic of Kazakhstan, reducing CO₂ emissions and generating offset units as part of KMG's Low-Carbon Development Programme. At present, feasibility studies are being conducted, including a study of the wind potential in the region to determine the territory for construction of the wind plant.

PROCUREMENT PRACTICES

2-6, 3-3, 204-1

Ensuring effective procurement with commitment to meet the sustainable development principles is an integral part of KMG's activities, which contributes to achievement of strategic and operational objectives. KMG Group's procurement philosophy is compliance with legal and internal requirements, transparency of procurements, development of fair competition and provision of equal opportunities for contractors. At the same time, KMG has undertaken a number of procurement initiatives in support of domestic producers under the Programme to Support Upgrade of Existing and Creation of New Production Facilities.

COMMITMENT TO SUSTAINABLE PROCUREMENT

KMG's sustainable development principles are reflected in its cooperation with contractors based on legality and transparency, compliance with contract conditions, incorruptibility and intolerance of any instances of corruption, and in selection of contractors based on a combination of the following factors: best price, quality and conditions, and contractor's goodwill.

At that, KMG requires the contractors to makes reciprocal commitments to comply with applicable laws, treat employees fairly, not use child labour, ensure safe working conditions,

protect the environment and adhere to other principles of ethical conduct.

These conditions are included in the conditions of contracts concluded by KMG with its contractors in order to respect labour rights and create favourable working conditions for citizens of the Republic of Kazakhstan, protect children's rights and ensure environmental safety. According to KMG, these actions will help reduce the number of cases of misconduct by companies cooperating with KMG.

TOTAL PROCUREMENT VOLUME

The total volume of the annual procurement plan for 2023 amounted to KZT 1,231 billion excluding VAT (the amount is indicated excluding purchases using the Special Procedure).

One important aspect of KMG's procurement activities is reducing single-source procurement and increasing the share of competitive procurement. Competitive procurement is conducted through open tender, request for quotations, e-store and commodity exchanges. At the end of 2023, the amount of competitive procurement of the annual procurement plan for KMG Group was KZT 622 billion.

AMOUNT OF COMPETITIVE PROCUREMENT UNDER CONCLUDED CONTRACTS, IN KZT BILLION, EXCLUDING VAT¹²

Year	Goods		Works and services		Total	
	Amount	Share, %	Amount	Share, %	Amount	Share, %
2021	162	15	285	27	447	42
2022	237	23	275	26	512	49
2023	302	25	320	26	622	51

¹² Competitive procurement includes procurement by open tender, request for quotations, e-shop and competitive negotiation.

TOTAL AMOUNT OF GOODS, WORKS AND SERVICES AND LOCAL CONTENT SHARE

Year	Goods		Works and services		Total	
	Total amount (KZT bln)	Local content, %	Total amount (KZT bln)	Local content, %	Total amount (KZT bln)	Local content, %
2021	273	57	943	85	1,216	78
2022	410	58	1,290	90	1,700	82
2023	606	50	1,580	88	2,186	77

For reference: The total volume of goods, works and services supplied, including long-term procurement contracts, is calculated without taking into account purchases made using a special procedure

At the same time, over the last year, the share of competitive purchases was 51%, which demonstrates KMG’s commitment to fair competition and sustainable development goals. Non-competitive single-source procurement is made in exceptional cases when it is not possible to procure them by a competitive method.

The decrease in the share of domestic value by 8% for goods in 2023 compared to 2022 is due to the purchase of imported diesel fuel worth KZT 64 billion to meet the needs of the domestic market. In terms of works and services, a 2% decrease occurred due to the completion of work on the construction of the 2nd line of the Astrakhan-Mangyshlak water pipeline in the amount of KZT 99 billion with a low share of domestic value for pipe products. The low share of domestic value for pipe products is due to the lack of production capacity for the entire volume of the project from the sole manufacturer ArcelorMittal Tubular Products Aktau.

PRE-QUALIFICATION OF POTENTIAL SUPPLIERS

Improvement of procurement based on the requirements and standards of Kazakhstan and international practices is one of the priorities

for KMG. An effective tool for solving this task is the implementation of the mechanism of pre-qualification of potential suppliers.

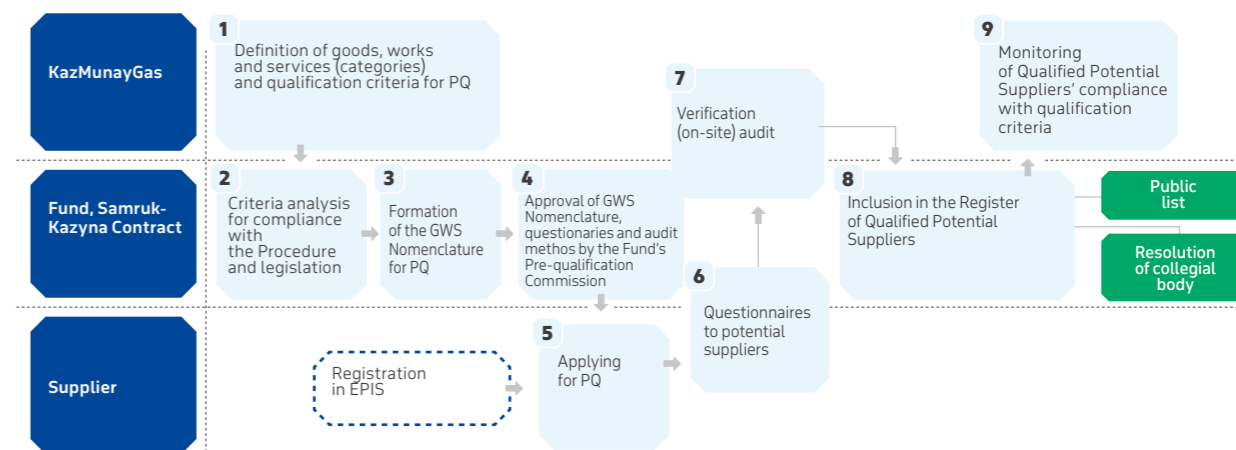
Pre-qualification (PQ)¹³ is the assessment of potential suppliers for compliance with qualification requirements defined in accordance with the Procurement Procedure, carried out through questionnaires and audits.

The main objectives of PQ are to identify qualified and duly selected suppliers, and to improve the efficiency of procurement of goods, works and services for the needs of the Fund’s portfolio companies.

For the period 2020–2023, the Fund’s Pre-qualification Commission approved 24 categories of goods, works and services to be procured by KMG SDEs by means of an open tender among potential suppliers who passed PQ procedure.

In addition, in 2023, KMG developed qualification criteria for 16 categories of goods and services for the Pre-qualification and submitted them the Qualification Body. At the moment, these categories are in the process of coordination and approval by the Fund’s Pre-qualification Commission.

PRE-QUALIFICATION PROCEDURE



CATEGORY PROCUREMENT

Category procurement management is the process of developing an integrated approach to reducing the costs associated with procurement and use of goods, works and services included in priority categories.

Categorisation is done by grouping the goods, works and services into procurement categories based on common characteristics of the procured item and/or a single market of potential suppliers. Categories may include one or more items of goods, works and services. Categories with high level of costs, criticality, savings potential and manageability are identified as priorities.

Category management increases the potential for savings through more detailed analysis by developing and approving a category procurement strategy. This strategy is a document that defines the optimal approach to goods, works and services procurement based on maximum benefit in the long or short term.

Category management can significantly reduce the cost of acquiring and using goods, works and services by applying strategic planning, detailed analysis of procured goods and services and calculations of total cost of ownership, as well as by means of cross-functional cooperation with various business units. This procurement method is effective in that it ensures both quality and transparent pricing by working with reliable producers and suppliers.

VOLUME AND BENEFITS OF CATEGORY PROCUREMENT, IN KZT MILLION

Indicator	2021	2022	2023
Volume of category procurement	109,447.54	93,618.92	115,545.2
Benefits of category procurement management	13,109.53	8,435.32	7,534.6

¹³ Potential suppliers who have passed PQ procedure are included in the Register of Qualified Potential Suppliers by the Decision of the Commission of the Qualification Body and is posted on the public domain on the procurement portal of Samruk-Kazyna JSC.

IMPORT SUBSTITUTION

As a Company representing the state's interests in the oil and gas industry, KMG is actively working to promote import substitution in procurement in accordance with the requirements of the Procurement of Certain Entities of the Quasi-State Sector Act of the Republic of Kazakhstan (Procedure for Execution and Performance of Off-take Agreements (Programme for Assistance to the Creation of New Production Facilities) (hereinafter, the Programme).

The key objective of the programme is supporting the private entrepreneurs initiating new production facilities and technological upgrading in order to manufacture the products demanded by Samruk-Kazyna JSC Group companies.

The off-take agreement mechanism provides for implementation of import-substitution projects with a condition of future purchase and supply of commodities to be produced in the Republic of Kazakhstan as a result of such implementation.

AS OF 31 DECEMBER 2023, KMG SDES ENTERED INTO 64 OFF-TAKE AGREEMENTS FOR A TOTAL AMOUNT OF KZT 1.68 BILLION IN 2023.

Year	Number	Amount, in KZT million
2021	49	388
2022	56	791
2023	64	1,687

Additionally, in 2023, in accordance with paragraph 6 of the National Action Plan for the implementation of the Address of the Head of State to the People of Kazakhstan dated September 1, 2023 "The Economic Course of a Fair Kazakhstan", approved by Decree of the President

of the Republic of Kazakhstan dated September 16, 2023 No. 353, new KPIs 2024 for KMG Group companies were developed and approved to achieve a 10% share of off-take contracts in the procurement of goods.

COMPLIANCE WITH LAW

206-1, 2-27

ANTI-COMPETITIVE BEHAVIOUR

During the reporting period, 8 administrative cases were initiated against KMG Group companies for violations of antimonopoly laws (7 against SDEs and 1 against KMG)

Of these: 2 administrative case was resolved in favour of SDEs and KMG, 4 administrative

cases were resolved not in favour of SDEs, and 2 administrative cases are pending.

The courts also considered 2 civil cases related to antimonopoly laws (1 court decision in favour of SDEs, 1 court decision not in favour of SDEs).

There are no civil cases relating to anti-competitive behaviour, anti-trust or monopoly laws violations.

ENVIRONMENTAL PAYMENTS AND COSTS

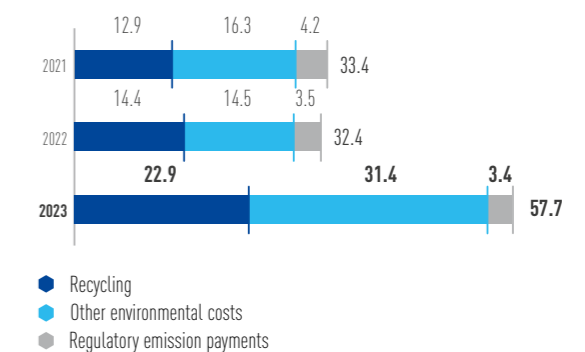
In order to effectively manage environmental risks, the Company is constantly improving approaches to environmental management and allocating the necessary resources for environmental protection.

Environmental costs include taxes on permitted emissions, cost of environmental activities, insurance, compensatory environmental activities, investments to prevent environmental impact, etc. Investments in waste recycling tripled since 2015 and make up over a third of all environmental costs.

Environmental costs in 2023 amounted to KZT 57,7 billion. Most of the costs were spent on recovery (preparation for reuse, recycling, disposal) of historical waste from sludge reservoirs, remediation of oil-contaminated lands (historical pollution), introduction of cleaner technologies and upgrade of treatment

facilities to reduce pollutant emissions; development and implementation of an industrial environmental control programme, repair of property, plant and equipment of treatment facilities, technical, organisational activities to reduce pollutant emissions, such as: replacement/installation of filters, burners, use of catalysts, etc.

DYNAMICS OF ENVIRONMENTAL PAYMENTS AND COSTS AT KMG GROUP (KZT bln)

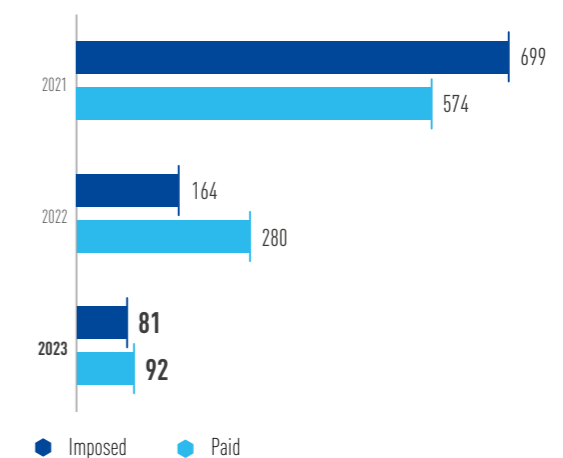


ENVIRONMENTAL LAW COMPLIANCE

The Company is working to identify non-compliances with the environmental law of the Republic of Kazakhstan at its production facilities, identify problems and managing risks in order to take actions for preventing any non-compliances with legislative requirements.

This chart shows the amounts of penalties imposed and paid.

ENVIRONMENTAL PENALTIES (KZT mln)



In 2023, Kazakhoil Aktobe LLP challenged in court the KZT 5.9 billion penalty imposed in 2021.



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INDEPENDENT VERIFICATION REPORT

2-5



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Independent practitioner's assurance report

To the Shareholders and Management of National Company "KazMunayGas" JSC

Scope

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, (hereinafter "Engagement"), to report on the Company's information in the field of sustainability (hereinafter "Sustainability Information" or the "Subject Matter") contained in the Company's Sustainability report (hereinafter "the Report") for the period from January 1 to December 31, 2023 (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 disclosed in the Report;
- Quantitative and qualitative data for contractors for the following indicators: Lost Time Injury Rate (LTIR), Fatal Accident Rate (FAR), and Road Accident Per Million Kilometer Rate (MVCR); and
- Information about Report compliance with the Sustainable Development Goals and with the principles of the UN Global Compact.

Criteria applied by the Company

In preparing Subject Matter the Company applied the

- Global Reporting Initiative Sustainability Reporting Standards 2021 (hereinafter "the GRI Standards"),

as set forth in section "About the Report" (hereinafter "the Criteria").

Company's responsibilities

The Company's management is responsible for selecting the Criteria, and for presenting the Subject Matter in accordance with that 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 subject matter, such that it is free from material misstatement, whether due to fraud or error.

EY's responsibilities

Our responsibility is to express a conclusion on the presentation of the Subject Matter based on the evidence we have obtained.

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We conducted our limited assurance Engagement in accordance with the *International Standard for Assurance Engagements Other Than Audits or Reviews of Historical Financial Information* ('ISAE 3000 (Revised)') and the terms of reference for this Engagement as agreed with the Company on May 14, 2021. ISAE 3000 requires that we plan and perform our Engagement to obtain limited assurance about whether we are aware of any material modifications that need to be made to the Subject Matter in order for it to be 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 management

We have maintained our independence and confirm that we have met the requirements of the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants, and have the required competencies and experience to conduct this assurance Engagement.

EY also applies International Standard on Quality Management 1, *Quality Management for Firms that Perform Audits or Reviews of Financial Statements, or Other Assurance or Related Services engagements*, which requires that we design, implement and operate a system of quality management including policies or procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Description of procedures performed

Procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed. Our procedures were designed to obtain a limited level of assurance on which to base our conclusion and do not provide all the evidence that would be required to provide a reasonable level of assurance.

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 IT systems.

A limited assurance engagement consists of making enquiries, primarily of persons responsible for preparing the Subject Matter and related information, and applying analytical and other appropriate procedures.

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APPENDIX 1. SCOPE OF REPORTING, CHANGES, NOTES

2-2, 2-4, 3-2

The Report covers KMG's subsidiaries and dependent entities with fifty or more percent of voting shares 2021 (participation interests) directly or indirectly owned or held in trust by KMG, as well as the legal entities which activities KMG is entitled to control.


As at 31 December 2023, the following significant direct subsidiaries were included in the consolidated financial statements: KazMunayGas Exploration Production JSC, KazMunayTeniz MNC LLP, KMG Karachaganak LLP, Kazakhturkmunay LLP, KMG Kashagan B.V., Dunga Operating GmbH, KazTransOil JSC, NMSK KazMorTransFlot LLP, Cooperative KazMunayGas PKI U.A., Atyrau Refinery LLP, Pavlodar Oil Chemistry Refinery LLP, KMG International N.V., KMG Drilling&Services LLP

Corporate Governance section covers subsidiaries and dependent organizations of KMG, in which fifty percent or more of voting shares, directly or indirectly, belong to KMG, including reporting boundaries for the following indicators: "The number of requests received through a single centralized hotline Nysana and a single centralized hotline, administered by an independent operator, KPMG company" indicator covers: all subsidiaries and dependent organizations of KMG regardless of ownership share.

Number of Appeals Received through the Unified Information System for All Appeals of Citizens "E-Othinish" indicator covers: KMG EP-Catering LLP, KMG Systems & Services LLP,

Munaitelcom LLP, KazMunayTeniz MNC LLP, Oil Services Company LLP, CASPI BITUM JV LLP, KMG Karachaganak LLP, Zhenis Operating LLP, Ozenmunaiservice LLP, KazTransOil JSC, Atyrau Refinery LLP, Kazakhstan Petrochemical Industries Inc LLP, Oil Construction Company LLP, Kazakh Gas Processing Plant LLP, Ken-Kurylyservice LLP, Embamunaigas JSC, Mangystauenergomunai LLP, Kazakhoil Aktobe LLP, Ozenmunaigas JSC, Kazakhturkmunay LLP, PetroKazakhstan Oil Products LLP, Urikhtau Operating LLP, NMSK KazMorTransFlot LLP, Ural Oil & Gas LLP, Oil Transport Corporation LLP, Water Production and Transportation Department LLP, Mangistaumunaigas JSC, Kazgermunai JV LLP, Karazhanbasmunay JSC, KMG-Aero LLP, Pavlodar Oil Chemistry Refinery LLP.

Number of Confirmed Cases of Corruption indicator covers: KMG Drilling & Services LLP, Mangystauenergomunai LLP, Atyrau Refinery LLP, Munaitelcom LLP, Ken-Kurylyservice LLP, KazTransOil JSC, Oil Services Company LLP, Oil Construction Company LLP, Ak Su KMG LLP, Karazhanbasmunay JSC, KMG-Aero LLP, Isatay Operating Company LLP, KMG Karachaganak LLP, KMG Kashagan B.V., KMG-Security LLP, KMG Barlau LLP, KMG PetroChem LLP, Karabatan Utilities Solution LLP, Kazakhstan Petrochemical Industries Inc LLP, Ozenmunaigas JSC, Embamunaigas JSC, Pavlodar Oil Chemistry Refinery LLP, KMG Systems & Services LLP, Kazakhoil Aktobe LLP, Kazakhturkmunay LLP, Kazgermunai JV LLP, Urikhtau Operating LLP, KMG Engineering LLP, Zhenis Operating LLP,



EY
Building a better working world

Our procedures included the following:

- We verified the list of material topics required to be disclosed in the Subject Matter;
- We interviewed representatives of the Company's divisions involved in the preparation of the Subject Matter;
- We conducted analytical procedures of the quantitative information related to the Subject Matter;
- We examined sustainability-related internal corporate documents of the Company;
- On a sample basis we compared the items included in the Subject Matter with source information;
- We evaluated the presentation of the Subject Matter in the layout of the Report.

We also performed such other procedures as we considered necessary in the circumstances.

Conclusion

Based on our procedures and the evidence obtained, we are not aware of any material modifications that should be made to the Subject Matter for the period from January 1 to December 31, 2023, in order for it to be in accordance with the Criteria.

Ernst & Young Advisory LLP

April 30, 2024
Almaty, Kazakhstan

A member firm of Ernst & Young Global Limited

KMG EP-Catering LLP, KMG-Kumkol LLP, NMSK KazMorTransFlot LLP, Ural Oil & Gas LLP, Kazakh Gas Processing Plant LLP, Ozenmunaiservice LLP, Professional GeoSolutions Kazakhstan LLP, Oil Transport Corporation LLP, Water Production and Transportation Department LLP, CASPI BITUM JV LLP, Mangistaumunaigas JSC.

Use of Energy Resources and Improvement of Energy Efficiency section covers:* Kazakh Gas Processing Plant LLP, Kazgermunai JV LLP, NMSK KazMorTransFlot LLP, KazTransOil JSC, Atyrau Refinery LLP, Pavlodar Oil Chemistry Refinery LLP, Kazakhoil Aktobe LLP, Kazakhturkmunay LLP, Urikhtau Operating LLP, Embamunaigas JSC, Ozenmunaigas JSC, PetroKazakhstan Oil Products LLP, Mangistaumunaigas JSC, Karazhanbasmunay JSC, CASPI BITUM JV LLP.

** NMSK KazMorTransFlot LLP, Urikhtau Operating LLP are within the boundaries for energy resource utilization but are not within the boundaries for energy resource conservation.*

Water Conservation and Sustainable Use section covers: Karazhanbasmunay JSC, Mangistaumunaigas JSC, Kazgermunai JV LLP, Kazakhturkmunay LLP, Ozenmunaigas JSC, Embamunaigas JSC, Kazakhoil Aktobe LLP, KazGPP LLP, CASPI BITUM JV LLP, Pavlodar Oil Chemistry Refinery LLP, PetroKazakhstan Oil Products LLP, Atyrau Refinery LLP, KazTransOil JSC, NMSK KazMorTransFlot LLP, Magistralny Vodovodovod LLP, KPI LLP – these subsidiaries and dependent entities are KMG's principal operating assets and have a significant impact on the utilisation of water resources in Kazakhstan.

Share of Reused Water in Water Withdrawal Volume (for downstream operations) indicator covers: Atyrau Refinery LLP, PetroKazakhstan Oil Products LLP, Pavlodar Oil Chemistry Refinery LLP, CASPI BITUM JV LLP, Kazakh Gas Processing Plant LLP, Kazakhstan Petrochemical Industries Inc LLP.

Air Protection section covers the following subsidiaries and dependent entities of KMG: Karazhanbasmunay JSC, Mangistaumunaigas JSC, Kazgermunai JV LLP, Kazakhturkmunay LLP, Ozenmunaigas JSC, Embamunaigas JSC, Kazakhoil Aktobe LLP, KazGPP LLP, CASPI BITUM JV LLP, Pavlodar Oil Chemistry Refinery LLP, PetroKazakhstan Oil Products LLP, Atyrau Refinery LLP, KazTransOil JSC, NMSK KazMorTransFlot LLP, Urikhtau Operating LLP, Oil Construction Company LLP, Oil Services Company LLP, Ozenmunayservice LLP, KPI LLP.

The boundaries of the section "Greenhouse gas emissions": Atyrau Oil Refinery LLP, PetroKazakhstan Oil Products LLP, Pavlodar Petrochemical Plant LLP, CASPI BITUM JV LLP, Kazakhturkmunay LLP, Kazakhoil Aktobe LLP, Mangistaumunaigas JSC, Ozenmunaigas JSC, Embamunaigas JSC, Kazgermunai JV LLP, Karazhanbasmunay JSC, Kazakh Gas Processing Plant LLP, KazTransOil JSC, Vega Refinery, Rompetrol Petrochemicals SRL, Batumi Oil Terminal LLC.

Beneficial Use of Raw Gas section covers the following subsidiaries and dependent entities of KMG: Kazakhoil Aktobe LLP, Kazakhturkmunay LLP, Mangistaumunaigas JSC,

Embamunaigas JSC, Ozenmunaigas JSC, Kazgermunai JV LLP, Karazhanbasmunay JSC.

Waste Management section covers: Ozenmunaigas JSC, Embamunaigas JSC, Karazhanbasmunay JSC, Kazgermunai JV LLP, Kazakh Gas Processing Plant LLP, Ural Oil & Gas LLP, Kazakhturkmunay LLP, Kazakhoil Aktobe LLP, Mangistaumunaigas JSC, Urikhtau Operating LLP, KazTransOil JSC, Magistralny Vodovod LLP NCMC Kazmortransflot LLP, Atyrau Refinery LLP, Pavlodar Oil Chemistry Refinery LLP, PetroKazakhstan Oil Products LLP, CASPI BITUM JV LLP, KPI Inc. LLP, Oil Services Company LLP, Ozenmunayservice LLP, Oil Construction Company LLP, Ken-Kurylyservice LLP, KMG EP-Catering LLP, UDTV LLP, Mangistaumunaigas JSC, Ak Su KMG LLP, Ural Oil & Gas LLP, Karazhanbasmunay JSC, CASPI BITUM JV LLP, KMG Representative office in Aktau.

Environmental Costs section covers: Kazakhoil Aktobe LLP, Ozenmunaigas JSC, Embamunaigas JSC, Kazakhturkmunay LLP, Karazhanbasmunay JSC, JV Kazgermunai LLP, Ural Oil & Gas LLP, Mangistaumunaigas JSC, KazTransOil JSC, NMSK Kazmortransflot LLP, KMG Systems & Services LLP, Pavlodar Oil Chemistry Refinery LLP, Atyrau Refinery LLP, CASPI BITUM JV LLP, Petrokazakhstan Oil Products LLP, Ken-Kurylys-Service LLP, KMG EP-Catering, Kazakh Gas Processing Plant LLP, Al-Farabi Operating LLP, Ozenmunayservice LLP, Oil Services Company LLP, Mangistaumunaigas JSC, Oil Transport Corporation LLP, Oil Construction Company LLP, Urikhtau Operating LLP, Kazakhstan Petrochemical Industries Inc LLP, Munaitelcom LLP, Water Production and Transportation Department LLP.

Industrial Safety and Health section covers: JSC NC "KazMunayGas", Ozenmunayservice LLP, Ken-Kurylyservice LLP, Kazakh Gas Processing Plant LLP, Water Production and Transportation Department LLP, Kazgermunai JV LLP, KMG EP-Catering LLP, NMSK KazMorTransFlot LLP, KazTransOil JSC, Atyrau Refinery LLP,

KMG-Aero LLP, Pavlodar Oil Chemistry Refinery LLP, KMG-Security LLP, Kazakhoil Aktobe LLP, Kazakhturkmunay LLP, KMG-Kumkol LLP, KMG Barlau LLP, KMG Systems & Services LLP, Urikhtau Operating LLP, KMG Karachaganak LLP, KMG Drilling & Services LLP, KMG Engineering LLP, Professional GeoSolutions Kazakhstan LLP, Al-Farabi Operating LLP, Oil Construction Company LLP, Oil Services Company LLP, Oil Transport Corporation LLP, Munaitelcom LLP, Mangystauenergomunai LLP, Isatay Operating Company LLP, Becturly Energy Operating LLP, Kurmangazy Petroleum LLP, Zhambyl Petroleum LLP, Kazakhstan Petrochemical Industries Inc LLP, Silleno LLP, KMG PetroChem LLP, Embamunaigas JSC, Ozenmunaigas JSC, KMG Kashagan B.V., PetroKazakhstan Oil Products LLP, Mangistaumunaigas JSC, Ak Su KMG LLP, Ural Oil & Gas LLP, Karazhanbasmunay JSC, CASPI BITUM JV LLP, KMG Representative office in Aktau.

Interaction with Contractors section covers: Ozenmunaiservice LLP, Ken-Kurylyservice LLP, Kazakh Gas Processing Plant LLP, Water Production and Transportation Department LLP, Kazgermunai JV LLP, KMG EP-Catering LLP, NMSK KazMorTransFlot LLP, KazTransOil JSC, Atyrau Refinery LLP, Pavlodar Oil Chemistry Refinery LLP, KMG-Security LLP, Kazakhoil Aktobe LLP, Kazakhturkmunay LLP, KMG-Kumkol LLP, KMG International N.V., KMG Barlau LLP, KMG Systems & Services LLP, Urikhtau Operating LLP, KMG Drilling & Services LLP, KMG Engineering LLP, Al-Farabi Operating LLP, Oil Construction Company LLP, Oil Services Company LLP, Oil Transport Corporation LLP, Munaitelcom LLP, Mangystauenergomunai LLP, Becturly Energy Operating LLP, Zhenis Operating LLP, Kazakhstan Petrochemical Industries Inc LLP, Silleno LLP, Kalamkas-Khazar Operating LLP, Embamunaigas JSC, Ozenmunaigas JSC, PetroKazakhstan Oil Products LLP, Mangistaumunaigas JSC, Ak Su KMG LLP, Ural Oil & Gas LLP, Karazhanbasmunay JSC, CASPI BITUM JV LLP.

Compliance with Law section covers:
 Ozenmunaigas JSC, Embamunaigas JSC,
 Karazhanbasmunay JSC, Kazgermunai
 JV LLP, Kazakh Gas Processing Plant LLP,
 Ozenmunayservice LLP, Kazakhturkmunay LLP,
 Kazakhoil Aktobe LLP, Mangistaumunaigas JSC,
 KazTransOil JSC, NCMC Kazmortransflot LLP,
 Oil Construction Company LLP, Oil Services
 Company LLP, Urikhtau Operating LLP, Atyrau
 Refinery LLP, Pavlodar Oil Chemistry Refinery LLP,
 PetroKazakhstan Oil Products LLP, CASPI
 BITUM JV LLP, Ken-Kurylyservice LLP, Water
 Production and Transportation Department LLP,
 Ural Oil & Gas LLP, Oil Transport Corporation LLP,
 Kazakhstan Petrochemical Industries Inc. LLP

Social Policy of the Company section covers
 the following subsidiaries and dependent entities
 of KMG: Ozenmunaigas JSC, Embamunaigas JSC,
 Cooperative KazMunaiGaz U. A, UDTV LLP,
 Ken-Kurylys-Service LLP, KMG EP-Catering LLP,
 KazGPZ LLP, Ozenmunaiservice LLP,
 Kazakhturkmunay LLP, Urikhtau Operating LLP,
 KazTransOil JSC, NMSC Kazmortransflot LLP,
 KMG Systems & Services LLP, Pavlodar
 Petrochemical Plant LLP, Atyrau Oil Refinery LLP,
 KMG Drilling & Services LLP, KMG-Security LLP,
 Oil Construction Company LLP, Oil Services
 Company LLP, Mangystauenergomunai LLP,
 Munaitelcom LLP, Oil Transport Corporation LLP,
 CC of JSC NC "KazMunayGas", KMG International
 N.V., KMG Finance Sub B.V., KMG Engineering LLP,
 KMG Karachaganak LLP, KMG-Kumkol LLP,
 KazMunayGaz-Service LLP, KMT LLP, Batumi Sea
 Port LLC, Batumi Oil Terminal LLC, Petrotrans

ADDITIONS, 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 is

Limited LLP, Magistralny Vodovodovod LLP,
 KMG-Aero LLP, KMG Barlau LLP, KMG
 PetroChem LLP, Zhambyl Petroleum LLP, Polymer
 Production LLP, Kashagan B. V., Green Energy LLP,
 Karaton Operating Ltd.

Social Support for Employees and Enemployed
 Pensioners: Ozenmunaigas JSC,
 Embamunaigas JSC, Karazhanbasmunay JSC,
 Mangistaumunaigas JSC, Kazgermunai JV LLP,
 Kazakhturkmunay LLP, Kazakhoil Aktobe LLP,
 Urikhtau Operating LLP, KMG Karachaganak LLP,
 KMG Kashagan B.V., Ozenmunaiservice LLP,
 Oil Services Company LLP, Oil Transport
 Corporation LLP, Ken-Kurylyservice LLP, KMG
 EP-Catering LLP, Kazakh Gas Processing
 Plant LLP, Water Production and Transportation
 Department LLP, Oil Construction Company LLP,
 Mangystauenergomunai LLP, Munaitelcom LLP,
 NMSK KazMorTransFlot LLP, KazTransOil JSC,
 TenizService LLP, Atyrau Refinery LLP,
 PetroKazakhstan Oil Products LLP, Pavlodar Oil
 Chemistry Refinery LLP, CASPI BITUM JV LLP,
 Kazakhstan Petrochemical Industries Inc LLP, KMG
 PetroChem LLP, KMG Systems & Services LLP,
 KMG International N.V., KMG-Security LLP, KMG
 Drilling & Services LLP, KMG-Kumkol LLP, KMG
 Barlau LLP.

Allocations for Social and Economic Development
 of Regions of Presence: Ozenmunaigas JSC,
 Embamunaigas JSC, Karazhanbasmunay JSC,
 Mangistaumunaigas JSC, Kazakhturkmunay LLP,
 Kazakhoil Aktobe LLP, Kazgermunai JV LLP.

true and primary. Due to different calculation
 methodologies and approaches to information
 disclosure in the Report, the given data may
 slightly differ from the data published earlier.

APPENDIX 2. ENVIRONMENTAL INDICATORS

	Production			Transportation			Processing		
	2021	2022	2023	2021	2022	2023	2021	2022	2023
Greenhouse gas (GHG) emissions									
Direct GHG emissions (CO ₂ , mln tonnes)	2.2	2.4	2.3	0.2	0.1	0.1	4.5	5.1	5.01
GHG emission intensity (tonnes of CO ₂ , per 1,000 tonnes of HCs)	102	114	114		-		226	236	238
APG flaring									
Flaring (mln tonnes of CO ₂)	0.11	0.09	0.08		-	-	-	-	-
Flared gas amount per unit of HCs produced (tonnes per 1,000 tonnes of HCs produced)	2.1	1.5	1.4		-	-	-	-	-
Flaring (mln m ³)	52.5	35.7	33.3		-	-	-	-	-
Energy intensity									
Energy consumption (mln GJ)	53.9	58.2	55.0	5.4	5.3	4.6	67.3*	68.7	64.4
Pollutant emissions									
Sulfur oxides (SO _x) (thous. tonnes of SO ₂)	7.4	6.0	5.5	0.1	0.09	0.1	4.7	4.5	5.3
Nitrogen oxides (NO _x) (thous. tonnes of NO ₂)	5.6	7.5	7.6	0.6	1.2	0.48	6.5	7.3	7.1
Spills									
Unauthorised tie-ins – volume (thous. tonnes)	-	-	-		-	-	-	-	-
Unauthorised tie-ins – quantity	-	-	-		-	-	-	-	-
Oil spills – volume (onshore) (thous. tonnes)	0.33	0.29	0.12		-	-	-	-	-
Water									
Total water withdrawal volume of KMG (mln m ³)	45.1	43.0	37.7	23.1	24.9	25.4	16.1	15.8	17.3
Water discharge volume (mln m ³)	0.4	0.5	0.5	0.2	0.3	0.2	12.9	10.0	10.5
Waste (recovery and disposal)									
Dangerous (thous. tonnes)	788.4	1,026.5	1,470.12	69.1	15.4	26.77	106.7	55.3	62.78
Non-hazardous (thous. tonnes)	34.7	18.0	19.96	11.1	4.1	5.37	22.0	3.1	23.72
Total waste (thous. tonnes)	823.1	1,044.4	1,490.08	80.2	19.5	32.14	128.7	58.3	86.50
*including drill cuttings, onshore (thous. tonnes)	158.6	220.4	228.4		-	-	-	-	-
*including drill cuttings, offshore (thous. tonnes)	0	0	0		-	-	-	-	-

*the difference is due to the difference in the conversion factors used for fuel resources. Namely, KMG does not use average coefficients, but adjusted coefficients that take into account the actual caloric content of fuel resources.
 **excluding Service operations

ENVIRONMENTAL COSTS

Costs	2021				2022		2023	
	KMG KZT mln	USD mln	KTG (10 m.) KZT mln	USD mln	KZT mln	USD mln	KZT mln	USD mln
1 Costs associated with waste emissions and pollutant discharges, total	23,468.9	55	328.7	0.77	28,229.6	61.01	44,564.2	98.03
1.1 Waste processing and disposal	12,750.86	299	80.3	0.18	14,370.8	31.06	22,888.85	50.35
1.2 Purification of emissions and pollutant discharges	10,104.56	23.7	197.7	0.46	13,032.5	28.17	20,772.55	45.69
1.3 Costs of development and verification of document packages on greenhouse gas emissions	229.29	0.5	22.5	0.05	702.0	1.51	173.3	0.38
1.4 Environmental liability insurance	370.35	0.9	28.2	0.06	37.9	0.08	40.9	0.089
1.5 Costs of elimination of environmental damage, including spill response costs	4.4	0.01	0	0	86.2	0.18	41.82	0.09
1.6 Costs of environmental compensatory activities	9.42	0.02	0	0	0	0	646.73	1.42
2 Investments in prevention of environmental impact and environmental management, total	5,607.5	13	23.8	0.05	667.7	1.44	9,742.79	21.43
2.1 Personnel for education and training of employees	68.2	0.16	0	0	22.4	0.04	69.47	0.15
2.2 External certification and development of environmental management system	39.21	0.09	2.7	0.006	56.8	0.12	81.23	0.17

Costs	2021				2022		2023	
	KMG KZT mln	USD mln	KTG (10 m.) KZT mln	USD mln	KZT mln	USD mln	KZT mln	USD mln
2.3 Personnel for general environmental management activities	3.4	0.008	4.1	0.009	1.02	0.002	12.20	0.02
2.4 Research and development	520.98	1.2	0	0	470.5	1.01	363.27	0.79
2.5 Additional expenses on introduction of cleaner technologies	4,489.8	10.5	0	0	0	0	7,448.623	16.38
2.6 Additional costs on green procurement	38.1	0.08	6.2	0.01	115.5	0.24	264.74	0.58
2.7 Other environmental management costs	447.7	1	10.8	0.02	1.5	0.003	1,503.23	3.30

ENVIRONMENTAL PAYMENTS (REGULATORY)

	2021		2022		2023	
	KZT mln	USD mln	KZT mln	USD mln	KZT mln	USD mln
Atmospheric emissions from APG flaring	2,329	5.5	1,462	3.2	1,178	2.6
Atmospheric emissions (other than APG flaring)	1,546	3.6	1,697	3.7	2,043	4.5
Pollutant discharges	100	0.2	122	0.3	146	0.3
Waste disposal	228	0.5	202	0.4	43	0.1

LOCATION AND SCALE OF PRODUCTION OPERATIONS IN RELATION TO KEY BIODIVERSITY AREAS

Site	Location	Key biodiversity areas (KBA)	Location in relation to KBA	Contract territory area (sq. km)	Impact mitigation plan
Urikhtau	Mugalzhar District, Aktobe Region	Kokzhide-Kumzhargan State Integrated Nature Reserve of local status	Includes part of the territory	239.9	Hydrogeological monitoring
Alibekmola and Kozhasai	Mugalzhar District, Aktobe Region	Kokzhide Sands Kokzhide underground water	Located nearby	156.5	Hydrogeological monitoring
Isatai	Central part of KSCS, North Mangystau Region	Special environmentally sensitive zone of KSCS	Located in the nature conservation area	1,343.0	Seasonal baseline environmental studies, regular environmental monitoring
Abai	North-western part of KSCS, Atyrau Region	Special environmentally sensitive zone of KSCS	Located in the nature conservation area	1,233.8	Seasonal baseline environmental studies, regular environmental monitoring
Al-Farabi	Southern part of KSCS, Mangystau Region	Special environmentally sensitive zone of KSCS	Does not affect KBA	6,046.6	Seasonal baseline environmental studies, regular environmental monitoring
Kalamkas-Khazar	North-western part of the Caspian Sea	Special environmentally sensitive zone of KSCS	Located in the nature conservation area	1,707.17	Seasonal baseline environmental studies, regular environmental monitoring

APPENDIX 3. SOCIAL INDICATORS

Social indicators	2021	2022	2023
Actual headcount, persons	44,650	44,688	46,603
Outstaffing, persons	2,787	2,838	3,107
Employees by gender and age, including			
Women, %	18	18	19
Men, %	82	82	81
under 30	12	11	11
from 31 to 50	59	59	58
over 50	29	30	31
Managers	11	10	10
Specialists	20	22	18
Workers	69	67	72
Fatal accident rate (FAR)	2.93	1.00	2.11
Social assistance to employees, KZT bln	22	24	27.65
Average hours of training per year per employee, hours	17	22	18
Expenses on development of regions of operation and social assistance under the subsoil use contract, KZT bln	5	12	5.6*

*not including funds from KMG Kashagan BV FCCO.

APPENDIX 4. GRI CONTENT INDEX

Application statement	KazMunayGas NC JSC prepared a Report in accordance with GRI standards for 01.01.2023 – 31.12.2023 reporting period
GRI 1 application	GRI 1: Foundation 2021
Industry Standard	GRI 11: Oil and Gas Sector 2021

Disclosure	Page Number	Exception/ reason for exception	Relationship with the principles of the UN Global Compact	Association with 17 Global Sustainable Development Goals	GRI Industry Standard
GRI 2: GENERAL DISCLOSURES (2021)					
1. Organization and corporate reporting practices					
GRI 2-1					
Detailed information about the organization	21				
GRI 2-2					
Reporting perimeter	212				
GRI 2-3					
The reporting period, frequency of reporting and contact information	14				
GRI 2-4					
Clarification of information	212				
GRI 2-5					
External certification of reporting	14, 210				
2. Activities and employees					
GRI 2-6					
Information about activities, value-added chain and other business relationships of the organization	2, 4, 6, 8, 10, 12, 21, 23, 73, 203				

GRI 2-7					
Full-time employees of the organization	10, 147				The proportion of full-time employees is disclosed without a breakdown by region due to the specifics of collecting information in the Company.
GRI 2-8					
Employees who are not full-time employees	147				The information is partially disclosed.2-8a. The Company does not collect data on the total number of employees who are not full-time employees and whose work is controlled by the Company. Data on the types and nature of work performed by such employees were not collected as well in the current reporting period. 2-8b,2-8c. not applicable, see 2-8a.
3. Governance					
GRI 2-9					
Governance structure and composition	179				
GRI 2-10					
The procedure for the election and approval of the highest governance body	187				Information on the criteria for the selection of members of the highest governance bodies (diversity, independence) is not disclosed due to the fact that Samruk-Kazyna JSC conducts a selection procedure for the Board of Directors.
GRI 2-11					
Chairman of the highest governance body	179				

GRI 2-12

The role of the highest governance body in supervision of impact management 185, 188

GRI 2-13

Delegation of responsibility for impact management 184

GRI 2-14

The role of the highest governance body in approving sustainable development reporting 14, 40, 185, 190

GRI 2-15

Conflict of interest 165, 188

GRI 2-16

Informing about critical issues 185, 186

GRI 2-17

Collective knowledge of the highest governance body 190

GRI 2-18

Assessment of the activities of the highest governance body 190

GRI 2-19

Remuneration Policy 27, 191

GRI 2-20

Process for determining remuneration 191, 192,

GRI 2-21

2-21 Annual total compensation ratio Information on the remuneration to the Board of Directors is specified in KMG's Annual Report for 2023 on the KMG website: <https://www.kmg.kz/en/investors/reporting/>.

4. Strategy, policies and practices
GRI 2-22

Sustainable Development Strategy Statement 16, 18, 27

GRI 2-23

Obligations stipulated in the internal documents of the organization 27, 135, 162, 163

GRI 2-24

Implementation of policies and obligations 27, 154

GRI 2-25

Mechanisms to reduce negative impact 163, 185

GRI 2-26

Mechanisms to seek advice and report about problems 163

GRI 2-27

Compliance with the law 92, 206, Information on administrative fines is not available due to the lack of a mechanism for monitoring the total fines paid for the KMG group.

GRI 2-28

Membership in associations 44, 113, 114

5. Interaction with stakeholders
GRI 2-29

Approach to stakeholder engagement 41

GRI 2-30

Collective bargaining agreements 167

GRI 3: MATERIAL TOPICS (2021)
GRI 3-1

The process of identifying material topics 14, 40

GRI 3-2				
List of material topics	40, 212			
GREENHOUSE GAS EMISSIONS				
GRI 3: Material topics of 2021				
GRI 3-3				
Approach to managing material topics	129, 135	Principle 7, 8, 9	SDGs 13, 14	11.1.1
GRI 302: Energy (2016)				
GRI 302-1				
Energy consumption within the organization	135	Principle 7, 8, 9	SDGs 13, 14	11.1.2
GRI 302-2				
Energy consumption outside of the organization	Information is not available. Energy consumption outside of the organization is not recorded.	Principle 7, 8, 9	SDGs 13, 14	11.1.3
GRI 302-3				
Energy intensity	135, 136	Principle 7, 8, 9	SDGs 13, 14	11.1.4
GRI 302-4				
Reduction of energy consumption	114, 135	Principle 7, 8, 9	SDGs 13, 14	
GRI 302-5				
Reductions in energy requirements of products and services	135	Principle 7, 8, 9	SDGs 13, 14	
GRI 305: Emissions (2016)				
305-1				
Direct greenhouse gas emissions (scope 1)	129, 135	Principle 7, 8, 9	SDGs 13, 14	11.1.5
305-2				
Indirect energy emissions of greenhouse gases (scope 2)	Information for 2023 will be disclosed in the CDP report in the Q4 2024. The CDP questionnaires can be found at the following link: https://www.kmg.kz/en/investors/reporting/?TYPE=report_development/	Principle 7, 8, 9	SDGs 13, 14	11.1.6

305-3				
Other indirect greenhouse gas emissions (scope 3)	Information for 2023 will be disclosed in the CDP report in the Q4 2024. The CDP questionnaires can be found at the following link: https://www.kmg.kz/en/investors/reporting/?TYPE=report_development/	Principle 7, 8, 9	SDGs 13, 14	11.1.7
305-4				
Greenhouse gas emissions intensity	129	Principle 7, 8, 9	SDGs 13, 14	11.1.8
CLIMATE ADAPTATION, SUSTAINABILITY AND TRANSITION PERIOD				
GRI 3: Material topics of 2021				
GRI 3-3				
Approach to managing material topics	92, 129, 135	Principle 1, 2, 4, 6, 7, 8, 9, 10	SDGs 1, 7, 8, 9, 12, 13	11.2.1
GRI 201: Economic Performance (2016)				
201-2				
Financial implications and other risks and opportunities due to climate change	Not available. The company does not perform such research.	Principle 1, 2, 4, 6, 7, 8, 10	SDGs 1, 7, 8, 9, 12, 13	11.2.2
GRI 305: Emissions (2016)				
305-5				
Reduction of greenhouse gas emissions	92, 93, 97, 114, 129	Principle 7, 8, 9	SDGs 1, 7, 8, 9, 12, 13	11.2.3
EMISSIONS INTO THE ATMOSPHERE				
GRI 3: Material topics of 2021				
GRI 3-3				
Approach to managing material topics	92, 129, 135	Principle 7, 8, 9	SDGs 1, 3, 7, 8, 9, 11, 12, 14, 15	11.3.1
GRI 305: Emissions (2016)				
305-6				
Emissions of ozone-depleting substances (ODS)	Not applicable. The Company does not emit ozone-depleting substances.	Principle 7, 8, 9	SDGs 1, 7, 8, 9, 12, 14	

305-7				
NOx, SOx, and other significant air emissions	93, 97, 129	Principle 7, 8, 9	SDGs 3, 11, 15	11.3.2
GRI 416: Customer Health and Safety 2016				
GRI 416-1				
Assessment of the health and safety impacts of product and service categories	Not applicable; research on this effect is not carried out in the Company.	Principle 7, 8, 9	SDGs 3, 11, 15	11.3.3
GRI 417: Marketing communications and labeling of products and services 2016				
GRI 417-1				
Types of information about the properties of products and services required by procedures	23	Principle 7, 8, 9	SDGs 3, 11, 15	
WASTE				
GRI 3: Material topics of 2021				
GRI 3-3				
Approach to managing material topics	98	Principle 7, 8, 9	SDGs 3, 6, 12, 14, 15	11.5.1
GRI 306: Waste (2020)				
306-1				
Waste generation and significant waste-related impacts	88	Principle 7, 8, 9	SDGs 3, 6, 12, 14, 15	11.5.2
306-2				
Management of significant waste-related impacts	77, 98	Principle 7, 8, 9	SDGs 3, 6, 12, 14, 15	11.5.3
306-3				
Waste generated	98	Principle 7, 8, 9	SDGs 3, 6, 11, 12, 14, 15	11.5.4
306-4				
Recycled waste	98	Principle 7, 8, 9	SDGs 3, 6, 12, 14, 15	11.5.5
306-5				
Waste directed to disposal	98	Principle 7, 8, 9	SDGs 3, 6, 12, 14, 15	11.5.6

WATER AND EFFLUENTS				
GRI 3: Material topics of 2021				
GRI 3-3				
Approach to managing material topics	83	Principle 7, 8, 9	SDGs 6, 12, 14, 15	11.6.1
GRI 303: Water and Effluents (2018)				
GRI 303-1				
Interactions with water as a shared resource	83, 85, 88	Principle 7, 8, 9	SDGs 6, 12, 14, 15	11.6.2
GRI 303-2				
Management of water discharge-related impacts	83, 85, 88	Principle 7, 8, 9	SDGs 6, 12, 14, 15	11.6.3
GRI 303-3				
Water withdrawal	83, 85, 88	Principle 7, 8, 9	SDGs 6, 12, 14, 15	11.6.4
GRI 303-4				
Water discharge	83, 85, 88	Principle 7, 8, 9	SDGs 6, 12, 14, 15	11.6.5
GRI 303-5				
Water consumption	83, 85, 88	Principle 7, 8, 9	SDGs 6, 12, 14, 15	11.6.6
CLOSURE AND REHABILITATION				
GRI 3: Material topics of 2021				
GRI 3-3				
Approach to managing material topics	167	Principle 1, 2, 3, 4, 5, 6	SDGs 4, 8, 11, 14, 15	11.7.1
GRI 402: Labor/Management Relations (2016)				
402-1				
Minimum notice periods regarding operational changes	167	Principle 1, 2, 3, 4, 5, 6	SDGs 4, 8, 11, 14, 15	11.7.2
GRI 404: Training and Education (2016)				
404-2				
Professional development programs aimed at supporting the ability of employees to be employed	111, 154	Principle 1, 2, 3, 4, 5, 6	SDGs 1, 4, 5, 8, 10, 11, 14, 15	11.7.3

ASSET INTEGRITY AND CRITICAL INCIDENT MANAGEMENT				
GRI 3: Material topics of 2021				
GRI 3-3				
Approach to managing material topics	98	Principle 7, 8	SDGs 11, 14	11.8.1
GRI 306: Effluents and Waste (2016)				
306-3				
Significant spills	103	Principle 7, 8	SDGs 11, 14	11.8.2
OCCUPATIONAL HEALTH AND SAFETY				
GRI 3: Material topics of 2021				
GRI 3-3				
Approach to managing material topics	79, 117, 119, 124	Principle 1, 2, 3, 4, 5, 6	SDGs 3, 8	11.9.1
GRI 403: Workplace Health and Safety (2018)				
403-1				
Occupational health and safety management system	77, 79, 117, 119, 124	Principle 1, 2, 3, 4, 5, 6	SDGs 3, 8	11.9.2
403-2				
Hazard identification, risk assessment, and incident investigation	117, 119	Principle 1, 2, 3, 4, 5, 6	SDGs 3, 8	11.9.3
403-3				
Occupational safety and health activities	117, 124	Principle 1, 2, 3, 4, 5, 6	SDGs 3, 8	11.9.4
403-4				
Worker participation, consultation, and communication on occupational health and safety	79, 124	Principle 1, 2, 3, 4, 5, 6	SDGs 3, 8	11.9.5
403-5				
Worker training on occupational health and safety	124	Principle 1, 2, 3, 4, 5, 6	SDGs 3, 8	11.9.6

403-6				
Prevention and protection of workers' health	124	Principle 1, 2, 3, 4, 5, 6	SDGs 3, 8	11.9.7
403-7				
Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	77, 79, 124	Principle 1, 2, 3, 4, 5, 6	SDGs 3, 8	11.9.8
403-8				
Workers covered by an occupational health and safety management system requirements	124	Principle 1, 2, 3, 4, 5, 6	SDGs 3, 8	11.9.9
403-9				
Work-related injuries	117, 119, 124	Principle 1, 2, 3, 4, 5, 6	SDGs 3, 8	11.9.10
403-10				
Work-related ill health	124	Principle 1, 2, 3, 4, 5, 6	SDGs 3, 8	11.9.11
EMPLOYMENT PRACTICE				
GRI 3: Material topics of 2021				
GRI 3-3				
Approach to managing material topics	147	Principle 1, 2, 3, 4, 5, 6	SDGs 1, 4, 5, 8, 10, 11, 14, 16	11.10.1
GRI 401: Employment (2016)				
GRI 401-1				
New employee hires and employee turnover	147	Partially disclosed. The proportion of employees is disclosed without a breakdown by region due to the specifics of collecting information in the Company.	Principle 1, 2, 3, 4, 5, 6	SDGs 4, 5, 8, 10, 16

GRI 401-2

Benefits provided to full-time employees that are not provided to temporary or part-time employees	147, 167	Principle 1, 2, 3, 4, 5, 6	SDGs 4, 5, 8, 10, 16	11.10.3
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GRI 401-3

Parental leave	147	Partially disclosed due to the specifics of collecting information in the Company (not disclosed: the total number of employees who were entitled to maternity/paternity leave, broken down by gender; the number of employees who returned to work at the end of maternity/paternity leave, broken down by gender; the percentage of return to work; the number of employees who returned to work at the end of maternity/paternity leave and who continued to work 12 months after returning to work, broken down by gender)	Principle 1, 2, 3, 4, 5, 6	SDGs 4, 5, 8, 10, 16	11.10.4
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GRI 404: Training and Education (2016)
GRI 404-1

Average hours of training per year per employee	154	Principle 1, 2, 3, 4, 5, 6	SDGs 1, 4, 5, 8, 10, 16	11.10.6
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GRI 404-3

Percentage of employees receiving regular performance and career development reviews	147	Principle 1, 2, 3, 4, 5, 6	SDGs 1, 4, 5, 8, 10, 11, 14
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GRI 414: Supplier Social Assessment (2016)
GRI 414-1

New suppliers that were screened using social criteria	Information is not available. The procurement process is controlled by Samruk-Kazyna JSC	Principle 1, 2, 3, 4, 5, 6	SDGs 1, 4, 5, 8, 10, 16	11.10.8
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GRI 414-2

Negative social impacts in the supply chain and actions taken	Information is not available. The procurement process is controlled by Samruk-Kazyna JSC	Principle 1, 2, 3, 4, 5, 6	SDGs 1, 4, 5, 8, 10	11.10.9
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NON-DISCRIMINATION AND EQUAL OPPORTUNITY
GRI 3: Material topics of 2021
GRI 3-3

Approach to managing material topics	154, 165	Principle 1, 2, 3, 4, 5, 6	SDGs 1, 4, 5, 8, 10, 16	11.11.1
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GRI 202: Market Presence (2016)
GRI 202-1

Ratio of the standard entry-level wage to the established minimum wage in the significant regions of the organization's activity	161	Principle 1, 2, 3, 4, 5, 6	SDGs 1, 4, 5, 8, 10, 16
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GRI 202-2

Proportion of senior management hired from the local community	161	Principle 1, 2, 3, 4, 5, 6	SDGs 1, 4, 5, 8, 10, 16	11.11.2
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GRI 405: Diversity and Equal Opportunity (2016)
405-1

Diversity of governance bodies and employees	147	Principle 1, 2, 3, 4, 5, 6	SDGs 4, 5, 8, 10, 16	11.11.5
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405-2

Ratio of basic salary and remuneration of women to men	147	Principle 1, 2, 3, 4, 5, 6	SDGs 4, 5, 8, 10, 16	11.11.6
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GRI 406: Non-discrimination (2016)
406-1

Incidents of discrimination and corrective actions taken	162, 167	Principle 1, 2, 3, 4, 5, 6	SDGs 4, 5, 8, 10, 16	11.11.7
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GRI 408: Child Labor (2016)
408-1

Units at significant risk for incidents of child labor. Suppliers who may have the same problem	162	Principle 1, 2, 3, 4, 5, 6	SDGs 8, 16	
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ECONOMIC CONSEQUENCES
GRI 3: Material topics of 2021
GRI 3-3

Approach to managing material topics	154, 174, 194, 203	Principle 10	SDGs 1, 5, 8, 9, 10	11.14.1
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GRI 201: Economic Performance (2016)
GRI 201-1

Direct economic value generated and distributed	194	Principle 10	SDGs 1, 5, 8, 9, 10	11.14.2
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GRI 201-3

Defined benefit plan obligations and other retirement plans	195	Principle 1, 2, 3, 6	SDGs 1, 5, 8, 9, 10	
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GRI 203: Indirect Economic Impacts (2016)
GRI 203-1

Infrastructure investments and services supported	174, 198	Principle 1, 2, 3, 4, 5, 6, 10	SDGs 1, 5, 8, 9, 10	11.14.4
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GRI 203-2

Significant indirect economic impacts	198	Principle 1, 10	SDGs 1, 5, 8, 9, 10	11.14.5
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GRI 204: Procurement Practices (2016)
GRI 204-1

Proportion of spending on local suppliers	203	Principle 10	SDGs 8, 9	11.14.6
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ANTI-CORRUPTION
GRI 3: Material topics of 2021
GRI 3-3

Approach to managing material topics	165	Principle 1, 2, 3, 4, 5, 6,	SDGs 1, 4, 5, 8, 10, 16	11.20.1
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GRI 205-1

Operations assessed for risks related to corruption	165	Principle 1, 2, 3, 4, 5, 6, 10	SDGs 12, 16	11.20.2	Partially disclosed due to the lack of necessary information (not disclosed: significant risks associated with corruption and identified in the risk assessment process)
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GRI 205-2

Communication and training about anti-corruption policies and procedures	165	Principle 1, 2, 3, 4, 5, 6, 10	SDGs 12, 16	11.20.3	Partially disclosed due to the lack of necessary information (not disclosed: the number and percentage of employees for whom anti-corruption training was conducted, region-by-region breakdown)
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GRI 205-3

Confirmed incidents of corruption and actions taken	165	Principle 1, 2, 3, 4, 5, 6, 10	SDGs 12, 16	11.20.4	
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NON-MATERIAL TOPICS
BIODIVERSITY
GRI 304: Biodiversity (2016)
304-1

Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	106, 108	Principle 7, 8, 9	SDGs 6, 12, 14, 15	11.4.2	
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304-2

Significant impacts of activities, products, and services on biodiversity	106, 108	Principle 7, 8, 9	SDGs 6, 12, 14, 15	11.4.3	
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304-3				
Habitats protected or restored	106, 108	Principle 7, 8, 9	SDGs 6, 12, 14, 15	11.4.4
304-4				
IUCN Red List species and national conservation list species with habitats in areas affected by operations	106	Principle 7, 8, 9	SDGs 6, 12, 14, 15	11.4.5
PAYMENTS TO GOVERNMENT				
GRI 201: Economic Performance (2016)				
GRI 201-4				
Financial assistance received from the government	194	Principle 10	SDGs 1, 5, 8, 9, 10	11.21.3
GRI 207: Tax (2019)				
GRI 207-1				
Approach to tax	195	Principle 10	SDGs 1, 16, 17	11.21.4
GRI 207-2				
Tax governance, control, and risk management	197	Principle 10	SDGs 1, 16, 17	11.21.5
GRI 207-3				
Stakeholder engagement and management of concerns related to tax	197	Principle 10	SDGs 1, 16, 17	11.21.6
GRI 207-4				
Country-by-country reporting	195	Principle 10	SDGs 1, 16, 17	11.21.7
FREEDOM OF ASSOCIATION AND COLLECTIVE BARGAINING				
GRI 407: Freedom of association and collective bargaining (2016)				
407-1				
Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk, and actions taken to support these rights	167	Principle 1, 2, 3, 4, 5, 6	SDGs 8, 16	11.13.2

LOCAL COMMUNITIES				
GRI 413: Local Communities (2016)				
413-1				
Operations with local community engagement, impact assessments, and development programs	174	Principle 1, 2, 3, 4, 5, 6	SDGs 1, 3, 5, 6, 16	11.15.2
413-2				
Operations with significant actual and potential negative impacts on local communities	174	Principle 1, 2, 3, 4, 5, 6	SDGs 1, 3, 5, 6, 16	11.15.3
FORCED LABOR AND MODERN SLAVERY				
GRI 409: Forced or Compulsory Labor (2016)				
409-1				
Operations at significant risk for incidents of forced or compulsory labor. Suppliers who may have the same problem	162, 171	Principle 1, 2, 3, 4, 5, 6	SDGs 8, 16	
ANTI-COMPETITIVE BEHAVIOR				
206 GRI: Anti-competitive Behavior (2016)				
GRI 206-1				
Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	206	Principle 1, 2, 3, 4, 5, 6	SDGs 16	11.19.2
PUBLIC POLICY				
GRI 415: Public Policy (2016)				
415-1				
Donations for state/political needs	194	Principle 10	SDGs 16	11.22.2

THE TOPICS IN THE APPLICABLE GRI INDUSTRY STANDARDS ARE DEFINED AS NON-MATERIAL

TOPIC	
GRI 11: Oil and Gas Sector 2021	
Topic 11.4 Biodiversity	
Topic 11.13 Freedom of Association and Collective Bargaining	
Topic 11.12 Forced Labor and Modern Slavery	These topics are not significant, because the Company and stakeholders have not identified a significant impact of the organization on the economy, environment and social sphere.
Topic 11.15 Local Communities	
Topic 11.16 Land and Resource Rights	
Topic 11.17 Rights of Indigenous Peoples	
Topic 11.18 Conflicts and Security	
Topic 11.19 Anti-competitive Behavior	
Topic 11.21 Payments to Government	
Topic 11.22 Public Policy	

APPENDIX 5. ABBREVIATIONS AND ACRONYMS

ACCA	Association of Chartered Certified Accountants	IS	Information System
AIX	Astana International Exchange	ISO	International Organisation for Standardisation
APC	Advanced Process Control	IUCN	International Union for Conservation of Nature
BP	British Petroleum	JSC	Joint Stock Company
BPD	Bird Protection Device	JV	Joint Venture
BRCC	Biodiversity Research and Conservation Centre	KASE	Kazakhstan Stock Exchange
CCUS	Carbon Capture, Utilisation and Storage	KazGPP	Kazakh Gas Processing Plant Limited Liability Partnership
CDP	Carbon Disclosure Project	KBM	Karazhanbasmunay Joint-Stock Company
CFA	Chartered Financial Analyst	KGM	Kazgermunai Joint Venture Limited Liability Partnership
CIA	Certified Internal Auditor	KMG	Joint-Stock Company National Company "KazMunayGas"
CIMA	Chartered Institute of Management Accountants	KMGE	KazMunayGas Engineering Limited Liability Partnership
CIS	Commonwealth of Independent States	KMGI	KMG International N.V.
COP	Conference of the Parties	KMTF	National Maritime Shipping Company "Kazmortransflot" LLP
COVID-19	Coronavirus Disease 2019	KOA	KazakhOil Aktobe Limited Liability Partnership
DipIFR	Diploma in the International Financial Reporting	KPI	Kazakhstan Petrochemical Industries Inc.
EBITDA	Earnings before Interest, Taxes, Depreciation and Amortization	KPI	Key Performance Indicator
ESG	Environmental, Social, and Governance	KSCS	Kazakhstan Sector of the Caspian Sea
FAR	Fatality Accident Rate	KTG	KazTransGas Joint Stock Company
GRI	Global Reporting Initiative	KTM	Kazakhturkmunay Limited Liability Partnership
GMI	Global Methane Initiative	KTO	KazTransOil Joint Stock Company
HSE	Health, Safety and Environment	LCD	Low-Carbon Development
IMEO	International Methane Emission Observatory	LCDP	Low-Carbon Development Programme
IOGP	International Association of Oil & Gas Producers	LDAR	Leak Detection and Repair
IPCC	Intergovernmental Panel on Climate Change	LLP	Limited Liability Partnership
IPIECA	International Petroleum Industry Environmental Conservation Association	LOTO	Logout/Tagout
IPMA	International Project Management Association	LTIR	Lost Time Incident Rate
I-REC	International Renewable Energy Certificate		

MBA	Master of Business Administration
mln	Millions(s)
MM	Mass Media
MMG	Mangistaumunaigas Joint Stock Company
MT	MunayTas North-West Pipeline Company Limited Liability Partnership
MVCR	Motor Vehicle Crash Rate
NC	National Company
NC PSA	North Caspian Production Sharing Agreement
NEBOSH	National Examination Board in Occupational Safety and Health
NMSC	National Maritime Shipping Company
OGMP	Oil and Gas Methane Partnership
OHS	Occupational Health and Safety
OHSE	Occupational Health, Safety and Environment
OMG	Ozenmunaigas Joint Stock Company
OMS	Ozenmunaiservice Limited Liability Partnership
OSC	Oil Service Company Limited Liability Partnership
OSRL	Oil Spill Response Limited (International Association for Emergency Oil Spill Response)
OTC	Oil Transport Corporation Limited Liability Partnership
PJSC	Public Joint Stock Company
PKI	PetroKazakhstan Inc.
PMP	Certification of Project Management Professional
PQ	Pre-qualification
PCA	Power Central Asia
PwC	PricewaterhouseCoopers
Refinery	Oil Refinery
RoK	Republic of Kazakhstan
RoK MENR	Ministry of Ecology and Natural Resources of the Republic of Kazakhstan
RoSPA	The Royal Society for the Prevention of Accidents

S&P	Standard and Poor's
SBTi	Science Based Targets initiative
SDEs	Subsidiaries and Dependent Entities
SDGs	United Nations Sustainable Development Goals
SE	State of Emergency
SM	Management System
SPNA	Specially Protected Natural Area
SPZ	Sanitary Protection Zone
SR	Sustainability Report
SRS	Social Responsibility Scale
TAP	Tax Accounting Policy
TCFD	Task Force on Climate-related Financial Disclosures
TCO	Tengizchevroil Joint Venture
TCO FGP	Tengizchevroil Future Growth Project
UDTV	Water Production and Transportation Department Limited Liability Partnership
UN	United Nations
UNEP	United Nations Environment Programme
UNGC	United Nations Global Compact
USAID	U.S. Agency for International Development
VGO	Vacuum Gas Oil
WEM	Wholesale Electricity Market
WEP	United Nations Women's Empowerment Principles
WL	Wireline
WO	Well Workover
WRI	World Resource Institute

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