



THE FUTURE HAS BEGUN

KPO SUSTAINABILITY
REPORT 2022

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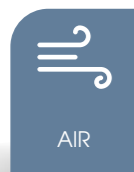
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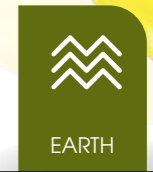
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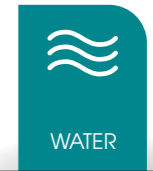
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KPO Sustainability Report is available in e-format in Qazaq, Russian and English languages on the website www.kpo.kz.

INTRODUCTION

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GRI 2-23

Business principle: COMMUNICATION AND ENGAGEMENT

We recognize that regular dialogue and engagement with our stakeholders is essential.


We are committed to reporting of our performance by providing full relevant information to legitimately interested parties, subject to any overriding considerations of business confidentiality.


In our interactions with employees, business partners and local communities, we seek to listen and respond to them honestly and responsibly.

2022

TURNAROUND:

 **2.2**
million man-hours of work

 **12**
thous. staff

 **0**
serious incidents

 **0**
environmental damage



25th anniversary
of FPSA



15th
issue of KPO
Sustainability Report



3rd
place in WWF Environmental
Transparency Rating

KPO reward:



"Paryz – 2022"
"Best Social Project of the year"

LETTER FROM GENERAL DIRECTOR GRI 2-22



Dear readers,

I am pleased to present to you the 2022 Sustainability Report of Karachaganak Petroleum Operating B.V. Kazakhstan branch. This is the fifteenth report since the first publication.

In 2022, despite the macroeconomic and geopolitical challenges in the world, we achieved relatively good results in our production and marketing targets as well as delivering large and complex projects, such as the 4th Gas Reinjection Compressor and the Turnaround. The Karachaganak Expansion Project (KEP-1) was significantly advanced. In addition, at the beginning of 2023, the evaluation of the Karachaganak Gas Plant project has been initiated. This project may significantly contribute to the KPO 365 Strategy performance.

To our utmost regret, the 2022 safety performance has not been achieved. Thus, KPO LTI rate increased from 0.03 in 2021 (one injury) to 0.22 (seven injuries) in 2022, and TRI rate from 0.09 in 2021 to 0.40 in 2022. We need to learn from this, so that the improvement process brings us the expected value. We therefore thoroughly investigate all incidents to avoid reoccurrence. We further share the lessons learnt with our contractors and other stakeholders, as well as adopt other companies' experience to improve the safety.

In 2022, we carried out a major Turnaround being one of the largest in Karachaganak history without serious incidents and without causing any environmental damage. All the planned scope of work was performed. At the same time, we completed the production upgrade, as well as improved safety of facilities and reliability of process equipment.

In 2022, we continued developing the KPO 365 Business Strategy. This strategy covers not only the project economy diversification, revenue improvement and cost base management, but also the most topical aspects of the world ESG agenda, such as caring for people and engagement with our stakeholders, HSE issues, transition to "Green KPO", and achievement of carbon neutrality. The main Strategy focuses can be found further in this report.

In 2022, KPO achieved a world-class gas utilization rate of 99.93% representing only 0.07% of flaring. We conduct a full-scale monitoring of environmental components, including air, surface water, subsurface water and soil, as well as monitoring of air emissions

and wastewater discharge. A particular achievement in 2022 was the doubling of the use of treated wastewater for technical needs, which significantly reduced water intake from surface sources.

We actively work on introducing "green" technologies including GHG emissions reduction measures and efficient waste management techniques. In addition, we created a unique platform to discuss important environmental issues – Uralsk Green Forum, where over the five years, our specialists, state authorities, eco-volunteers and future generation represented by students, have been actively interacted improving the environmental awareness and culture in the region.

Our environmental and energy management systems have been continuously recognized as effective and compliant with international standards ISO 14001:2015 and ISO 50001:2018. By the end of 2022, KPO has invested nearly \$450 million into environmental activities in total.

With regard to the personnel, the Company had also been consistent in implementing personnel training and development programmes. In 2022, local content in staff reached 98% in professional and technical, and 86% in managerial positions. At the same time, KPO local content in procurement, goods, works and services is 56.4% (over US\$ 511.7 mln).

In 2022, much work was done to monitor industrial relations and interaction with contractors. We recognize the importance of their operation to ensure the stability of production activities, and constantly cooperate not only with top management, but also with other employees regarding HSE aspects, implementation of the requirements of the new Environmental Code of the Republic of Qazaqstan and respect for the employees' labour rights.

In terms of social performance, KPO has kept investing into social infrastructure projects, such as construction of schools and sport and health centres in the West Qazaqstan Oblast. A matter of our particular pride was a reward in category "The Best Social Project of the Year" at the National Contest

of Social Responsibility of Business – Paryz-2022 that KPO received in November 2022 for the construction of the multifunctional Palace of Culture in Uralsk.

As the largest enterprise in the region, KPO recognizes that its operation affects a wide range of stakeholders and this in turn places a particular responsibility on how we operate our business. Trustful relationships and transparency with stakeholders become key to achieving sustainability goals. Leadership, innovation and cooperation remain our fundamental drives on this path.

Welcome to KPO sustainability highlights and please feel free to revert with your questions and comments. Your feedbacks will be most appreciated and used to make our future reports better.

Sincerely yours,
Giancarlo Ruiu,
KPO General Director

ABOUT THE REPORT

Karachaganak Petroleum Operating B.V. Kazakhstan branch (KPO) is an international oil and gas company engaged in oil and gas exploration and production in West Qazaqstan region of the Republic of Qazaqstan. On behalf of its Parent Companies Shell, Eni, Chevron, Lukoil and KazMunayGas, KPO is the operator of the Karachaganak Field, one of the world's largest oil and gas condensate fields, under the Final Production Sharing Agreement ("FPSA") signed between them and the Government of Qazaqstan.

GRI 2-1, 3-3

KPO has been reporting on its efforts and achievements in sustainable development since 2008, for the past 15 years. In 2009, the company adopted a [Sustainability Development Charter](#), under which it commits to "report to our external stakeholders a full and honest review of performance" in the area of sustainability. The provisions of KPO Sustainability Development Charter meet the widely acknowledged definition of Sustainable Development as **"development that meets the needs of the present without compromising the ability of future generations to meet their needs"**.

This Report is our fifteenth and the reporting year coincides with the 25th anniversary of the signing of the FPSA at the end of 1997. In this document, we disclose our performance over the reporting period through the prism of three pillars of sustainable development: social, environmental and economic. The report also presents production indicators and development plans, our management and energy transition approaches, as well as social projects, environmental initiatives and economic partnerships, implemented through engagement with stakeholder groups. The future is coming today, and today we feel the results of what we laid down 25 years ago. Compliance with the principles of sustainable development has been and remains our "license" for the further development of Karachaganak, because in addition to subsoil use, we place a fundamental emphasis on contributing to the society development.

Report scope and boundaries **GRI 2-3, 2-6, 3-3**

The boundaries of the KPO Sustainability Report relate to all Company operations in the allotment area of the Karachaganak Oil & Gas Condensate Field and export pipeline systems: Karachaganak-Orenburg Transportation System (KOTS) and Karachaganak-Atyrau Transportation System (KATS).

This publication is for the KPO performance in 2022. This document presents both our performance for 2022 and our plans for 2023. In order to demonstrate our sustainability commitments, our performance on material topics is presented in comparison with previous years. Following the established practice and as per the GRI

Standards principles, we try to tell both our achievements and issues. In the Contents we have outlines the most material topics from our point of view, which are then disclosed in detail in the chapters of the same name.

The 2021 Sustainability report was issued at the end of June 2022.

The archive of all our issued sustainability reports is available on our website at www.kpo.kz/en/sustainability. In addition, our reports are posted at the Corporate Register web database, one of the largest global online directories for corporate responsibility reports, available at www.corporateregister.com.

Applicable Global Reporting Initiative Standards

This Report and has been prepared in accordance with the requirements of the GRI Standards 2021 and applying the requirements of GRI standards Oil and Gas Sector 2021. In addition, we studied the ESG agenda, which is largely consistent with the requirements of GRI standards.

Our goal is to ensure the appropriate level of transparency and reliability in our sustainability report, as required by the GRI Standards, which we consider as most applicable for us in sustainability reporting.

KPO has been reporting on its sustainable development since 2008.

- ▶ From 2008 through 2012, our early publications were prepared in accordance with the GRI Guidelines 3.
- ▶ From 2013 through 2016 KPO reports were issued in accordance with the Fourth Guideline of the Global Reporting Initiative (GRI G4). In 2014, KPO was one the first company in Qazaqstan to have applied the requirements of the GRI G4.
- ▶ From 2017 to 2022 KPO sustainability reports were issued in accordance with the requirements of the GRI Standards.

Unit-2



Independent assurance GRI 2-5, 2-17

KPO started assuring its Sustainability Report in 2009. Since then, thirteen KPO reports have been assured by auditing companies to verify the reliability of the information disclosed. We believe that the practice of independent assurance enables us to maintain a good level of transparency and truthfulness in our non-financial reports.

When preparing this document in 2023, KPO did not apply to independent experts to verify the data disclosed in the report due to long process of obtaining a contract for independent assurance. We plan to resume the practice of independent assurance of the Report in 2024.

In terms of internal content concurrence, Sustainability Report is approved by the Company's Directors Committee and at the preparation stage, coordinated with the members of the Sub-committee on Sustainable Development on the part of the operating companies.

In February 2023, Shell organized a joint training on "Business Sustainability and ESG Basics" for its Sustainable Development Sub-committee members as well as, employees involved in sustainability reporting from JVs like KPO.

In addition, KPO's Sustainability Reporting section employees annually complete GRI certified training and this year also completed a two-month "ESG reporting: Full Course", held for the first time in Qazaqstan. In November our team members took part in an offline seminar on human rights organized by UNDP in Atyrau. Active participation in such events and training allows us to keep on date and ensure the proper quality of the Sustainability Report.

The soundness of KPO's sustainability reporting approach has been repeatedly acknowledged in annual competitions and national ratings by «Expert RA Kazakhstan». In 2018, KPO made it to the finals of the Asia Sustainability Reporting Awards 2018 in the categories "Best Environmental Reporting" and "Best Workplace Reporting". Starting from 2019, KPO is among the top ten non-financial companies in terms of ESG information disclosure in PwC Qazaqstan rating. Also, thanks to the environmental disclosure in the report, KPO is in the top three in the World Wildlife Fund (WWF) Environmental Information Transparency Rating for Oil and Gas Companies in Qazaqstan since 2017.



KPO management at the IMBC forum



Business partnerships and associations GRI 2-28, SDG 17.16, 17.17

We consider our partnership in Qazaqstani associations, such as Kazakhstan Association of Oil Gas and Energy Section 'KAZENERGY', Kazakhstan Business Council for Sustainable Development 'KAPUR' and International Centre for Development of Oil and Gas Machine Building (IMBC) as strategically important. This gives us an opportunity to network with the industry peers and provides access to the collective lobbying tools such as working groups and committees.

For example, in October 2022, together with the KAZENERGY Association, KPO took part in such events as the Student Digital Fest contest and the launch ceremony of the first educational program "Women's Leadership in the Energy Industry" at the Atyrau University of Oil and Gas named after S. Utebaev. Also, starting from 2015, KPO annually allocates 500 thousand USD for educational grants under the memorandum of cooperation signed on September 29, 2015 between the Ministry of Energy of the Republic of Qazaqstan,

PSA LLP, KPO B.V., NCOC N.V. and the KAZENERGY Association. SDG 4.b

In 2020, the International Centre for Development of Oil and Gas Machine Building (IMBC) was established as a part of Action Plan for the RoQ Oil and Gas Machine Building development for 2019–2025, the main focus of which is the procurement of goods manufactured in Qazaqstan for the machine-building industry by major oil and gas projects in Qazaqstan. IMBC conducts its activities on behalf of the three operators – KPO, TCO and NCOC, and closely interacts with the Ministry of Industry and Infrastructure Development, the Ministry of Energy, the PSA LLP Authority and petroleum associations involved in the development of the national oil and gas machinery building. For more details on KPO's interaction with IMBC, see the Local Content Development chapter.

KPO 365

There are **“3” objectives** in KPO 365. They are intended to remain stable year on year. These are the core foundations that set up the rest of the 365 strategy and they are the driving force behind making KPO a world-class producer, that is resilient and sustainable.

There are the **“6” focus areas** in KPO 365 which are intended to remain stable with updates on a 3-yearly cycle if required.

There will be **“5” roads** for each focus area in KPO 365 which will be the annual short-term strategies developed to progress KPO's long-term vision. They are planned to be reviewed and confirmed/updated annually, and then to be linked to the annual KPI's and become the input to the business planning updates that follow.

KPO BUSINESS STRATEGY GRI 2-22, SDG 7, 8.4, 12, 13, 16.b, 17.14, 17.19

The KPO business mission is to maximise value for all stakeholders through safe, reliable and competitive production and development of the Karachaganak field. KPO Business Strategy links to the company wide strategic and business planning process and cascades via KPI's and goal setting.

In 2021, KPO has initiated the development of a new **“KPO 365 Strategy”** with the objective of making the KPO asset more sustainable for the future. In 2022, the strategy was under development of Operations Directorate with the support of other company departments, and it is planned to be finalized in 2023. Overall, the 365 strategy is designed to position the company for success in the future by focusing on three main objectives: **Live Our Values, Ensure Stability and Building the Future.**

OUR MISSION

Mission of the Karachaganak Petroleum Operating B.V. is to develop the Karachaganak Field in an environmentally and economically sound manner while simultaneously creating the socio-economic development opportunities for local communities.

To support the achievement of our mission, we continue embedding sustainable development thinking into the way we do business. This means that in all our activities we shall:

- ▶ look to minimise impacts and maximise opportunities linked with its presence;
- ▶ consider the consequences of our decisions in the long-term;
- ▶ engage our stakeholders in a constructive dialogue;
- ▶ incorporate strong governance and transparency.

Guided by the principles of sustainable development established in the KPO Sustainable Development Charter, as well as the KPO Business Principles, the Company conducts its activities by contributing to the achievement of the UN sustainable development goals and objectives. **SDG 16.b**

OUR VALUES

Care for People



People are a critical resource to KPO. The development of people and business processes is the backbone of the company.

HSE & Goal Zero



The term 'Goal Zero' is an aspirational objective that highlights our commitment to keeping our people, the environment in which we work, and the assets that we operate safely EVERY DAY.

Stakeholders & Relationships



Our interaction with stakeholders is an integral part of the company's activities. It is planned, documented, and carried out in accordance with the legislation and internal policies.

Manage Cost Base



Spending every dollar wisely while ensuring a stable and defensible budget and expenditure process creates a positive relationship with stakeholders, thus improving our cost base management.

Diversify & Improve Revenue



The Karachaganak field development strategy aims to maximise value/revenue for all stakeholders by prioritising Oil & Stable Condensate Production and maintaining the liquids plateau as long as possible.

Transition to Green KPO



KPO Green strategy aims to become a world-class “green” hydrocarbon and energy producer, with Net Zero scopes 1&2 and focus on regional development. Reducing environmental impacts while continuing to provide sustainable energy opportunities for Qazaqstan.

ENSURE STABILITY

BUILD THE FUTURE

Ensuing KPO's long term social, environmental & economical sustainability

MATERIAL TOPICS AND STAKEHOLDERS ENGAGEMENT

GRI 2-29, 3-1, 3-2, SDG 17.16, 17.17

Success of sustainable development depends on effective dialogue between business and its stakeholders. We are bound with our stakeholders by multiple ties and are interested to hear their opinions. The Sustainability report is the main tool for regularly informing stakeholders about our activities, including addressing key issues and related changes that impact one way or another both the Company and its stakeholders during the reporting period. In addition, the report presents the large number of indicators that allow us to analyze KPO's impact on the development of the region as a whole. In working on this Report, we draw on the extensive experience of our Parent Companies and follow the requirements of internationally recognized non-financial reporting practices.

It is important for us to maintain a constructive dialogue with our stakeholders and implement mutually beneficial solutions. Decisions are usually made through the engagement process of the two. Our interaction with stakeholders is an integral part of the Company's activities. It is planned, documented and carried out in accordance with the legislation and internal policies. KPO departments determine their stakeholders based on the analysis of risks and material topics, and share their experience of engagement in this Report. Given the scale of the KPO's activities, our stakeholders are a large number of diverse groups and organizations. The most significant groups of stakeholders and ways of interaction in 2021 are presented on the figure 1.

The process of compiling our Sustainability report involves exchanging information and collecting data through interaction between various departments within the Company, as well as with stakeholders outside the Company. Over the years of reporting, we have identified a number of topics material for us, which are reviewed annually to highlight those that are most relevant and critical to our operations. In this issue, we continue to highlight their dynamics.

To define boundaries of our material topics, we are guided by the Standards of the Global Reporting Initiative (GRI) and their Standards for Oil and Gas sector. The most critical Key Performance Indicators are disclosed compared to those of the International Association of Oil and Gas Producers (IOGP). We report on the applicable GRI standards taking into account management approaches and Key Performance Indicators of the Company. At the same time, risk and opportunities are assessed, as well as set goals are quantified in comparison with achievements of previous periods.

Regardless of various standards' requirements, we do our best to provide more detailed information about the Company's activities and material topics in sustainable development. Therefore, the information presented in the Report goes far beyond the GRI indicators alone.

Considered in the Report material topics tend to address issues related to the economic, environmental and social impacts of the KPO's activities in general, as well as separately in the process of implementation of particular production operations.

The topics disclosed for the reporting period are tracked regularly in the process of multilateral interaction with our Parent Companies, the PSA LLP Authority, various regulatory bodies, contractors, industry partners, employees, trade unions, local communities and the media. The stakeholders raise their issues at various sessions, from meetings of the Village Councils to forums, conferences, public hearings, social surveys, audits, and by addressing them directly to the Company. (See Fig. 1) **GRI 2-29**

Fig. 1. KPO engagement with stakeholders in 2022 **GRI 2-29**

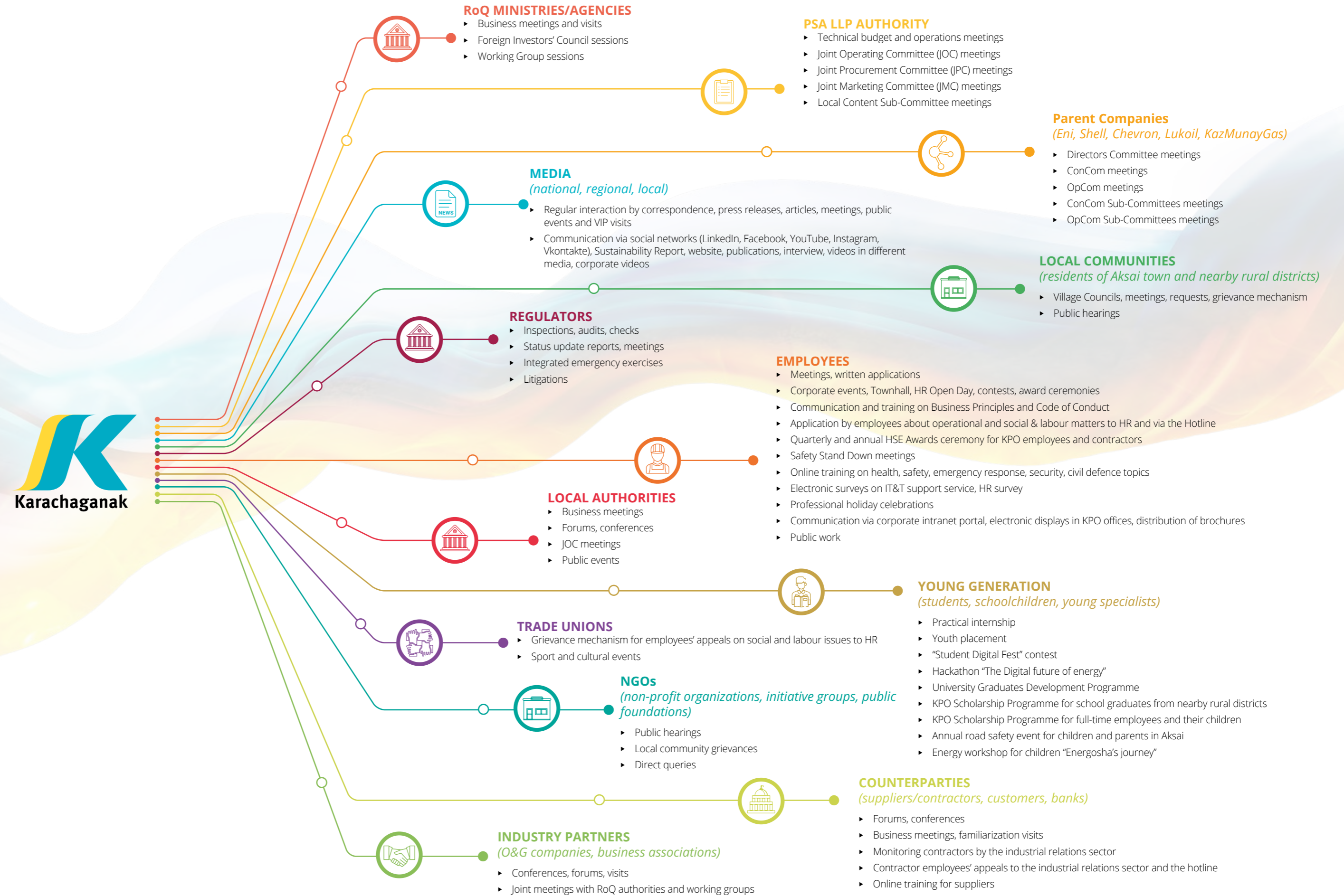
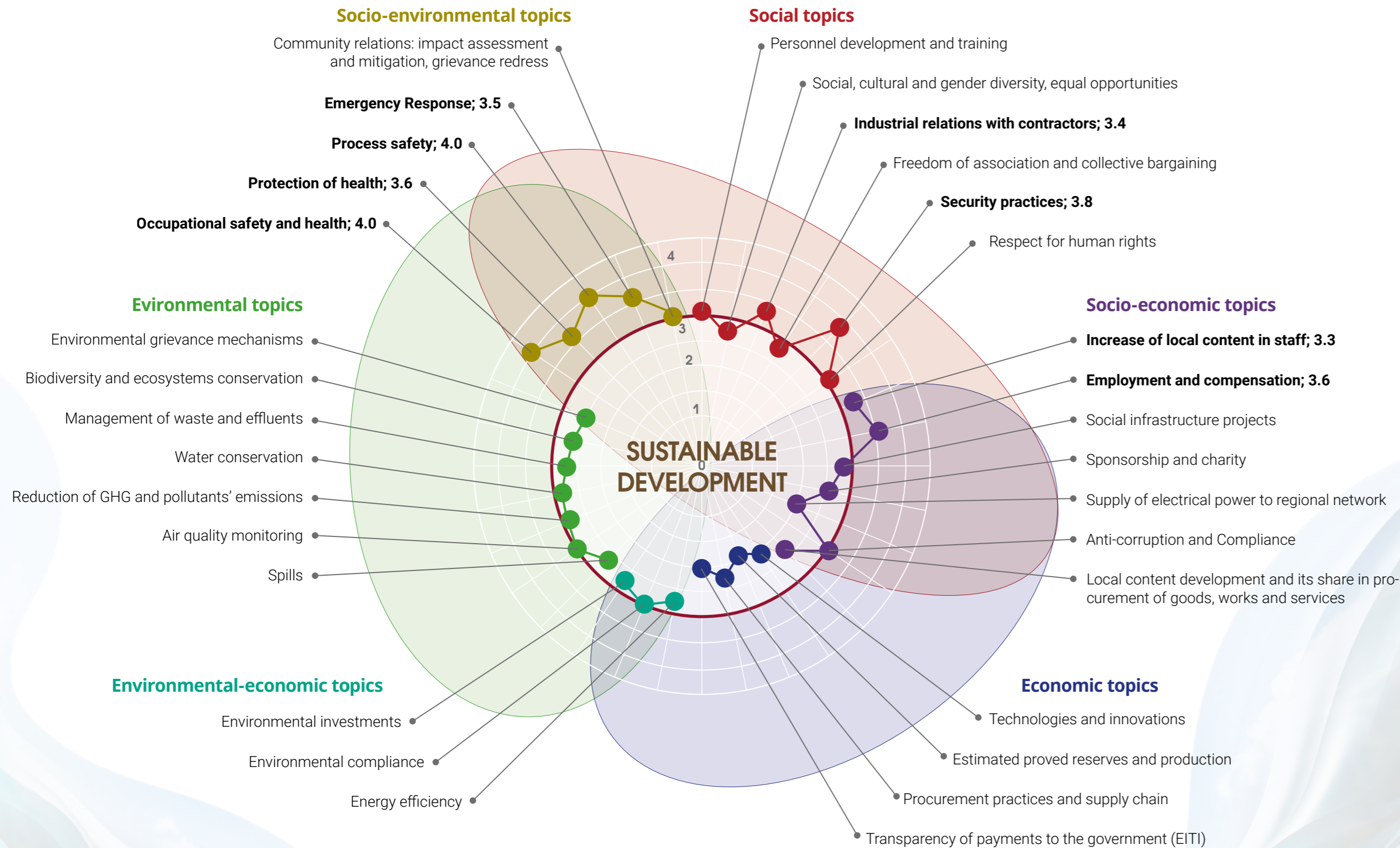


Fig. 2. Material topics of KPO Sustainable development GRI 3-1, 3-2



Note: The importance of topics is shown in a ranking of 0 to 4, from the center to the outer edge of the chart. The most significant topics are outside the red circle, indicating a threshold value of three.

At the end of 2022, in order to identify the most material topics for disclosing in this issue, we have conducted a survey amongst the key stakeholders. The survey was answered by 83% of respondents. This survey has helped us to analyze our reporting process and to prioritize our list of material topics.

In 2022, all of the topics listed in Figure 2 remained material to KPO and its stakeholders. The importance of the topics is shown in a ranking from 0 to 4, from the centre to the outer edge of the diagram. The most significant topics are outside of the red circle, indicating a threshold value of three, and include those listed in Table 1.

Tab. 1. Comparison of the most material topics according to the Key stakeholders' opinion surveys for 2021 – 2022

2021	2022
1. Security practices	1. Security practices
2. Occupational Health and Safety	2. Occupational Health and Safety of
3. Protection of employees health	3. Protection of employees health
4. Asset Integrity	4. Asset Integrity
5. Emergency response	5. Emergency response
6. Air quality monitoring	6. Industrial relations with contractors
7. Reducing of GHG and pollutants' emissions	7. Employment and compensations
8. Water conservation	8. Increase of local content in staff

Based on the results of the surveys and the knowledge gained by the reporting team at the certified training on the updated 2021 GRI Standards, we conducted another analysis of the material topics list. Compared to 2021, the list of material topics decreased from 35 to 32. Of these, two topics: corporate governance and ISO 14001, 45001 and 50001, 9001 certification, which we separately identified as material, are compulsory for disclosure according to GRI among general disclosures on organization activities and will be covered in subsequent reports by default. One topic – COVID 19 – has ceased to have a major impact on the company's operations.

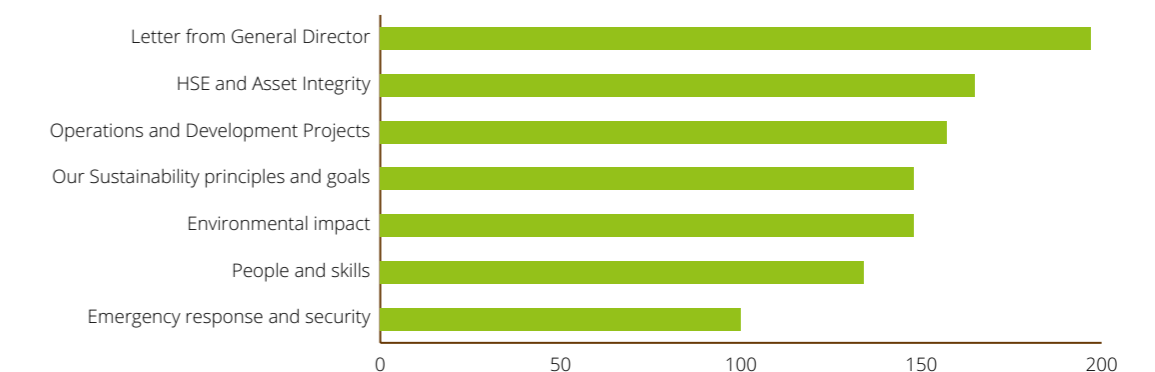
The result of this survey also confirms the importance of HSE, asset integrity and personnel development topics. At the same time, environmental protection topics continue to be important for KPO staff, unlike the results of the external stakeholder's survey.

The degree of relevance of certain issues disclosed in this Report can be traced in figure 2.

As part of the Report's preparation, we aim to continuously raise public awareness of the material topics disclosed in the Report, both internal and external. Inside the printed copies of our Sustainability Reports there are loose-leaf feedback forms for readers to fill in. We have also placed an online feedback form on our website and we are always open for the feedback on the Report in any form via Sustainability@kpo.kz. The comments and suggestions received are taken into account in the preparation of the next Report.

At the end of 2022, we also conducted an internal survey among our employees to assess the relevance of the information covered in the report for their work. 7% of the Company's staff took part in the survey. Based on the survey results, we identified six most-read chapters.

Graph 1. The most popular chapters of the report



FIRE - The element of fire symbolizes all sources of energy in the world, including solar, hydroelectric, nuclear, fuel energy. Fire is the process of releasing energy from its source. We extract oil, which being transformed, provides people with energy.



GRI 2-23

**Business principle:
ECONOMIC**

Long term profitability is essential to achieving our business goals and creating value for our shareholders and the Republic of Qazaqstan.

**Business principle:
ENVIRONMENT**

We continually look for ways to reduce the environmental impact of our operations.

2022

PRODUCTION

Total Production

128.5
Mboe

Total equivalent stable oil

 **10,134**
kT

Total gas production

 **19,442**
Mscm

WELL STOCK

Total well stock

471

Production wells in operation

 **117**

Injection wells

 **20**

0
Tier-1 and Tier-2
LOPC events

0
significant spills

OPERATIONS

- KPO facilities 18
- Products and export routes 20
- Drilling technologies 22
- Turnaround 23
- Development projects 24
- Asset Integrity and critical incident management 26
- Digitalization and continuous improvement 32

OVERVIEW GRI 2-1, 3-3, OG1

KPO is the Operator of the Karachaganak oil and gas condensate field (KOGCF) which is located in North-West Qazaqstan and covers an area of over 280 km². Karachaganak is a unique field with complex operating conditions, not in the least due to extreme continental climate. The field is some 1,600 m thick and very complex and unique with its top at a depth of around 3,500 m. The extracted hydrocarbons contain up to 4.5% of highly toxic and corrosive hydrogen sulphide (H₂S), as well as carbon dioxide (CO₂) which can be highly corrosive in certain conditions.

According to the latest Reserves Re-Determination Report for the Karachaganak field (accepted by the RoQ State Reserves Committee (GKZ) on 17.11.2017), it is estimated that the Karachaganak Field contains some 13.6 billion barrels of liquids and 59.4 trillion cubic feet of gas, of which

approximately 14.8% of liquids and 14% of gas have been recovered as of 2022. **OG1**

The Company invests heavily into the application of leading-edge technologies to maximize sustainable economic value and minimise environmental impact.

*The total investment in the development of the Karachaganak oil & gas condensate field since the signing of the FPSA in 1997 to 31.12.2022 has totalled over USD 28.4 bln. As of end 2022, 4,053 people worked in the KPO organisation. **GRI 2-6***

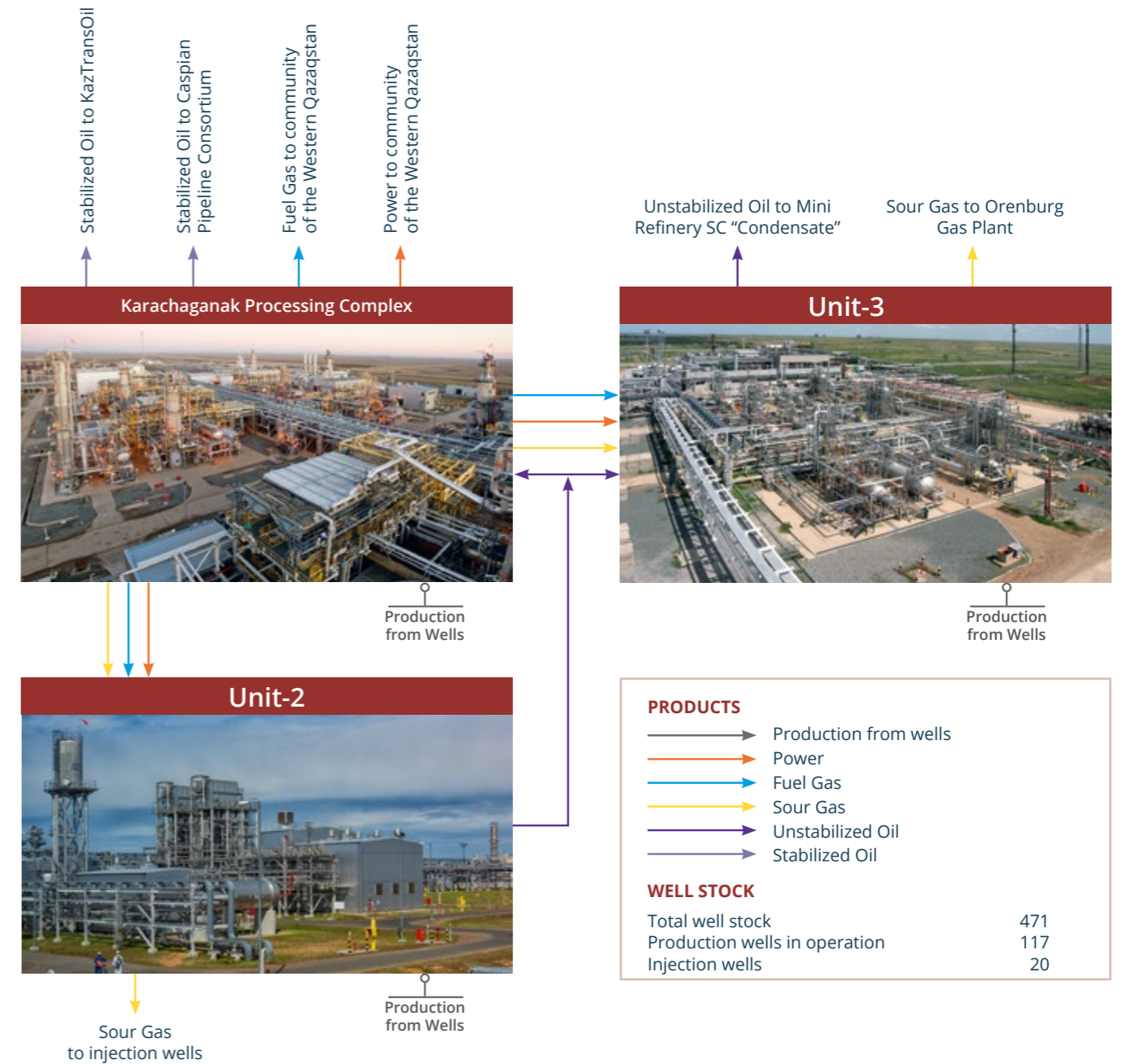
KPO FACILITIES GRI 2-1, 2-6

Hydrocarbon production and processing occurs at three major interconnected units: Karachaganak Processing Complex (KPC), Unit 2 and Unit 3. Approximately 2,000 kilometres of pipelines make up the infield system linking the major facilities and allowing efficient flows of production from the wells and among the units. Amongst the facilities, there is an Early Oil Production Satellite (EOPS) and Eco Centre. An overall view of the facilities is graphically presented on the Figure 3.

The transportation system operated by KPO includes the main export route for stabilised liquid hydrocarbons – Karachaganak – Atyrau Transportation System (KATS) with two pumping stations: one at KPC and the other at Bolshoi Chagan, and a receiving and storage facility in KPO Terminal in Atyrau. The other export route is the Karachaganak – Orenburg Transportation System (KOTS), which is used by KPO for transporting gas to Orenburg Gas Plant in the Russian Federation.

As of end 2022, 117 producing and 20 re-injection wells were online at Karachaganak, from a total well stock of 471 wells. In 2022, KPO well stock was increased by three new wells compared to the previous year: 471 wells in 2022 and 468 wells in 2021. According to the drilling plan for 2022, it was planned to drill four wells. In fact, three wells were drilled, one well was started drilling in 2021 and completed in 2022. Another two wells were started to be drilled in 2022 and completed in 2023.

Fig. 3. Karachaganak facilities and products (as of end 2022) GRI 2-6



PRODUCTS AND EXPORT ROUTES GRI 2-6

KPO extracts and processes stabilised and unstabilised liquid hydrocarbons, raw gas and fuel gas. The majority of hydrocarbons produced in the Karachaganak Field are exported to maximize net sales revenues.

In 2022, around 99.69% of liquid production was sold as stabilised oil to the Western markets via the following routes:

- ▶ the Caspian Pipeline Consortium (CPC) pipeline,
- ▶ the Atyrau – Samara pipeline and further through the Transneft system.

The CPC pipeline delivers KPO oil to the Black Sea port of Novorossiysk (Yuzhnaya Ozereyevka), whereas Atyrau-Samara pipeline is used to deliver oil to Ust-Luga port in the Baltic Sea and to Novorossiysk Sheskhari

on the Black Sea (see Fig. 4). The key marketing objective is to maximize oil export via CPC pipeline, which is the main export route with the highest netback cost. The Atyrau-Samara route is used as a backup in case of disruptions of the export through CPC.

In 2022, in view of certain macroeconomic and political conditions, KPO took all possible actions to comply with international sanctions.

In October 2022, KPO completed and successfully commissioned a project for KPO tie-in into the Kaztransoil pipeline system (KTO), which allows for the railway export of KPO oil. In November and December, KPO successfully transported 40 k tons of oil through KTO T.Kasymov Oil Pumping Station with subsequent transshipment to the CPC pipeline.

Fig. 4. KPO export routes GRI 3-3



In 2022, KPO exported total of 10.2 mln tonnes of stabilised oil, out of which 9.94 mln tonnes were delivered through CPC. To maximize revenue, nearly 0.23 mln tonnes of oil were exported via the Atyrau-Samara pipeline. As part of maintenance at the Karachaganak Processing Complex during the reboilers' washing, liquids were delivered to Condensate SC's refinery.

The gas produced from the Karachaganak Field is:

- ▶ re-injected into the reservoir to maintain reservoir pressure,

- ▶ sold as raw gas to KazRosGas LLP under the long-term Gas Sales Agreement,
- ▶ sweetened (i.e. cleared from H₂S) to use for process needs of the field units, to generate electricity for KPO facilities including Gas Turbine Power Plant and for local power distribution companies.

In 2022, KPO sold 7.5 bln m³ of raw gas to KazRosGaz for processing at the Orenburg Gas Plant.

Operations and sales in 2022 GRI 2-6

In 2022, KPO produced 128.5 mln barrels of oil equivalent (BOE) in the form of stable and unstable liquids and gas. Gas production in 2022 reached 19 mln m³. In 2022, to maintain reservoir pressure, KPO re-injected ~ 11 bln m³ of gas into the reservoir, a volume equivalent to about 57.3% of the total gas extracted.

Tab. 2. Production in 2022

		2022*	2021	2020
Total Production (gas injection exclusive)	Mboe	128.5	134.1	143.9
Total equivalent stable oil	Kt	10,134	10,338	10,941
Total gas production	Mscm	19,442	18,980	20,214
Gas Injection into a reservoir	Mscm	11,131	9,998	10,362
Sweet Gas for internal needs	Mscm	843	789	761

* Full turnaround year

Tab. 3. Sales in 2022

		2022	2021	2020
Total Sales	Mboe	124.9	130.7	139.4
Stable Liquids Oil and stabilised condensate to CPC and Atyrau-Samara	kt	10,2	10,366	10,857
Unstable Liquids Unstabilised condensate to Condensate SC's refinery	kt	30	1.5	24
Raw Gas to Orenburg Gas Plant	Mscm	7,455	8,182	8,986
Sweet Gas to the West Qazaqstan Oblast to generate electricity for community	Mscm	70	70	90

With regards to customer health and safety, we have had no significant incidents of non-compliance with regulations resulting in a fine, penalty or a warning in 2022. GRI 416-1

DRILLING TECHNOLOGIES SDG 8.2, 12.6

In 2022, KPO continued building on the strong foundation laid in the past years, working on minimising the impact of drilling and well services operations on the environment. As previously, we continued our journey towards zero emission and applied measures listed below to reduce greenhouse gas (GHG) emissions, and consumption of water and resources:

- ▶ Continued initiatives such as using wireline instead of coiled tubing for post stimulation.
- ▶ High-efficient environmentally friendly burners to eliminate where possible / reduce the need for flaring and the need for disposal of contaminated fluids.
- ▶ Restarting our drilling campaign, delivering wells that will allow increased oil production offsetting existing high gas producing (GOR) wells.
- ▶ High Rate Well Test setup with High Pressure Separators combined with multiphase high rate flow pumps (High Gas Volume Fraction Pumps – HGVF) to enable 'zero' flaring well test / clean-up activity on new wells.
- ▶ Use of the light workover rigs (ZJ-20) instead of the 3000HP heavy rigs to complete intervention and workovers on wells 628 and 201. This ensured lower emissions and lower environmental footprint to achieve our objectives.

- ▶ Our in-field Eco Centre or waste management centre enables recovery of base oil from contaminated drilling fluids and drilled cuttings for re-use in well intervention activities.

The KPO Well Operations team continuously works on developing internal procedures, workflows, technology improvements and innovations aimed at improving efficiency and well operations' performance. The following was achieved throughout 2022:

- ▶ Development and implementation of a "Business Improvement Plan" to drive efficiency of well delivery with strong focus on digitalisation and performance improvement.
- ▶ Step-up in well integrity monitoring and well integrity status – preventing and reducing the possibility of well integrity related environmental emissions.
- ▶ Utilisation of new technologies like local expander (ability to repair the well locally, thereby avoiding the need to re-drill) and tracer technology – driving efficient production.



TURNAROUND

The KPO Turnaround strategy is focused on optimisation of production and minimisation of cost by extending intervals between turnarounds and reduction of actual turnaround durations. This must be achieved whilst ensuring safe, reliable continuous operations and regulatory compliance. Interval extension has been applied to Unit 3. This unit historically had full turnarounds every year: from 2023 onwards, this will be reduced to once every three years, in line with the rest of the field.

The strategy for turnarounds in 2022 was to hold a single, integrated full field turnaround starting in September. The entire KPO production system was closed in for just under 25 days in this period. Such a massive undertaking results in a huge load on both KPO and contractor staff and equipment. KPO took the opportunity, therefore, to execute smaller shutdowns of the individual production trains at the Unit 3 facility during the summer period. This minimised the peak loading during the turnaround and reduced HSE risks related to concurrent activities at the unit.

The major drivers for the turnarounds in 2022 were integrity and reliability. In addition to routine inspections, statutory maintenance and project activities, the main scopes included: the replacement of two vessels and the removal of obsolete heat exchangers. The reinjection compressor systems at Unit 2 were fully overhauled, including replacement of compressor internals and refurbishment of the gas turbines.

This work was completed with only 4 minor first aid cases. This was an exceptionally good result. This was achieved following an intense period of HSE preparation. KPO had many new contractor companies at this turnaround and particular attention was given to contractor engagement. This took place not only at managerial level but also at supervisory level.

During the turnaround period, over 2,200 HSE inspections were held and 90 leadership or management site tours. The management tours comprised both KPO and contractor senior personnel in combined sessions.

KPO continued to focus on safe lifting operation including awareness sessions for lifting teams, review of non-routine lifting plan by specialist and focussing on rigger and banksman roles. Quality aspects were also vital to the turnaround, with attention given to minimising any leaks prior to start-up. Reducing leaks means less re-testing of pressure systems and reduced nitrogen emissions. KPO had a significant improvement in the leak rate, with only 0.5% of 8,400 joints having minor leaks.



Overall, there were just over 2.2 million man-hours of work executed by around 12,000

12,000
different staff



DEVELOPMENT PROJECTS

As a Contractor to the Republic of Qazaqstan, KPO has an obligation to conduct all operations necessary to ensure the contract area is developed and the petroleum is produced in accordance with Good Oilfield Practice.

Following the completion of the Karachaganak Phase II Initial Programme in 2003, KPO has been funding and implementing a rolling work programme that includes drilling of new development wells, undertaking workovers on existing wells, upgrading production facilities and other projects required to maintain a high production level.

From 2014, in order to avoid the increased gas-oil-ratio which causes the existing facilities to become gas constrained, KPO has been working on a programme of production Plateau Extension Projects (PEP) comprised of:

- ▶ KPC Gas De-bottlenecking (KGDBN) project aimed at increasing the overall KPC gas processing by expanding the gas handling capacity;
- ▶ 4th Gas Reinjection Compressor (4IC) project aims to increase the annual daily average volume of gas re-injected into the reservoir and to improve reservoir pressure support;

- ▶ 5th Trunkline and Gas Reinjection Wells Projects would upgrade the injection network capacity downstream of Unit 2 through installation of a new trunk line, and drilling and completion of new gas injection wells.

PEP projects portfolio was maturing and developing over the years, resulting in start-up of the 5th Trunkline and Gas reinjection wells project in December 2019 with first of the three injection wells.

In March 2021, KPC Gas Debottlenecking (KGDBN) project was successfully completed and the plant brought in production. Final project handover to Operations was achieved by the end of 2021.

The 4th Gas Reinjection Compressor project (4IC) has been successfully completed and the plant was brought in production in May 2022. Final project handover to Operations was completed within 2022.

Karachaganak Expansion Project

KPO continues development of the Karachaganak field via the Karachaganak Expansion Project Phase 1 (KEP1), scheduled in a phased manner. The KEP1 project will create additional value for the Karachaganak Parent Companies and the Republic of Qazaqstan by maintaining the stabilized liquid plateau through the provision of additional wells, process facilities and gas reinjection to manage the increasing gas oil ratio (GOR) of the field.

In December 2020, the Karachaganak Parent Companies signed an agreement sanctioning the KEP1A Project. That was another major achievement representing a new milestone in the continued development of the Karachaganak Field, building further on the achievements of Karachaganak Gas Debottlenecking Project (KGDBN) and the Fourth Injection Compressor (4IC) Project.

KEP1A represents the first phase of the KEP1 scope and comprises of the 5th Injection Compressor (5IC) and associated facilities. The KEP1A Project pursues the opportunity to utilise the available dehydration capacity installed by KGDBN in the Karachaganak Processing Complex to increase gas re-injection capacity and integrate its scope within existing systems, utilities and facilities. The integration philosophy creates synergies and reduces CAPEX exposure. In 2021, Early Works and Temporary Construction Facilities were completed ahead of plan. In 2022, engineering was substantially completed and Purchase Orders for major equipment were all placed. The compressor was delivered to site as per plan.

Vendor manufacturing and site construction activities are progressing.

On the 25th November 2022, the Karachaganak Parent Companies and the Authorized body (PSA LLP) supported by the Ministry of Energy of the Republic of Qazaqstan signed an agreement sanctioning the KEP1B Project. The KEP1B Project represents the second phase of the KEP1 scope and comprises of the 6th Injection Compressor, gas dehydration unit, gathering network expansion and associated facilities. Similar to KEP1A, the project has the objective of increasing the liquid recovery by maximization of the production capacities of the existing facilities. Contracts for critical Long Lead Items were placed in 2022. Construction activities will commence in 2023. The project creates job opportunities for Qazaqstani workers. One of KPO's key priorities during the execution of KEP1 is to maximize the Local Content by enhancing local contractors' competitiveness. The project also provides job opportunities for Qazaqstan workers.

The 6th Trunkline and 3 Injection Wells Project has the objective to maximise liquids recovery by increasing the field injection area. The project will re-distribute injection gas into South West Frank area of the field for pressure support of nearby low Gas-Oil-Ratio wells and better reservoir management.

The trunkline itself was completed in September 2021. First gas into the 1st new injection well is planned for later in 2023, with the other two following in early 2024.

Why is it important to us?

GRI 3-3

The main objective of Asset Integrity is to prevent major accidents and reduce the risks to people, environment, assets, and the Company's reputation. It is an outcome of good design, construction, operating and maintenance practice.

Asset Integrity is achieved when facilities are structurally and mechanically sound and perform the processes to produce the products for which they were designed. Barriers that relate to the plants, people and processes are defined to reduce the risk for a major accident to a level that is as low as reasonably practicable.

ASSET INTEGRITY AND CRITICAL INCIDENT MANAGEMENT

Asset Integrity GRI 3-3, 2-16, 2-25, 403-2, 403-7, OG13, SDG 3.9, 8.8, 11.5

KPO monitors potential threats to its operations and mitigates Asset Integrity risks through its barrier management system. The Asset Integrity department together with the Units continuously assess the health status of the safety barriers to identify weaknesses, implement mitigating measures and establish plans to re-instate these barriers to its original design to prevent any major accident.

In order to minimize asset integrity risks, we have set a number of targets. The results of their implementation are presented further in the table.



Tab. 4. Targets in Asset Integrity GRI 3-3, 403-7

2022 targets	Target achievement	Actions taken in 2022	Targets for 2023
Further implement the Barrier Model (BM) tool, increase understanding and ownership of this tool by the Units.	Ongoing	<ul style="list-style-type: none"> ▶ Training, e-learning and awareness session including launch of BM video; ▶ Substantial amount of BM risks resolved during Turn Around 2022; ▶ BM monthly review meetings; ▶ Confirmed mitigation measures and recovery plans in place. 	<ul style="list-style-type: none"> ▶ Develop and Implement Cumulative Risk Assessment Methodology for BM; ▶ Continue enhancement of BM the tool functionality; ▶ Continue training, e-learning and awareness session programs.
Further develop enhanced functionality of the BM tool.	Ongoing	<ul style="list-style-type: none"> ▶ Training, e-learning and awareness session including launch of PSF videos; ▶ Conducted PSF awareness sessions for Frontline KPO personnel prior TA-2022. 	<ul style="list-style-type: none"> ▶ Continue PSF awareness sessions for KPO and Contractor personnel; ▶ Continue promote PSF culture in KPO.

The Asset Integrity Management Framework is a set of processes to prevent major accident hazards and to raise Asset Integrity and Process Safety awareness amongst the KPO employees, contractors and subcontractors working at the Karachaganak field.

The Asset Integrity Framework Management System consists of the following key processes:

- ▶ **Barrier Management** – through the application of a structured process supported by the using of the Barrier Model tool;
- ▶ **Asset Integrity Performance Analysis** – through the use of Key Performance Indicators;
- ▶ **Management of Change system for Brownfield Modifications** – through the use of the Management of Change database;
- ▶ **Asset Integrity Assurance** – through the use of reviews, audits, verifications and assessments;

- ▶ **Asset Integrity Improvement Culture initiatives** – through the production of e-Learning modules on the Mechanical Isolation Procedure, Process Safety Fundamentals and the Barrier Model process.

Within 2022, KPO has undertaken a number of activities addressing the key risks or barriers in the KPO asset integrity. In the table below, we present the completed activities in 2022 and the current status of the ongoing ones.

The activity currently ongoing will allow reducing the Process Containment and Ignition control risks field wide.

Tab. 5. Activities addressing the key risks or barriers in the KPO asset integrity

Barrier Impacted – finding and site place	Continuous Improvement Activities in Asset Integrity
ACTIVITIES COMPLETED IN 2022	
Process Containment – Undersized pressure safety valve field wide	A Safety review done by Engineering department highlighted potential undersized PSV's in the facilities. The undersized PSV's replaced during turnaround – 2022 at KPC, Unit-2.
Process Containment – Valves with banned materials field wide	During turnaround –2022 valves were replaced within KPC, Unit-2 and Gathering
Soft Barrier – Safety Critical Elements (SCE) at Gathering / Unit 3/ Eco-Centre	4 th ICP at Unit-2 has been completed and as part of the Handover to the Operations, the identification of the relevant SCE of the 4ICP project has been carried out.
Soft Barrier –compliance assessment on Temporary Management of Change (MoC) process effectiveness	In order to verify compliance with the KPO procedures, an assessment was carried out on Temporary MoC process effectiveness
ACTIVITIES STARTED IN 2022 ONGOING THROUGH 2023	
Protection Systems – Caustic Neutralisation Unit Shutdown system	Construction started in 2022 and tie-ins for new UOP Thermal Oxidation within TA-2022 done, New Caustic Neutralisation Unit to be installed in 2023
Ignition Control – EX Equipment field wide	Site inspections completed, most critical items repaired/replaced, remaining scope being addressed.

Barrier model GRI 403-2, 403-7

In 2022, the KPO Asset Integrity Department has worked on the enhancement of the Barrier Model software tool and integration with other software applications.

Loss of primary containment GRI 403-2, OG13

Loss of Primary Containment (LOPC) is an unplanned or uncontrolled release of any material from primary containment, including non-toxic and non-flammable materials. The Annual Loss of Primary Containment Report for 2022 provides an analysis of the LOPC incidents that occurred during 2022 along with their defined recovery actions in terms of:

- ▶ Root causes (in accordance with Incident Investigation Tap Root Methodology),
- ▶ Level of compliance with Process Safety Fundamental rules,
- ▶ Status of corrective actions,
- ▶ Weeps & Seeps Leaks Register data.

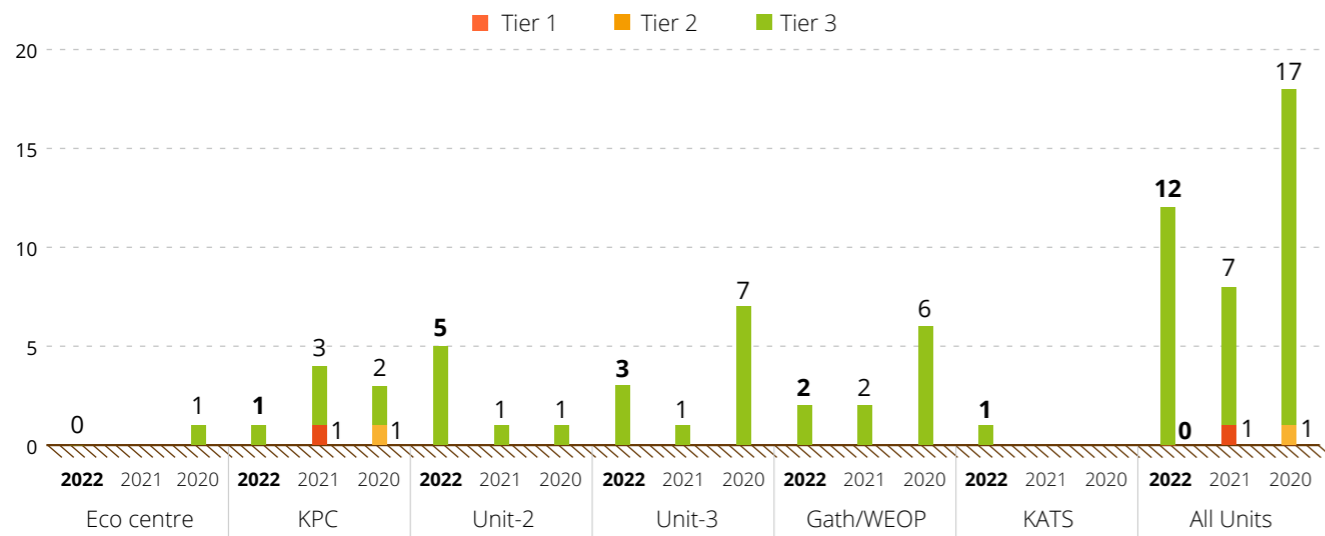
Spills GRI 306-3 (2016)

In 2022, no cases of significant spill¹ were recorded at the territory of the Karachaganak field.

Analysis of Process Safety Events (LoPC) is the key to prevent or reduce the likelihood and severity of Process Safety Events. Once a Process Safety event occurs, an investigation process is initiated, root causes are determined and recommendations are defined and followed up through the Synergi database.

2022 is the first year in KPO history with no Tier-1 and Tier-2 LOPC events (application of the IOGP terminology in KPO started in 2014). The number of Tier 3 LOPCs in 2022 was 12.

Graph 2. Loss of Primary Containment at KPO by process facilities, 2020–2022 OG13



Note: For Process Safety Event definition (Tier-1/2/3), please refer to the International Standard IOGP 456.

¹ The definition of a significant spill is applied to an incident, which has caused contamination of the environment through hydrocarbon/chemical spills to land or water and volume of spilled hydrocarbon/chemical exceeding 1,000 litres (as per KPO Incident classification).

Why is it important to us?

Emergency response and crisis management are the key processes of the KPO management system since, if an emergency situation escalates, KPO and contractors' personnel, as well as the neighbouring communities, may happen to be within the possible hazard impact area.

Emergency preparedness and response implies a recognition of possible irregularities and accidents, as well as creation of an organizational structure and resources for the mitigation of such accidents' effects on people, the environment, the Company's assets and reputation. These resources are also used to render support to the Burlin District state emergency and rescue capabilities in fighting fires on residential and agricultural lands, as well as in combating floods.

Critical incident management GRI 3-3, 2-23, SDG 3.9, 11.5

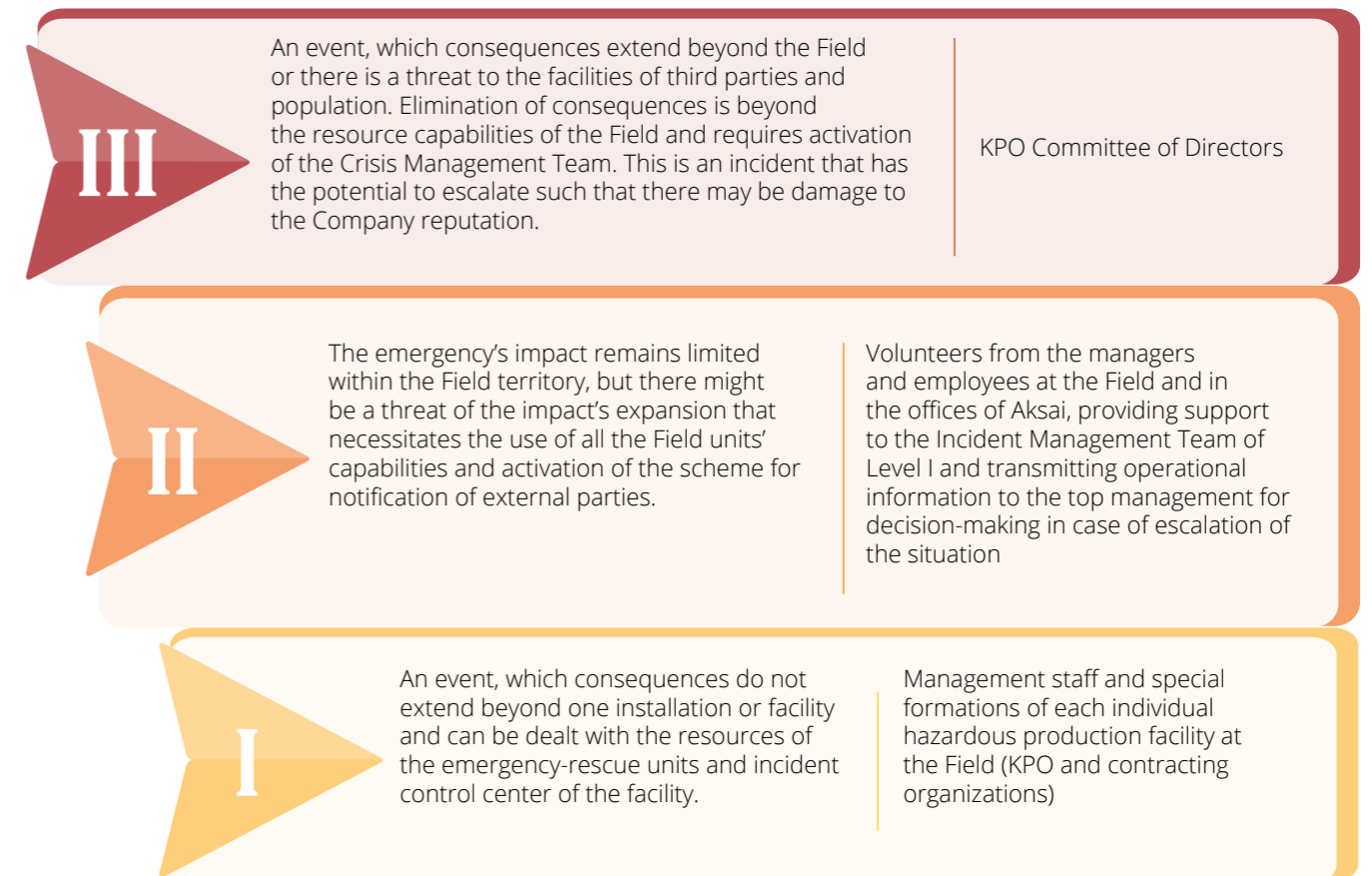
In case of any incident, accident or emergency, KPO operates a robust three-level Emergency Response system used to trigger a prompt response, assessment of emergency scale, planning and implementation of actions to localize and eliminate emergency and its consequences. The system is graphically shown on figure 5.

In 2022, KPO continued training of Incident Management Team in accordance with the approved schedule.

Weekly, theoretical and practical trainings were carried out throughout 2022 with the involvement of KPO Civil Protection Units, namely:

- ▶ firefighting teams;
- ▶ gas rescue team;
- ▶ voluntary emergency-rescue team;
- ▶ medical units.

Fig. 5. KPO emergency response system GRI 3-3, 403-5



Totally, 48 drills have been conducted with the involvement of KPO Civil Protection Units at the training area.

Moreover, in 2022, KPO continued training of staff in civil protection via the e-learning system, as required by the RoQ legislation.

In 2022, as part of ensuring the readiness of level I forces and resources, all Company's hazardous production facilities conducted monthly emergency response drills with the involvement of the Facility Incident Command Team (ICT), emergency rescue teams and KPO and contractors' personnel.

The total number of emergency response drills conducted in 2022 at KPO facilities for the purpose of exercising the actions of level I incident command teams and emergency rescue units amounted to 114 drills (103 in 2021).

Also, in accordance with the requirements of Order of the Minister of the RoQ Emergency Response #349 dated 16.07.2021 "On approval of guidelines to develop

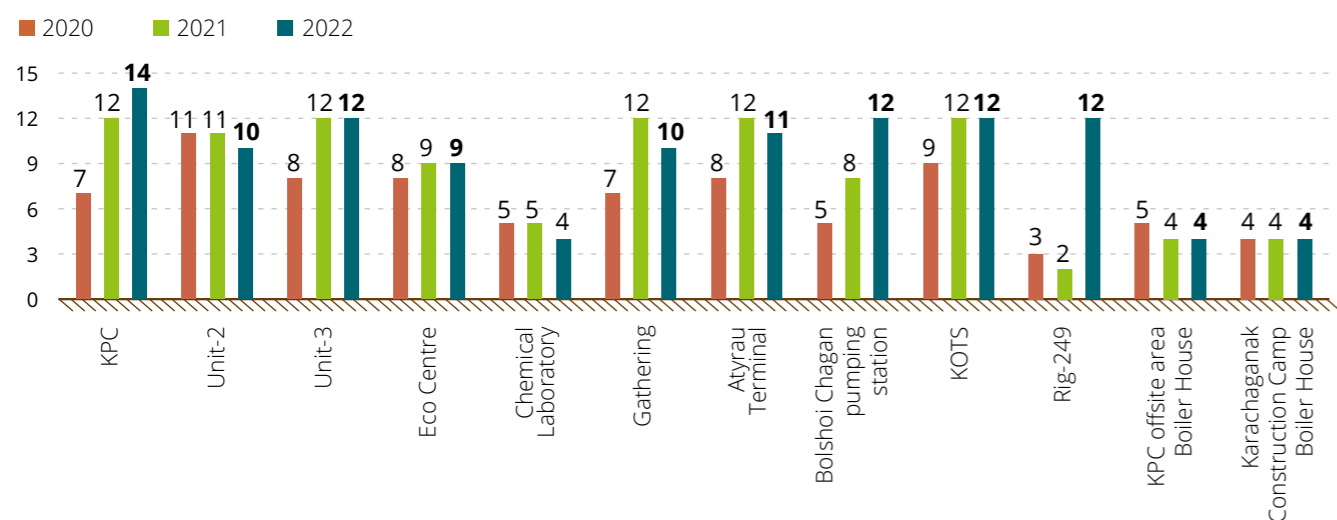
Emergency Response Plan and conduct emergency response drills at hazardous production facilities" 12 emergency training exercises were conducted of which 5 emergency training exercises were carried out with involvement of the II FIMC level.

Besides, KPO continues its active engagement with local authorities in the periods of high water, fire hazard and winter.

Throughout 2022, representatives of KPO emergency rescue teams and units responded to 12 calls by going out to settlement to provide assistance in extinguishing steppe fires at agricultural facilities, household outbuildings, and forest belt fires.

In 2022, real situations took place calling for involvement of KPO emergency management system. Thus, in January 2022, due to social tension and events in the country and region, day-and-night duty of level II EMT and level III CMT members was introduced on the basis of the Czech Camp's EMC maintaining continued readiness and response to the current operational situation.

Graph 3. Emergency response drills completed in 2020 – 2022



The level II and III centres' members took part in the following real mobilizations and drills, which allowed maintaining the readiness level: **GRI 3-3**

Tab. 6. Level II and III drills conducted in 2022

Type of drill	Date	Objectives	Participants
Table Top exercise	2 September 2022	"Actions of teams and resources for eliminating oil spill at the intersection of Ural River with KATS pipeline". The drill on recovery and elimination of emergency oil spills on water was performed for firefighting team, Incident Command Centre of PS Bolshoi Chagan and WQO Emergency Department.	ERS and KPO units together with WQO Emergency Department
Integrated exercises	10 June 2022	"Actions taken by emergency management, teams and resources of emergency rescue services and KPO units during elimination of major emergencies at the Karachaganak Field Facilities". Integrated Exercise Program for 2022 envisaged drilling of various scenarios for emergency elimination at the pre-defined 6 training areas including residential area Priuralnoe.	Teams and resources of emergency rescue services and KPO units together with WQO Emergency Department and Burlin district Akimat
Table Top Exercise BERRY	1 December 2022	"Rupture or damage of 6" Unit-3 condensate pipeline". The exercise to drill the process of warning and informing of the Operators, State and Regulatory Authorities, mass media and relatives of the injured persons was drilled.	Personnel of Centres of the I, II, III KPO ER levels, the PARIS team

Community preparedness GRI 2-23, 2-29, 3-3

KPO maintains awareness of the community on the procedure for responding in case of emergency situation at the Karachaganak Field and along the export pipeline KATS and general fire safety requirements during fire hazard period.

In 2022, following the approved plan, 20 meetings were held for 160 people with rural districts Akims and community located around the Field to discuss such issues as: importance of the central monitoring station, village alarm stations and their intent, abidance by fire safety regulations during farming operations in fire hazard period.

21 meetings were held for 151 people from settlements located along the export pipeline KATS in the Terektinsky, Baytereksky and Akzhaiksky regions of WQO.

Practical drills were carried out to exercise joint actions of the rural districts Akimats and responsible persons when managing evacuation of the community in case of danger from the field area, interaction with ECC Dispatcher, use of village alarm stations and gas alarm system in case of threat within the settlements.

To maintain constant readiness of village alarm stations, throughout 2022, the Community Protection Specialist of KPO Emergency Response Team jointly with contractor representatives carried out monthly testing of emergency alarm signals and public address systems, as well as the maintenance of this equipment. Such village alarm stations are installed in seven villages that are situated around the field.

Why is it important to us?

GRI 3-3

The whole world is going digital and KPO cannot stay apart if we want to keep this business attractive both for the country and for investors. Some of the pilot projects implemented in KPO have already demonstrated a real business impact, such as reducing the personnel exposure, more effective business processes, cost efficiency and many more.

Nowadays IT/Digital Assets are around us in business and personal lives, thus it is becoming vital to know how to use them safely. As well Cyber Security is one of enablers of the KPO Strategic Priorities to safeguard our Crown Jewels (i.e. people, data and applications) from Cyber Threats like phishing, ransomware or targeted attacks.

DIGITALIZATION AND CONTINUOUS IMPROVEMENT

SDG 8.2, 9.4, 17.6, 17.8

Driven by the Digital Qazaqstan programme introduced in 2017 by the RoQ Government, KPO has launched its Digital Roadmap for 2018–2021. Eleven focus areas were introduced, which cover digitalization opportunities from production optimisation to process efficiency. The roadmap is aimed in making the organisation safer, more effective and the more agile place.

For example, the Telemetry Phase I project as part of the Production Optimization focus area was successfully executed in 2021, which allows acquiring real-time data from wells thus helping to significantly reduce the personnel exposure to well sites and better tune the Integrated Network Model for production optimisation purposes. Moreover, some smaller projects like, Digital Signature (internal) or Launching the drones for remote inspection, implementation of barcodes for warehouses, monitoring of key performance indicators, exception-based well surveillance, E-medical examination units and digitization of forms and work processes are already demonstrating their benefits in daily activities.

Some projects from the new Digitalization Roadmap have already been implemented, such as the use of the Menti anonymous voting tool, the pilot use of the Udemy training and professional development platform.

Besides, in collaboration with the KAZENERGY Association, KPO annually supports the Student Digital Fest (SDF) contest having engaged students of major universities in Qazaqstan. The SDF-2022 contest final stage was successfully completed in September 2022.

In November 2022, the Digital future of energy Hackathon was held, the purpose of which was to identify local potential in the field of IT and draw attention to the problems that require digital solutions in the sphere of oil production.

Lessons learned from the digital transformation in our industry show that other key success factors shall be taken into account, such as availability of an integrated strategy with clear transformation goals, effective monitoring of progress, correcting the foundations for digital technologies and retraining/professional development of personnel. Since the current Digital Roadmap was completed in 2022, KPO plans to develop a new Digitalization and Continuous Improvement Strategy to be aligned and adopted to the new reality and external trends. The new transformation program will include a digital strategy and roadmap, as well as a continuous improvement strategy.

Continuous improvement strategy was prepared at the end of 2022 with the support of Parent Companies' experts. The proposed strategy is to create a strong group of coaches who are directly related to the improvement program, based on the objectives of the business plan in the operational activities (production, maintenance) and supply chain. This scope can be expanded to other departments when there is enough experience and capabilities.

Environmental impact

Economic impact

Appendices

The preview of the new roadmap includes five buckets dedicated to Digital Oil Field, assets/engineering, production processes, HSE, security and auxiliary initiatives that will allow the creation of basic infrastructure, such as wireless sensors for wells/structures, digitization of paper documents and, finally, pilot projects and tests to use opportunities arising in the digital field.

In 2022, a reorganization took place and the Digitalization and Continuous Improvement team, together with IT&T and Information Security Department were combined into the Information Technology and Continuous Improvement Controllershship, which will allow more effective support to the leaders of initiatives in providing planned digital tools and strive to further search for improvements.

Cyber Security Awareness Campaign

The Parent Companies' Audit in 2019 revealed a low state of cyber security maturity across its processes and controls which are required to effectively protect KPO from the evolving cyber threat landscape. As a follow up, our company prioritized Cyber Security Maturity Improvement Program in order to reach out level of Oil & Gas supermajors average. As a result a new Cyber Security Department was established at the end of the 2022 year.

Because cyber-attacks are fast-developing, we should continuously improve our security posture and all KPO Employees will participate in Annual Cyber Security Awareness Campaign, which will start in February 2023. The Campaign will consist of cybersecurity training lessons, phishing simulations, games and monthly awareness bulletins to share knowledge about how to avoid cyber threats, e.g., phishing, spear phishing, ransomware, malware, social engineering schemes, and much more.



KPO General Director speech at the SPE Conference

ETHER is the most subtle and difficult to perceive element. The laws of corporate governance are complex and multifaceted, but they underlie all processes and provide system and order.



GOVERNANCE

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GRI 2-23

Business principle: BUSINESS INTEGRITY

We insist on honesty, integrity and fairness in all aspects of our business and expect the same in our relationships with all those with whom we do business.

The direct or indirect offer, payment, soliciting or acceptance of bribes in any form is unacceptable and we strongly reject any kind of associated behaviour.

KPO staff must avoid conflicts of interest between their private activities and their part in the conduct of KPO's business, and any actual or potential conflict of interest must be declared to KPO.

Business principle: COMPLIANCE

We comply with all applicable laws and regulations of the countries in which we operate.

2022

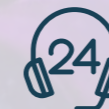
BUSINESS CONDUCT:

Compliance awareness training



98%
of employees

Hotline



106
reports

Duly considered and actions taken



100%

CERTIFIED IN ACCORDANCE WITH:

- ▶ ISO 14001:2015
- ▶ ISO 45001:2018
- ▶ ISO 50001:2018
- ▶ ISO 39001:2012



Why is it important to us?

GRI 3-3

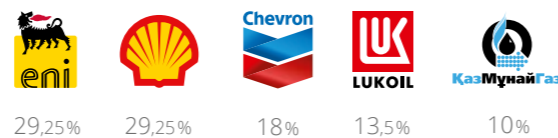
Well-built management system is the key to the sustained organizational success. KPO established a well-balanced and integrated system of governance, risk management, business planning, internal control and compliance. The integrated management system approach enables appropriate decision-making and provides adequate control mechanisms to ensure strategies, directions and guidance from senior management are carried out systematically and effectively.

GOVERNANCE STRUCTURE AND MANAGEMENT APPROACH GRI 2-9, 3-3, SDG 16.16, 16.7

Karachaganak Petroleum Operating B.V. Kazakhstan Branch was established in 1997 as a Joint Venture to operate the Karachaganak Oil and Gas Condensate Field (further as Karachaganak Field or the KOGCF) in accordance with the Final Production Sharing Agreement (FPSA). **GRI 2-1**

KPO brings expertise from five international oil and gas companies (hereinafter referred to as the Contracting or Parent Companies), represented by their respective affiliates, named herein:

Agip Karachaganak B.V., Shell Kazakhstan, Chevron International Petroleum Company, Lukoil Overseas Karachaganak B.V. and KMG Karachaganak LLP. **GRI 2-6 c**



Organisational structure GRI 2-9, 2-10

KPO organisational structure was designed to enable KPO to meet its business objectives and to satisfy the requirements from the Republic of Qazaqstan (the Authority represented by the PSA LLP) and the Contracting Companies by continuously assessing its external environment. In order to carry out the petroleum operations stipulated in the FPSA, there is a Co-operatorship model of Karachaganak field represented by Agip Karachaganak B.V. and BG Karachaganak Limited (respective affiliates of Eni Spa and Shell; Shell has officially acquired 100% of BG Group).

KPO has these governing bodies: the Joint Operating Committee (JOC) and the Joint Marketing Committee (JMC), which are formed by representatives of each of the five Contracting Companies and representation of the Authority under the FPSA. As per FPSA requirements, the Chair of the JOC is always a representative from the Authority, and the JOC Secretary is a senior executive from the Operating Contracting Companies. **GRI 2-11**

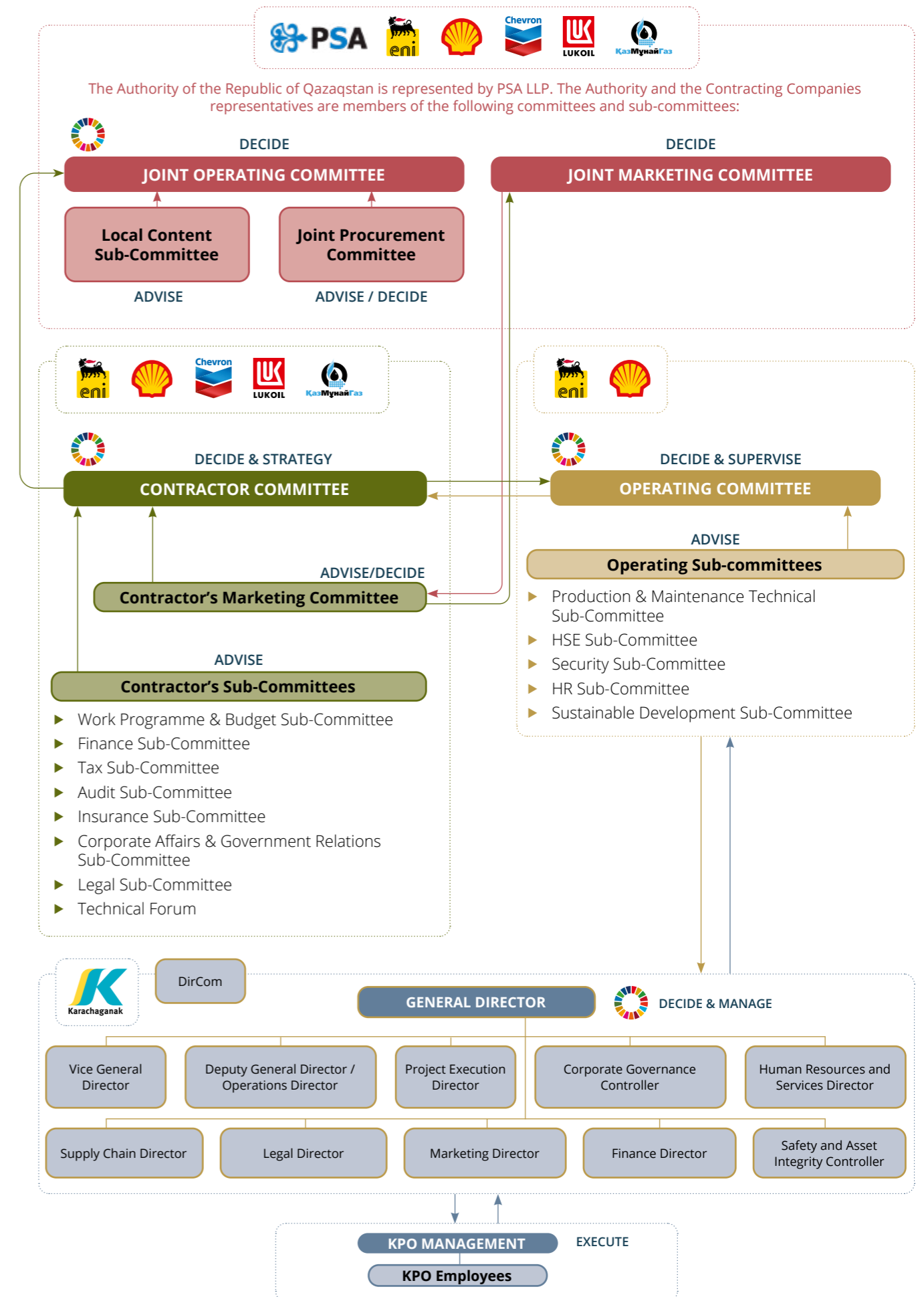
In addition to the above, and in order to satisfy the requirements of the Joint Operating Agreement (between the Parent Companies) and the Operator Participants Agreement (between the Operators Eni and Shell). There has been established certain sub-committees, at Contractor and Operator level, dealing with specific matters. Graphical view of the full governance structure is given on figure 6.

Nomination, selection, and performance evaluation of parent company representatives as members of any part of governance structure are carried out in accordance with the internal regulations of the Parent Companies themselves and the authorized body on the part of the RoQ. KPO, as a reporting entity, does not have access to this information. Parent Companies report on these matters individually in their sustainability reports. **GRI 2-9, 2-10, 2-18**

KPO submits various types of reports to committees, sub-committees, and to representatives of Operator, Parent Companies, the Authority of the Republic of Qazaqstan, represented in the project by PSA, and other authorized bodies of the Republic of Qazaqstan. JOC members control and manage engagements with stakeholders in order to support KPO Sustainable development based on the exchange from the above listed formal committees. **GRI 2-13 b**

The highest governing body for addressing sustainable development issues is the Joint Operating Committee.

Fig. 6. Karachaganak venture senior management structure (as of 31.12.2022) GRI 2-9, 2-12, 2-13



Joint Operating Committee

The JOC is responsible for the overall supervision of petroleum operations and of social and infrastructure projects to ensure that activities are carried out in accordance with the FPSA and Settlement Agreement. Matters pertaining to the JOC include: review and approval of the annual Work Programme and Budget, social and infrastructure projects, and any changes to the Field Development Plan. JOC meetings take place normally three times per year. In 2022, the JOC meetings were held in March, July and November. The JOC is chaired by a representative from the Authority. The Akim of the West Qazaqstan Oblast attends the JOC meetings as the community representative, but without voting rights. KPO is invited as a guest, and is not a member of this committee.

JOC members are remunerated by their respective companies and selected by the senior management of each participating entity, based on each candidate's individual experience and respective companies' policies. **GRI 2-10, 2-19**

JOC Sub-Committees

The JOC has established several sub-committees, such as the Joint Procurement Committee (JPC) and the Local Content Sub-committee (LCS).

The JPC is responsible for the approval or endorsement of the main contracts to be awarded by KPO, and acts in accordance with the JOC Tender Procedures as approved by the JOC. Membership and voting rights for the JPC are similar as for the JOC, and its decisions also need to be unanimous.

The LC Sub-committee consists of KPO representatives and the Authority. The LCS is responsible for the provision of assistance to the JOC on issues related to local commodities, works and services, increase of local staff employment, training and development of Qazaqstani employees. The LCS is also involved in discussions and reviews of plans and programmes related to local content as proposed by the Republic, the Authority, or Contracting Companies.

Joint Marketing Committee

The JMC is responsible for all activities relating to the marketing of hydrocarbon and non-hydrocarbon products under the FPSA. This Committee approves proposals concerning transport, processing, swaps and the sale of petroleum products. Decisions are taken

with the objective of maximising net revenues. The JMC is chaired by a representative from one of the Contracting Companies. The KPO Marketing Director has the right to participate in JMC meetings without voting rights.

Contractor Committee (ConCom) and Operating Committee (OpCom)

As defined by the Joint Operating Agreement (JOA), the Karachaganak Joint Venture operates utilising two bodies for management and decision-making. One body is the Contractor's Committee (ConCom), which is responsible for determining the Contracting Companies' position on all matters subject to the decisions of the JOC. The other body is the Operating Committee (OpCom), which oversees the management of the Venture and ensures compliance with the FPSA requirements.

The highest governing body for developing sustainable development strategies is the Contractor Committee.

These activities to deliver the strategic objectives are initiated and submitted for discussion at the meetings of the Operating Committee by KPO representatives, discussed at the level of the Operating Committee. Contractor Committee monitors the design and implementation effectiveness of the organization's processes as part of the annual internal audit by all Parent Companies. **GRI 2-12**

ConCom and OpCom Sub-Committees

The different subcommittees, at Contractor and Operator level, provide professional advice and assurance in specific areas of expertise at operational and corporate levels. Each Sub-Committee has its own purpose and objectives stipulated in the respective 'Terms of Reference'.

The topics on sustainable development, such as social, economic, environmental topics are captured in Sustainability Sub-committee at Operator level – represented by both Operators and KPO.

Its main purpose is to advise on identified issues, concerns and impacts of KPO business on the communities living in KPO's direct impact area. **GRI 2-12**

Managing risks **GRI 2-12, 2-13, 2-16**

Petroleum operations must be carefully managed with respect to people, the environment, and assets. As a responsible oil and gas operator, KPO makes particular emphasis on managing business risks encompassing all dimensions, including, but not limited to:

1. De-Carbonization Process Affecting Business;
2. Road traffic incidents (loss of vehicle control);
3. Asset integrity failure;
4. Failure to recover cost;
5. Suspension of environmental emissions permit with further potential withdrawal;
6. Lack of clear long-term PaCo strategy;
7. Exposure to major cyber security incidents;
8. Mitigate the reliance on Oil Gas Plant gas acceptance while stabilizing and diversifying revenue;
9. Loss of political and social stability;
10. Exposure to major breach of the Code of Conduct and of the Ethics and Compliance policies and procedures;
11. Lack/Loss of people capability and resources to achieve KPO Targets;
12. International geopolitical & economical factors/ sanctions and counter sanctions.

KPO works on mitigating above risks through its management systems and continuous assessment in order to positively shape business strategy and change management.

With the purpose of obtaining reasonable assurance that risk management process continues to operate effectively, the following reporting steps are performed:

- **Twice per year:** by conducting Risk Committee meetings, where the Summary Risks Report is reviewed and agreed; and then shared at Contractor level;

The Sustainable Development Sub-Committee reviews issues such as the post-resettlement monitoring of the former Berezovka and Bestau villages, engagement with Burlin District and Karachaganak field adjacent communities, NGOs, and sustainability reporting. **GRI 2-14**

- **Continuously:** regular assessment and update on risks evolution at Risk Owner level to ensure well-timed and effective implementation of preventive actions to mitigate identified risks, and timely informing the Integrated Risk Management focal point.

Detailed disclosure on measures for reduction of key specific risks related to social, environmental and economic material topics is provided in the relevant chapters of this Report.

In 2019, KPO has started development of an Integrated Risk Management model allows since 2021 to qualitatively assess and effectively manage business and safety risks. In parallel, a system has been developed to manage process safety risk, called Barrier Model.

Business and safety risks: The Integrated Risk Management Procedure and HSE Risk Management Framework define and describe this process, as well as roles and responsibilities across the Company. Corporate Governance Controllorship is responsible for adoption, maintenance, monitoring and continuous improvement of the integrated risk management system, covering both business and safety risks.

For business risks, this process is regulated by the Integrated Risk Management Procedure, and risks are reported through Corporate Risks Register, which is a risk model listing main business risks as well as relevant preventive and remedial actions.



It also aimed at synchronizing business goals and targets with business risks on each level of the organization.

For safety risks, this process is regulated by the HSE Risk Management Framework, and risks are reported through Corporate HSE Risks Register, which is a risk model listing main safety risks as well as relevant preventive and remedial actions. The HSE risk model outcomes feature into the business risk model.

The final risk model is reviewed and summarized in the preparation for the KPO Risk Committee meetings, which is participated by KPO senior management. **GRI 2-13**

Process Safety risks: On the other hand, key Process Safety risks are recorded in the Barrier Model containing all detailed process safety risks, which are under management of Safety & Asset Integrity Controllership and regulated with the HSE Risk Management Framework. **GRI 2-16**

Risk monitoring and review is part of the risk management process and involve regular checking and re-assessment to be carried out through the Risk Management Tool. This tool contains all detailed information reported and reviewed in respect of the integrated risk management matters.

Assurance **GRI 2-12, 3-3**

At KPO, the commitment to fostering a culture of internal assurance is paramount for promoting the sustainability and responsible growth of the company. KPO demonstrates its commitment by delivering two key processes to support its business objectives:

- ▶ a value assurance process for capital expenditure projects;
- ▶ an audit process for internal, contractor, and external audits.

Regarding value assurance, all KPO development projects are subject to a thorough evaluation to confirm a sound rationale behind decision-making, spanning from the identification of opportunities to the operational phase. This process is captured in the Projects Value Assurance Policies and Management System and Projects Value Assurance Events Guideline documents. This process aims to maximize the value of investments while upholding a strong emphasis on sustainability and environmental

stewardship. Considering the size of the investment, KPO conducts a combination of internal and external value assurance events (involving Parent Companies) to ensure the effective performance of its project maturation operations.

These assurance processes not only heighten transparency and accountability but also foster long-term sustainability and growth for KPO.

Regarding audit assurance, which is captured in the document Internal Corporate Audit Procedure, the internal audit function provides risk based independent assurance on the design and operating effectiveness of governance, internal controls and processes as set out in KPO Control Framework, and systems. The internal audit function identifies any gaps which may impact the capability of KPO to deliver its business objectives. KPO implements its annual audit plan covering risk areas across the business activities such as: governance, contracting &

Integrated HSE Management System **GRI 3-3, 403-1, 403-7, 403-8**

KPO manages HSE issues through its Integrated HSE Management System, which is certified in accordance with ISO 14001:2015 (Environmental Management System), ISO 45001:2018 (Occupational Health and Safety), and ISO 50001:2018 (Energy Management). In 2022, ISO 39001:2012 (Road Traffic Safety Management System) certificate was obtained by KPO.

Continuous improvement and commitment are KPO's priority in ensuring the health and safety of the workforce with minimum impact to the environment. In 2022, KPO had passed through the second surveillance auditing process of ISO 14001:2015, ISO 45001:2018 and ISO 50001:2018 and certification process of ISO 39001:2012 to maintain its credentials in relation to ISO requirements. KPO employees and contractor staff work intensively towards maintaining these processes.

procurement, internal and contractor HSE management, financial, accounting, production operations, logistic processes and many others. Besides of that, the internal audit function follows-up of identified audit actions.

Further, KPO Parent Companies conduct audit on annual basis based on their own internal risks assessments. This provides an additional independent assurance level on the design and operating effectiveness of the KPO Control Framework. The results of these audits are reported to KPO management and Parent Companies at the Audit Sub-Committee.

Finally, external certified auditors provide assurance on effectiveness of the KPO Control Framework and compliance with the international standards and RoQ laws is provided through ISO certification including surveillance audits.

The results of these audits are reported to KPO management and Parent Companies at the Audit Sub-Committee.

The KPO HSE requirements are extensively communicated at internal and external levels, such as to all KPO staff but also with all contractors and subcontractors (i.e. inclusion of HSE requirements in each awarded contract).

Each year KPO undertakes a range of HSE programmes, trainings, initiatives and campaigns. These include but are not limited to HSE inductions, job specific HSE training, and various other HSE programmes, such as Safety Leadership and Culture Programme, HSE Card, HSE Award Incentive Scheme, Health Risk Assessments, Environmental Culture and Awareness Enhancement Programme, and other.

Moreover, KPO carries out its own HSE internal audit plan on annually basis. For example, in 2022 KPO held 16 HSE audits.

Why is it important to us?

GRI 3-3

At KPO, we share a set of core values – honesty, integrity and fairness as foundation for our respect for people. By making a commitment to these in our working lives, each of us plays our part in protecting and enhancing KPO's reputation. Our shared core values underpin all the work we do and are the foundation of our Code of Conduct and the KPO Business Principles. The KPO Business Principles govern how KPO conducts its affairs and outline our responsibilities to shareholders, customers, employees, business partners and society. The Code of Conduct describes the behaviour KPO expects of employees and what employees can expect of KPO.

We are judged by how we act. Our reputation will be upheld if we act in accordance with the law, the KPO Business Principles and our Code. We encourage our business partners to live by the KPO Business Principles or by equivalent principles.

BUSINESS CONDUCT GRI 2-23, 2-24, 3-3, SDG 10.3, 16.3, 16.5, 16.8

KPO Business Principles

KPO conducts its business based on KPO Business Principles, which were introduced in 2019 as a separate document, and signed by all members of Board of Directors of KPO. Before 2019, Business Principles were the part of the Code of Conduct.

Our Business Principles govern how we conduct our business and set high standards of performance and ethical behaviour. We also expect all of our

stakeholders, including contractors and suppliers, to respect and adhere to these Business Principles.



The full text of the KPO Business Principles and a short video are available on our [website in Business Ethics section](#).

Code of Conduct

The KPO Code of Conduct is a fundamental compliance document, the purpose of which is to protect the activities and reputation of the company and its employees. The Code of Conduct is a system of business ethics and corporate culture general rules at KPO, required of all KPO employees, contractors' employees and other persons working on behalf of KPO, without distinction or exception.

The Code of Conduct includes provisions on respecting the principles of free enterprise and fair competition, protecting human rights and company assets, providing equal opportunities, zero-tolerance for corruption

and legitimization of proceeds of crime (money laundering), any harassment at work, and also regulates some aspects of national and international trade, labour protection, safety and environmental protection, protection and exchange of information, including personal data.



The full text of the KPO Code of Conduct is available on our website in [Business Ethics section](#).

Human Rights GRI 408-1, 409-1, SDG 8.7, 16.2

Grounded in the principles proclaimed in the United Nations Universal Declaration of Human Rights and the core conventions of the International Labor Organization, we are committed to respecting human rights and complying with applicable laws and regulations in the line of our duty. Moreover, these norms are spelled out in the Constitution of the Republic of Qazaqstan (RoQ), in the Labor Code of the RoQ, in the Code of the RoQ "On the health of the people and the healthcare system", the Law of the RoQ "On civil protection", in the Environmental Code of the RoQ and in relevant regulations.

The observance of human rights is a prerequisite of our "license to operate". Our activities are based on respect for human rights of our stakeholders starting from our employees, contractors, local communities and local authorities. Following these goals, we at KPO regularly engage with our external stakeholders and always strive to contribute, both directly and indirectly, to the general wellbeing of the communities in which we operate.

Human rights issues are an integral part of the Company's internal regulations describing compliance with requirements in terms of social contribution, safety, human resources. For this reason, human rights requirements are embedded in the Code of Conduct and in KPO existing framework, manuals and policies. These include:

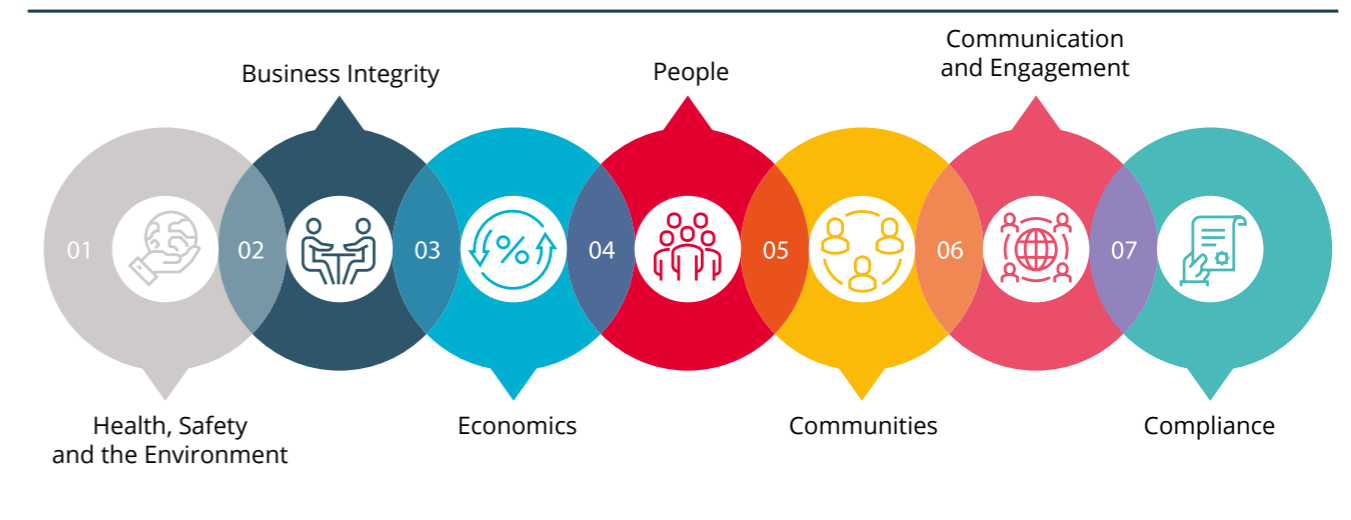
- ▶ **Security** – company-wide security requirements help keep staff, contractors and facilities safe in a way that respects human rights and the security of local communities.
- ▶ **Human resources** – our policies and standards help us establish fair labour practices, ethical labour relations, a positive work environment and conditions.
- ▶ **Contracting and procurement** – we seek to work with contractors and suppliers, who contribute to sustainable development and are economically, environmentally and socially responsible.

As part of the overall KPO Compliance Framework, KPO has adopted and successfully implemented the new Ethics and Compliance Training Programme which addresses major points of the principles and commitments listed above.

KPO has a zero-tolerance approach to modern slavery and child labour is committed to identifying and minimizing so far as possible the risk of child labour, slavery and human trafficking occurring in its supply chains and in all areas of its business. In 2022, there were no cases of child labor and human trafficking in KPO and its contractors.

- ▶ **Social performance** – we have social performance plans and address the social impacts of our operations on local communities.

Fig. 7. KPO Business Principles cover seven main categories:



COMPLIANCE GRI 2-24

Anti-Corruption GRI 2-15, 205-1, 205-3

KPO pays special attention to the issue of anti-corruption. The KPO Anti-Bribery and Corruption and Anti-Money Laundering Manual (hereinafter referred to as the Manual) is based on the Code of Conduct and Business Principles and define KPO requirements for compliance with national and international laws prohibiting bribery and corruption. The manual is mandatory for all KPO Staff, including seconded employees of Parent Companies, full-time employees and employees of sending parties (recruitment agencies). Management defines work processes related to gifts and hospitality and helps staff assess potential corruption risks. Particular attention is paid to:

- ▶ Contracting,
- ▶ Gifts and hospitality,
- ▶ Funding social investment,
- ▶ Interaction with government agencies, DFF,
- ▶ Conflict of interest.

The KPO General Director, directors or managers identify key legal and ethical compliance risks in the relevant directorates/departments, as well as assess and monitor risks.

The Risk Assessment “Exposure to major breach of the Code of Conduct and of the Ethics and Compliance policies and procedures” includes an assessment of all KPO activities for risks related to corruption.

To mitigate the corruption risks, the following rules and processes have been established:

- ▶ Due Diligence is applied before entering into a contract or any binding agreement with a counterparty. *(Please, read more in Suppliers’ ethical due-diligence).*
- ▶ Bribery and any facilitation payments (including accepting a bribe, giving a bribe, commercial bribery, mediation in bribery and commercial bribery) are prohibited.
- ▶ Strict rules and restrictions have been established for such business processes as charity and sponsorship, with mandatory recording of expenses and preliminary review of all participants in the process.
- ▶ Any payments (direct or indirect) at the expense of the company’s funds to political parties, political organisations or their representatives are prohibited. **GRI 415-1**
- ▶ The basic principles for giving and receiving gifts and hospitality, thresholds, levels of agreement and approval have been established, and an appropriate register is maintained.
- ▶ Principles and rules have been established for reporting a conflict of interest (actual, potential and perceived). All cases of a conflict of interest are recorded in the respective register, and measures are taken to resolve it by the responsible business unit. *(Please, read more in Conflict of Interest).*
- ▶ Trainings are held on a regular basis and employees’ awareness of anti-corruption and other ethical requirements are checked. *(Please, read more in Compliance awareness training).*
- ▶ Processes for reporting violations of the Company’s internal documents and applicable laws have been regulated, procedures have been established for investigating and liability for violations of the Company’s internal rules.

Compliance awareness training GRI 205-2

All KPO employees receive regular trainings on various compliance topics. As per 2022 year-end results, the annual online training courses were completed by 98% of the KPO staff (3,496 – completed training, 119 – failed to complete; statistics include all categories of employees), including seconded employees of Parent Companies, full-time employees and employees of sending parties:

- ▶ Anti-Corruption,
- ▶ Code of Conduct,
- ▶ Combating Unwelcome Conduct, Pressure and Harassment,
- ▶ Confidentiality.

Besides, each KPO employee is required to certify on an annual basis that he or she has read and understood the Business Principles, the Code of Conduct, the Anti-Bribery and Corruption and Anti-Money Laundering Manual and sign the Annual Ethics and Compliance Declaration.

99% of employees, including seconded employees of Parent Companies, full-time employees and employees of sending parties, signed the Annual Ethics and Compliance Declaration as per 2022 year-end results.

All compliance policies and procedures are available to each employee on the KPO Intranet. The KPO Business Principles and the Code of Conduct are available to all stakeholders on the KPO intranet.

In 2022, KPO Legal Compliance Department held an additional Compliance Seminar for Well Operations Department personnel and their contractors.

Conflict of interest RI 2-15

Conflicts of Interest in KPO are regulated by the Code of Conduct, the Anti-Bribery and Corruption and Anti-Money Laundering Manual. The latter Manual is designed to provide guidance to KPO’s various hiring managers and the Legal Directorate to assist them in managing apparent, potential or actual conflicts of interest. The Committee of Operators oversees the management of conflicts of interest by conducting compliance audits. Conflicts of interest may arise if KPO employees have Immediate Family Members who are KPO employees, government officials, contractors, suppliers, competitors and KPO business partners. Such cases are handled and managed within the Company.

All eligible candidates shall sign Conflict of Interest Declaration prior to employment. In addition, Legal Compliance Department informs employees of the need to declare a conflict of interest on a monthly basis.

General Director and Legal Compliance Department ensure across-the-board awareness on significance of conflicts of interest by sending out regular informational e-mails about the need to comply with all compliance standards and requirements via corporate mail.

Suppliers' ethical due-diligence

GRI 2-23, 205-1, 205-2, 414-1

KPO is committed to achieving and maintaining the highest standards of corporate governance, particularly in respect of compliance with ethical and legal requirements. KPO's success is based on all its business partners, who play an important and valued role in our continuing business success, sharing that commitment.

KPO conducts an Ethical Due Diligence assessment of business partners to determine the risks associated with each potential business partner and to identify appropriate mitigation measures for those aspects that may pose a risk.

Each potential business partner receives a questionnaire asking information about its ownership, management and conduct of business including its ethical business practices. As part of its due diligence, KPO also uses open-source information to corroborate information received from partners and to verify feedback on business practices and reputation in the marketplace. KPO uses an international Refinitiv World-Check One compliance database and open national databases, including tax and court databases, as well as independent international experts. Then, a risk assessment is performed to determine the acceptability of the business partner and, if relevant, mitigation measures to be applied to any residual risks.

Moreover, KPO requires its business partners to comply with applicable Qazaq and international laws combatting corruption and bribery through obligations incorporated in KPO's standard contracts.

All business partners are required to complete an Annual Compliance Certificate certifying their compliance during the preceding calendar year with the representations, warranties and commitments set forth in each KPO contract in Article 25, Ethics and Business Practices.

KPO is confident that the above activities have alerted its business partners to KPO's high standards of ethical business. KPO cooperates with its business partners and along with business partners are obliged to comply with all applicable laws to prevent corruption and bribery.

Hotline and other compliance measures

GRI 2-25, 2-26, 3-3, SDG 16.10



To support the Company's Ethics and Compliance Programme, KPO has a toll-free, anonymous and confidential [Hotline](#).

The Hotline is an important tool for KPO's employees, contractors and stakeholders to promote a fair and safe working environment. Hotline provides an avenue for employees and third parties (contractors, suppliers and any other interested parties) to report possible illegal, unethical, or improper conduct such as discrimination, sexual harassment, conflicts of interest, improper financial practices or bribery. The caller can report on the alleged misconduct either by telephone or by completing an online report form. Incoming reports are handled by an independent, third-party provider, which guarantees their confidentiality and anonymity. Further, reports are forwarded to certain KPO responsible persons, who ensure that they are handled professionally and confidentially. KPO employees can also report concerns directly to the Legal Compliance Department, HR or their respective line managers.

In 2022, Legal Compliance Department received 106 new reports. All of the reports were duly considered and the appropriate actions taken. Most of the complaints were related to the workplace relationship matters and conflicts of interests, whereby 124 complaints, of which 80 were received in 2022 and 44 in the prior year, were addressed and closed in accordance with the KPO's Compliance Investigation Procedure and/or Discipline Handling Procedure, depending on the nature of report.

The compliance investigation team duly investigates the received reports and, in case the allegations are substantiated, consequence management actions are identified and carried out. In 2021, KPO adopted a new investigation procedure to enhance its internal investigation capability and consistent application of the consequence management actions throughout the organization. The quality of investigations is ensured by the continuous maintenance and updating of the "Logbook of Complaints", which helps to measure the performance of investigations

Antitrust

GRI 206-1, 3-3

Antitrust laws protect free enterprise and fair competition. Supporting these principles is important to us, not just because it is the law, but because it is what we believe in.

The KPO Code of Conduct regulates the rules for all employees to combat illegal practices, including price fixing, market sharing, output limitation or bid-rigging, as well as anticompetitive or monopoly practices. KPO employees

Compliance with laws and regulations

GRI 2-27

KPO complies with all applicable laws and regulations of the countries in which it operates.

All members of the KPO Board of Directors and the Legal Directorate ensure that all compliance matters are resolved in accordance with the FPSA and the Joint Operating Agreement, all applicable RoQ / international laws governing oil and gas companies, and KPO policies and procedures governing compliance processes.

and conduct trend and root cause analysis in case of unsatisfactory performance.

An Ethics Advisory Board has been established to monitor and decide on the most significant investigations and consequence management processes.

All consequence management activities are monitored and controlled in accordance with applicable KPO policies. Once discussed, agreed upon and approved by the Ethics Advisory Board, consequence management activities become mandatory in the respective Directorates/ departments. All these activities are recorded, tracked and monitored using a dedicated logbook ("Register of Activities").

are prohibited from discussing with competitors, even in private, issues that may be perceived as a violation of antitrust laws, and even more so from entering into agreements with them on such issues.

During the reporting period, KPO has no pending or completed legal actions related to unfair competitive behaviour and violation of antitrust laws.

In 2022, KPO paid administrative fines in administrative offence cases for a total amount of 7,504,350 tenge. A total of seven cases of administrative offences were pending, of which three cases for State Institution "Department of Industrial Safety Committee", two cases for "Burlinskiy District Emergency Situations Department" and two cases for RSI "Burlinskiy District Sanitary and Epidemiological Control Department".

In 2022, there were no instances of non-monetary sanctions.

AIR symbolizes our relationship with the environment and with the world. It fills everything around us, while it can be felt only when we are moving. It is like social relationships, which cannot grow without active engagement.

SOCIAL IMPACT

- Safety practices 51
- Occupational health 59
- Employment practices 67
- Conflicts and security 83
- Local communities 87



GRI 2-23

Business principle: HEALTH, SAFETY AND THE ENVIRONMENT

Business principle: PEOPLE


Business principle: COMMUNITIES

Note: the principles are described in more detail in the corresponding chapters of the section.

2022

SAFETY PERFORMANCE:

Lost Time Injuries Frequency
 **0.22**


RTI frequency
 **0**

INDUSTRIAL RELATIONS MONITORING:

 **~17** *thous.*
employees from
151
contractor companies


LOCAL COMMUNITIES:

 **17**
 Village Council meetings

 **150**
 health recreation vouchers for the elderly

EMPLOYEES:

 **4,053**
 people

 **22%**
 general salary increase

Why is it important to us?

GRI 3-3

Health, safety and asset integrity are the key elements for successful development and operation of any oil and gas condensate field. Safety of personnel in operations related to risks of H₂S, potential leaks and road incidents is of paramount importance for our Company. Our goals are that every employee is to come back home safe and sound and production leaks are entirely excluded.

KPO utterly commits to support effective HSE culture both internally and externally.



Business principle: HEALTH, SAFETY

We have a systematic approach to health, safety, security management in order to achieve continuous performance improvement.

To this end, we manage these matters as critical business activities, set standards and targets for improvement, and measure, appraise and report performance externally.

GRI 2-23



Work on safety in 2022

PERCENTAGE COMPLETE:



90%

Road Safety Improvement Plans



100%

HSE communication improvement activities

HSE LEADERSHIP TOURS



224%

by Senior management

KPO HSE Culture level assessment:



80%

Calculative



Training 'Life Saving Rules - Work Authorization'

90%

employees



22,798

HSE Cards

SAFETY PRACTICES

In order to minimize safety risks and impact of the Company, we have set a number of targets. The results of their implementation are presented further in the table.

Tab. 7. Our targets in safety GRI 3-3

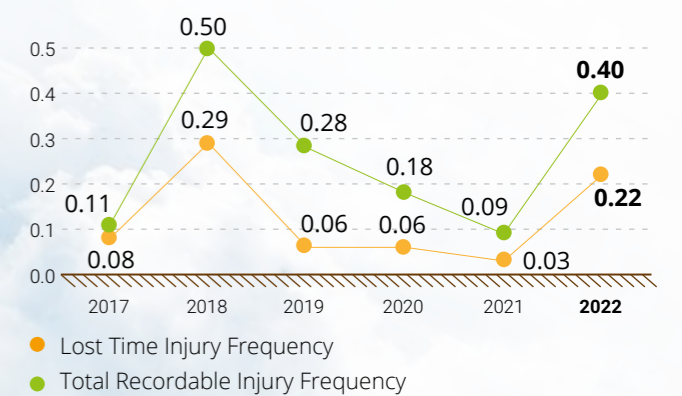
Our targets in 2022	Status	Actions taken to implement targets in 2022	Targets for 2023
Continue implementation of the Safety Leadership Improvement Journey	Superseded	Safety Leadership Improvement Journey was superseded by KPO Safety Culture Transformation Plan.	Implement Safety Culture and Leadership Transformation Plan
Implement HSE Communication Plan for 2022	Completed	Initiatives and campaigns included in the 2022 HSE Communications plan were implemented.	Implement HSE Communications plan for 2023
Pass certification on ISO 39001: Road Traffic Safety Management System	Completed	To pass certification on ISO 39001 Standard in 2022, KPO implemented the following activities: in 2020, KPO conducted gap analysis and started preparation for the certification and in 2021, KPO successfully passed pre-certification audit on the Standard.	Successfully pass surveillance audit on the Standard
Conduct assessments to understand the level of HSE Culture in KPO	Completed	Number of assessments were done to identify the level of HSE Culture in KPO: 2 KPO internal assessment by peers (in March and December) and assessments by third parties and Operators (in July-August 2022). Outcome of the KPO HSE Culture level assessment: 80% Calculative.	Improve safety culture in KPO with focus on leadership and behavioral aspects as a part of the target to implement Safety Culture and Leadership Transformation Plan

Health and safety performance GRI 3-3, 403-2, 403-9, SDG 3.9, 8.8

We plan our health and safety activities by tracking our progress and monitoring the world events. We calculate frequency of incidents over a set amount of work in man-hours. Our health and safety records are presented for the period 2017 – 2022 with a focus on 2022.

Graph 4 demonstrates Lost Time Injuries Frequency (LTIF)² and Total Recordable Injury Frequency (TRIF)³.

Graph 4. LTI and TRI frequencies: KPO and contractors, 2017–2022 GRI 403-9



Note: KPO uses the following method to calculate LTI and TRI frequencies:

² Frequency of Lost Time Injuries (LTIF) = number of Lost Time Injuries (lost work day cases + fatalities) x 1,000,000 / man-hours.

³ Frequency of Total Recordable Injuries (TRIF) = number of recordable incidents (lost work day cases + medical treatment cases + restricted work day cases) x 1,000,000 / man-hours.

In 2022, the total number of recordable injuries in KPO increased significantly from three in 2021 to 13 in 2022. The number of Lost Time Injuries also increased from one in 2021 to seven injuries in 2022. In 2022, LTIF was 0.22 (vs 0.03 in 2021) and TRIF – 0.40 (vs 0.09 in 2021). The main reason for incidents number increase is post-pandemic effect, work-scope increasing (including projects delivery), underestimation of risks level and lack of adequate focus on safety.

We investigate all incidents to avoid reoccurrence. In addition, we share learnings from incidents with our contractors and other interested parties and adopt safety improvement practices from other companies.

Table 8 represents KPO LTIF versus contractors LTIF for the last three years. KPO and contractors' data are presented separately. To obtain a consolidated indicator, a calculation formula should be applied, and not just a summarized data used.

Tab. 8. Lost Time Injuries frequency: KPO vs contractors, 2020 – 2022 GRI 403-9

Performance Indicators	2022	2021	2020
Lost Time Injury Frequency (KPO)	0.00	0.14	0.00
Lost Time Injury Frequency (contractors)	0.27	0.00	0.07

Table 9 represents KPO TRIF versus contractors' TRIF.

Tab. 9. Total Recordable Injury Frequency: KPO vs contractors, 2020 – 2022 GRI 403-9

Indicators	2022	2021	2020
Total Recordable Injury Frequency (KPO)	0.00	0.14	0.00
Total Recordable Injury Frequency (contractors)	0.50	0.08	0.22

Note: First Aid Cases are not included into calculations of occupational injuries.

KPO strives to make work places safe. Despite this, during 2022 there were 13 incidents, resulting in various injuries of contractors' employees.

Tab. 10. Incidents in 2022 GRI 403-9

Injury Type	Description	Number
Lost Work Day Cases	Knee injury as a result of slipping and falling	1
	Back and head injury as a result of falling from height	1
	Leg injury by fallen object (spool)	1
	Back injury as a result of falling from height	1
	Back, chest and head injury as a result of falling from manlift	2
	Eye injury as a result of foreign body strike	1
Total Recordable Injuries, where employee returned to work after medical treatment or was transferred to restricted work	Inner lower leg injury as a result of falling through the grating	1
	Forearm injury (cut) on rebar	1
	Finger injury as a result of pinching	4
TOTAL		13

No severe Road Traffic Incident (RTI) was reported in 2022. The RTI frequency⁴ per 1 million km driven in KPO and contractors remained zero in 2022 the same as in 2020 – 2021, three years in a row. The zero rate is associated with the implementation of Road Safety Improvement Plan and other achievements as described in the Road Safety section. In 2022, the kilometers driven

by KPO vehicles amounted to 39.3 million km, compared to 40.2 million km in 2021. **GRI 403-9, SDG 3.6.1 (C030601)**

Fatality Frequency⁵ in KPO and our contractors in 2019 – 2022 remains zero. **GRI 403-9, SDG 3.9**

In 2022, KPO and contractors' employees worked 32,515,598 man-hours: 20% of them (6,629,709 man-hours) worked by KPO employees and 80% (25,885,889 man-hours) by contractors' employees.

Tab. 11. Man-hours worked: KPO vs contractors, 2020 – 2022 GRI 403-9

Indicators	2022	2021	2020
Man-hours worked (KPO)	6,629,709	6,924,081	7,269,825
Man-hours worked (Contractors)	25,885,889	25,340,974	26,955,757
Total	32,515,598	32,265,055	34,225,582

In 2022, seven high potential incidents (HPI)⁶ were recorded in KPO: three incidents resulted in four lost work day cases, three asset damage cases and one near miss.

Tab. 12. High Potential Incidents: KPO vs contractors, 2020 – 2022 GRI 403-9

Indicators	2022	2021	2020
High Potential Incidents (KPO)	0	0	1
High Potential Incidents (Contractors)	7	1	1
Total	7	1	2

In 2022, 82 near misses (NM)⁷ were registered in the Company: of which 49 (60%) were reported through the Incident Notification Procedure, and 33 (40%) – through HSE cards. For each near miss same as for each incident, KPO performs a thorough investigation, identifies the causes and develops recommendations to correct the shortcomings and prevent their recurrence.

Tab. 13. Near misses: KPO vs contractors, 2020 – 2022 GRI 403-9

Indicators	2022	2021	2020
Near misses (KPO)	24	22	27
Near misses (Contractors)	58	43	46
Total	82	65	73

⁴ KPO RTIF calculation method: $RTIF = \text{number of RTI (severe)} \times 1,000,000 / \text{km driven}$

⁵ Fatality frequency calculation method used by KPO: $\text{fatality frequency (per million man-hours worked)} = \text{number of fatalities} \times 1,000,000 / \text{man-hours worked}$.

⁶ High Potential Incident (HPI) – any unplanned or uncontrolled event or chain of events that could have resulted in injuries to be accounted.

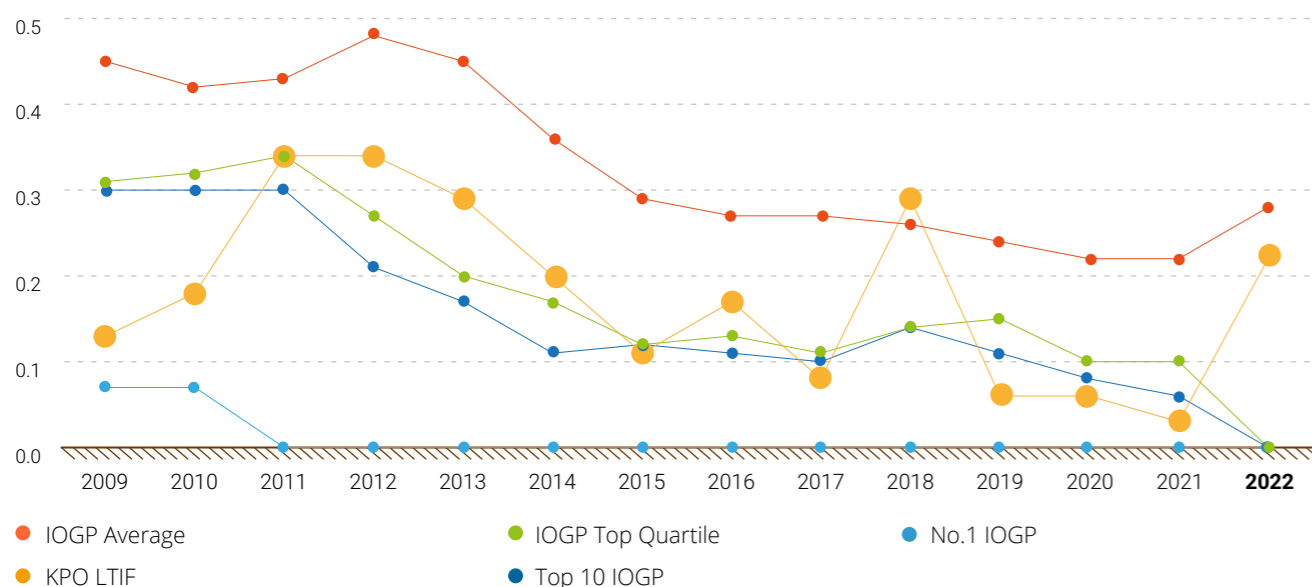
⁷ Near-miss – any unplanned or uncontrolled event or chain of events that could have resulted in injuries to be accounted for, asset damage, the environment, or an incident related to process safety, but such consequences, by coincidence, were avoided.

Peer comparison GRI 3-3

Every year we review our key safety performance indicators against the other O&G producers' indicators reported by International Organisation of Oil and Gas Producers (IOGP). IOGP annually publishes HSE performance indicators on the website www.iogp.org.

In 2022, the number of Lost Time Injuries in KPO increased (7 LTIs in 2022 versus 1 LTI in 2021). If compared with other peer companies in 2022, KPO LTIF is behind the performance of IOGP 10 top and on par IOGP average (see graph 5).

Graph 5. KPO Performance versus IOGP, 2009 – 2022



2022 HSE Awards

HSE improvement plan for 2022 GRI 2-23, 3-3, 403-7, SDG 8.8

The overall objective of KPO HSE Improvement Plan is to improve Health, Safety and Environment management, to further control risks and to prevent harm to people and the environment. This is done by implementing Key Focus Elements that are over and above KPO's day to day business activities to deliver tangible benefits and improvements.

In 2022, KPO applied a structured approach in preparation of the HSE Improvement Plan to ensure the Plan and the KPIs support each other and HSE objectives are achieved.

Tab.14. 2022 KPO HSE Improvement Plan consisted of level I-II-III interlinked objectives:

LEVEL I (main goal):	No harm, no leaks
LEVEL II (supporting goals):	<ul style="list-style-type: none"> ▶ Behaviours and Leadership ▶ Personal Health ▶ Personal Safety ▶ Asset Integrity and Process Safety ▶ Road and Infrastructure Safety ▶ Minimized Environmental Impact
LEVEL III (how this will be achieved):	Strategy and Key Focus Elements

- ▶ The subordinate plans were developed and implemented to address these objectives;
- ▶ All KPO stakeholders owned and shared objectives and subordinate plans;
- ▶ KPO worked together to implement the plans and strengthen the barriers, in order to achieve the common highest goal.

Monitoring of the Plan was arranged by means of Traffic Light system (Green, Yellow, Red) applied to Levels I, II and III.

In the following paragraphs, we present the activities implemented in 2022 on HSE Leadership, HSE Culture and Road Safety. Environment protection, Asset Integrity, Risk Management and Health activities are covered in relevant chapters.

HSE leadership and culture GRI 3-3, 2-23, 2-29, 403-5, SDG 8.8

In 2022, Corporate Safety started the implementation of the "Safety Leadership and Culture Program" – Coaching. The Programme is focused on KPO and Contractors frontline leaders involved in high-risk activities who have subordinate team to supervise and whose role is to maintain barriers to prevent or mitigate hazards on site. Before Coaching, SLCP implementation team conducted the "Coaching, Engagement and Intervention" courses for the selected candidates at units, specifically:

- ▶ 108 individual practical sessions for 14 frontline supervisors at Unit-3 and Unit-2.
- ▶ Since July 2022, 33 individual sessions for 12 contractors' foremen of the Project Execution Directorate, coaching process will be continued in 2023.
- ▶ During the year, Train-the-Trainer sessions for KKS-Sicim, Syrlasu, KazCargoExpress, KarInfraStroy contractor companies.

Number of assessments were done to identify the level of HSE Culture in KPO: 2 KPO internal assessment by peers (in March and December) and assessments by third parties and Operators (in July-August 2022). Outcome of the KPO HSE Culture level assessment: 80% Calculative (we have systems in place to manage all hazards). The following areas for improvement were identified:

- ▶ one team approach (KPO & Contractor),
- ▶ intervention and reporting,
- ▶ complacency,
- ▶ ownership for safety,
- ▶ communication skills,
- ▶ understanding of risks & hazards.

HSE Promotion and Awareness-Raising Tools GRI 2-29, 3-3

KPO is committed to fostering Health, Safety and Environmental culture. Thanks to the concerted efforts of all HSE departments all scheduled HSE communication improvement activities and campaigns were 100% completed in 2022.

Quarterly HSE quiz was launched, every employee could check his or her basic HSE knowledge and win a gift. Continuous focus was made on raising awareness of employees and on prompt communication through daily pop-up messages and regular HSE moments which highlighted important issues and provided guidelines to follow. Throughout the year 19 HSE moments were issued covering different topics such as incident reporting, intervention, road safety, environmental care etc.

Two e-learning courses were developed on 'Life Saving Rules – Work Authorization', which was successfully passed by 3,647 employees and 'New RoQ Eco-Code, Transition to Green KPO', which was passed by 3,985 employees.

In July 2022, Safety Stand Down was held with all company and contractors' employees on the theme 'Incident Reporting' to highlight the importance of timely reporting of all incidents. Some real cases of delays in incidents' notifications and negative implications that followed were discussed.

There was also the Safety Stand Down with Company drivers to highlight the benefits of proper planning for trips and basic road safety rules in accordance with Life Saving Rules including wearing safety belts, use of mobile phone while driving, speed limits etc. In addition to the presentation a video was made.

Annual HSE Forum has been an effective communication tool for many years. In December 2022, KPO held [HSE Forum](#) with its contractors to discuss the "Leader's role in creating effective culture. The Forum was attended by KPO and contractors' senior management. The objective of the Forum was to jointly discuss current issues and seek for solutions to improve overall culture at the Karachaganak field including safety culture, driving culture, mental health and environmental consciousness of employees. The Forum included group interactive sessions, team tasks, surveys and games to allow for in-depth evaluation of the causes of deeply-rooted behavioural aspects and cultural beliefs as well as planning for improvements and prevention.

Management presence on work sites

For tracking the overall HSE performance and management interaction with employees at work sites, KPO practices HSE site tours: HSE Leadership tours engaging KPO Directors/ Controllers, as well as Contractors' senior management, and HSE Management tours for Level 2-3 Managers. The main principle of this program is interaction with the workforce.

In 2022, the total number of HSE Leadership tours amounted to 204 compared to the planned 91 having resulted in 224% plan completion and HSE Management tours amounted to 924 compared to the planned 1013 having resulted in 91.5% plan completion.

Road safety GRI 3-3, 403-9

To ensure more sustainable road safety performance, KPO continues implementing its annual Road Safety Improvement Plans. In 2022, KPO completed 90% activities of the Plan.

Key road safety achievements/implemented activities in 2022:

- ▶ 0.00 RTIF by the end of 2022 (for the third year in a row);
- ▶ ISO 39001: Road Traffic Safety Management System – successful (zero non-compliance) certification;
- ▶ Driving competence assessment of more than 286 KPO and Contractors' drivers both randomly and by applying risk-based approach, e.g. based on IVMS RAG reports, vehicle type, load type, km driven;
- ▶ Road traffic safety assurance review of 13 top low-performance contractors;
- ▶ Road Safety Stand-Down for KPO and contractors' drivers on risks of driving in winter, including risk of hitting animals on the roads;
- ▶ Arrangement of catastrophic RTI drill with involvement of KPO Emergency Response and Health teams;
- ▶ Update of procedure for Inspection of KPO and Contractor Vehicles;
- ▶ Update of KPO Road Hazard Assessments for the main routes (new hazards, risks, control measures, new format) and upload to KPO Intranet;

Also, within the framework of cooperation on road safety improvement with the authorities and the community, KPO carried out/participated in the following activities in 2022:

- ▶ Meeting with Akimat, Road Police of Burlin region and local farmers regarding uncontrolled domestic animals was conducted. As a result, a Whatsapp group was created with participation of listed above representatives in order to settling the issue. Also, in order to provide access for local farmers to remove their wandering animals from the Field territory, KPO arranged trainings on defensive driving and H₂S, issued RPE and inspected the vehicles;
- ▶ 10 domestic animals' mannequins were installed on the public roads leading to the Field in order to prevent RTIs with animals;
- ▶ 15 children's mannequins were handed over to Akimat, which were installed on pedestrians' crossings (mainly near secondary schools) in Aksai;
- ▶ On 1st June, on International Children's day, road safety awareness event was organized for children in Aksai, which included conducting various contests and memorable gifts for participants;
- ▶ At the beginning of new academic year, bags for shoes with reflective strips and main road safety rules on them were handed over to the 1st grade pupils of secondary schools in Burlin region;
- ▶ New road safety audio clips subject of "animals on the roads" and "vehicles blind spots" were issued on the Aksai Radio;
- ▶ Road safety banners were renewed in Aksai.

International Children's Day celebration



Why is it important to us?

GRI 3-3

Health Department take all necessary measures to protect the health of Company employees and provide any health support. Prevention measures, timely access to medical services and, thus, the improvement of employees' health status contributes to the higher performance of their job duties.

KPO has a transparent Fitness to work procedure that prevents bias or discrimination. As a responsible employer, KPO has a strong focus on compliance with legislative requirements in relation to its employees' fitness to work based on their health condition. Using the pre-employment medical examination as a baseline, we monitor our people's health both in terms of their ability to continue working and of the impact of workplace factors on their general health.

The aim is to prevent and mitigate any negative impact of the work-related factors. This is achieved by providing and maintaining safe working environment, modifying workplaces to fit the worker or reassigning them to other jobs, and, finally, by referring them to a specialist care.



Business principle: HEALTH

We have a systematic approach to health, safety, security management in order to achieve continuous performance improvement.

GRI 2-23



Health department work in 2022



40
employees are **ACLS**
and **ITLS** certified



464
sessions by means of Employee
Assistance Programme

CONDUCTED:



148 thous.
pre-shift medical examinations



8
audits of contractors' sick bays



30 thous.
measurements on
Occupational Health and
Hygiene at units and facilities



36
inspections of contractors'
catering facilities

OCCUPATIONAL HEALTH

The results of the implemented targets that were set to minimize certain risks and the impact of workplace factors on the occupational health of employees are given below.

Tab. 15. Out targets in health protection GRI 3-3, 414-2, SDG 3.4, 3.5, 3.8, 3.9, 8.8

Our 2012 targets	Progress status	Actions taken in 2022	Targets for 2023
<ul style="list-style-type: none"> ▶ Revitalize the Resilience Program once pandemic restrictions have eased. ▶ Continue Mental Health Program. 	Completed	<ul style="list-style-type: none"> ▶ Educational materials/handouts of the Program modules have been revised with account for the past experience. Volunteers have been recruited from among the Company employees to be further trained as facilitators. ▶ Employee Assistance Program is under way. Besides face-to-face, online and oncall consultations, there is a hotline to address emergency calls. 	<ul style="list-style-type: none"> ▶ Train facilitators in order to implement the Resilience Program. ▶ Launch the Resilience Program among the Company employees. ▶ Carry out an interest assessment within the work teams to identify their interest for webinars and group sessions on various psychological aspects. Based on the assessment findings, draft a plan for holding such sessions.
Support Project Execution and Industrial Relations divisions in conducting contractor welfare facility inspections	Completed	Nine contractor welfare facility inspections have been conducted jointly with Project Execution and Industrial Relations teams. A number of non-compliances have been revealed; respective recommendations for their correction have been made.	Carry on contractor welfare facility inspections
Carry on implementing Fatigue Risk Management Program across KPO. Special attention will be paid to Turnaround in 2022.	Completed	The preparation for the 2022 Turnaround included refresher training of KPO employees, as well as the Contractors personnel in fatigue risk management, fatigue self-management.	Update the fatigue risk management guideline such that it applies not only to the safety critical positions, but also to all Company and Contractors employees
Purchase 10 automated external defibrillators (AEDs) and install in the Field and Uralsk offices	Not completed	The activity could not be completed due to the limited funding.	
Carry on implementing requirements to prevent Legionella risks	Completed		
New targets for 2023			
Certify eight operational facilities with regard to labour conditions			
Implement Employee Wellness Program in 2023, including a pilot program for the reduction of heart disease risks			
Modify the Random Alcohol Testing Program for the Company employees in order to include testing of contractors' personnel at KPO production facilities			
Conduct audits of medical emergency response systems in main KPO contractor companies			

Improving the quality of emergency care GRI 3-3, 403-3

Medical Support Section provide round-the-clock medical emergency response in the field and in Aksai offices. Apart from emergency calls, doctors and paramedics of the five sick bays provide outpatient care to patients, carry out pre-shift, pre-trip and post-trip medical examination, undertake health communication activities at industrial facilities,

conduct regular sessions and exercises with personnel involved in the general emergency response process.

All 40 members of KPO medical team have received internationally recognized ACLS (Advanced Cardiac Life Support) and ITLS (International Trauma Life Support) certificates, which account for high level of prehospital care standards.

Tab. 16. Healthcare deliverables in 2022

Medical support indicators	
Number patients who admitted to clinics	2,092
Number of emergency calls	121
Number of patients delivered to medical facilities	105
Number of sessions and exercises	276
Number of first-aid trained employees	330
Pre-shift medical examination (drivers / operators / electricians)	
Examinations	148,594
Number of "unfitness to work" cases	191
Random alcohol tests SDG 3.5	1,688
Positive random alcohol test results	0

Health Department activities during the COVID-19 pandemic GRI 403-2, 403-3, 403-6, SDG 3.8

In the period of force-majeure circumstances and the state of emergency in Qazaqstan in January 2022 there was an increase in COVID-19 cases. About 50 employees got sick. The COVID Care Team consisting of Health Department staff and volunteers from other departments continued to provide support to the infected employees, contact persons in overcoming COVID-19 effects. Each COVID-19 case was monitored by the Centre employees up to a full recovery of the employees. COVID-19 spread prevention measures were revised against the possibility of mass disease, with account for warding off the pandemic impact on the personnel and production process.

Throughout 2022, strenuous activities were undertaken as part of the vaccination/revaccination of the Company employees against COVID-19. Numerous meetings were held with the Company and contractors' employees to discuss the importance of vaccination/revaccination, "Ask the Doctor" online sessions were run. COVID-19 vaccination/revaccination progress was updated on a

regular basis across Qazaqstan and on the KPO's Intranet site. KPO Vaccination Centre, based in Aksai District Hospital, operated throughout 2022, where Company employees could undergo vaccination/revaccination any day convenient for them.

Based on the undertaken activities, the following KPO local employees' vaccination performance was achieved as of 31.12.2022:

- ▶ 1 dose – 3,607 (94.3%)
- ▶ 2 dose – 3,603 (94.2%)
- ▶ 3 dose – 3,292 (91.4%)

In 2022, the turnaround activities were carried out at the field facilities in parallel to the COVID-19 outbreak. Owing to the efforts made by KPO Planning and Turnaround Department and Health Department, the contractors involved in the turnaround were ready for undertaking all works in the face of possible next wave of the pandemic.

Social Aksai Hospital Emergency Capability Upgrade Project GRI 3-3, 203-1, SDG 3.8, 9.1, 9.4

The Aksai Hospital Upgrade Project was launched in January 2020 with the aim to upgrade the Hospital's emergency and intensive care capability by achieving international standards within five years. The latest project delivery report shows an improvement of key performance indicators of hospitals (e.g. surgical mortality rates, intensive care mortality rates, and overall mortality rates). Foreign specialists are successfully delivering the continuous

medical education program, which is critical for the success of the project and sustainability of the introduced changes.

In December 2022, KPO jointly with the Hospital conducted an exercise to test the project deliverables and practice interaction while providing emergency medical assistance in case of a major accident. The exercise has shown that the hospital personnel is capable of conducting a proper triage, putting together a medical treatment plan and providing a competent medical assistance.

Disease control in employees GRI 403-3, GRI 403-6, SDG 3.5, 3.8

Medical insurance

KPO employees and their families are provided with medical insurance that covers medical services in addition to those available through guaranteed free health care and mandatory RoQ medical insurance.

In 2022, based on the KPO employees survey results and with account for suggestions from the Trade Unions, Health Department, jointly with Human Resources and Contracts & Procurement Department, started to revise and expand the scope of provided medical services as part of medical insurance. A benchmarking analysis of the medical insurance services provided by the leading oil and gas companies to their employees was undertaken in order to fully understand the opportunity to improve the current insurance scope.

Digitalization program in Health Department SDG 9.1, 9.4

Electronic System of Medical Examination is a project of digitalization and optimization of the pre-shift medical examination process, which allowed conducting automated pre-shift, pre-trip and post-trip medical examinations. ESME units were purchased and installed in five KPO clinics. In 2022, there were 148,594 medical examinations conducted; 191 employees were not admitted to work due to medical reasons.

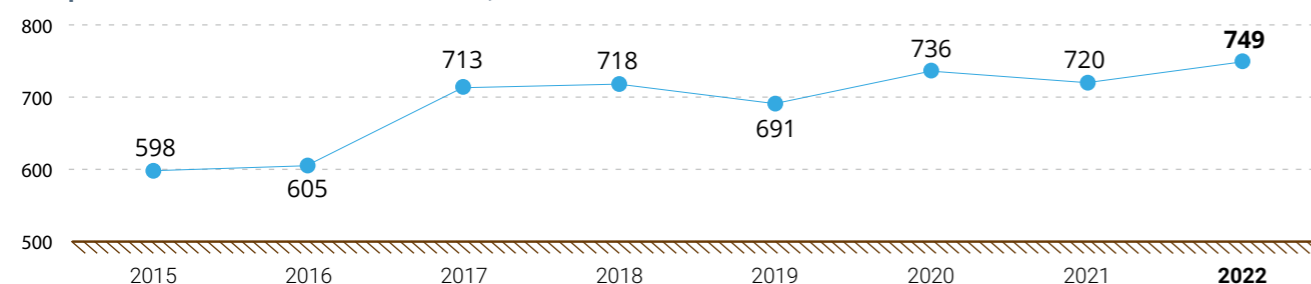
Another digitalization project was the update of the electronic medical database of employees. Bed-side notes and periodic medical examinations modules have been updated. The system sends automatic notifications to employees when they have to undergo a regular medical examination and revaccination. After completing the medical examination, employees receive the results automatically.



Sick leave absence monitoring GRI 403-3, 403-10

In 2022, the sick leave absence rate in KPO employees was slightly higher compared with 2021. There is a growing number of respiratory diseases, which is seasonal, and also results from a periodic increase in COVID-19, ARVI incidence in the country.

Graph 6. KPO sick leave absence rate, 2015–2022



Note.: KPO uses the following method to calculate the sick leave absence rate:

- Sick leave absence rate = actual number of days lost due to absence from work (due to illness) x 100/total number of employees. There is no information about the days of absence from the workplace for other reasons.
- KPO has adopted a methodology for calculating employees' absence from workplace by the number of employees (not man-hours), since this methodology is a regulatory requirement.

Occupational diseases GRI 403-2, 403-3, 403-10

Health protection is one of the key Company's priorities and plays an essential role in the professional life field. A work activity must not lead to a health damage under any circumstances, i.e. Health protection is above the work efficiency.

The Company provides employees with such working conditions so they could adequately perform their job tasks without compromising their health.

In 2022, no occupational diseases were registered among KPO employees.

Fitness for work GRI 403-2, 403-3, 403-6

Continuous monitoring of employees' health condition allows diagnosing illnesses at an early stage, undertake respective prevention measures, avert their progress and provide medical treatment as needed. It is a good opportunity to maintain and care for occupational health.

In accordance with the regulations, mandatory medical examinations of the company employees are carried out at the Employer's account.

Such examinations allow revealing counter-indications for working under certain conditions and whether an employee is capable of performing given job duties.

In 2022, the percentage of mandatory medical examination coverage was 96%, specifically:

- ▶ Number of employees due for mandatory periodic medical examination as of 01.01.2022 – 1,945
- ▶ Number of employees who have completed mandatory periodic medical examination – 1,869
- ▶ Number of employees who failed to undergo medical examination due to resignation, long leave, long-term illness – 76
- ▶ Number of employees classified as fit for work – 1,869
- ▶ Number of employees classified as unfit for work – 0
- ▶ Number of employees diagnosed with an occupational disease – 0
- ▶ Number of employees classified as fit for restricted work – 5

Apart from the mandatory medical examinations, all KPO employees, who do not work in a harmful working environment, are also offered to undergo a medical check-up at the employer's account to have their general state of health assessed.

Promotion of healthy lifestyle GRI 3-3, 403-6, SDG 3.4

Employee Assistance Program

Employee Assistance programme is aimed at preventing harm to KPO employees (somatic diseases, self-harm, suicides) arising from mental health problems, such as anxiety, depression, panic attacks, etc. The programme involves confidential consultations by qualified third-party psychologists using multimedia, video, or face to face sessions available 24/7 via a set hotline, as well as group sessions and webinars. In 2022, 464 employees asked for assistance through various communication means.

After KPO General Director's address associated with the World Mental Health Day – 10 October, the service provider EAP Lotus MHH had conducted a number of webinars for 340 KPO employees.

KPO Management supported the recommencement of the Resilience Program in 2023, the materials had been revised with account for the past experience, and from the beginning of 2023, new facilitators will be engaged to deliver the Program.

Fatigue risk management

In 2022, a second online fatigue⁸ risk management training was delivered to all company personnel, which included fatigue risk control measures. Total number of employees who took the e-learning course was:

- ▶ 1 module "Fatigue risk management" – 1,813 employees,
- ▶ 2 module "Fatigue risk control measures" – 1,991 employees,
- ▶ 3 module "Fatigue risk management for Supervisors on site" – 2,289 employees.



⁸ Fatigue is a physiological state of reduced mental capacity or physical capability arising from lack of sleep.

Operational control of industrial facilities GRI 403-3, SDG 3.9, 8.8

KPO regularly monitors the Occupational Health and Hygiene at units and facilities. The below table shows the monitoring data for the last three years.

Tab. 17. Monitoring of workplace factors, 2020 – 2022

Workplace factors	2022		2021		2020	
	No. of measurements	No. of non-conformances	No. of measurements	No. of non-conformances	No. of measurements	No. of non-conformances
Noise	420	91	368	83	398	110
Vibration	75	16	63	12	63	15
Electromagnetic fields	3,968	27	3,676	50	3,500	35
Electrostatic fields	2,342	0	2,048	0	1,737	0
Lighting	3,045	27	2,743	730	2,861	660
Microclimate	6,258	575	5,250	360	5,670	430
Workplace air	13,965	0	12,342	0	11,607	0
Total	30,073	736	26,490	1,235	25,836	1,250

Each case of non-compliance with the regulatory requirements is analysed and relevant actions are taken.



Unit-3

Workplace Attestation

Statutory attestation of production facilities, which is conducted every five years, is aimed at evaluating working conditions.

A number of corrective measures, identified as a result of the previous attestations of production facilities with regard to labour conditions, were taken in 2022. Lamps were replaced and additional light sources installed at 123 workplaces, where instrumental measurements showed low light level. As a result of this work, the illuminance was brought to an adequate level.

In 2023, the scheduled attestation with regard to labour conditions will cover 8 facilities, namely, KPC, Unit 2, Unit 3, Main Workshop, Main Warehouse, Chemical Lab, Bolshoi Chagan OPS, Atyrau Terminal. In 2022, all preparations were done, attestations commissions created, work scopes revised.

In order to prevent health impact, a regular health risk assessment and management activity is implemented, ergonomic assessment of workplaces as per the criteria of labour standards is performed, and respective corrective actions are taken. In 2022, 24 workplaces were assessed.



Employees of KPO Health department

Health Department engagement in the 2022 Turnaround

Key aspects that were followed while preparing for and during the Turnaround (TA):

- ▶ Preparation of TA Health Plan The document describes the main activities to be carried out by KPO, Contractors and Health Department in relation to health risk management as part of 2022 TA;
- ▶ Criteria have been developed for the assessment of medical emergency response risks, which were used to conduct audits;
- ▶ 8 audits of contractors sick bays for readiness for TA were conducted;
- ▶ Interaction with contractors medical teams was established to ensure the concurrence of medical response in case of an emergency;

- ▶ Arrangements were made and daily random alcohol tests were conducted among the contractors' personnel;
- ▶ 36 catering facilities of contractors, involved in the TA, were inspected;
- ▶ The TA-involved contractors' readiness for a possible wave of COVID-19 outbreak was assessed;
- ▶ Training in health risk assessment was delivered to contractors representatives;
- ▶ Random checks were done among contractors' personnel to ensure that the results of medical examination for occupational fitness were adequate.

All above listed activities, as well as fruitful cooperation of all departments involved in the TA, allowed completing the whole scope of planned works, at the same time the company has successfully managed to improve operations, enhance the integrity of facilities and the reliability of plant equipment.

Why is it important to us?

GRI 3-3

Developing and operating the Karachaganak Field requires thousands of dedicated and talented employees in a wide range of disciplines, from petroleum engineers and technicians to accountants and logistics specialists.

Our people are the key to our success. Company invests in the development of our national workforce using the international expertise of our Parent Companies, appropriate classroom training and renowned educational institutions.

KPO HR policy and employee relations are regulated by the RoQ Labour Code, the FPSA, Resolutions of the Contractors Committee, the JOC, and Collective Agreements.



Business principle: PEOPLE

We treat each other with respect, fairness and decency.
 We respect and support the different cultures of our colleagues and the communities in which we work.
 We value the diversity of people, beliefs, skills, and experience.

GRI 2-23



Work with personnel in 2022

NATIONALIZATION:



TRAINING COMPLETED BY:



EMPLOYEE RELATIONS:



EMPLOYMENT PRACTICES

HR Policy GRI 3-3

Attracting and retaining qualified and talented professionals is one of the priorities required for successful business.

KPO strives to ensure competitive labour market conditions among oil companies in Qazaqstan, to attract high-potential candidates and reduces the risk of staff turnover. Another important factor for the KPO attractiveness as an employer is due performance of duties undertaken by the Company and respect for the employees' labour rights.

At KPO, we offer equal opportunities to everyone and treat everyone equally and not discriminate in any way based on race, colour, religion, age, gender, sexual orientation, gender identity, marital status, disability, ethnic origin or nationality. This helps us ensure we always draw on the widest possible talent pool and attract the very best people. All employment decisions, including hiring, evaluation, promotion, training, development, discipline, compensation and termination, are based solely on objective factors, including merit, qualifications, performance and business considerations.

The strategic approach of KPO HR to the process of local content increase involves both replacing expatriate personnel with national staff and implementation of the local staff professional training and development. This ensures that all operations are carried out competently, with high quality and in compliance with international standards. This approach contributes to the replacement of foreign personnel with minimum risks for production activities, and the achievement of the set goals with the highest quality. To this end, KPO

develops the Annual Training Plan, which is implemented taking into account the individual needs of each employee.

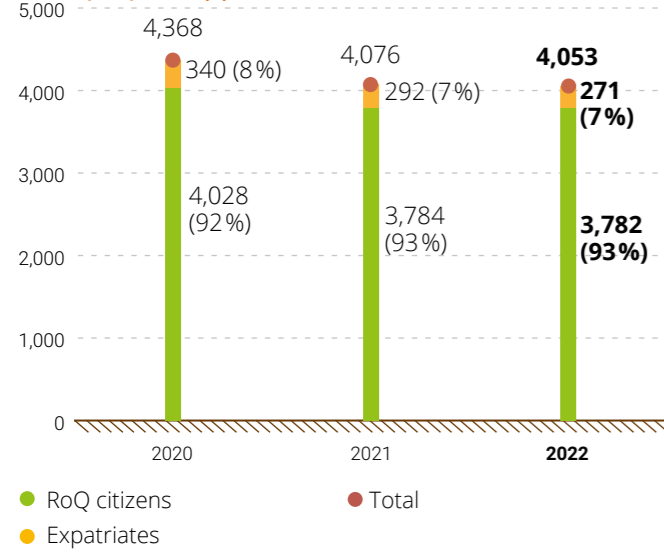
Provision of training programmes allows the Company:

- ▶ to fulfil the requirements of the FPSA Annex 7 related to the training, re-training and professional development for Qazaqstani employees consistent with International Good Oil Field Practices, as well as HSE and industrial hygiene requirements.
- ▶ to deliver programmes that enable for the local content increase in staff and supply the organization with skilled, qualified and competent workforce.
- ▶ to undertake training activities related to operational requirements and personnel professional development in order to achieve production and exploration targets.
- ▶ to deliver specific and mandatory HSE certified training programmes for the Company's personnel, required by RoQ legislation, the Company's internal procedures and best international practices.

During the year, the Company holds various events that allow employees to give feedback to management and the HR department. These include the annual Employee Opinion Survey, the HR Open Day, the annual KPO Townhall and occasional coffee break meetings with directors. Feedback is also collected in the process of personal conversations with line managers and through the Hotline available 24 hours. After the feedback analysis, the HR department publishes answers to the most pressing questions on the intranet, and also looks for solutions to optimize the identified problems.

Graph 7. KPO personnel, 2020–2022

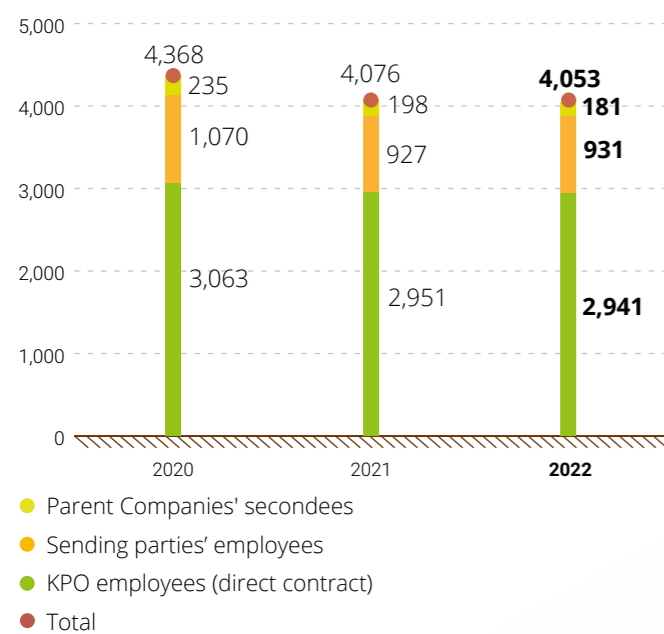
GRI 2-4, 2-7, 405-1 (b)



* Data for 2020–2021 has been corrected. In 2022, the methodology for calculating local and expatriate KPO personnel was corrected. For all previous periods, the calculation was based on the division of positions held by employees into local positions and positions assigned to Parent Companies. It was found that with such a calculation, EAEU member states citizens fall into the category of local personnel, and RoQ citizens seconded by Parent Companies fall into the category of foreign personnel. It was decided that the display of personnel by citizenship would be the most correct.

Graph 8. KPO personnel by type of employment, 2020–2022

GRI 2-7, 2-8



Personnel statistics

As of end 2021, the total number of KPO personnel made up 4,053 people with 3,782 of them being RoQ citizens and 271 other countries citizens.

The graph 8 shows the ratio of personnel, taking into account the specifics of labour relations, to the total headcount of the Company at the end of the reporting period, broken down by years.

KPO employees (direct contract) – employees with effective Employment Contracts with KPO.

Parent Companies secondees – Parent Companies' employees seconded to KPO on the basis of the Secondment Agreement. They mainly include senior managers and foreign specialists with specific skills in engineering and design, and international experience and knowledge necessary to ensure the introduction of international technologies in production. The expatriate personnel are attracted to share best international practice and knowledge in different spheres with national employees. However, KPO annually nationalizes the positions held by expatriate specialists in accordance with the Programme for Local Content Increase in Staff (for more details, see the chapter "Development of national personnel"). The KPO Board of Directors consists of seconded employees of the Parent Companies, except for the Vice General Director and the Digitalization and Continuous Improvement manager.

Sending party – Legal entity registered in accordance with the procedure established by the legislation of the Republic of Qazaqstan, providing manpower services, including a branch of the foreign legal entity.

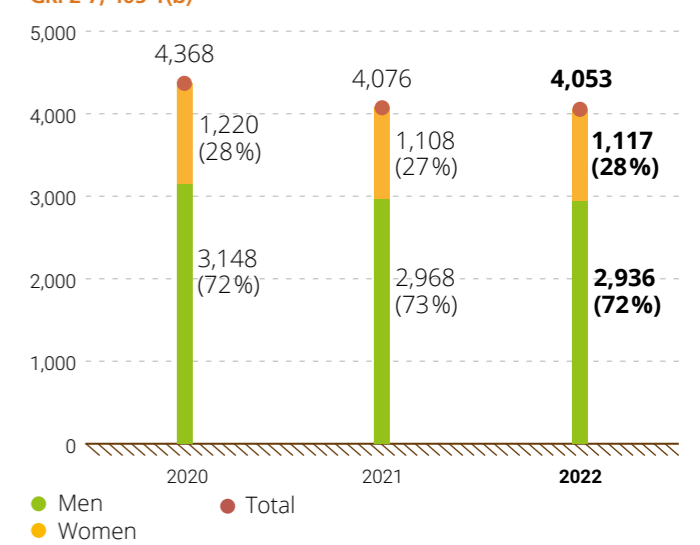
Sending parties' employees – Staff providing services under KPO day-to-day supervision who have no direct contractual relationship with KPO but are employed and paid by an external company (manpower agency). The types of work performed by direct contract employees and sending parties' employees are identical.

Temporary employee – a person who has an employment relationship with the Company for limited time to replace a temporarily absent directly hired employee, who is on long-time leave, such as maternity, unpaid and child care leave, educational leave etc., or hired while doing a specific job. As of end 2022, the number of temporary employees totalled 104. GRI 2-7, 405-1(b)

Graph 9 shows the ratio of personnel by gender. In 2022, 2,936 men and 1,117 women worked at KPO. GRI 2-7

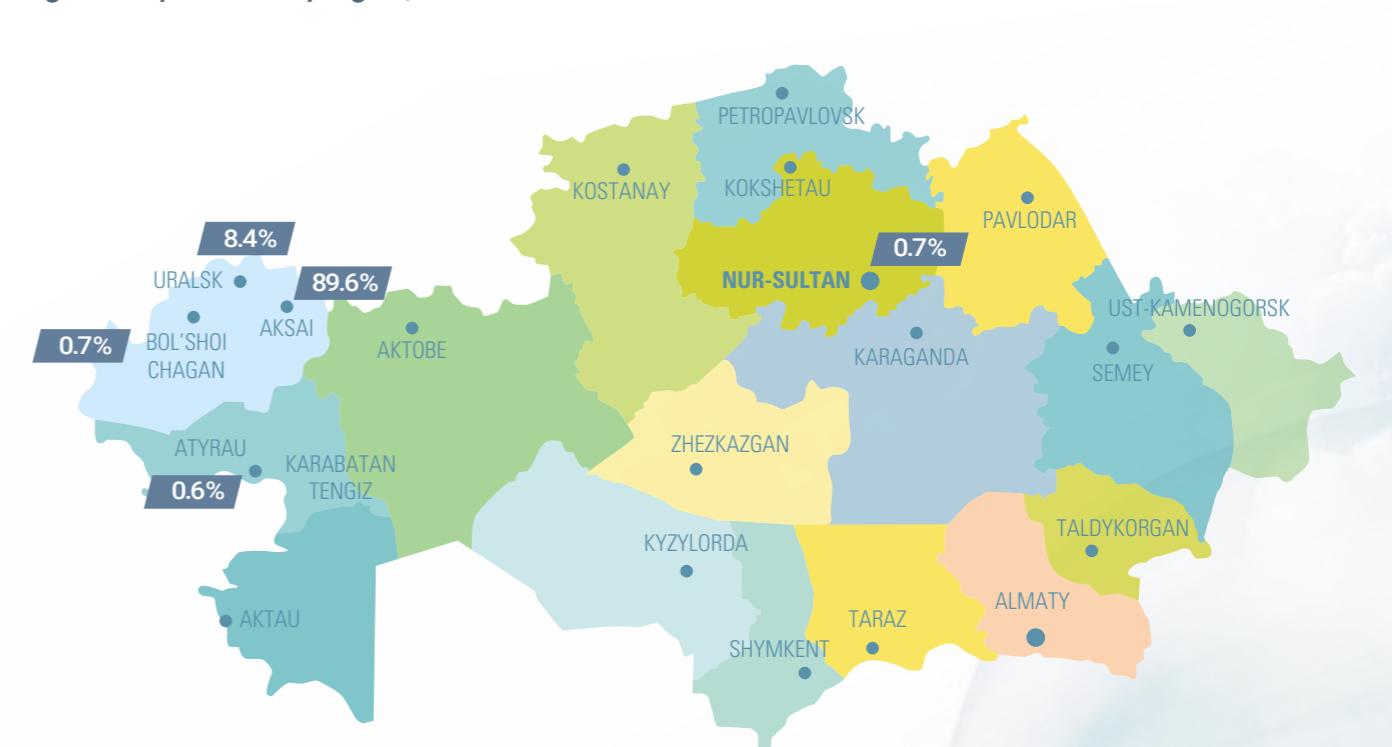
Graph 9. KPO personnel by gender, 2020–2022

GRI 2-7, 405-1(b)

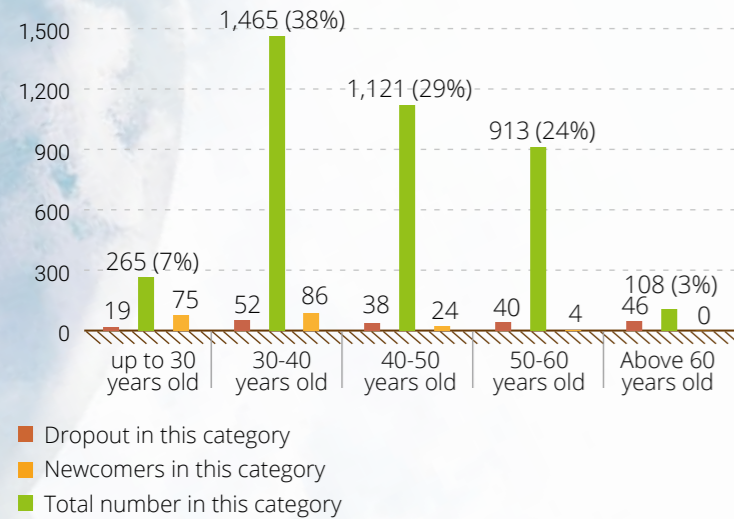


The map shows the percentage distribution of the Company's personnel in the regions of Qazaqstan. In 2022, compared to the previous 2021, there is a slight increase in the share of personnel in Uralsk, from 6.4% to 8.4%, as well as a decrease in the share of personnel working in Aksai, from 91.4% to 89.6%. This change is associated to a greater extent with the transfer of jobs from Aksai to Uralsk for some of the administrative personnel who are not involved in production.

Fig. 8. KPO personnel by region, 2022

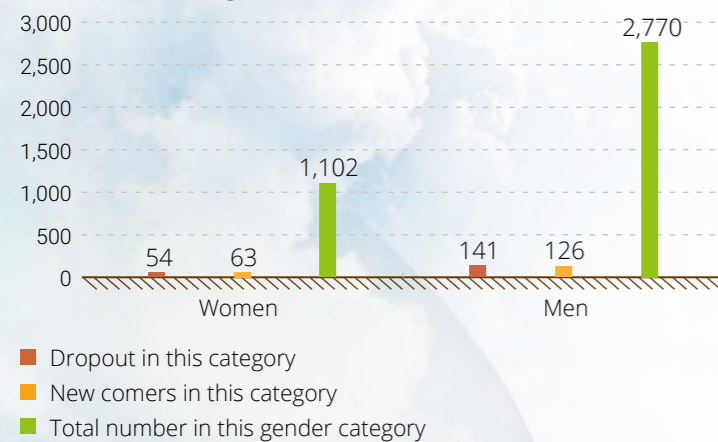


Graph 10. Employees turnover by age, 2022
(KPO and sending parties) **GRI 401-1, 405-1(b)**



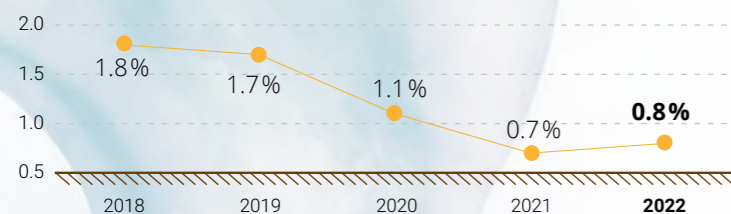
Graph 10 shows the turnover of KPO and sending parties employees in 2022 broken down by age groups regardless of the type of contract. **GRI 401-1**

Graph 11. Employees turnover by gender, 2022
(KPO and sending parties) **GRI 401-1**



Graph 11 shows the turnover of KPO and sending parties employees in 2022 broken down by gender. In 2022, the new employees hired in KPO made up 4.9% of the average number of employees, in comparison to 2021 – 2.6%. The dropout made up 5%.

Graph 12. Dynamics of employees' turnover, 2018–2022
GRI 401-1, 3-3



Note: Calculation of turnover indicator is performed according to the following formula:
employees' turnover = the number of employees, who voluntarily resigned during the reporting year / the average number of employees for the same period × 100.

The turnover made 0.7% in 2021 versus 1.1% in 2020 (see Graph 12). **GRI 401-1**

According to the RoQ Labour legislation, the turnover indicator includes only the number of employees, who resigned on a voluntary basis.

Employee relations **SDG 8.8, 10.4**

Engagement with trade unions

Collective bargaining is essential in the Company. Trade unions play a key role in supporting and protecting employees' rights. Trade unions develop draft Collective Agreements addressing various aspects of social and labour relations and bargain with the Company to improve working conditions of the employees. Four Trade Unions represent the interests of KPO employees:

- ▶ Public Association "Local Trade Union of Karachaganak Petroleum Operating B.V. employees",
- ▶ Public Association "Karachaganak Local Professional Union of KPO employees and contractors",
- ▶ Public Association "TRUST" Local Trade Union of Karachaganak Petroleum Operating B.V. employees and contractor companies",
- ▶ Public Association "Burlin Local Trade Union of Oil and Gas Workers".

Provisions of the Collective Agreement are applied to all KPO employees regardless of their membership in the Trade Unions. **GRI 2-30**

Trade unions play a key role in supporting and protecting employees' rights.

Under the terms of the New Collective Agreement for 2022–2024, a number of new social payments and benefits were increased and introduced, such as the provision of advance payments, social assistance to families of employees raising disabled children, assistance to families of employees raising three or more children of school age, including children of 18 years old, the percentage of payment for combining duties has been increased in the amount of at least 10% of the monthly base salary. In addition, a number of benefits were agreed for veterans who retired from the Karachaganakgazprom JSC or the Company, including an increase in the amount of bonuses for the Oil and Gas Complex Workers Day. **GRI 401-2**

The Collective Agreement provides for the Trade Unions to carry out socially-oriented, cultural, mass and physical education work. In 2022, various sports events were held, including billiards, table tennis competitions, a running tournament, a basketball and football cup, in addition, trade union leaders took an active part in organizing city clean-up days.

Grievance mechanisms

GRI 2-26, 3-3, SDG 16.10

The Company has a few grievance mechanisms: applications to HR and Services Directorate either directly or through Trade Union, and via the anonymous Hotline.

In 2022, HR received 97 applications, including grievances. The received grievances addressed such issues as labour misconduct, employment, conflict resolution, abuse of power, misconduct with contractor employees. All received grievances were reviewed and resolved, including in the pre-trial procedure and at the stage before the cases' consideration in the Conciliation Commission.

Voluntary Dissolution of Employment Relationship **GRI 404-2-b**

The Company supports the application of the Voluntary Dissolution of Employment Relationship Programme as part of the Collective Agreement and pursuant to the RoQ Labour Code dated 2017 (Art. 52). The programme applies to men aged 58-63 and women aged 55.5 – 60.5. In 2022, 42 KPO employees applied for the voluntary dissolution of employment relations (43 employees in 2021, 43 employees in 2020, 42 employees in 2019, 24 employees in 2018 and 45 employees in 2017).

In 2022, the Programme for Voluntary Dissolution of Employment Relations on a nonrecurring basis wasn't applied.

Compensation and benefits GRI 2-19, 2-20, 2-21, SDG 8.1, 8.5, 10.1, 10.4

The success of any business largely depends on the team qualifications, skills and motivation of employees, therefore KPO's HR policy is aimed at strengthening the leading position in the market and achieving strategic goals through the creation and development of a professional team, as well as encouragement of efficient performance of work.

In order to ensure the employee right to pay as per qualifications, complexity of work, quantity and quality of work performed, as well as working conditions, KPO applies the following tools:

- ▶ The remuneration system based on a consistent approach in setting wages;
- ▶ The job evaluation process system for effective organizational structure management, as well as to ensure the validity of remuneration;
- ▶ Annual Performance and Development Review Procedure;
- ▶ Wide range of additional benefits ensuring fair work conditions.

To arrange and apply all the listed tools KPO Reward and Organization department develops the KPO Remuneration, Allowances and Benefits Policy for Qazaqstan Employees. Independent consulting group can be involved for its development if required. In 2022, it was not necessary to involve them.

This Policy is annually approved by Joint Operating Committee (JOC)⁹. There is no Voting during the Policy approval. If even one of the parties does not agree with any provision of the Policy the document is vetoed and being returned for further revision.

According to Art. 5 of Appendix 7 of the FPSA, the Policy is focused on commensurability and competitiveness of remuneration, allowances and benefits for national staff in comparison with appropriate remuneration, allowances and benefits of Qazaqstan oil and gas sector and used as a tool for attraction, retention and encouragement of national staff.

The assurance of the remuneration process is ascertained by KPO internal audit and Parent Companies' audit achieving a positive opinion in 2022¹⁰.

According to the Remuneration Policy for Qazaqstan Employees, a base salary for national staff is established based on the assigned personal grade, which in turn has special range. Grade is one of the classes identifying relative importance of the certain job position and its levels at company positions hierarchy. Grades are assigned to all employees including Top Management.

KPO Top Management except Deputy General Director and Digitalization and Continuous Improvement Manager are Parent Companies secondees. Their remuneration is set and paid by the Parent Companies. The terms of remuneration and benefits for directors working under KPO direct contract and other corporate employees are the same. GRI 2-19, 2-21b

Tab. 18. The annual total compensation ratio for the organization's highest-paid individual to the median annual total compensation for all direct employees, 2020–2022 GRI 2-21

2022	2021	2020
6.8	6.8	6.7

Note: Type of remuneration included into the calculation is the base salary. This information has been prepared based on the full-time equivalent rates.

KPO also takes into account the remuneration rate at the RoQ oil and gas market and performs annual review, as a result the necessity to correct the remuneration rate for the certain positions can be identified.

According to the annual review in 2022, the average salary in KPO was higher than an average salary in the West Qazaqstan Oblast (WQO). As a result of this analysis, no additional salary adjustment was proposed in 2022. The minimum salary of specialists recruited by KPO is provided in the Collective Agreement and set regardless of an employee gender. Salary for KPO employees as well as for sending parties' employees (from recruitment agencies) is set based on the single labour remuneration structure used in KPO indicating that there is no difference in the level of minimum salary for both categories of employees. GRI 202-1

In 2022, the Company participated in the salary review conducted by Willis Towers Watson and additionally in the review conducted by Ernst & Young. As the result of these reviews, the decisions will be made regarding employees Attracting and Retaining Policy for 2023.

Pursuant to the existing procedures, every year KPO offers an upgrade on the employees' remuneration, including indexation of the monthly basic salary increase not lower than official inflation rate in the RoQ at the beginning of the year, annual performance review bonus for those, who received positive ratings based on annual performance, and also individual pay rises and additional lump sum payments.

In January 2022, an 8.4% general salary increase was made reflecting the inflation level for the previous year, and additionally 5% to the general increase under the terms of new Collective Agreement concluded for 2022–2024. In August 2022, a 7.5% general salary increase was made as exceptional measure aimed at support of Company's employees due to detrimental effect of the accelerated inflation.

All KPO direct employees are provided with a package of benefits, which includes monetary and non-monetary benefits. The most of the benefits are provided for by the Collective Agreement. Under the terms of the Collective Agreement for 2022–2024, KPO pays bonuses on Oil & Gas Worker's Day, FPSA anniversary as well as financial allowance for health resumption. Benefit amount also depends on individual employee grade. For the sending parties' employees (from recruitment agencies), the relevant employers' collective agreements are applied. GRI 2-30, 401-2

KPO respects the right of its employees to retain their positions. Following the RoQ Labour Code, an employee has the right for an unpaid leave to attend to a child up to the age of three years. In the 2022 reporting year, 45% of employees, who took parental leave, returned to work in the reporting period, with a 94% retention rate. The remaining 55% of employees took a child-care leave for more than one year. SDG 5.4

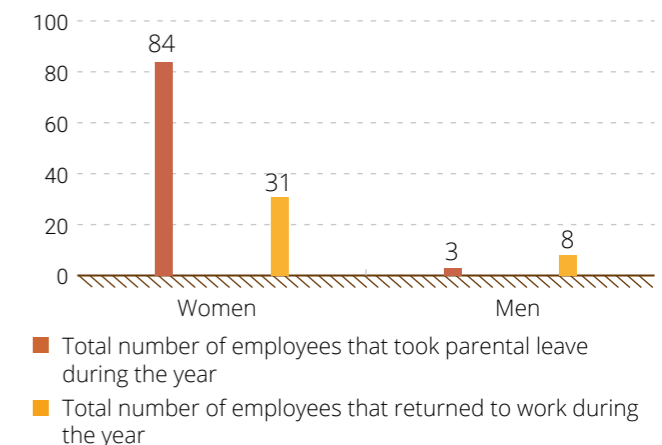
Performance and Development Review GRI 2-19, 3-3, 404-3

Performance and Development Review (PDR) is one of the tools of feedback aimed at monitoring and enhancing work efficiency. The PDR process covers Qazaqstani employees who have an employment agreement with KPO for no less than half a year.

At the beginning of the year line managers brings to subordinates expectations regarding work performance, behaviour and HSE compliance as well as annual targets. The targets should be focused on fulfilment of company tasks as well as gradual development and performance improvement of employees.

Graph 13 shows the number of employees, who took a parental leave and a leave to attend to a child up to the three years age, and of those, who returned to work after parental leave ended, by gender, in 2022.

Graph 13. Parental and child care leaves at KPO for 2022 GRI 401-3



In accordance with the Collective agreement KPO grants to employees the right for paid educational leave (14 days per year) to pass examinations at the external study mode. 28 employees exercised this right in 2022. GRI 404-1

For employees holding managerial positions, whose goals are identified as Key Performance Indicators, assessment is taken in two stages: assessment of achievements in accordance with KPI for this position and assessment of individual performance of work.

During PDR process the unified rating scale is used this scale distribution includes "Strong", "Fully Effective" and "Needs Improvement".

PDR bonus is identified and approved on an annual basis.

⁹ JOC members and functions are described in more details in the chapter "Governance structure and management approach".

¹⁰ More details about the audit processes are available in section "Governance / Assurance".

Development of national personnel GRI 405-1, 3-3

Development of national personnel is a continuous process in KPO. Professional competency is maintained and developed through the training and skill improvement system.

In 2020, in conjunction with the Authority KPO approved the 2020–2025 Programme for Increase of Local Content in Staff. The outcomes of the previous programme were also taken into account while developing the new one.

In 2022, 11 positions previously held by expatriate personnel were nationalised, 17 positions were abolished. Local employees made up 95% of the total Company's staff as of December 2022. In total, 257 expatriate specialists were replaced with national employees, and 301 positions

held by expatriate employees were abolished in the period of 1999 – 2021. The breakdown by categories is presented in table 19. GRI 3-3

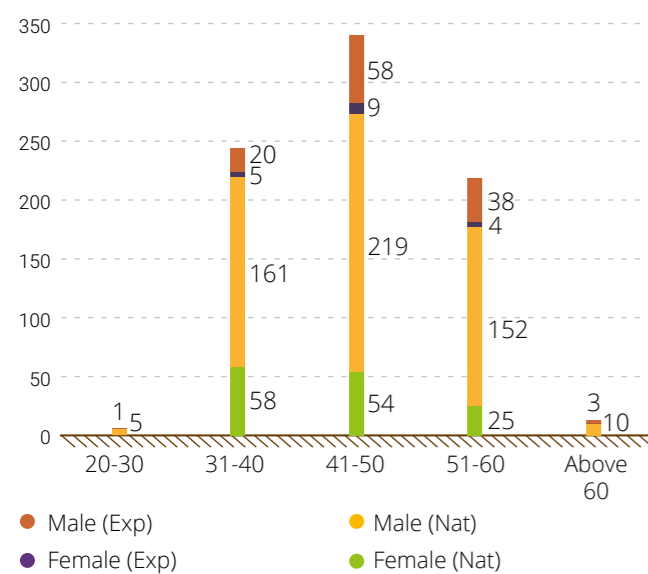
Additionally, in accordance with the goals set in this Programme, KPO keeps tracking the local content in contractor personnel registered in the West Qazaqstan Oblast. In 2022, 40 companies provided their quarterly, biannual and annual Local Content in Staff reports. The local content in staff within these organizations made up to 91% in the category 'Department / Unit Management' and 98% in the category 'Professional staff / Qualified workers'.

Tab. 19. Increase of Local Content in KPO staff by categories of employees GRI 202-2, 3-3

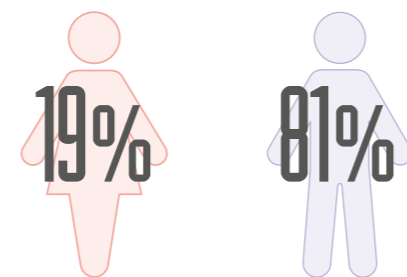
Category	Description	RoQ legal requirement	Local content in staff		
			2022	2021	2020
1+2	Executive management and their deputies, Department / Unit management	Minimum 70%	86%	85%	83%
3+4	Professional staff / qualified workers	Minimum 90%	98%	98%	97%

Graph 14 presents the total number of expatriate and local senior and mid-level management of the Company split by age and gender. This includes KPO core structure and temporary projects.

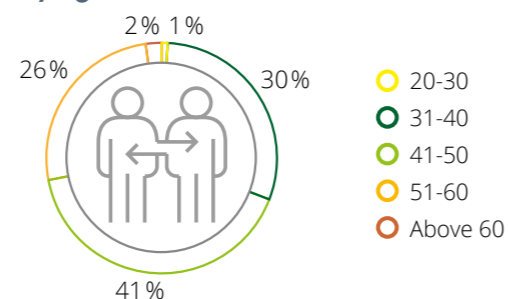
Graph 14. Number of local and expatriate managers by age and gender, 2022 GRI 405-1(a), SDG 5.5.2



Percentage of local and expatriate managers by gender SDG 5.5.2 (C050502)



Percentage of local and expatriate managers by age



* In 2022, the methodology for calculating local and expatriate KPO personnel was corrected. For all previous periods, the calculation was based on the division of positions held by employees into local positions and positions assigned to Parent Companies. It was found that with such a calculation, citizens of the EAEU member states fall into the category of local personnel, and citizens of the RoQ seconded by Parent Companies fall into the category of foreign personnel. It was decided that the display of personnel by citizenship would be the most correct.



KPO Female Network SDG 5

Advancement of women leadership is nowadays of great relevance worldwide. Having women at managerial roles is a key factor of commercial efficiency and economic viability of business. Gender-balanced companies are more attractive to the employees and achieve better results.

KPO Female Network was launched in May, 2019 as a platform where women could share knowledge, provide mutual support and strengthen their connections. Since its' foundation, KPO Female Network has successfully run a number of sessions to engage KPO women, drive active participation, encourage young people to contribute and experienced personnel to share their success stories.

Network mission is to advance the vision **“Women Support Women”**.

Network goal is to create a positive culture of mutual support among female employees of KPO. We want our Company to be a safe and friendly working environment, where all women can achieve their full potential and reach any heights that match their talents and ambitions.

KPO Female Network supports and applies the best practices of oil and gas and energy companies for supporting working women, utilizes international practices for expanding women rights and opportunities

in the industry, develops various programs and activities aimed at assisting women in moving up the career ladder and increasing the number of women at superior roles. Presently, the number of women at managerial roles remains low.

With the view to promote Women Leadership, the following activities are planned:

- ▶ Program of mentorship, education, open dialogue on the importance of escaping from stereotypes,
- ▶ Women professional growth,
- ▶ Arrangement and attending of training workshops,
- ▶ Exchange of experiences with national and international companies,
- ▶ Holding of round tables with top management,
- ▶ Self-development and motivation training courses.

Being a member of KAZENERGY Association, KPO actively supports implemented programs and initiatives, participates in collaboration with the European Bank of Reconstruction & Development in the development of informational- analytical review “Role of women in RoQ energy sector” to determine the input and role of women in the development oil and gas and energy sectors of the country. GRI 2-28

Enhanced development programme

GRI 404-2

In order to ensure the continuity of workforce planning and increase local content in staff, KPO implements the Enhanced Development Programme.

The Programme aimed at creating and maintaining the necessary talent pool to meet the Company's business needs. The stages of the Programme implementation include the selection of talented employees, identifying their strengths and weaknesses, developing and implementing individual development programs, and as a result appointing them to planned positions.

The first and second intakes of the Program were held in the period from 2009 to 2014.

The third intake of the Programme continued in the period 2017–2020. The total number of participants in the third training intake was 161 people. By the end of the programme of third intake, 56% of the participants attained the roles as planned; and their individual development plans were completed by 77%.

In the second half of 2021, KPO launched the fourth intake of the Talent Pool Enhanced Development Programme for the period of 2021–2024. Based on the plan to increase local content in staff, the departments' heads nominated high-potential employees for further participation in the selection stages of the Programme. The selection consisted of three stages, after which two categories of program participants were identified: employees with high potential in managerial skills, and employees obtained high score in the 'Analysis' and 'Planning' skills.

Of the 79 candidates, 52 employees successfully passed the fourth intake of the Enhanced Development Programme for the Talent Pool.

2022–2024 will be dedicated to the implementation of the learning and development processes of program participants in accordance with their Individual Professional Development Plans.

Competence management system

GRI 3-3

Competence management system is applied at KPO as one of the most efficient methods for assessing the competency level of personnel.

The system is aimed at achieving the required level of competency among technical staff, who work at hazardous industrial facilities, and at reducing and preventing potential incidents and accidents caused by lack of competency. Given the results of conducted competency assessments, the system enables developing tools for further training of personnel and ensuring funds are spent as intended, as well as raising HSE cultural awareness among employees.

According to the Competency Management System (CMS) policy, any contractor with a high or middle risk level of the contract that work on Company sites or equipment shall develop and operate its own Competency Management System. The contractors' personnel, responsible for the control and execution of high-risk works, shall have the ability to demonstrate knowledge and practical skills to work safely, technically sound and within the defined boundaries of responsibility. KPO has started working on this with contractors since 2019. The key requirements and rollout stages are identified during the HSE contractors' audits.

KPO CMS was certified by Offshore Petroleum Industry Training Organization (OPITO) in 2013. Once every three years, Company undergoes accreditation of the system requiring that compliance audits be conducted annually engaging OPITO experts. In November 2022, KPO confirmed the competency management system accreditation till November 2023.



KPO employees, received the Lean Six Sigma yellow belt

The scope of OPITO's accreditation includes:

- ▶ Six profession-oriented specialties: production operators, electrical technicians, instrument technicians, mechanical technicians, lead technicians and supervisors in production sector.
- ▶ Six production units and departments, including KPC, Unit 3, Unit 2, Eco Centre, Maintenance and Gathering departments.

In 2022, 739 employees with technical qualification completed initial assessment and received CMS certificates. KPO has reached 73% of the competency compliance required for technical personnel.

In line with the Competency Management System Expansion Plan 202-2024, the Competency Accreditation Programme for Industrial Supervisors working at KPC Chemical Laboratory was completed in 4th Quarter 2022 and was launched in the Field Facilities Modifications Department. Competency Assessment under 24 approved standards is carried out for over 150 supervisors. In order

to obtain unbiased assessment results, superintendents take on the role of technical experts. Detailed information on the Competency Assessment for Industrial Supervisors is provided on a monthly basis to the management of the field and the production directorate.

One of the areas to improve the effectiveness of the current KPO Competence Management System was the implementation of a Front-line barrier management "FLBM" project to protect personnel and equipment at Unit 3.

Since 2020, the 360° Assessment project functions as a part of the Competency Management System. Such assessment is a tool to devise an employee's personal development plan and to assure more effective communication between an employee and a line manager using feedback. KPO SAP system module enabling all participants to be assessed online has been developed. The process is supervised by internal Competency Management and Personnel Assessment experts.

Personnel training and development SDG 4

Personnel training GRI 404-2

Every year, KPO conducts training programs aimed to achieve the following objectives:

- ▶ To enhance the individual job-related competencies of employees, and address operational and career development needs.
- ▶ To teach mandatory skills required to perform the job at hazardous production facilities. The training obligations are subject to the RoQ legislation and the Company procedures.

In 2022, 90% of the Company's local employees were trained or engaged in various professional development programmes, professional training and retraining, and took part in online seminars and conferences.

Besides, in 2022, KPO continued conducting training for employees on the specialized international programmes (see table 20), language skills, and professional and mandatory HSE courses.

Tab. 20. KPO personnel trained on the International Qualification certified programmes in 2019 – 2022 GRI 404-2

Programme name	2019	2020	2021	2022
Well control/well pressure control during gas, oil and water shows (IWCF)	59	13	61	46
Non-destructive testing certification (NDT)	33	3	13	20
CIPS International diploma (certified programme of Chartered Institute of Procurement and Supply)		10	13	19
Emergency response training course MEMIR by OPITO standard	19		17	17
International certificate in Health, Environment and Safety (NEBOSH)	11	12	9	
Certified internal auditor (CIA)	2	3		
OPITO Expert competency assessment	15			
ACCA Diploma in International Financial Reporting (DipIFR)		3	2	
Master of Business Administration (MBA)		1	1	1
American Petroleum Institute certification (API)		6	10	9
Project Management Professional (PMP)® Certification			1	
IEMA International certificate in Environmental Management (IEMA)			1	1
ASME Plant Inspector				23
Total number of employees, completed certified training programs	139	51	128	136

Note: The decrease in KPO personnel trained on the International certified programmes in 2020 is due to restrictions caused by the COVID pandemic.

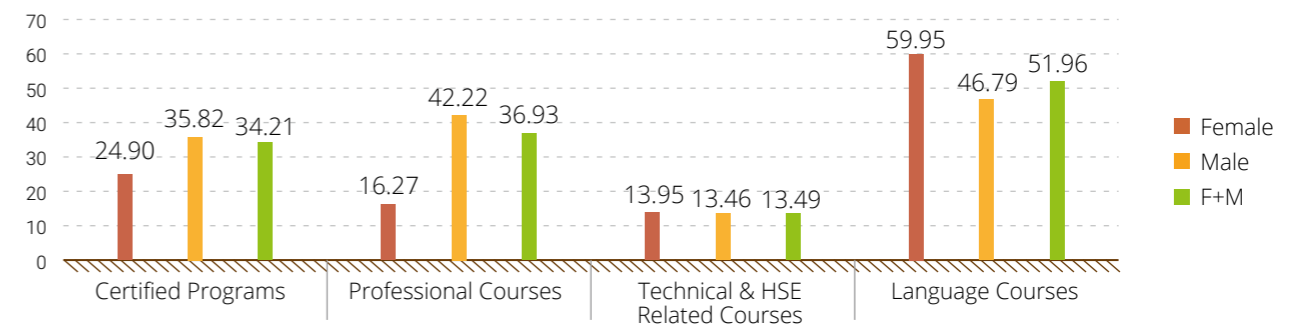
Training statistics GRI 404-1, 403-5

As responsible organization, KPO ensures annual mandatory HSE training both for its own staff and personnel of its contractor organizations.

In 2022, 576,599 hours of training (405,221 hours in 2021) were held, of which 294,951 were provided to KPO employees (250,581 in 2021). The remaining 281,648 hours (154,640 hours in 2021) were spent on the HSE mandatory courses for the contractor organizations' employees.

Totally, in 2022 26,282 people were trained, 3,286 of them – KPO employees and 22,996 – contractor personnel. Average training hours are given in graph 15.

Graph 15. Average number of training hours per one training course passed by nominated KPO employees in 2022, by type, by gender GRI 404-1, SDG 5.1



Training arranged for KPO employees in 2022 by categories is shown in Table 24.

Tab. 24. Training of employees by categories, 2019–2021 GRI 404-1

Category	2022		2021		2020	
	People	Hours per 1 employee	People	Hours per 1 employee	People	Hours per 1 employee
1. Managers and supervisors	95	36.97	121	34.72	92	73.99
2. Qualified specialists / supervisors	1,703	55.02	1,636	49.35	1,439	81.93
3. Technical personnel	1,408	137.45	1,715	94.01	1,484	113.01
4. Office and administrative personnel	102	41.24	172	25.72	119	25.81



KPO scholarship programme and partnership with universities SDG 4.3

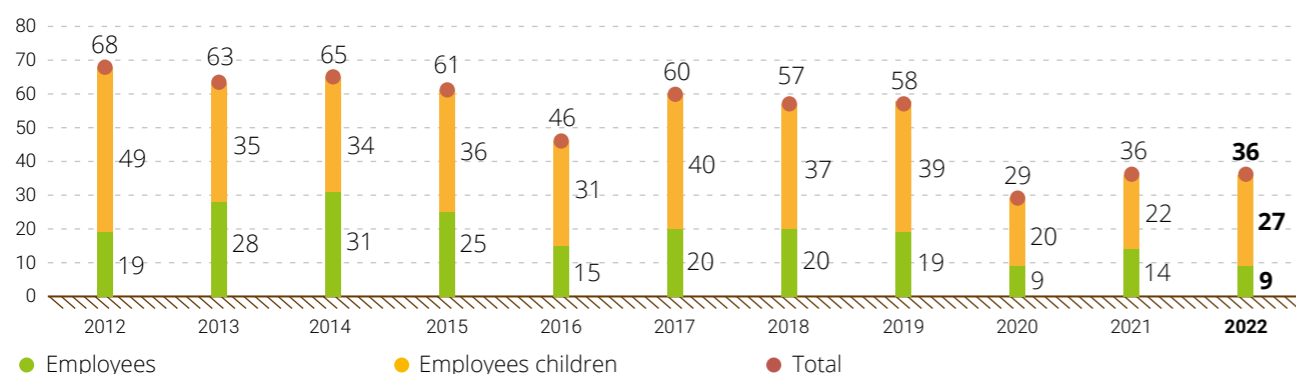
People is the most important value for our Company. KPO continues enhancing its employees' qualification and attracting young professionals through cooperation with universities.

Scholarship programmes GRI 404-2

KPO Scholarship Programme is one of the constituent incentives for professional development and further education of employees and their children.

In 2022, within this programme KPO allocated 19.8 KZT mln (equivalent to US\$ 42,270) to sponsor scholarships for nine KPO employees and 27 children of employees. SDG 4.b

Graph 16. Dynamics of engagement in the KPO Scholarship Programme, 2012–2022



Note: Decrease in the number of participants in the scholarship programme in 2020–2021 was due to restrictions of the COVID pandemic.

Recruitment of interns for the Professional Development Programme for 2022



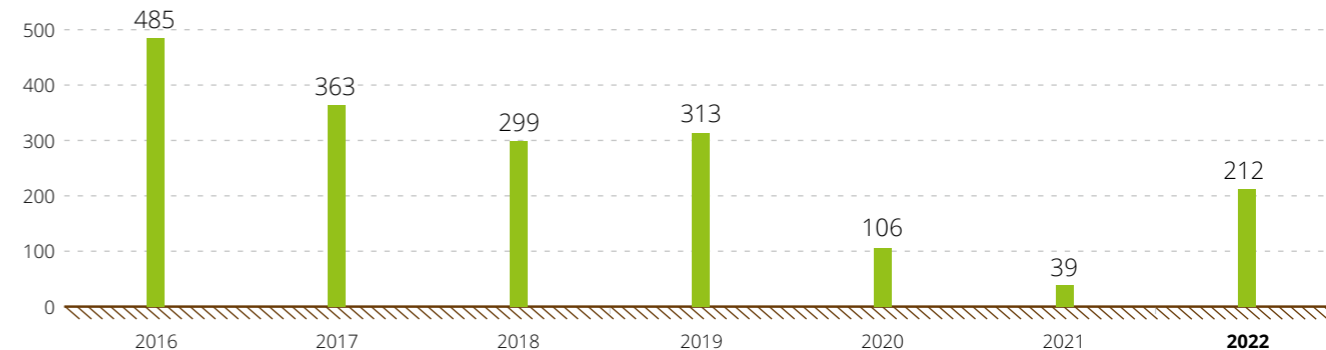
KPO partnership with Qazaqstani universities

KPO cooperates with 33 educational institutions in Qazaqstan, contributing to the training of professional personnel for the oil and gas industry of the Republic of Qazaqstan. Internship in the international company prepares students for real work, introduces them to the main business approaches at the world standards level. Also, through a special connection of educational institution's theoretical training and theoretical material practical consolidation at the enterprise, it allows achieving the necessary competence for students, reducing the gap

between theory and practice, preparing students receiving specialties to perform their professional activities. It also allows students to make more informed decisions about their future careers. Work with universities is carried out through the Student Placement Programme on the basis of respective bilateral agreements.

In 2022, 212 students from 16 educational institutions had practical and pre-graduate internship for 15 specialties in various departments of the Company. From 2013 to 2022, the Company employed 194 people out of those, who had passed the student placement.

Graph 17. Number of students completed internship at KPO, 2016–2022



Graduates Development Programme

GRI 404-2, SDG 4.3, 4.4, 8.6

The key task of the University Graduates Development Programme is to create a pool of high potential personnel among local the graduates of the Qazaqstani universities to ensure safe operations of the Karachaganak Field facilities.

Since 2008, as part of dual education, KPO has been implementing the Professional Development Programme for Production Operators, Mechanical Technicians, Electrical Technicians and Instrument Technicians based on the international standard of the Offshore Petroleum Industry Training Organization (OPITO).

Once selected, candidates are trained according to international standards gaining both theoretical and practical knowledge. Upon a successful completion of the programme, interns are hired by the Company and start their careers at the production units.

The value of this training programme lies in the methodology provided in a block-module format. This approach allows developing a set of competencies, which focus on the ability to address production issues in workplace.

The University Graduates Development Programme has been successfully implemented at KPO for 15 years at the time of issuing this Report. Over 516 production Operators and Mechanical Technicians have been trained under this program and are now productively working at the company's production facilities.

In May 2022, 45 trainees of the 2021 enrolment completed the theoretical module on specialties of Production Operator, Instrument Technician and were assigned to pass internship in KPO Production and Maintenance department. In September and October 2022, 24 trainees were hired by the production and maintenance department.

In May 23rd 2022, the Company completed the process of the next trainees' enrolment to participate in this programme in the specialties «Electrical Technician» and «Instrument Technician». As a result of the selection, a group of 24 people was formed, recent graduates of higher and secondary specialized educational institutions of the Republic of Qazaqstan.

In October 2022, a new group was launched in the specialty «Production Operator» in the amount of 21 people. Theoretical training on the program will last for 10 months, after which the trainees will be sent for practical training in the Company's production and maintenance department.

Why is it important to us?

GRI 3-3

Operational tasks at the Karachaganak field and the works on the implementation of further expansion projects are mainly performed with the aid of the KPO contractors. On average, over 17 thousand employees from Qazaqstani contractor and subcontractor organisations are engaged in the Karachaganak Project. Accordingly, the successful implementing of the set tasks and reaching the performance indicators depend on how properly the employment relations are built both in KPO and within the collectives of contractor and subcontractor companies involved.

In order to mitigate any potential risks for security and social instability, KPO takes every possible effort to ensure integrity of operational facilities and security of all personnel at the Karachaganak field including contractors.



Business principle:
COMMUNICATION AND ENGAGEMENT

In our interactions with business partners, we seek to listen and respond to them honestly and responsibly.

Business principle:
COMMUNITIES

We build productive, collaborative and trusting relationships with government, our shareholders, our business partners, the local communities where we work and with each other.

GRI 2-23



Work with contractor organizations in 2022



236
trips conducted



32
contractor organizations had
Collective Agreements



545
contractor organizations
units' inspections



190
applications received
and resolved



6
audits

Improvement of living
and labour conditions in



34
sessions of the tripartite
district commission



52
organizations

CONFLICTS AND SECURITY

Industrial relations GRI 2-24, 2-25, 2-26, 407-1, 409-1, 414-2, SDG 8.5, 8.7, 8.8, 10.1, 10.4

Continuous monitoring and analysis of the current situation in the labour collectives are performed to prevent any violations of rights of the workers from contractor and subcontractor organisations, to identify and correct any potential factors, as well as root causes and conditions bringing about day-to-day social non-conformities, infringement of the legitimate rights of the employees. Such factors as absence of acceptable day-to-day social conditions or observation of legal regulations in the contractor and subcontractor organisations may contribute to such risks.

- Succession/transfer of skilled personnel from the existing contractor (whose contract term expires) to a new one. This implicit practice helps to maintain the employment level in the region and to uphold the socially stable environment in the period of service contract terminations.

Besides, as a part of the efforts to maintain the stable social environment in the contractor organisations, KPO developed and introduced a general monthly salary bonus in the amount of KZT 60 thousand, net of tax, and the prompt implementation of this measure improved financial situation of over 15,000 employees from contractor and subcontractor organisations. The general salary increase introduced as from 01 February 2022, was chosen to demonstrate equal attitude to all beneficiaries, but with substantial focus on the category of workers with the lowest wages. This decision was agreed in a meeting with engagement of the WQO Akim, Vice Minister of Energy, General Director of "PSA" LLP and General Director of KPO.

Around 17 thousand employees from 151 contractor companies furnishing services at the Karachaganak field are being monitored by the Industrial Relations Section. GRI 414-2 a

In the course of monitoring violations of labour rights KPO seeks to ensure an integrated and prompt review of all applications/complaints and to provide timely resolution of all issues. Such monitoring includes due consideration and analysis of opinions from all sides, reasonable measures to protect and reclaim labour rights of employees in accordance with the legislation of the RoQ, the Industrial Relations Policy and contractual commitments, including:

- Continuous monitoring of day-to-day social conditions, provided by contractors, full and timely payments of wages, provision of PPE, etc.;
- Organising subject forums and conferences dedicated to relevant themes (HSE, social welfare, etc.);
- Co-operation and engagement of competent labour protection authorities in the settlement of conflict situations, as well as awareness-raising and educational events;
- Fixing the minimum salary size for provision of services in the amount of KZT 830 per hour after deduction of all compulsory payments. Implemented upon expiry of contractual commitment terms under the effective agreements;

In 2022, employees of the Industrial Relations Section made 236 trips visiting over 545 work sites and compact accommodation premises, including six joint audits with the contract holders. 34 sessions of the tripartite district commission were held to discuss identified risks in the contractor and subcontractor organisations. As part of the monitoring process KPO also registers the number of Collective Agreements in the contractor companies because they serve as an indicator of compliance with the employees' rights for freedom of association and collective bargaining. 32 contractor companies had Collective Agreements in place in 2022. GRI 2-25, 407-1

In total, 190 complaints/applications on different subjects from contractors' employees were received and addressed in 2022. 92% of the applications had to do with the salary payment and remuneration issues (the growth of such applications was due to the introduction of the general salary increase in the amount of KZT 60 thousand), 6% of the applications were related to HSE matters and 2% were dedicated to the provision of day-to-day social conditions. Apart from the written applications, the Industrial Relations Section is also processing from 2 to 20 daily phone calls and holds meetings with employees from contractor and subcontractor

organisations. In general, as a result of the monitoring, audits and processing of received applications, actions on improvement of living and labour conditions were taken in 52 contractor companies monitored by the Industrial Relations Section. This, in its turn, contributed favourably into maintenance of the stable moral and psychological atmosphere in the working collectives. **GRI 2-26, 414-2**

Compliance with the declared labour conditions and day-today social welfare is monitored as a part of the fulfilled activities to prevent infringement of the labour rights. An

Tab. 22. Examples of contractor's applications to the KPO Industrial relations section

Examples of applications	Result
An application from a contractor's employee to KPO regarding unsatisfactory labour conditions provided by the employer: the workers' inventory was in a critical condition.	As a result of an inventory check, the employer had to provide a new inventory for performance of works to the employees.
An application from a contractor's employee about unsatisfactory living conditions in a hostel: non-observation of the sanitary-epidemiological norms, the residential area not conforming to the number of residing employees, safety breaches – absence of a smoking area, irregular collection of solid domestic wastes.	As a result of an audit, the company providing accommodation services moved the employees to other rooms complying with the sanitary-epidemiological norms, provided supplementary rooms for the employees, arranged a smoking area in compliance with the safety norms and organised the regular collection of solid domestic wastes.

Security **SDG 16.1**

Following the results of activity of the Security and Industrial Relations Department in 2022, 1049 violations were found 94% of which were related to strategy on ensuring protection of people in the event of H₂S incidents while the rest involved Material and Asset Movement Control, Policy on Prohibition of the Use of Alcohol, Drugs, Psychotropic and Toxicomane Substances (their analogues) in KPO and violation of border of the Field perimeter. Significant number of violations is the result of activity undertaken to prevent persons not following H₂S Strategy from entering the Field.

33 internal investigations were conducted. These included seventeen applications which were submitted to law-enforcement agencies.

During 2022, KPO has revealed and prevented cases of unauthorized removal / relocation of KPO and contractors' assets worth approx. KZT 118 mln.

integrated approach is used in the process of the above-mentioned activities: each application/complaint is analysed to ensure fullness of information.

In 2022, in relation to re-vaccination of the local population against the COVID-19 in Qazaqstan, the Industrial Relations Section held a number of online meetings with representatives of Health Department in order to exchange information on positive vaccination effects with the contractors.

Employees of the security company providing complex security services on the export pipelines have rendered assistance to the WQO law-enforcement agencies in detaining persons who illegally crossed the RoQ Border.

The use of the new Sintela security software has significantly increased overall monitoring quality, including more precise threat identification and improvement of patrolling.

In the Sustainability Report 2021 we informed on the increased security actions taken at the KPO operational facilities during force-majeure and state of emergency in Qazaqstan in January 2022. In addition, it is worth noting that considering the high employment rate of the Burlin district and the WQO residents at KPO, the Company primarily targeted at prevention of the destabilization of public order and acted in direct interaction with law-enforcement agencies and public authorities.

To minimize security risks and the Company's impact resulting from its activities, we have determined several targets which implementation results are presented below.

Tab. 23. Our targets in security **GRI 3-3**

Our 2022 targets	Target achievement	Actions taken in 2022	Targets for 2023
Ensure zero illegal taps in the KPO export pipelines	Completed	Regular monitoring of the export pipelines was provided by mobile patrol teams and the Sintela monitoring and notification system.	Ensure zero illegal taps in the KPO export pipelines
Install metal detectors and automatic breath test systems at the security check points of Unit-2, Unit-3 and KPC red zones in order to prevent unauthorized removal of assets and monitor physical condition of personnel	In process	Issue regarding installation of metal detectors is at the stage of approval by Unit Managers and in parallel market research to identify potential providers.	Issue regarding installation of metal detectors and door frame metal detectors shall be agreed with all Unit Managers and start process of equipment purchase and installation
Continue training on Human Rights and Security Principles (HRSP) for security personnel	Completed	As of end 2022, the training covered 100% contractor security personnel. GRI 410-1 Conducting the HRSP training has been included in the terms of 100% contracts for providing security services.	Continue training on Human Rights and Security Principles (HRSP) for security personnel, as well as for new personnel
Complete the tender for a provider and installer of the security systems at KPC, Unit-2, Unit-3 and EOPS. Proceed with the project implementation.	In process	In 2022, contract for purchase and installation of equipment as per Security Management System project, Phase 2 wasn't awarded due to low number of technically acceptable bidders.	<ul style="list-style-type: none"> Design documentation is to be updated; Revise and update Phase 2 implementation strategy considering changes to the RoQ legislation requirements in terms of environmental assessment and relaxation in the requirements to perimeter lighting.
Define the scope of work covered by the Security Management System project at the facilities: Bolshoi Chagan OPS, Pilot Camp and Eco Centre	In process	<ul style="list-style-type: none"> Detailed designing of Security Management System at Bolshoi Chagan OPS is being developed. Scope of work for detailed designing of Security Management System at Pilot Camp is under tender. Scope of work for detailed designing of Security Management System at Eco Centre is at the stage of Terms of Reference completion. 	<ul style="list-style-type: none"> Complete detailed designing of Security Management System at Bolshoi Chagan OPS facility; Commence detailed designing of Security Management System at Pilot Camp; Run a tender for designing of Eco Centre.
<ul style="list-style-type: none"> Continue replacement of simple electronic cards with electronic chip cards; Identify and purchase required quantity of readers for further implementation of the project. 	In process	Due to delay of electronic cards delivery by provider the process of replacement of vehicle passes simple cards with electronic ones was suspended.	Complete replacement of vehicle passes simple cards with electronic ones before the end of June 2023.

Why is it important to us?

GRI 3-3

Engagement with local communities to understand their needs and the local context is one of the KPO Sustainable Development Charter principles.

Building up good neighborhood and constructive dialogue with local government bodies and communities is essential for us because this kind of activities helps the Company to maintain our 'social license to operate' in the West Qazaqstan Oblast.

KPO engagement with the local communities of the Burlin district during the implementation of construction projects contributes to minimizing the social and environmental risks associated with the Company's activities at the Karachaganak field.



Business principle: COMMUNITIES

We aim to be good neighbours by continuously improving the ways in which we contribute directly or indirectly to the general wellbeing of the communities within which we work.

We build productive, collaborative and trusting relationships with government, the local communities where we work and with each other.

We strive to be open, straightforward, and transparent within the constraints of business confidentiality.

GRI 2-23

Monitoring of resettled communities 2018–2022

BUILT

2
multi-storey buildings

100
detached houses

school for **300**
children

kindergarten for **320**
children

IMPROVEMENT

800
appeals received
and resolved

11,600
tons of top soil provided

150
tree saplings provided for
landscaping the yard areas

LOCAL COMMUNITIES GRI 3-3, 413-1, OG12

In its operations, KPO strives to prevent or minimize negative impacts and maximize the benefits from its presence by continuous engagement with local communities, and creating conditions for their well-being and economic growth.

The targets in table 24 are aimed at supporting the local communities living in three rural districts of Burlin district – Priuralnyi, Zharsuat and Uspenovskiy villages located adjacent to the Karachaganak Field and Aksai town.

Aiming to implement initiatives in the area of corporate social responsibility, KPO applies policies, standards and procedures based on the Performance Standards of International Finance Corporation. **GRI 2-23-a-i**

In order to maintain effective dialogue with local communities on social and infrastructural support, KPO conducts meetings and consultations in the form of Village

Council meetings with participation of Company employees and representatives from rural districts.

In 2022, 17 Village Councils meetings were held in the Priuralnyi, Zharsuat and Uspenovskiy rural districts. During the meetings, the local residents were informed of the KPO Community Development Programmes for 2022, on the progress of students from these rural districts who study in colleges and universities of Uralsk under the KPO Scholarship Programme, as well as KPO Environmental Monitoring Programme.

Overall, 18 local residents received education over the period of the Scholarship programme from 2010 to 2022. **SDG 4.5, 4.b**

As part of the Community Development Programme, KPO provided 150 vouchers for the elderly of Burlin district for health recreation in the Akzhaiyk Sanatorium.

Tab. 24. Targets in community engagement **GRI 3-3**

2022 targets	Target achievement	Actions taken in 2022	Targets for 2023
Implement the 2022 Community Development Programme as per approved budget	Completed	The Akzhaiyk sanatorium recreation for the elderly community members was implemented. The Scholarship Programme for rural school graduates successfully continued.	Implement the 2023 Community Development Programme as per approved budget
Conduct nine Village Council meetings in three rural districts on social and environmental issues	Completed	17 Village Council meetings were held in three rural districts. Along with this, additional meetings outside of Village Councils were held to answer the residents' questions.	Conduct nine Village Council meetings in three rural districts on social and environmental issues
Review and timely close all incoming grievances and suggestions from the communities	Completed	All received grievances were reviewed and effectively closed out	Review and timely close all incoming grievances and suggestions from the communities

Community feedback mechanism GRI 2-25, 2-26, 413-1, SDG 16.10

In 2022, in accordance with KPO Community Grievance Procedure, we received 32 complaints and requests from the local community, including seven gas odor complaints and 32 requests and suggestions of various nature from the local communities living in close proximity to the Karachaganak Field. Residents were interested in the company's social initiatives aimed at supporting socially vulnerable groups of the population, resettled residents asked for clarifications, etc.

Public hearings GRI 2-29, SDG 16.10

In 2022, KPO held public hearings on the construction projects "Expansion of Karachaganak 1. 2nd stage of construction", "KPC. Construction of a new caustic neutralization complex (adjustment)". According to the requirements of the Environmental Code of the Republic of Qazaqstan, public hearings were held in the form of open meetings in 4 rural districts.

Information about planned public hearings was communicated to the representatives of interested government bodies and the public through publications

Check-ups carried out by the KPO Operations Environment Monitoring Team did not reveal any malfunctioning of the process equipment, leaks/emissions or MPC exceedances in each case reported. Upon completing the review, some feedback was communicated to the residents who had filed the complaints.

in regional and district newspapers, local television and radio channels, on information boards at rural districts akimats, as well as through the [Unified Environmental Portal](#).

All the projects discussed at the public hearings in 2022 were approved by the interested government bodies and the public. The results of the hearings are reflected in the relevant minutes. A package of documents submitted for public hearings, as well as the results of the discussion, are available on the website <https://ecoportal.kz/>.



Discussion of resettled residents' issues with representatives of local executive authorities

Monitoring of resettled communities OG12

Since resettlement of the first residents from Berezovka and Bestau villages to Araltal micro district and apartment buildings in Aksai at the end of 2017, KPO has been annually monitoring the livelihood restoration of the resettled families.

As part of the above monitoring, in the period 2018–2022, KPO carried out the following activities for residents resettled in apartment buildings in Aksai, including Araltal, where 100 detached houses were built:

- ▶ 2018–2019 – residents of 100 houses in Araltal were provided with 11,600 tons of top soil for the cultivation of household plots;
- ▶ 2018–2021 – 800 appeals and requests of resettled residents were registered in the KPO Community Feedback Log. All issues were resolved by the end of 2021;
- ▶ 2019 – KPO assisted in complete reconstruction and relocation of the Monument to the Soldier of the Great Patriotic War from the former Berezovka village to Araltal;
- ▶ 2020 – during the COVID-19 pandemic, in cooperation with the Burlinsky District's Akimat and the Aksai town's

Akim, KPO organized the delivery of food and essential goods on a mobile shop for residents of 100 houses in Araltal;

- ▶ 2020 – with assistance of Akim of the Aksai town of Burlin district, KPO delivered 150 tree saplings for landscaping the yard area of multi-storey buildings in 5 and 10 microdistricts in the Aksai, where resettled residents live;
- ▶ 2020–2021 – expiration of the warranty period for two apartment buildings in 10 microdistrict of Aksai, 100 detached houses in the Araltal microdistrict of Aksai, a school for 300 children in Araltal and a kindergarten for 320 children in 10 microdistrict of Aksai of Burlin district, built for the resettled residents of the former Berezovka and Bestau villages.

In addition, in 2022, a tender was held to select a contractor to develop Detailed Engineering Design for the Demolition and Land Reclamation Project of the resettled Berezovka and Bestau villages. We will inform readers about the implementation of this project in the next Sustainability Report.





EARTH is the element of Nature that creates the material base in this world. The earth element is directly related to the planet Earth. Everything that we have in this world, we received from our planet, and all this will also return back to the Earth.

Therefore, it is vital to ensure careful use of the resources of our planet and prevent environmental pollution.

ENVIRONMENTAL IMPACT

Climate adaptation and transition to carbon neutrality	93
Environmental management approaches	94
Air emissions	104
Energy efficiency	108
Water consumption and disposal	112
Waste management	118
Biodiversity	122



GRI 2-23

Business principle: ENVIRONMENT

We have a systematic approach to environmental management in order to achieve continuous performance improvement.

To this end, we manage these matters as critical business activities, set standards and targets for improvement, and measure, appraise and report performance externally.

We continually look for ways to reduce the environmental impact of our operations.

2022

WATER:

Re-used treated wastewater

 **75,452**
m³

WASTE:

Treated

 **23,581**
tonnes


AIR EMISSIONS:

 **99.93%**
gas utilization rate

ENVIRONMENTAL PROTECTION INVESTMENT FOR KOGCF

 **2.6**
KZT bln.

BIODIVERSITY:

 **12**
years
of BAP implementation
at the KOGCF territory

TRAINING "NEW ROQ ENVIRONMENTAL CODE"

 **91%**
of employees

Why is it important to us?

GRI 3-3

KPO is committed to minimizing its impact on the environment while developing the Karachaganak oil & gas condensate field. KPO carries out its operations based on the principles of sustainable development and in compliance with high environmental standards observing the common human right for a favourable environment, as specified in the current Environmental Code of the Republic of Qazaqstan.



Water management

KPO strives to manage water resources in more sustainable ways and to maximize the usage of recycled water for operation's needs as well as to optimize water usage till maximum potential of water volume reduction is achieved, and to implement digitization to improve the efficiency and effectiveness of water management.

Waste management

Waste Management focuses on sustainability and enhancement of the proper waste management practices, waste generation reduction, minimization of distant waste transferring, maximization of the recycling and reuse by introducing advanced technologies.

Power Strategy

The power generation strategy will modify the existing power system to focus on providing a reliable power supply for all current and planned projects and meet commitment for greenhouse gas emissions reduction and power supply to the community.

CLIMATE ADAPTATION AND TRANSITION TO CARBON NEUTRALITY

GRI 2-22, 305-5

The way the Oil and Gas Companies can support the Green Agenda nowadays is the contribution to reducing greenhouse gas emissions, maximizing the value of natural resources and minimizing the waste created.

In 2022, KPO started developing the Environmental Concept for the period until the end of the FPSA (2037). The environmental concept will form the basis of the Green KPO strategy and the KPO 365 Business Strategy, which is scheduled for release in 2023.

KPO Green Strategy sets out objectives and the way forward to deliver targeted objectives in order to remain profitable and to adapt our business model to a business-changing environment and in step with global challenges. The Strategy has five key objectives supporting our goal to become a world-class "green" hydrocarbon and energy producer, with Net Zero scopes 1&2 and a focus on regional development.

Offsetting Strategy

KPO offsetting strategy includes the development of renewable energy and projects that protect and enhance natural ecosystems that capture CO₂ emissions, benefit local communities, and improve biodiversity.

Net Zero Vision

A key ingredient for KPO to reach net zero will be the ability to use natural gas to convert it to hydrogen. The resultant CO₂ will have to be captured and reinjected. The Karachaganak Gas Plant will be a critical enabler to the development hydrogen as a fuel in the future.

ENVIRONMENTAL MANAGEMENT APPROACHES

Environmental management system **GRI 2-23, 2-24, 3-1, 3-3**

To manage environmental impacts KPO is certified to use the Integrated HSE management system certified to comply with international standards [ISO 14001:2015](#), [ISO 45001:2018](#) и [ISO 50001:2018](#), as well as HSE Policy dedicated for continuous improvement.

In 2022, KPO successfully passed ISO 14001 Audit, confirming compliance with the standard's requirements.

The key environmental commitments of the Company's HSE Policy include the following significant objectives: **GRI 3-3**

- ▶ prevention of the environmental pollution,
- ▶ reduction of GHG emissions,
- ▶ conservation of biodiversity and ecosystems,
- ▶ conservation of natural resources,
- ▶ continuous improvement of environmental performance.

As part of maintaining an effective environmental management system and in order to comply with the requirements of the new Environmental Code, an Implementation Plan for the requirements of Environmental Code of the Republic of Qazaqstan has been developed and internal documentation in the field of environmental protection has been revised.

In accordance with Environmental Code, KPO, as the Field Operator, is responsible for emissions from the Karachaganak project. Since the second half of 2021, data has been collected and analysed to set up the system for emissions accounting from contractors operating in the Karachaganak field.

According to the RoQ Environmental Code, KPO has an obligation to implement the best available techniques (BAT). In 2023, it is planned to conduct a comprehensive technical audit for compliance with BAT. **SDG 17.7**

Environmental aspects management system

In 2020 KPO has developed and introduced the environmental aspects management system [EnvAR](#), which is a convenient and effective management tool.

Environmental Aspects Register of the Company's divisions are annually reviewed and updated considering changes in the current situation. Based on the Company's divisions registers, the Consolidated register of the most significant environmental aspects is developed, to apply additional activities/control measures to reduce risks and improve the environmental condition. In 2022, the EnvAR system was supplemented with functionality that allows you to automatically track the implementation of additional activities. The Consolidated Register of KPO Significant Environmental Aspects in 2022 included the following aspects:

- 1) Pollutant emissions into the atmosphere and greenhouse gases,
- 2) Waste generation and management,
- 3) Detection of unauthorized waste disposal,
- 4) Domestic wastewater treatment and discharge,
- 5) Industrial wastewater generation and disposal,
- 6) Spills,
- 7) Water resources consumption.

Environmental compliance **GRI 2-27**

KPO conducts its business in accordance with the environmental legislation of the Republic of Qazaqstan (RoQ). KPO annually requests and obtains an Environmental Impact Permit (EEP) from the RoQ Ministry of Environmental Protection. This permit sets the limits for contaminants emissions, discharges and limits for accumulation and burial of wastes.

In 2022, KPO did not exceed the general emission, waste accumulation and disposal limits set in the Permits. In 2022, three civil claims in the field of environmental protection were filed in relation to the events of 2020–2021 for a total amount of 26.2 million tenge. Based on court decisions in three civil environmental claims, KPO paid 14.1 million tenge, partially winning two claims and reducing the amount with a difference of 12.1 million tenge. It should be noted that during 2022 the Company was not held administratively liable, and no administrative fines were imposed.

Implementation of the new Environmental Code's requirements

In 2022, as part of the efforts over the new Environmental Code by the Company's employees, critical production issues were resolved on the legislative level, such as:

- ▶ Obtaining environmental impact permit for KOGCF facilities for 2023;
- ▶ Obtaining environmental permit for Atyrau Terminal facility for 2023–2030;
- ▶ Activities related to the Plan of implementation of the requirements of the new RoQ Environmental Code for 2023;
- ▶ Legislative work in the field of environmental protection and subsoil use. Analysis of the provisions of more than 40 new RoQ by-laws in the field of environmental protection;
- ▶ Participation in development of the new environmental requirements and submission of comments and proposals for average 90 regulatory and by-law RoQ acts in environment protection by KPO specialists as members of the working groups under the Ministry of Environmental Protection, Geology and Natural Resources of RoQ and Association "KAZENERGY";

▶ Resolving a number of issues on revising environmental requirements for business within the framework of the "Regulation from a clean sheet", as part of the working group on energy, ecology and the oil and gas industry of the Council of Foreign Investors under the President of the RoQ:

- ▶ with the Ministry of Energy of the RoQ – questions on classifying technologically inevitable gas flaring as V9¹¹;
- ▶ with the Committee on Water Resources of the Ministry of Natural Resources of the RoQ – amendments and additions to the new by-law acts in the field of the use and protection of the water fund, water supply and disposal;
- ▶ with members of the Mazhilis Parliament of the RoQ – amendments to Administrative Code of the RoQ to increase the number of fines for gas flaring and strengthening the role of the public within the framework of the Environmental Code of the RoQ.

Environmental Public Hearings **GRI 2-29**

As per the requirements of the new Environmental Code dated January 2, 2021, public hearings in the process of carrying out the state environmental review are mandatory, and are carried out in accordance with the rules for holding public hearings. Thus, all project documentation for construction and (or) operation of facilities of categories I and II (which include KPO facilities) and other project documents stipulated by Environmental Code for obtaining environmental permits are sent for examination and submitted to public hearings. All this takes place in the process of obtaining an environmental permit.

In 2022, the Company held nine public hearings on project documentation for construction and (or) operation of Category I and II facilities and other project documents required to obtain environmental permits.

Information about the planned public hearings was brought to the attention of representatives of interested state authorities and public through announcements on the Unified Environmental Portal, in a periodical print publication (newspaper), TV channel and on bulletin boards of local executive authorities of administrative-territorial units.

¹¹ V9 is the standard and volume of raw gas flaring in case of process failures, failures and deviations in the operation of process equipment.

All projects submitted for discussion at public hearings in 2022 were approved by the interested state authorities and the public. The results of public hearings are reflected in the protocols of public hearings. A package of documents submitted for public hearings, as well as the results of the discussion, are available at the [Unified Environmental Portal](#).

Suppliers' environmental assessment

GRI 308-1, 308-2

According to the Environmental Code of the Republic of Qazaqstan (dated January 2, 2021 No. 400-VI RoQ Law), the Karachaganak field is the facility that has a significant negative impact on the environment (category I), and the condensate pipeline export facilities KPC-Bolshoi Chagan-Atyrau are classified as facilities that have a moderate negative impact on the environment (category II). KPO, as the operator of Category I and II facilities, receives an Environmental Impact Permit, and contractors engaged to perform certain works and (or) provide certain services on the territory of KPO facilities during its construction, reconstruction or operation are required to comply with the conditions of such an environmental permit.

During 2021, the Company carried out a large-scale work to account for emissions generated during the performance of services by contractors for inclusion in the KPO environmental impact permit. The Company also revised a number of work processes for environmental control of contractors whose emissions are included in the general environmental impact permit. **GRI 3-3**

Further, in 2022, the Company organized a system that makes it possible to identify and control environmental aspects that arise when contractors provide services on the territory of KPO facilities. Control also covers waste management plans and registers environmental aspects. In this regard, KPO has sets up an objective to train and improve environmental awareness and qualification of contractors. Thus, during 2022, KPO carried out active work to raise the awareness of contractor employees during regular meetings with responsible personnel, visits, as well as familiarizing with KPO requirements at quarterly and annual Contractor HSE forums.

Since the beginning of 2022, the system was established for monthly reporting by contractors of data on fuel consumption by stationary emissions sources, on waste accumulation, as well as on water consumption and disposal.

In order to communicate KPO requirements to the contractors, an e-guide on environmental reporting and compliance has been released. The guide demonstrates eight sequential steps from the beginning of collecting information for the Environmental Permit to the submission of regular reporting, as well as actions to be taken in case the set limits are exceeded. It should be noted that this guide and its applications can be downloaded from any electronic media via QR. Expanded requirements for contractors were reflected in Schedule D, updated in May 2022, to Company contracts on HSE

requirements. These include requirements for training under the current Environmental Code of the Republic of Qazaqstan, for maintaining of environmental aspects register, compliance with the conditions of environmental permits, for waste management, discharges and emissions, environmental fines, etc. Thus, KPO has the opportunity to evaluate new contractors for environmental criteria.

Since the beginning of 2022, the system was established for monthly reporting by contractors of data on fuel consumption by stationary emissions sources, on waste accumulation, as well as on water consumption and disposal.

All incoming information on emissions and waste accumulation since 2022 is carefully analysed as part of the KPO Environmental Permit compliance procedure, which has been updated to reflect the new requirements. Information on contractors is being compiled into a database, which will form the basis for an electronic reporting and environmental performance monitoring system.



Environmental protective measures plan 2022 GRI 3-3, SDG 9.4

To achieve the set goals in environmental protection, KPO annually develops an Environmental Protective Measures Plans (hereinafter referred as EPMP). The Plan's measures focus on ensuring the environmental safety, improving environmental protection methods and technologies,

ensuring rational use of nature and maintaining compliance with the ISO 14001 and ISO 50001 international standards.

In 2022, KPO operated the business on the basis of the environmental permits issued. The EPMPs were developed and approved for each of the Permits obtained.

Tab. 25. KPO Environmental Protective Measures Plans for 2022 and Emissions Permits issued

No.	2022 Environmental Protective Measures Plans	Valid Permits for 2022	Permit issuing Authority
1	2022 KPO EPMP for the Karachaganak Field (KOGCF)	Environmental Emissions Permits (effective period: Jan 1 to Dec 31, 2022)	Committee for Environmental Regulation and Control of the RoQ Ministry of Energy
2	2022 KPO EPMP for the Karachaganak Field (KOGCF)	Environmental Emissions Permits (effective period: Sep 1 to Dec 31, 2022)	The RoQ Ministry of Environment, Geology and Natural Resources
3	2021–2030 KPO EPMP for the KPC-Bolshoi Chagan-Atyrau condensate export pipeline (WQO)	Environmental Emissions Permits in 2020 (effective period: Jan 1, 2021 till Dec 31, 2030): 1. Air pollutant emissions; 2. Pollutants discharged with wastewater.	WQO Akimat, West-Qazaqstan Oblast Administration of Natural Resources and Nature Use Control
4	KPO 2021–2030 EPMP for Atyrau Oblast	Environmental Emissions Permit for: 1. Air pollutant emissions; 2. Pollutants discharged with wastewater.	Atyrau Oblast Akimat, Atyrau Oblast Administration of Natural Resources and Nature Use Control



KPO Eco Centre

In 2022, the total actual costs of the environmental measures implemented at Karachaganak Field amounted to KZT 2.3 bln and that is 113%.

The 2021 KPO EPMP implementation by sections is shown in Table 27.

Tab. 26. Environmental Protective Measures Plan implementation in 2022, % GRI 3-3

No.	Sections of Environmental Protective Measures Plan	KPO measures implementation %:		
		- within the Karachaganak Field	- at the KPC-Bolshoi Chagan-Atyrau export condensate pipeline (WQO)	- at the KPC-Bolshoi Chagan-Atyrau export condensate pipeline (Atyrau Oblast)
1	Air pollution control	98%	100%	100%
2	Conservation and rational use of water resources	95%	N/A*	N/A*
3	Land conservation	100%	N/A*	N/A*
4	Flora and fauna conservation	100%	N/A*	100%
5	Production and consumption waste management	158%	N/A*	N/A*
6	Introduction of management systems and best safe technologies	100%	N/A*	N/A*
7	Scientific researches and design and survey works in environmental protection	100%	100%	100%
8	Environmental awareness and promotion	N/A*	100%	100%
TOTAL:		(KZT 2.6 bln)	(KZT 10.443 mln)	(KZT 6.499 mln)

* N/A – measures are not applicable.

The environmental effect from the implementation of environmental protection measures is presented in Table 28.

Tab. 27. Environmental impact from the implementation of measures to reduce emissions and wastes in 2022 GRI 3-3

Air emissions	<p>The reduction in actual pollutants emissions into the atmosphere as a result of implementation of measures with the introduction of advanced technologies for 2022 amounts to 15,265 tons.</p> <ul style="list-style-type: none"> Use of a surface pump to transfer product with high gas volume fraction during the test of four wells has resulted in reduction of emissions by 15,029 tons; Use of hydrocarbon-based fluid for the reservoir operations (Lamix or Deisel) helped to reduce the amount of air polluting emissions by 235,4 tons.
Water consumption	<ul style="list-style-type: none"> The volume of reuse of treated wastewater, including rain and melt water, for 2022 amounted to 75,451.5 m³, which led to a reduction in fresh water intake for technical needs from surface sources. The consumption of process water from the reservoir No. 1 on the Konchubai has been completely suspended since January 2022. The reuse of treated wastewater was carried out for the technical needs of the KOGCF, as well as for dust suppression and the preparation of drilling fluids.
Waste management	<ul style="list-style-type: none"> In 2022, 600.125 tonnes of non-recyclable production and consumption waste were disposed by high-temperature incineration, including residues received after segregation of solid municipal waste, food waste and epidemiologically hazardous waste (medical waste, dewatered sludge from silt areas). This helped to reduce the volume of burial wastes by 531,305 tons. As a result of municipal waste segregation at the segregation plant, 123.231 tons of useful components (waste paper, plastic, glass and scrap metal) were extracted for subsequent transfer to specialized companies for processing and (or) reuse. The volume of liquid waste processing amounted to 8,674.01 tons. 601.05 tons of base oil recovered and recovered in the process of processing 9,008.43 tons of oil-based drill sluge and other industrial wastes.
Land reclamation <small>GRI 304-3, SDG 6.6, 15.1, 15.5</small>	<p>In 2022, land reclamation was carried out after the completion of construction work on 34.37 hectares area.</p>

Environmental monitoring GRI 3-3, 413-1, SDG 3.9, 11.6

KPO implements a number of environmental programmes, which cover all areas of its production activities. One of the key programmes is a Production Environmental Control (PEC) Programme developed in line with the RoQ Environmental Code requirements to meet the following objectives:

- ▶ obtaining reliable data about the Company's emissions and impact of production activities on the environment;
- ▶ rapid and proactive response to emergencies;
- ▶ minimizing the impact on the environment and human health;
- ▶ communication with stakeholders (local communities, state regulatory authorities, partner companies) about the environmental activities of the Company and risks for population health.

As part of the PEC Programme, the environmental emissions such as air emissions, wastewater discharge, waste treatment, accumulation and disposal, and the quality of environmental components such as air, surface and ground water, and soil are monitored.

The PEC monitoring of the quality of soils, surface and ground water in 2022 has demonstrated that concentrations of target substances were on a par with those observed in previous years. No negative impact on environment from KOGCF operations was identified. Also, KPO regularly monitors the production environmental control over the environmental condition at the field waste disposal facilities.

Also, KPO regularly monitors the production environmental control over the environmental condition at the field waste disposal facilities. In 2022, as a result of monitoring of ground water and soil at the Eco Centre's Solid Industrial Waste Burial Landfill and the Temporary Liquid Drilling Waste Storage Site, as well as in checks 35A and 35B, no direct negative impact on the environmental protection components is revealed. Quantitative control over the movement of waste is carried out in order to consider the volume of burial, as well as the volumes and time of waste accumulation.

Air quality is monitored by ways of collecting and testing the samples. The job is performed by an accredited laboratory, as well as 18 stationary automatic EMSs. Air quality is assessed based on the sanitary and hygienic limits, i.e. maximum permissible concentrations (MPC). To identify the level of air pollution, the recorded

concentrations of monitored components are compared with MPC and quantified in fractions.

In 2022, more than 100 thousand samples were taken by the laboratory during the process, about 115 thousand laboratory sample analyses and about 28 thousand measurements were carried out.

The Company pays special attention to protection of atmospheric air in the Field area, at the SPZ boundaries and in settlements adjacent to Karachaganak field.

Sanitary protection zone SDG 15.2

New estimated sanitary protection zone (SPZ) has been set up on the territory of the KOGCF since January 1, 2018. In 2021, KPO successfully completed the relocation of environmental air monitoring stations. The relocation of these stations was scheduled due to the change of Sanitary Protection Zone to ensure correct performance of the continuous air monitoring and to comply with the RoQ legal requirements. Plot map of the Karachaganak field with SPZ marked, as of end 2022 is available on the KPO website in the section [Sustainable Development/Environmental Protection/Sanitary Protection Zone](#).

In 2022, KPO continued the implementation of the project "Organization and improvement of the estimated KOGCF sanitary protection zone" – stage 3 – "The first stage of planting the KOGCF SPZ and for extending of SPZ boundaries". The aim of the project is to take care of existing forest stands and plant new trees, as well as to install information signs on the SPZ boundaries. In order to protect historical and cultural heritage sites from potential negative impact, the project also provides for the installation of appropriate signs at the boundaries of the protected heritage sites. Earlier, in 2019, KPO organized the large-scale archaeological research on this topic (see the details in the [KPO Sustainability Report 2019](#), pp. 85-88). SDG 11.4

So, in 2022, surveys, field work, monitoring of existing forest plantations and project documentation were completed. Based on the results of the work performed, decisions were made on the reconstruction of previously planted plantations around the settlements of Uspenovka, Karakemer, Zhanatalap, Karashyganak, forest belts within the SPZ, the creation of new forest belts within the SPZ boundaries, the staking out of the SPZ boundaries, the installation of information signs and the boundaries of protected zones of historical and cultural heritage objects, the technology of their creation is determined, the costs for the implementation of the planned activities are calculated.

Total area of plots planned for green construction for the entire project period will be 249.1 hectares including 151.9 hectares area to create new forest belts, 97.2 hectares is the area of reconstruction work on existing plantations.

Total implementation period for the entire project includes the period from spring 2023 until 2028:

- ▶ 2022 – surveys, field work, development of project documentation,
- ▶ 2023 – drawing SPZ boundaries,
- ▶ 2024 – installation of information signs on SPZ boundaries and protected historical sites,
- ▶ 2023–2026 – renovation of forest belts,
- ▶ 2025–2028 – planting of new forest belts.

There will be no any capital facilities construction in the process of project implementation. The work is expected to be carried out by a contractor. Plot map "Main design solutions for arrangement and improvement of KOGCF SPZ for the period 2023–2028" is available on the KPO website in the section [Sustainable Development/Environmental Protection/Sanitary Protection Zone](#). Consolidated plot plans for placement of SPZ facilities and landscaping were agreed by interested parties, business organizations and agricultural producers.

Air Monitoring by automatic Environmental Monitoring Stations GRI 413-1

18 stationary automatic environmental monitoring stations are installed along the perimeter of the KOGCF and SPZ (EMSs 001 – 018) and integrated into a single automatic environmental monitoring system.

Four out of 18 EMSs are located at the field and within the SPZ. The stations 005 – 018 were relocated to new spots in accordance with the Project for EMS relocation to the boundary of the new estimated SPZ, which was completed in December 2021. As of end 2021, there are 13 EMSs located at the estimated SPZ boundary: 006 – 018; the EMS 005 was relocated to a site near Aksai.

Annual average concentrations of the monitored components recorded by EMSs in 2022 at the KOGCF SPZ boundary are shown in Table 29. The column "Actual annual average concentration" shows the minimum

and maximum annual average concentrations of the monitored components recorded by each EMS.

All the EMSs take measurements of the four main pollutants (H₂S, SO₂, NO₂, CO) on a continuous basis, 24/7.

According to the data received from EMSs in 2022, the actual daily, monthly, quarterly and annual average concentrations of the monitored components did not exceed the established sanitary and hygienic limits. However, on June 13 and 14, 2022, EMS-017 registered two cases of a 20-minute exceedance of the maximum permitted concentration of hydrogen sulphide and on September 27, one case was registered by EMS-007. Pursuant to the requirement of the RoQ Environmental Code (Sub-item 8 Item 2 Article 184), the Company sent a notification regarding the exceedance recorded at EMS-017 and EMS-007 to the WQO Environmental Department.

Tab. 28. Annual average concentrations of the monitored components recorded by EMS in 2022

Monitored components	Actual annual average concentration, mg/m ³	MPC one-time ¹² , mg/m ³	Exceedance of MPC one-time*
H ₂ S	from 0 to 0.002	0.008	no
SO ₂	from 0.002 to 0.005	0.5	no
NO ₂	from 0.002 to 0.007	0.2	no
CO	from 0.1 to 0.2	5.0	no

* Criteria of air quality assessment at the SPZ boundary is MPC one-time. EMS are configured to give a signal when the MPC one-time is exceeded.

¹² MPC one-time is a maximum permissible one-time concentration of a chemical substance (in mg/m³) in the ambient air of settlements. This concentration shall not cause a reflex response in human bodies (holding of breath, irritation of eyes, upper respiratory tract, etc.) in case of 20-30 min of inhalation.

It should be noted that no connection was found between the exceedance shown in Table 30 and the KPO field facilities operations. The review of the KPO field operations, considering the meteorological parameters at the time of the MPC one-time exceedance, has shown that all production facilities were in normal operation with no

flaring events, no equipment failures or emergencies recorded. No direct H₂S sources revealed among KPO facilities. At the moment of MPC exceedance recorded by EMS-007 KPO facilities were fully stopped for turnaround.

Tab. 29. One-time MPC exceedances recorded by EMS in 2022

EMS No.	Date, time	Monitored components	Actual one-time concentrations recorded in 2022, mg/m ³	MPC one-time, mg/m ³	Frequency ratio of MPC one-time exceedance	Number of exceedances
EMS-017	23.11.2022, 23:40	H ₂ S	0.025	0.008	3.125	1
EMS-017	13-14.06.2022, 00:00	H ₂ S	0.010	0.008	1.25	1
EMS-007	23.11.2022, 23:20	H ₂ S	0.017	0.008	2.125	1

No gas odour complaints from the local communities adjacent to the KOGCF were raised on the date the MPC exceedances were recorded.

Air quality data from all 18 KPO automatic EMSs are transmitted online to the West Qazaqstan Oblast Environmental Department via the Ecomonitor portal.



Mobile and stationary EMS

Atmospheric air monitoring in the villages adjacent to the Karachaganak Field

GRI 413-1

There are stationary air monitoring posts in six settlements located along the perimeter of the field – Zharsuat, Zhanatalap, Dimitrovo, Karachaganak, Priuralnoye, Uspenovka, and in Aksai town. The air sampling is carried out four (4) times a day (at 1, 7, 13 and 19 hours according to the State Standard) by the permanent personnel of the contracting laboratory, who reside in the specified villages. Approximately 52,000 air samples were collected and analyzed at the stationary posts in 2022.

Air samples are chemically tested in the laboratory in Aksai for the content of five main components in accordance with the State Standard and ruling documents: hydrogen sulphide (H₂S), sulphur dioxide (SO₂), nitrogen dioxide (NO₂), carbon oxide/monoxide (CO), and methyl mercaptan (CH₃SH). In addition, every 10 days the air is monitored for the concentration of volatile organic components: benzene (C₆H₆), toluene (C₇H₈), xylene (C₈H₁₀).

Monthly results of air monitoring are published in local print media and distributed to the villages for posting on the information boards, as well as published on the [KPO web-site](#) on a monthly basis. If any gas odour complaint is

raised by someone of the community, an unscheduled air sampling is performed at the stationary posts.

In 2022, no MPC exceedances were recorded for the daily average concentrations of the monitored air components in the villages.

In 2022, seven complaints with respect to gas odour were raised by the village communities adjacent to the Karachaganak Field. The unscheduled air sampling was carried out in the villages, the analysis results of which indicated that the concentrations of the monitored components did not exceed the established MPC one-time. Each complaint from an initiator with respect to gas odour was addressed.

The annual average concentrations of the monitored air components in the seven villages in 2022 are shown in Table 30. The column “Actual annual average concentration” shows the minimum and maximum annual average concentrations of the monitored components. Criterion for assessing air quality in settlements is MPC daily average.

Tab. 30. Annual average concentrations of the monitored air components in the villages adjacent to the KOGCF in 2022 GRI 413-1

Monitored components	Actual annual average concentration, mg/m ³	MPC daily average ¹³ , mg/m ³	Exceedance of MPC daily average
H ₂ S	0.002	0.008**	no
SO ₂	0,003 – 0,004	0.05	no
NO ₂	Between 0.023 – 0.027	0.04	no
CO	0.432 – 0.440	3.0	no
C ₆ H ₆	from 0.177 to 0.181	0.3**	no
C ₇ H ₈	below MDL*	0.6**	no
C ₈ H ₁₀	below MDL*	0.2**	no
CH ₃ SH	Not detected	0.006**	no

* Measurements recorded were below the method's minimal detection limit (MDL). MDL's for the monitored components: C₇H₈ – 0.14 mg/m³; C₈H₁₀ – 0.14 mg/m³.

** MPC one-time. MPC daily average for hydrogen sulphide and methyl mercaptan is not established, therefore, MPC one-time is referred to for comparison purpose; MPC one-time is also applied in order to assess the content of benzene, toluene and xylene in the air as the frequency of components' sample collection and analysis is once in ten days.

¹³ MPC daily average – maximum permissible daily average concentration of chemical substance [in mg/m³] in the ambient air of settlements. This concentration shall not have direct or indirect adverse effect on human body in case of inhalation during indefinitely long-term period (years).

Why is it important to us?

GRI 3-3

Air pollution harms human health, affects food security, hinders economic development, leads to loss of biodiversity, contributes to climate change and degrades the environment that people rely on for their livelihoods. The United Nations recognizes air pollution as one of the major threats to human and planetary health.

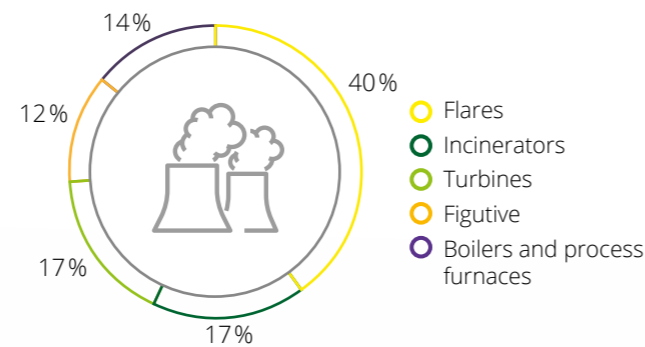
The KPO industrial complex operation is inevitably associated with the air pollutant emissions. The pollutants are produced at all stages of the production cycle: gas and condensate production, treatment, storage and transportation. Reduction of emissions, recycling of waste and application of new technologies remain the most important issues on the Company agenda. The Company's mission in this matter is to minimize the negative effect of its activities.

AIR EMISSIONS

KPO manages air pollutant emissions based on the limits established in the Environmental Impact Permit. To control compliance with limits the Company monitors industrial emissions. The air emissions, at the KPO facilities, are mainly released from sour gas and formation fluid contamination mixtures' flaring, fuel gas flaring in turbines, furnaces and boilers, from diesel fuel flaring in diesel-generator units. The sulphur dioxide, carbon oxide and nitrogen oxides are the main combustion products.

Regulation of direct greenhouse gas (GHG) emissions in KPO is carried within the framework of the current national emissions quotas trading system.

Graph 18. Pollutant emissions in KPO by main air pollution sources, in 2022



Tab. 31. Targets in managing emissions GRI 3-3

Our 2022 targets	Target achievement status	Implementation actions taken in 2022	Targets for 2023
Develop and undergo verification/validation of regulatory documentation to obtain GHG emission quotas for 2022–2025. Obtain quotes for greenhouse gas (GHG) emissions for 2022–2025.	Completed	Development and verification of technical documentation for GHG emission quotas for 2022–2025. Timely submission of data for calculation of GHG emission quotas for 2022–2025.	
	New objective		Conduct analysis and studies on additional efficient off-gas treatment plants for KPC incinerators.

In 2022, total air emissions increased by 8% compared to 2021 and amounted to 5,236 tons. The increase in emissions in 2022 is justified by the turnaround activities at KOGCF facilities and inclusion of Contractor emissions in the Company's area of responsibility in accordance with the requirements of the new Environmental Code of RoQ. Table 32 shows data on the permissible and actual KPO emissions for the period of 2020–2022.

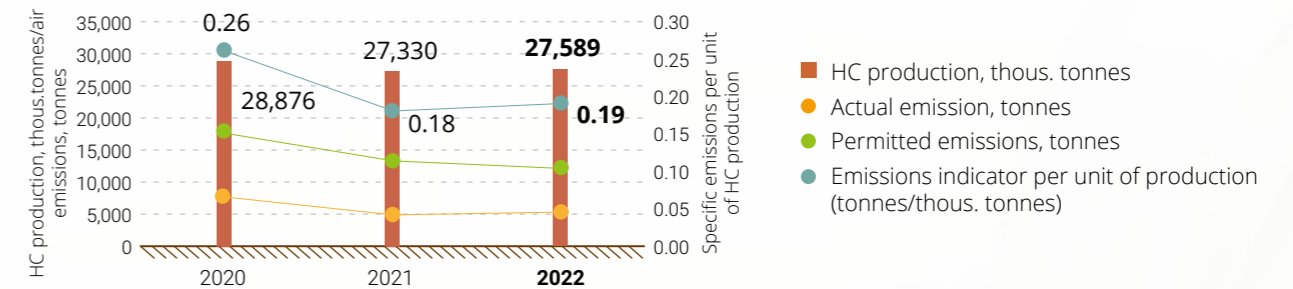
Tab. 32. Permitted and actual volumes of pollutant emissions, 2020–2022 GRI 305-7, SDG 3.9, 12.4

Annual volume of emissions by pollutants, in tonnes:	2022	2021	2020
Permitted emissions:	12,005	13,219	17,527
Actual, including:	5,236	4,798	7,591
Nitrogen oxides (NO _x)	1,182	1,197	1,637
Sulphur dioxide (SO ₂)	2,143	1,989	3,315
Carbon dioxide (CO ₂)	1,142	1,039	1,145
Volatile organic compounds	534	452	1,352
Hydrogen sulphide (H ₂ S)	3	3	3
Solid particles	198	71	74
Other	34	47	65

Note.: Emission volumes data are provided in accordance with the data of statistical report «2-TP Air».

In KPO, emissions are calculated using the methods specified in MPE project and recommended for use in the RoQ.

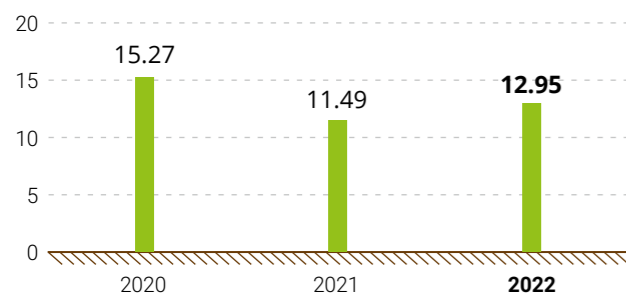
Graph 19. Hydrocarbons production volume and environmental emissions in 2020–2022



In 2022, the specific emissions per unit of production amounted to 0.19 tonnes per 1,000 tonne of hydrocarbons (HC) produced. Slight increase of specific emissions in 2022 comparing to 2021 is related to increase of actual emissions by 8% due to reasons described above.

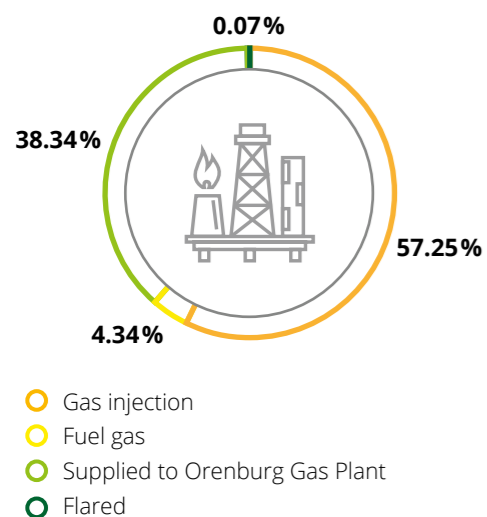
Gas Flaring OG6, SDG 3.9, 7.3, 8.4, 12.2, 12.4, 12.5

Graph 20. Volume of associated gas flared, 2020–2022 (mln m³)



Reduction of the gas flaring volumes remains one of KPO key commitments. In 2022, the total amount of flared gas was 0.07% (0.07% in 2021) of the total volume of gas produced or 0.42 tonnes per thousand tonnes of produced hydrocarbons. Such a low flaring emission rate resultant from flaring testifies to high operational performance against the global industrial average rate of 8 tonnes per one thousand tonnes and European average rate of 2.4 tonnes per one thousand tonnes, as follows from the IOGP 2021's Report. This confirms the very high level of KPO for this indicator among global and European oil and gas producers and makes Karachaganak the leading oil and gas condensate field in Qazaqstan in terms of gas utilization. Slight increase in gas flaring volumes in 2022 comparing to 2021 is related to full shut down for turnaround which required flaring, as well as due to commissioning and start up of the new High Pressure Flare at Unit-2.

Graph 21. Gas utilization and flaring in 2022



Gas Utilization

In accordance with legislation requirements, KPO develops and approves with Regulatory Bodies the Programs of sour gas processing development. In 2022, KPO's gas utilization rate reached 99.93% (99.94% in 2021). The performance target approved by the RoQ Authority under the 2022 Associated Gas Processing Development Programme was 99.82%.

GHG emissions SDG 12.4, 13.1, 13.2

Direct GHG emissions GRI 305-1, 305-7

Regulation of direct greenhouse gas (GHG) emissions in KPO is carried within the framework of the current national emissions quotas trading system. KPO has obtained quotas for the 2022 GHG emissions (CO₂) in the amount of 2,334,396 tonnes on the basis of specific emissions indicators (benchmark). In 2022, actual emissions amounted to 1,828,569 tonnes of CO₂, which made 78% of the quota.

Assessment of GHG emissions is performed for carbon dioxide (CO₂), methane (CH₄) and nitrous oxide (N₂O), using the calculation method on the basis of the Company's operations data (in terms of fuel consumption and laboratory data on fuel composition).

According to the verified GHG Emissions Inventory Report for 2022, the total volume of GHG emissions amounted to **1,851,066** tonnes in CO₂-equivalent, of which CO₂ contribution equalled to 1,828,569 tonnes of CO₂-equivalent (98.8%), CH₄ – 13,852 tonnes of CO₂-equivalent (0.7%), N₂O – 8,645 tonnes of CO₂-equivalent (0.5%).

Information on the dynamics of generated GHG emissions is provided in Table 33. In 2022, minor increase in GHG emissions (by 5.6%) versus 2021 is due to the commissioning of 4th gas reinjection compressor.

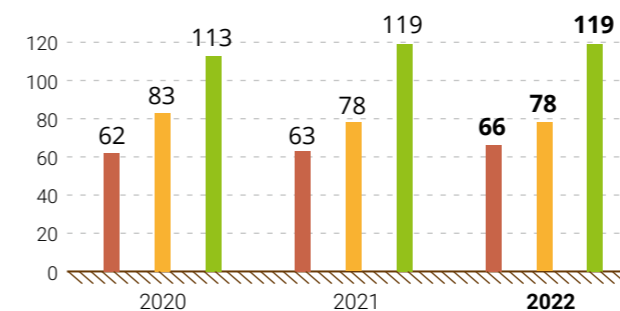
Tab. 33. Dynamics of GHG emissions generated from KPO production activities, 2020–2022 SDG 13.2.2 (C130202)

Total volume of greenhouse gas emissions (tonnes of CO ₂ equivalent)					
From fuel combustion at stationary sources	From fuel combustion at flares and incinerators	Fugitive emissions	Total GHG emissions in 2022	Total GHG emissions in 2021	Total GHG emissions in 2020
1,696,538	143,093	11,435	1,851,066	1,745,768	1,821,604

Specific GHG emissions GRI 305-4

In 2022, KPO specific GHG emissions amounted to 66 tonnes of CO₂ per thousand tonnes of hydrocarbons produced, which is 4.5% higher than the same figure for 2021. Graph 21 shows the dynamics of specific GHG emissions comparing to the specific emissions data provided by the IOGP. The actual specific GHG emissions at KPO are 15% lower than the European indicators and 44% lower than the international ones.

Graph 22. Dynamics of specific GHG emissions per unit of produced hydrocarbons (HC)*, 2020 – 2022



Indirect GHG emissions GRI 305-2

Indirect GHG emissions at Karachaganak Field resulting from the consumption of imported electricity in 2022 account for an insignificant part (0.1%), since the company has a gas turbine power plant, the main purpose of which is to provide its own electricity to the entire production complex of the field and nearby settlements.

These emissions are not subject to accounting and are not included in the reporting under the internal system of quotas for GHG emissions of the Republic of Qazaqstan. Information on them is provided only in reports to Parent Companies. For 2022 the indirect GHG emissions at KPO amounted to 1,802 tons of CO₂.

* The data was sourced by Annual report of the International Associations of Oil and Gas Producers (IOGP) – “Environmental Performance Indicators – 2021 data”. The 2021 data was used for comparison purpose in 2022, as the 2022 IOGP Report was not available at the time this issue was prepared.



Discussion of the field development strategy by the KPO Geology Department

KPO is one of the leading oil and gas companies of the Republic of Qazaqstan, being both supplier and user of fuel and energy resources (FER), and recognizes the need for rational FER use and increase of the energy efficiency level in the company.

The policy of carbon regulation reinforcement in Qazaqstan may make serious challenges for KPO as one of large GHG emitters in the country. Despite of current uncertainty with the carbon regulation methods, KPO continues to study the possibilities of GHG decrease in the short and long term. KPO is actively engaged in dialogue with shareholders, state, PSA LLC authority and other interested parties to jointly determine the strategy for future field development and create favourable conditions for technology investments, which are not paid off under current conditions but valuable in the long term.

ENERGY EFFICIENCY

KPO assumes responsibility to preserve favourable conditions for life-sustaining activity of future generations and make contributions in achieving the goal to decrease energy intensity and de-carbonization of the economy of the Republic of Qazaqstan. Ensuring energy resources extraction, while transitioning to low-carbon technologies, is one of the challenges we are faced with. Our current targets are to continue energy efficiency activities

and their assessment, including application of the best available technologies, energy-efficient equipment and environmentally friendly materials.

In order to minimize energy efficiency risks and impact of the Company, we have set a number of targets. The results of their implementation are presented further in the text.



Tab. 34. Targets in energy efficiency GRI 3-3

Our 2022 targets	Target achievement	Actions taken in 2022	Targets for 2023
Conduct a surveillance audit of the Energy Management System for compliance with the ISO 50001:2018 standard	Completed	A surveillance audit of the Energy Management System against the ISO 50001:2018 standard was successfully conducted in June 2022.	Conduct a certification audit of the Energy Management System for compliance with the ISO 50001:2018 standard
Conduct an annual energy analysis of the Company and continue monitoring energy efficiency indicators for equipment/processes that have a material impact on KPO's energy intensity	Completed	Annual energy analysis was successfully completed.	Conduct an annual energy analysis of the Company and continue monitoring energy efficiency indicators for equipment/processes that have a material impact on KPO's energy intensity
Implement activities scheduled for 2022 as per the 2022–2026 KPO energy saving and energy efficiency improvement action plan and 2022 Energy management system action plan	Completed	All activities scheduled for 2022 were carried out throughout the year, including the actions on reduction of electricity consumption, improvement of fuel gas reporting process, etc.	Continue work on implementation of the activities scheduled for 2023

Energy management system GRI 3-3

The ISO certification contributes to enhancement of the KPO reputation as a reliable partner to the Republic of Qazaqstan that takes appropriate actions to meet both regulatory requirements and international standards.

In June 2022, KPO has successfully conducted a certification audit against the ISO 50001:2018 standard. Following the audit, the KPO Energy Management System was recognized as corresponding to the international standards.

In accordance with the ISO 50001:2018 requirements, KPO Energy Policy was developed to be used as the guiding principles to determine and evaluate the energy efficiency goals and targets. The KPO Energy policy is an integral part of the long-term field development plan and contributes to achievement of strategic goals and targets of the Company. This policy was signed by KPO General

Director and it confirms the top management commitment to its stated obligations. GRI 2-23

Concurrently, there is a global focus on personal approach to eco-friendliness, green thinking and conscious consumption. KPO supports this idea and, in its turn, has developed the “Green rules” to ensure more efficient application of the existing procedures of environmental and energy management systems and implementation of the KPO “Green office” concept.

KPO “Green Rules” focus on increasing environmental awareness, inspire demand for change, and motivate personnel to take action and reduce not only individual but also Company's impact on the environment and contain clear and simple instructions for all KPO and contractors' personnel and visitors on how to contribute to the improvement of the state of environment.

Energy consumption GRI 302-1

KPO carries out an annual energy review and energy efficiency monitoring as part of the energy efficiency measures. Following the review, in 2022 KPO experienced an increase of energy intensity by 13.2% against 2014 that was due to Turnaround activities at the KOGCF facilities

and start-up of the 4th gas re-injection compressor. In 2022, the energy consumption totalled 1,109,277 tonnes of coal equivalent compared to 1,029,538 tonnes of coal equivalent in 2021. Table 35 shows the energy consumption volumes broken down by energy type.

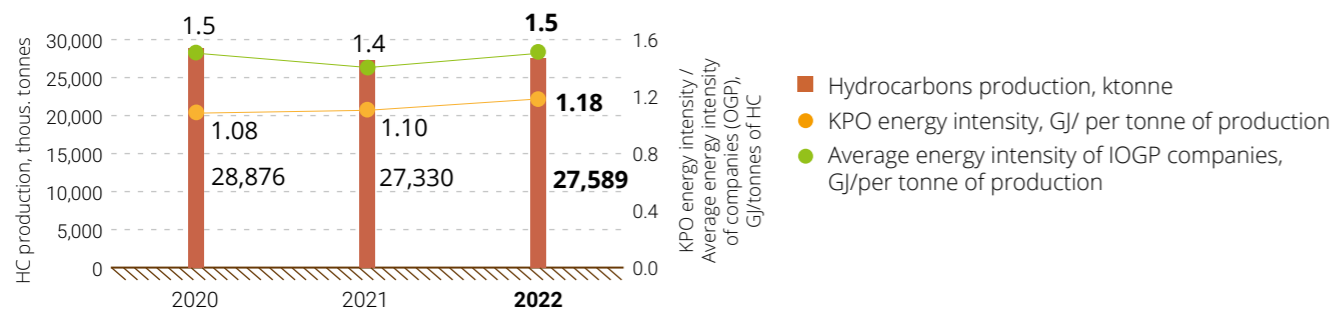
Tab. 35. KPO energy consumption in 2020–2022 GRI 302-1

Type of energy	Units of measure	Energy consumption, physical units			Energy consumption, tons of oil equivalent (toe)			Energy consumption, GJ		
		2022	2021	2020	2022	2021	2020	2022	2021	2020
Fuel gas	thous.m ³	897,582	832,863	863,029	1,105,821	1,026,088	1,063,251	32,411,614	30,074,639	31,163,893
Electric energy (purchased)	MW/h	7,229	6,710	6,236	889	825	767	26,057	24,181	22,482
Diesel	m ³	760	705	1,188	958	888	1,498	28,079	26,027	43,905
Petrol	m ³	233	228	199	258	251	220	7,562	7,357	6,439
Heating (in rented offices)	Gcal	9,448	10,388	9,781	1,351	1,486	1,399	39,598	43,555	40,994
Total					1,109,277	1,029,538	1,067,135	32,512,909	30,175,759	31,277,713



In 2022, the KPO energy intensity indicator was 1.18 GJ /tonnes of hydrocarbons, which was below the average energy intensity indicator of the companies that submitted their reports to the IOGP¹⁴ (1.4). The energy review outcomes provide basis for formalizing energy policy, setting energy saving and energy efficiency goals and targets and working out energy saving and energy efficiency measures in the Company. **GRI 3-3**

Graph 23. Dynamics of energy intensity, 2020 – 2022 GRI 302-3



Energy efficiency activities

In accordance with the energy saving and energy efficiency legislation requirements, KPO conducts a mandatory energy audit every five years. In 2021, a mandatory energy audit was completed at KPO by a specialized company in line with which, the overall KPO's energy saving and energy efficiency activities were rated as "excellent". Following the audit outcomes, KPO developed the plan for energy saving and energy efficiency improvement for 2022–2026.

In accordance with the approved plan for energy saving and energy efficiency improvement KPO completed the following activities in 2022:

- ▶ The work continues on replacing lamps with LED one at production facilities and Utilities areas. 1189 lamps were replaced in the Company facilities in 2022. The estimated savings in electrical power consumption per year from the replacement of lamps was about 114,570 kW*h. In the period of 2019 – 2022, 11,574 lamps were replaced and around 1,385,800 kW/h saved.

- ▶ The work continues on improving fuel gas reporting process:
 - ▶ an ultrasonic flow meter was installed in KPC area 5-340, which will allow to change the fuel gas metering scheme so that the data is generated from plant outputs and does not include process losses;
 - ▶ fuel gas flow meters were installed on the gas turbine of the re-injection compressors. The flow meters data will be used for internal control in the 8A-360-HM-01A/B fuel gas heater control system, turbine fuel gas treatment unit.
- ▶ Training sessions were held for production and corporate departments employees on the ISO 50001:2018 energy management system.

¹⁴ Data source: Annual reports of the International Association of Oil and Gas Producers (IOGP) – "Environmental Performance Indicators - 2021 data".

Improvement of environmental awareness and culture

"Green" thinking is actively promoted among KPO employees and contractors. Environmental awareness and culture activities stimulate careful attitude to the Company resources and raise personnel loyalty to introduction of green technologies and practices.

In 2022, KPO carried out a number of activities among KPO employees and contractors as part of the Programme on improvement of environmental awareness and culture.

Mandatory training course "The New Environmental Code. KPO Transition to Green concept" was launched on 5 June, 2022, as part of the 50th anniversary of the 1972 Stockholm convention as a result of which the World Environment Day was declared on 5 June. In 2022, the World Environment Day topic was "Only one Earth", which highlighted the need of sustainable lifestyle in harmony with nature. From the training video course, the employees learned how the Company activity will be improved in view of development of the KPO Energy transition and last changes to environmental legislation of the Republic of Qazaqstan and why it is important for each of us. 3,700 employees completed this training, it is 91% of their total number.

The V Uralsk Green Forum "Green Transformation: Trends and Challenges" was held in Uralsk on 10 June. Over 165 participants took part in the forum: among them were state authorities of republican and regional levels, oil and gas companies, industry and specialized associations, experts in ecology and green transformation, republican and regional mass media, representatives of the WQO students. As part of the event there were conducted Eco-Talks "Green course for sustainable future" for 45 students of West Qazaqstan Oblast and interactive exhibition "Only one Earth". The resolution was adopted as a result of the UGF. Forum materials are available for review at <https://ugf.kz/>. **SDG 17.16, 17.17**

From 11 to 17 November, as part of World Energy Saving Day, **KPO Energy Week** was held. Professional speakers from various industries of energy saving and green transformation were invited, who shared the Generational theory with Company employees: from bonfire to renewable energy sources, about renewable energy sources challenges and development in Qazaqstan, what processors are operating in WQO and where wastes can be handed over for recycling, also discussed transition to KPO Green Strategy within the KPO-365 Strategy, projects on carbon capture and storage, virtual energy, importance

of energy efficiency for KPO and Green Office principles. In addition, as part of the KPO Energy Week, about 40 children of the Company employees learned the energy saving concept in a playful way and received presents – eco-shoppers. Such fascinating workshop "Energosha's journey" was conducted by eco-coach, trainer Damir Karimov.

Within republican environmental campaigns "**Birge taza Qazaqstan**", "**World CleanUp Day**" and "**No waste on Nature**", KPO employees were actively involved in volunteer clean-up days which are aimed to clear city areas and territories adjacent to Aksai and Uralsk. In 2022, a record number of clean-up days were registered in comparison with previous years, over 300 Company employees participated in these activities. It is expected that such campaigns will contribute to changing public views and attitudes towards waste management and to minimize its generation and increase opportunities for its recycling.

"Green Office" Project

Starting from 2021 KPO launched the project on introduction of "Green Office" principles.

In 2022, introduction of the pilot project "Green Office" was continued, where 2 more KPO offices were included – Samal-2 and Aliya Training Centre. As part of environmental awareness improvement, KPO held environmental breaks with participation of about 300 employees. Waste segregation was introduced in these offices.

Big number of observations collected from the HSE cards system about the use of single-use disposable plasticware and violation of the principles of waste segregation fundamentals. In this regard cancellation of disposable plasticware (plates and cutlery) use in BC Karachaganak, BC Chagala, BC Nurdaulet and Samal-2 offices was initiated.

As a result of these activities, the use of disposable plasticware in four offices decreased by an average of 58%.

"Green Office" project in other KPO offices is scheduled to be introduced starting from 2023. Having an unconditional social and environmental focus, the "Green Office" project aims to have a positive impact on the number of social, environmental and economic aspects of KPO's sustainable development, also with positive impact on the company's stakeholders.

Ensuring access to safe water and sanitation is a human right.

Excessive and irrational water consumption can lead to impacts associated with the depletion of water resources and water shortage for industrial and economic needs, deterioration of aquatic ecosystems and decrease in the ability of water resources to naturally reproduce and purify.

Company target is to use water resources rationally with the aim to preserve them. KPO controls the use of clean water at the company by undertaking a set of measures on conservation of water resources and re-use of treated water, wherever possible.

WATER CONSUMPTION AND DISPOSAL GRI 303-1

Protection and rational use of water resources is an important and priority task facing both all mankind and our company. Water is the source of life and a valuable industrial raw material.

The results of our work to minimize the risks of the Company's production impact on the use of water resources presented below.



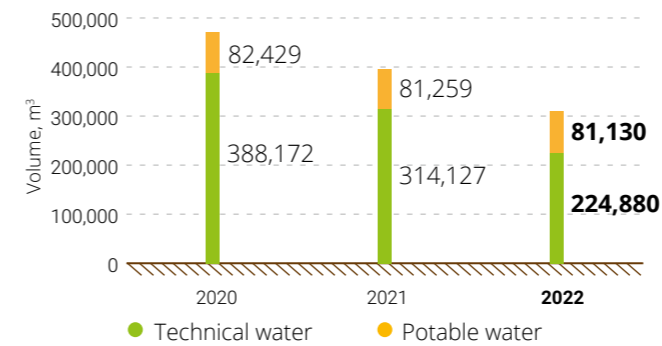
Tab. 36. Targets in managing effluents GRI 3-3, SDG 6.3, 6.4

Our 2022 targets	Target achievement status	Actions taken in 2022	Targets for 2023
Carry out work on the development of Addendum No. 3 to the industrial water injection project	Completed	<ul style="list-style-type: none"> ▶ Addendum No. 3 to the industrial waste injection project and a report on possible impacts to it were developed and agreed by the state authorities. ▶ The Work Program has been updated to the Injection Permit. 	Carry out workover on the injection well RP-6 in order to increase the perforation intervals in the Triassic reservoir II.
Cleaning of check No. 32 of the storm and melt water collection system collected from uncontaminated territories of the Eco Centre.	Completed	Check cleaning 100% completed. 2.06 tons of sludge from the storm water treatment system from uncontaminated territories was extracted and sent for processing.	
Finding the optimal solutions for sustainable continuous and environmentally safe provision of KOGCF with technical water for production needs before FPSA ends	80% completed	<ul style="list-style-type: none"> ▶ The forecast assessment of the demand for technical water was updated. ▶ Production Department continued to monitor and fix leaks in existing water lines. 	<ul style="list-style-type: none"> ▶ Issue an updated summary report on process water demand, ▶ Start operation of Jurassic wells with post-treatment of water at reverse osmosis units, ▶ Evaluate the possibilities of Aksai water treatment utilities upgrade project.

Water consumption GRI 303-3, 303-5

In 2022, the total water consumption in the Company amounted to 309,010 m³, of which 224,880 m³ was the technical water and 84,130 m³ was the potable water.

Graph 24. Water consumption in KPO, 2020 – 2022
GRI 303-3, 303-5, SDG 6.4.1 (C060401)



In 2022, KPO consumed process water by 16% less compared to 2021. Domestic water consumption was slightly higher than in 2021.

The decrease in the consumption of technical water from surface sources is due to increase in the reuse of treated wastewater. Due to a decrease in the water level in reservoir No. 1 of the Konchubai Gully, since January 2022, no water in-take for process needs at KPO facilities in order to prevent damage to the reservoir. As Konchubai gully is replenished due to spring snowmelt and rainfall, water intake will be resumed as high-water flood period is finished and the reservoir is filled. The Action Plan for Environmental Protection (EMP) for 2022 provides for work to find the optimal solution for the sustainable continuous and environmentally safe supply of KOGCF with technical water for production needs until the end of the FPSA.

Work started and continues on research and development of the framework of water consumption from alternative sources. As medium-term solution to supply technical water to KOGCF, starting from mid-January 2023, Jurassic wells are being put into operation with additional water treatment on Reversed Osmosis units. As a long-term solution, possibility to implement Aksai Wastewater Treatment Plant (WTP) upgrade project is being studied. GRI 303-1, SDG 6.4

KPO Water Supply Sources

Till 2022 the main source of water supply for KPO production needs was a reservoir No.1 at Konchubai gully. For household needs, KPO used water from the Zharsuat water intake. Sources of water supply for pumping station domestic and process needs in Bolshoy Chagan is the Serebryakovskiy water intake, and the Atyrau pumping station is supplied from the Kigach water intake.

In 2022, the combination of prolonged dry periods and little snow floods observed in the region has led to a critical decrease in the water level in pond № 1. In this regard, during 2022, KPO carried out a number of activities allowing optimization of technical water consumption and reuse of treated wastewater, rainwater, and melt water. Additionally, after conducting experimental filtration studies at wells, groundwater from wells was sent to operational facilities for reusing for technical needs.

Also, the sources of water supply are the ground water from Akchagyl underground reservoir, well. No. W-4, W-9 inside KOGCF as per the Permission for Special Water Use issued by the Zhaiyk-Caspian Basin Inspectorate under No. KZ92VTE00093596 Series Kas. Zhaiyk (groundwater) dated 08.02.2022 and water of technical quality from reservoir No. 2 on Konchubai gully according to an agreement with Industrial Construction Services KAZ LLP. Water intake from other sources is ensured through contracts with water suppliers. GRI 303-5

In 2022, the potable water was used for domestic needs of KPO facilities. By exception, at the Bolshoi Chagan Pumping Station the potable water has been supplied by the RSE 'KazVodKhoz' WQO Branch, and due to absence of alternative sources of water supply, has been used to fill the fire water tanks for fire safety purposes.

Table 37 shows KPO water consumption breakdown by source.

Tab. 37. KPO water consumption in 2020 – 2022 broken down by source, m³ GRI 303-3, 303-5, SDG 6.4.1 (C060401)

#	Source	Facility	Water quality	2022	2021	2020
1	Zharsuat water intake facility (<i>household needs</i>)	Karachaganak field (KOGCF)	groundwater, potable	82,404	79,852	80,957
2	Konchubay gully, Pond #1	Karachaganak field (KOGCF)	surface water, technical	14,130	310,352	384,453
3	<i>Ground waters from Akchagyl underground reservoir, Well №W-4, W-9</i>	Karachaganak field (KOGCF)	ground water, technical	4,967	–	–
4	<i>Technical quality water from Pond #2</i>		surface water, technical	172,450	–	–
5	<i>Reuse for process needs of KOGCF rain waters and produced waters from wells after well testing</i>	Karachaganak field (KOGCF)	re-use	30,816	–	–
6	Serebryakovskiy water intake facility	Bolshoi Chagan OPS	groundwater, potable	1,726	1,407	1,472
	<i>for household needs</i>			670	868	938
	<i>for production needs</i>			1,056	539	534
7	Kigach water intake facility	Atyrau OPS	surface water, technical	2,517	3,775	3,719
	<i>for household needs</i>			749	808	759
	<i>for production needs</i>			1,768	2,967	2,960

Note: water consumption is metered using meters with measurements entered in the logbooks and further in the KPO water consumption metering database.

Treated wastewater discharges GRI 303-2, 303-4, SDG 6.3

KPO uses special man-made facilities for collecting treated domestic and industrial wastewater and storm runoffs. These facilities exclude a possibility of contaminants soaking into the soil and groundwater and allow collecting the treated wastewater for their re-use for technical needs, thereby reducing the fresh water intake. The types of wastewater collection facilities were shown in the [2018 Sustainability Report](#) (Tab. 40, p. 105).

Formation water produced with hydrocarbons and process wastewater are treated and injected into the deep-lying formations of the Karachaganak Field Subsurface Wastewater Disposal Polygons № 1 and № 2. Wastewater injection is the international practice of disposing wastewater, avoiding the formation of salt-containing waste on the surface during the treatment. Due to the reliable water shutoff and soil properties, which are ideal

for the injection of wastewater, the migration of wastewater into upper aquifers is ruled out.

According to the RoQ legislation, the volume of discharged wastewater and amount of discharged contaminants are estimated and justified in the Company project documentation and regulated by special permits.

Wastewater generated as a result of the KPO economic and production activities is not discharged into the natural water bodies.

Table 38 shows the KPO discharge volumes in 2020–2022 by wastewater types and receiving facilities.

Tab. 38. Total discharge volume and contaminants by wastewater type and receiving facility, 2020–2022, m³ GRI 303-4

Receiving facility	Type of wastewater	2022		2021		2020	
		Discharge volumes, m ³	Amount of contaminants, tonnes	Discharge volumes, m ³	Amount of contaminants, tonnes	Discharge volumes, m ³	Amount of contaminants, tonnes
Holding ponds	Treated domestic wastewater	42,412	29.44	72,123	44.51	64,244	34.38
Subsurface Waste Water Disposal Polygons	Industrial wastewater, process and produced wastewater	764,139	60,699	780,755	58,935	694,893	45,970
Terrain of Bolshoi Chagan OPS and Atyrau Terminal OPS	Rainfall and snow melt wastewater	3,168	1.81	2,538	1.595	1,982	1.56
Total discharge		809,719	60,730	855,416	58,981	761,119	46,006

Note: the volume of water discharge is metered using meters with data entered in the logbooks and further in the KPO water consumption metering database. The amount of contaminants discharged is determined by calculation as the product of the actual concentration of the contaminant before the discharge and the actual volume discharged.

Comparing to 2021, the volume of wastewater discharged by Company in 2022 increased by 5.34%. This total volume includes 2022 injected industrial wastewater volumes which reduced by 2.13% comparing to 2021. The decrease in industrial wastewater in 2022 was due to Turnaround, and also due to suspension of treated wastewater discharge into holding ponds to collect wastewater for re-use since 2022. The types of treated wastewater and contaminants were presented in the [2017 Sustainability Report](#) (p. 93).

In 2022, the discharge of contaminants amounted to 60,730 tonnes (which was 2.9% more compared to 2021 – 58,981 tonnes). Of them, 60,729.3 tonnes were discharged within the maximum permissible discharge

(MPD) limits, while the excess discharge amounted to 0.481 tonnes. Slightly excessive discharge of contaminants in domestic wastewater to the holding ponds observed, in particular excess in ammonium nitrogen, nitrate nitrogen and phosphates. In accordance with the requirements of the RoQ tax legislation, the Company made necessary payments for the generated contaminants discharges.

In general, wastewater injection has no effect on the environmental components such as soil, flora and fauna, as wastewater is injected into effectively isolated deep horizons with high-mineralized groundwater that is not used for domestic and potable, balneological, process needs, irrigation and farming.

Reuse of treated and other wastewater GRI 303-3 (2016), SDG 6.3

In order to reduce the intake of natural technical water, KPO uses treated domestic, industrial and rainwater and storm wastewater for the Field's technical needs, for such types of activities as drilling, preparation of drilling fluids, irrigation of forest plantations, dust suppression on roads and construction sites, and filling fire water tanks.

The wastewater is re-used at the Company facilities in line with the 2021–2025 Operating Procedure.

In 2022, the Company reused 75,452 m³ of treated wastewater for technical needs. In comparison with 2021, reuse has doubled, the main volume was used for the process needs of the Field's operational facilities. Table 39 shows the activities that utilize treated wastewater and water.

Tab. 39. Reuse of treated wastewater and groundwater in 2020 – 2022, m³

	2022	2021	2020
The total volume of re-used treated wastewater, including:	75,452	35,061	18,313
Technical needs of KOGCF operational facilities	42,161	3,362	0
For drilling and drilling mud preparation	18,509	5,317	3,482
Irrigation, hydro tests, and replenishing of fire tanks	10,376	8,465	335
Dust suppression	4,406	17,917	14,496

Note: the volume of reused water is measured indirectly in m³ (motor hours, tank truck volume, number of trips, pumping capacity, etc.) with the completion of a control ticket and data entered in the logbook.



Eco Centre worker

Industrial wastewater management GRI 303-2

Managing the produced and industrial effluent water is one of the main challenges faced by KPO in the Karachaganak Field.

KPO's wastewater management strategy consists of implementation of a portfolio of interconnected projects aimed at removal of production restrictions in terms of produced water handling as well as ensuring personnel safety, asset integrity and environmental compliance.

In 2022, Addendum No. 3 to the current industrial Waste Water Disposal project was developed in terms of adjusting design parameters and a report on possible impacts was drawn up, which were agreed by the Department of the Industrial Safety Committee and received a positive conclusion from the Committee for Environmental Regulation and Control. The basis for this work was a geological report, which was approved by State Commission for Subsurface Expertise. The correction of the WWD project is the final stage of the complex geological exploration carried out earlier and aimed at additional study of the geological and hydrogeological conditions of Triassic reservoirs III and II in the area of Waste Water Disposal Polygon No. 2 in order to prove the possibility of accepting the forecasted volumes till the end of the FPSA.

Addendum No. 3 to the Wastewater injection project reflects an increase in wastewater injection volume from 2023 until the end of FPSA (2037) to 1,100 thousand m³/year, as well as the implementation of technical measures to increase the potential of the injection well stock through additional perforation of target and prospective injection intervals and hydraulic fracturing.

The planned sequence of these works is as follows:

- ▶ in 2023, a workover is planned in the RP-6 well in order to increase the perforation intervals in Reservoir II;
- ▶ in 2024, a workover is scheduled in the RP-7 well in order to increase the perforation intervals in Reservoir II.

In accordance with the requirements of the legislation of the RoQ in the field of environmental protection, in 2024 the Company plans to conduct a post-project analysis of design solutions with subsequent preparation of a report for state regulatory authorities.

In 2021, two planned projects were completed: workover of the second wastewater injection well for more effective utilization of wastewater and commission of a modified gas sweetening unit in order to automate a causticization process.

In 2022, the project of upgrade of a caustic neutralisation unit was ongoing with expected start-up date in 2024.

During 2022 turnaround replacement of induced gas flotation vessels and a tilted plate separator has been completed for treating process effluents from oil. The vessels' replacement ensures asset integrity and higher capacity of facilities and consequently provide better oil and water separation, which positively affects the operation of the entire wastewater treatment system before disposal into deep horizons.

To support the plan to increase the scope of injected water in Polygon 2, the project of upgrade of sand and guard filters is currently ongoing with anticipated start-up date in 2024.

Tab. 40. Industrial wastewater management projects, started in 2022 GRI 303-2

Project	Business driver	Note
Upgrade of a caustic neutralisation unit	Safe operations	Implementation of the project will provide an improvement of caustic neutralization process. By means of process automation the risks for personnel exposure to toxic agents will be reduced.
Upgrade of sand and guard filters	Production maintenance	Upgrade of sand and guard filters will allow to achieve KPC water treatment capacity to 115 m ³ /d.

Why is it important to us?

GRI 3-3

If handled unsafely, a hazardous production waste, its storage and disposal sites, may pose a threat to the environment and cause pollution of air, underground and surface waters, soils and vegetation, which may have a negative impact on the environment and the health of people.

KPO carries out complex work to prevent negative impact on the environment, i.e. carries out burial and accumulation only in the arranged waste storage sites, monitors the prevention of excess burial and accumulation of waste, as well as the timely removal of waste from accumulation sites.

WASTE MANAGEMENT SDG 3.9, 6.3, 11.6, 12.4, 12.5

Waste handling in KPO focuses on reducing real and potential hazards that production waste, generated by the Company, may pose to people and the environment.

Our target is to treat and recycle waste at our facilities, cut down waste transfer to landfills, reduce negative impact from burials, as well as to research and apply new methods and technologies.

As per the working monitoring program, KPO performs regular production environmental control (PEC) over the environmental conditions at the waste burial

and accumulation sites in the field. In 2022, the monitoring did not reveal direct negative effects on the environmental components. Within the framework of the PEC, quantitative control is exercised over the movement of wastes in order to account for the burial volumes, as well as the volumes and time of waste accumulation. **GRI 306-1**

The results of our work to minimize the risks of the Company's production waste impact on the environment are presented below in the table and further in the text.

Tab. 41. Targets in waste management **GRI 3-3**

Our 2022 targets	Target achievement	Actions taken in 2022	Targets for 2023
Ensure implementation of activities scheduled for 2022 as per KOGCF Waste Management Program, and as per Bolshoi Chagan Ops and Atyrau OPS Waste Management Programmes.	Completed	All activities scheduled for 2022 as per the Waste Management Programme were implemented throughout the year.	Ensure implementation of activities scheduled for 2023 as per KOGCF Waste Management Programme, and as per Bolshoi Chagan Ops and Atyrau OPS Waste Management Programmes.

KPO processes related to production, processing and transportation of raw materials, as well as the use of special equipment, materials and other required resources, inevitably involve generation of waste.

Measures taken by KPO to reduce the volume of generated waste, to ensure compliance with environmental safety rules during the accumulation, collection and transportation, segregation, reuse, recycling, treatment and reduction of waste, including reducing their hazardous properties, as well as environmentally friendly burial – all this enables to significantly mitigate the adverse impact on people and the environment. **GRI 3-3, 306-1**

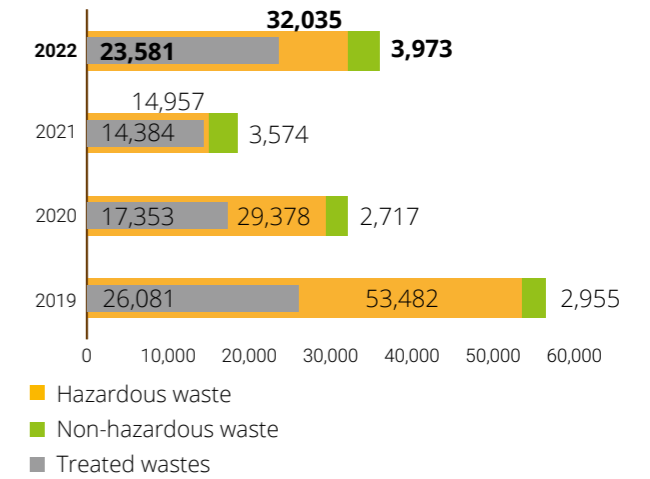
The KPO Waste Management Program for 2022 provides indicators and measures to gradually reduce the accumulated and generated waste volumes and level of hazardous properties. The Company applies the following waste management methods:

- ▶ waste recovery to process stream;
- ▶ waste treatment at the Eco Centre facilities;
- ▶ waste burial at the Eco Centre facilities;
- ▶ waste handover to specialist contractor organizations for further processing, reuse or destruction. **OG7**

In 2022, the total amount of waste generated at KPO facilities was 37,243 tonnes. Compared to 2021, the amount of KPO waste in 2022 increased by 17,583 tons, which is mainly due to an increase in well operations, turnaround activities at KOGCF main facilities, construction of new facilities, as well as the inclusion of waste generated by contractor activities in KOGCF. Graph 25 shows all types of waste generated in KPO.

According to the Unified republican form of the waste information reporting system, the total volume of waste generated in 2022 included both wastes generated and treated.

Graph 25. Waste generated at KPO facilities in 2019–2022, tonnes **GRI 306-3**



Note.: The municipal waste are not accounted for in this calculation due to their insignificant quantity (below 6%) compared to the production waste. The municipal waste is described further in the text in the waste handling methods table.

Waste processing and burial **GRI 306-2, 306-4, 306-5**

The Company production and consumption wastes are treated at the Eco Centre facilities or the waste management complex. The facility ensures cost-efficient and environmentally safe recycling and treatment of solid waste and fluids and is considered to be an example of the best drilling waste management practice in the West Qazaqstan Oblast.

Drilling wastes are treated by means of technologies, which allow not only reducing their volume and hazard, but also recovering valuable components from them, and treating the waste for further reuse.

Waste recycling back into production process exercised by the Company is the best possible way to re-use the generated waste.

The KPO Eco Centre comprises five waste treatment facilities, as well as a Landfill for its safe disposal.

All Waste Management Programme (WMP) measures scheduled for 2022, including waste segregation, reuse, processing and reduction of their quantities and hazardous properties, were implemented throughout the year. During 2022 the following activities were completed:



KPO Eco Centre

Tab. 42. Eco Centre facilities and recycling activities in 2022

Eco-Centre Units	Waste treatment activities in 2022
Thermo-mechanical cutting cleaning facility (TCC)	Owing to recovery technology of base oil and water from the treated oil-based drill cuttings, in 2022 the quantity of KPO buried waste was reduced by 17%. In 2022, 9,008 tonnes of waste were treated; 1,506 tonnes of base oil and water were separated; and 7,502 tonnes of waste treated at the TCC were buried at the Solid Industrial Waste Landfill.
General Purpose Incinerator (GPI)	Resulting from waste incineration in the GPI, quantity of buried waste was reduced by 89%. In 2022, 600 tonnes of waste were sent for incineration, following which 69 tonnes of ash were buried at the Eco-Centre Solid industrial waste landfill.
Liquid treatment plant (LTP)	In 2022, 8,674 tonnes of liquid waste were treated. The process resulted in 5,153 tonnes of treated brines and muds, which were sent for re-use – preparation of drilling brines and muds.
Waste Segregation Unit (WSU)	In 2022, out of 834 tonnes of solid domestic waste, 600 tonnes were sent to General Purpose Incinerator for incineration, 123 tonnes, including waste paper, metal scrap, glass and plastic were sorted for handing over to the specialist organizations for treatment and reuse. 111 tonnes of solid domestic waste handed over to specialist organizations for burial at the SDW Landfills. 252 tonnes of food waste handed over to specialist organization for processing.
Solid Industrial Waste Landfill	At the end of 2022, 16 cells of the Solid industrial Waste Landfill were capped and closed.

In 2022, the Company continued to excavate wastes from the old Solid Waste and Spent Drilling Fluids Storage Site for further treatment at the Thermo-mechanical cutting cleaning facility and burial at the Solid Industrial Waste Landfill. The waste is disposed at the Landfill in compliance with the RoQ environmental legislation.

In 2022, 5,318 tonnes (as compared to 4,308 tonnes in 2021) were sent for treatment from the Solid waste

and Spent Drilling Liquids Storage Site. Increase of treatment amount was due to Rotary Kiln Incinerator back in service after the repairs. Processing of waste from the old site is planned to continue in 2023. **GRI 306-4**

Table 43 shows the waste handling methods used by the Company in 2022.

Tab. 43. KPO's waste handling methods in 2022, tonnes **GRI 306-3, 306-5**

No.	Waste handling method	Generated hazardous waste	Generated non-hazardous waste	Municipal waste	TOTAL
1	Waste balance at the enterprise at the beginning of 2022	337,711	530	1	338,242
2	Generated during the reporting year	32,035	3,973	1,235	37,243
3	Reused at the enterprise	5,843	0	0	5,843
4	Treated at the enterprise facilities	23,354	226	722	24,302
5	Incineration in General Purpose Incinerator (without power generation)	0.5	0	600	600.5
6	Burial at Solid Industrial Waste Landfill	14,424	0	0	14,424
7	Temporary storage of drilling liquid wastes in Checks #35 A/B Eco Centre	3,718	0	0	3,718
8	Handed over to specialised contractors	1,468	3,747	624	5,839
9	Waste balance at the enterprise at the end of 2022	350,262	8	4	350,274

Note: the amount of waste is defined by weighing of each batch of waste at the Eco Centre weight scales prior to its transportation for treatment, segregation, removal, burial or other operations. Waste quantities are logged in the load supporting documents (control tickets, waste handover certificates) and further in the Company's waste accounting database.

The KPO waste is mainly produced during well drilling and workover activities. Besides, depend on the type of the drilling mud used the water or oil-based drill cuttings are generated. The solid and liquid drilling waste generated in 2022 amounted to 17,552 tonnes (68% of the initially generated waste, i.e. waste volume before treatment). Drilling wastes were significantly increased due to increase of well operations.

Table No. 44 shows the main types of drilling waste broken down by handling methods. As table shows, only water-based mud and brines are subject to disposal at the Eco Centre's cells 35 A/B, and the water-based drill cuttings to be buried at the Landfill. Oil-based drilling cuttings are subject to burying after pre-treatment and extraction of the oil base. **GRI 306-5**

Tab. 44. Waste generated from well operations by handling methods, 2020 – 2022 **OG7**

No.	Type of waste	Generated waste, tonnes			Handling methods
		2022	2021	2020	
1	Spent water-based drilling mud	1,154	382	4,125	Treatment at Liquid treatment plant (LTP)
		3,467	383	1,020	Temporary storage of drilling liquid wastes (Checks #35 A/B Eco Centre)
2	Water-based drilling cuttings	2,716	987	533	Burial
		0	0	0	Heat treatment in the Rotary Kiln Incinerator (RKI)
3	Spent oil-based drilling mud	1,257	432	818	Treatment at the Thermo-mechanical cutting cleaning facility (TCC) and Liquid treatment plant (LTP), heat treatment in the Rotary Kiln Incinerator (RKI)
4	Oil-based drilling cuttings	5,760	2,776	5,316	Treated at the TCC with extraction of oil base, water and followed by the burial of the solid part, heat treatment in Rotary-Kiln Incinerator
5	Spent brines	3022	1,438	1,932	Treatment at TCC & LTP, heat treatment in Rotary-Kiln Incinerator
		155	189	296	Temporary storage of drilling liquid wastes (Checks #35 A/B Eco Centre)
6	Oil cuttings	21	60	11	Heat treatment in the Rotary Kiln Incinerator, treatment at TCC

Within the contract terms, the Company hands over part of the waste for recycling to specialist contractors, who make their own decision on further waste handling methods once the waste has been accepted from KPO, and report on its transfer to third parties on a quarterly basis. Depending on the type, specialised enterprises hand over the waste for treatment with subsequent production of consumer goods, demercurization, regeneration, thermal treatment, incineration, physical and chemical treatment, dismantling into component parts with further transfer to concerned enterprises as recyclables.

Based on Article 351 of the RoQ Environmental Code that prohibits burial of waste plastic, plastic, polyethylene and polyethylene terephthalate packaging, waste paper, cardboard, paper waste, glass cullet at the Landfills, the Company carries out sorting and segregation of such waste with the involvement of contractors that lease office buildings to the Company. These types of waste are then handed over to specialized enterprises to be used as recyclables. **GRI 306-4**

From 2011 till the end of 2022, for the whole period of the waste paper segregation, about 831 tonnes of the waste paper had been collected and handed over to local companies to produce consumer goods. The segregation of spent batteries was arranged in all Company office premises. 110 kg of batteries was collected in 2022. **GRI 306-4**

Food Waste Treatment **GRI 306-4-c-ii**

In order to comply with the requirements of the RoQ Environmental Code, during 2021–2022 KPO has implemented the most efficient way to handle food waste generated at the food facilities of the Karachaganak field. The contract was signed for the biocomposting of food waste. In 2022, the Company handed over 252 tons of food waste from the food facilities of the Karachaganak field to the food waste processing enterprise. The resulting biocompost is used in agriculture and forestry as organic fertilizers to restore and improve soil fertility.

Why is it important to us?

GRI 3-3

As an international oil and gas company, KPO makes great efforts to perform operations with minimal impact on biodiversity.

Since 2012, KPO has been monitoring the biodiversity to define the level of potential risks from its operational activities. In case of evidence of significant negative impact of Company activities on the state of the environment in the West Qazaqstan region, monitoring is required to perform timely planning of activities required to preserve the ecosystems.

As part of Biodiversity Action Plan (BAP) KPO performs the assessment of the four main factors impacting the KOGCF biodiversity:

- ▶ Pollutant emissions;
- ▶ Physical impact (noise, light, vibration);
- ▶ Cattle grazing at KOGCF area;
- ▶ Mechanical impact (construction, pits, roads, etc.).

BIODIVERSITY SDG 15.1, 15.5, 15.9



Tab. 45. Biodiversity conservation targets GRI 3-3

Our targets in 2022	Target achievement status	Actions taken to achieve targets in 2022	Targets in 2023
Conduct the monitoring of vegetation, including key and rare species	Completed	Monitoring in the field was carried out from May 17 till 26 and August 21 till 31, 2022.	Perform analysis of changes for KOGCF ecosystems dynamics based on remote sensing satellite data. Develop Biodiversity Action Plan (BAP) for 2024–2025
Develop Biodiversity Action Plan (BAP) for the Karachaganak – Atyrau transportation system	New Target	BAP for the Karachaganak-Atyrau Export Pipeline for 2023–2030 was developed in order to extend the assessment of impact from all Company divisions on regional biodiversity	Start baseline study of fauna and flora along the route of the Karachaganak-Atyrau Export Pipeline (KATS)

Karachaganak oil and gas condensate field (KOGCF) covers an area of more than 280 km². KPO shares the single territory with other users of natural resources, while it operates only on areas directly located under industrial facilities, pipelines and field roads.

Besides the KPO industrial facilities, there are other businesses deployed at the Karachaganak Field, which are either engaged in processing of some part of the raw product produced by KPO (such as JSC “Condensate”) or provide maintenance services for the field and infrastructure facilities. Besides KPO and third-party facilities, there are large areas of previously used agricultural land and land plots located on the Field. Until 1956 this area had been used for pastures and hayfields. After 1957, farmers started growing grain crops except the floodplains and slopes of the Konchubai and the Kalminovka gully, which remained as pastures. So far, the state reserve lands (SRL) prevail on the sanitary protection zone (SPZ) of the Karachaganak Field. However, some patches are being used for farms.

Thus, the above factors create certain difficulties in identifying and delineating responsibility for potential negative impacts and often limit KPO ability to take practical actions for restoration of the environment and the biodiversity.

Nevertheless, KPO is aware that natural biodiversity is not subject to administrative and territorial divisions set up by human and in order to preserve all the entire biological wealth of a certain territory, fragile links in the chain of species interaction, all involved communities must follow common principles and approaches. In this regard, conservation of biological diversity within the contract areas is the subject of special attention by the Company.

Aiming to minimize impact on biodiversity in the Field, since 2012 KPO has developed and executed the Biodiversity Action Plan (BAP) regardless of absence of any sensitive areas which require biodiversity monitoring. Biodiversity Action Plan is a one of preventive actions of ecosystem disbalance and biodiversity reduction based on risk assessment of activity and potential impact on environment.

BAP is developed in accordance with the IPIECA/OGP’s “BAP instruction guidelines for Oil and Gas” and updated every three years. Also, the survey and monitoring frequency to be ensured at predetermined intervals. The Company has developed the recommended actions guidelines for sensitive ecosystems and rivers coastal areas as part of BAP, as well as created flora and fauna species data base. Database is updated after every year of survey performed.

As part of BAP, KPO performs an analysis of factors impacting the KOGCF biodiversity.

Additionally, satellite images analysis is being conducted for KOGCF every 10 years in order to monitor ecosystems condition dynamics. Next remote sensing analysis is scheduled for 2023. Also, starting from 2023 KPO expand significantly sites for the biodiversity monitoring.

Export pipeline ‘Karachaganak-Atyrau’ (hereinafter as KATS) is one of the divisions ensuring the Karachaganak field’s development. Pipeline was put in operation in 2004 and its length is 635,5 km. In 2022 for the first time ever KPO developed BAP 2023–2030 for territory located along the KATS pipeline route.

Starting from 2023, KPO plans to start basic study of flora and fauna along the KATS pipeline route in order to achieve the following:

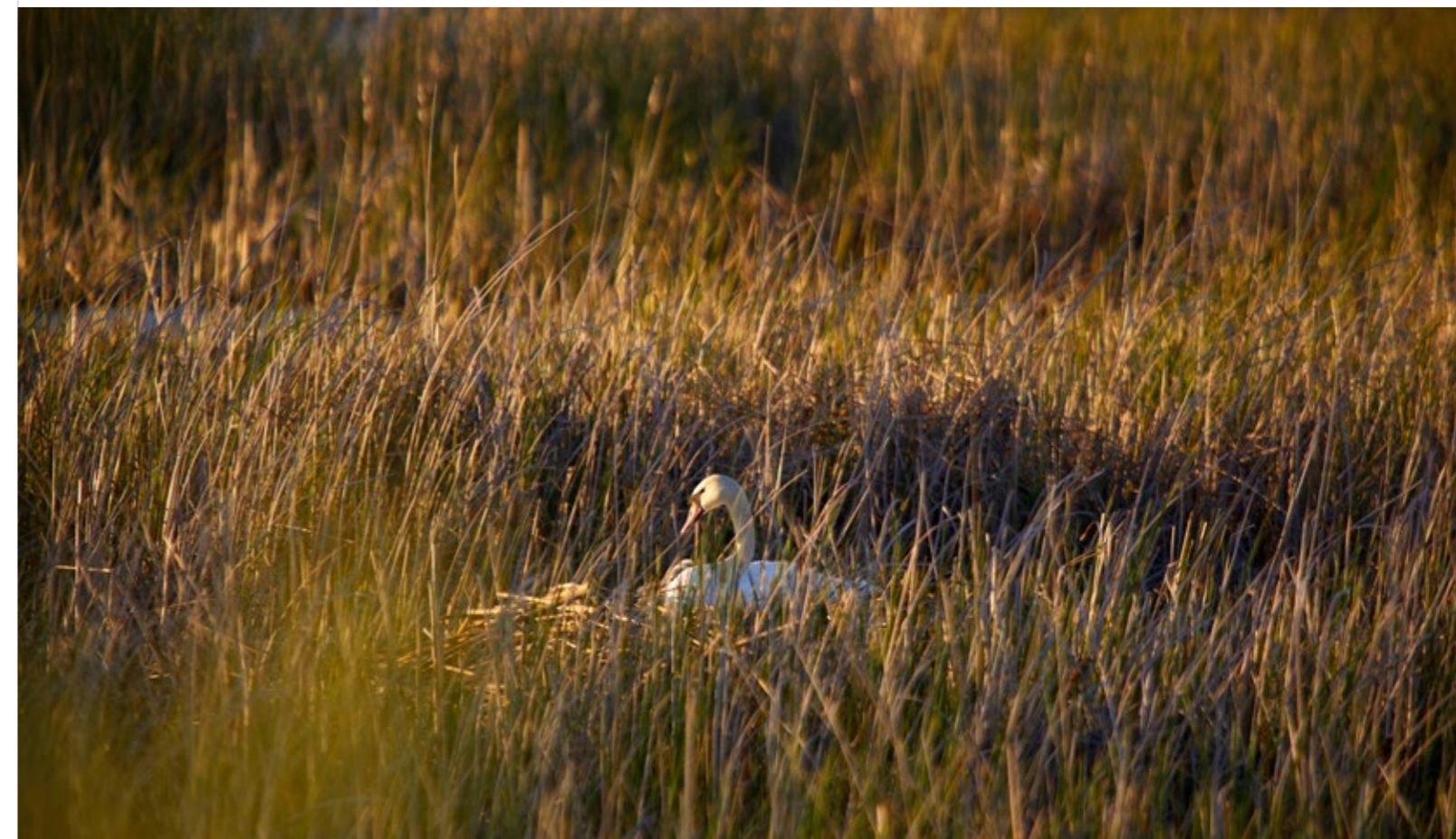
- ▶ Define priority (key) flora and fauna species;
- ▶ Identify flora and fauna indicator species;
- ▶ Identify factors impacting the ecosystem along the KATS pipeline route;

- ▶ Select sites and routes for further monitoring;
- ▶ Create flora and fauna database.

At the end of 2022, the data obtained as a result of multi-year monitoring as part of BAP indicate the following:

1. Correlation of natural soil and vegetation cover with pollutant emissions was not revealed.
2. Many species of fauna adapt to physical factors that are of a continuing nature (continuous monotonous noise, traffic). For example, a settlement of beavers, gophers, bird colonies were observed in the immediate vicinity of central roads with heavy traffic near live operating facilities.
3. KPO’s main impact on natural ecosystems is a mechanical impact as a result of construction. The disturbed areas are either patchy or of linear pattern.
4. Moderate grazing of horses and cattle has been recorded in most of part the SPZ, which generally has a positive impact. However, intensive grazing may also lead to a decrease in species diversity up to a complete destruction of natural soil and vegetation cover. Pastures are being increasingly overgrazed at monitoring sites further away from the production facilities inside the SPZ.

In general, all operation activities at KOGCF in normal mode are well within the acceptable risk range for biodiversity.



Monitoring of biodiversity at Karachaganak GRI 304-2, OG4

Currently KPO is carrying out the approved scope of activities planned in BAP for 2021–2023. More information about the BAP is available on www.kpo.kz website in section [Sustainable development/Environmental protection/Conservation of biodiversity/BAP](#).

The scope of work in 2022 included a comprehensive assessment of fauna dynamics at KOGCF area.

Flora monitoring in 2022

Monitoring of flora in the Karachaganak field was carried out during spring and summer of 2022. Field studies were carried out on 27 monitoring sites. Comparative analysis of vegetation on the selected monitoring sites with previous years results was carried out, and conclusions made about possible changes related to operations of enterprise.

During the research 133 species and 95 genus which belong to 31 families were identified. The most widespread families are: sunflower (Asteraceae), bluegrass (Poaceae), crucifers (Brassicaceae), bean family (Fabaceae). The most number of genus are noted in these families. Life-forms analysis of 82 types showed that perennial grasses prevail compiling up to 62,6% of flora. Changes of qualitative and quantitative compositions of Konchubai

semi-aquatic species are illustrative to determine degree and tendency of annual flora dynamics in Karachaganak field in general. In this regard, during 2022 summer study of species composition of Konchubai coastal vegetation was surveyed comparing to previous studies (2013, 2016, 2019) for comparative surveillance studies. Meanwhile no degradation evidence of vegetation communities was revealed, from both species diversity and coastal vegetation biomass number point of view.

In general, flora condition at KOGCF can be classified as satisfactory. Qualitative external impact of KPO activity on flora condition in monitoring sites was not observed.

1. The main factors of negative impact on vegetation cover condition at KOGCF are as follows:
 - ▶ Temporary mechanical impact (trenching, pipeline laying, construction of facilities, roads etc.)
 - ▶ Bovine and gorses grazing
 - ▶ Fires
2. No negative impact of air pollutant emissions from the Field's sources on vegetation cover was revealed.
3. Tendency of nominally primary vegetation recovery in fallow lands is observed.



Key Species Monitoring

As part of biodiversity assessment, KPO makes a considerable focus on monitoring of rare plant and animal species. The priority of a particular species in matters of biodiversity conservation is determined by the priorities of international and local legislation, sensitivity and resistance to impacts and significance of possible negative impact of the company activities on the environment.

The main key species considered during the research period from 1990 to 2021 are shown on the website kpo.kz in the section [Sustainable development/Conservation of biodiversity/Significant species of flora and fauna registered at KOGCF area](#).

All these species also exist outside the KOGCF. It should be noted that presence, absence or number of these species within the field is not a direct indicator of environmental well-being of the area. The distribution of individual species may change due to reasons both local and global (climate change, desertification, etc.), which have nothing to do with

the KPO activities. At the same time, it is necessary to plan and organize production activities in a way not to cause any direct and indirect effects on the population of individual species, which are an important part of the biodiversity at the Karachaganak Field and adjacent areas.

In 2022, as part of monitoring of flora key species number, 5 species registered in the Kaz SSR Red Book and in the endangered species list were registered. Out of those registered, three (3) Red Book species make up the largest number: *Tulipa biebersteiniana*, *Tulipa shrenkii* and *Ornithogalum fischerianum*.

Besides the monitoring of rare vegetation species growing on monitoring areas, the Russian hazel grouse (*Fritillaria ruthenica*), a rare species confined to the territory of the water protection zone, was also accounted. The population of the Russian hazel grouse discovered in 2022 was recorded in the phase of sustainable fructification. No field impact on the Russian hazel grouse population has been revealed during the monitoring of spire condition.



WATER symbolizes the source of life, its course and development. Without water, everything around becomes lifeless. Positive economic impact, like water, revitalizes the world around us, promotes economic growth and well-being of local communities.

ECONOMIC IMPACT

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- Supporting social infrastructure 136



GRI 2-23

Business principle: COMMUNITIES

We aim to be good neighbours by continuously improving the ways in which we contribute directly or indirectly to the general wellbeing of the communities within which we work.

We build productive, collaborative and trusting relationships with government, our shareholders, our business partners, the local communities where we work and with each other.

Business principle: ECONOMIC

We seek to compete fairly and ethically within the framework of applicable competition laws.

2022

SUPPLY CHAIN



388

contractors and suppliers

Contracts and contract amendments



1.1

US\$ bln

LOCAL CONTENT SHARE



56.4%

in KPO purchases

PAYMENTS TO THE REPUBLIC



3

US\$ bln

POWER SUPPLY TO WQO



246.33

mln kWh

SOCIAL INFRASTRUCTURE PROJECTS

Actual costs



17

US\$ bln

KPO procurement process is challenged with economic risks, such as limited market competition, inflation, exchange rate fluctuation, increase of raw material costs and complexity of logistics issues. In order to maximize mitigation of these risks, KPO develops technical specifications and tender requirements in a transparent and objective way to ensure market competition, applies various compensation mechanisms covering potential economic fluctuations in contract terms and conditions, and other measures described further.

SUPPLY CHAIN GRI 2-6, SDG 8.1, 8.3

Development of the Karachaganak Field implies for Qazaqstan more than just generating income and taxes from oil and gas production. This is also an establishment of long-term and strong partnerships, which may impact and promote economic development.

Working with local suppliers and contractors constitutes an essential part of the economic development of the region and Qazaqstan as a whole.

In 2022, KPO awarded contracts and contract amendments to 388 contractors and suppliers, nearly 84% of which were local entities.

In 2022, KPO signed approximately 270 contracts and contract amendments for delivery of goods worth over US\$ 0.3 bln and more than 500 contracts and contract amendments for services worth over US\$ 0.8 bln.

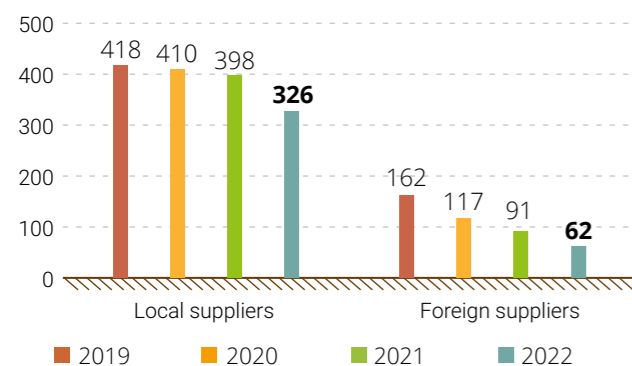
KPO is committed to conducting its business ethically and in compliance with the established Code of Conduct policy, all applicable laws and regulations.

These fundamental principles are incorporated in and are evaluated at every stage of the contract and procurement process until the closure of the contract. **GRI 414-1**

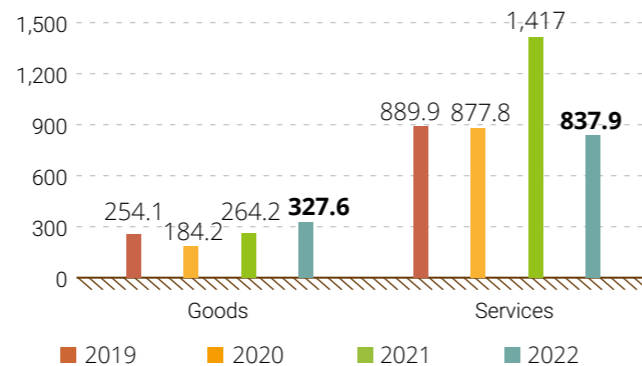
KPO enters into contractual relationships with suppliers and contractors, who maintain high standards and demonstrate commitment to personal and process safety when providing services to the Company, as well as maintaining the set standards of ethics, compliance and sustainable development.

KPO contract standard terms and conditions include number of provisions which cover Ethics and Business Practices, anti-corruption and conflict of interest. Also new provisions for industrial relations between KPO and Contractors was implemented in 2022 to strengthen social responsibilities of contractors in terms of taking care of their personnel and insurance of stable social environment within its dedicated staff. Read more in this Report in "Industrial relations".

Graph 26. KPO contractors and suppliers, 2019 – 2022



Graph 27. Value of contracts and contract amendments (mln US\$), 2019–2022



KPO standard terms and conditions of contracts are updated on a regular basis to reflect the latest RoQ legislation and KPO requirements. Thus, in 2022 KPO implemented updates in Schedule D – "Contract HSE Requirements" related the new requirements of RoQ Environmental Code. Read more in this Report in "Environmental suppliers' assessment". KPO performs its contracts and procurement activities in compliance with the legislation and the Karachaganak Joint Operating Committee's Tender Procedures, which regulate procurement of goods, works and services for the Karachaganak Project.

In accordance with the latest Tender Procedure and as a part of digitalization project KPO aims to enhance electronic document exchange and processing including tender submissions and evaluation. The Tender Procedures also focuses on the development of local content including goods manufacturing in the Republic of Qazaqstan by means of early tenders, trial orders, contracts in exchange of investments, conditional bid reduction, and Qazaq-only tenders.

KPO has faced with complexity of logistics issue and associated risks in terms of time and costs. This risk caused by geopolitical situation is beyond of KPO control, however, KPO is doing its best to apply possible measures and alternative solutions to ensure uninterrupted supply of goods and materials.

To help local potential contractors and suppliers better compete and to minimize disqualification risks for such companies, KPO has been focusing on structured pre-tender engagement sessions. In these sessions, clear explanations of KPO tender requirements are provided to the bidders, as well as lessons learned. **GRI 2-29, 3-3**

KPO is an active participant in the events conducted by Atameken, KazService and other oil-and-gas organisations or associations.

Using multiple opportunities, KPO actively presents its requirements to the local market participants and encourages their development and growth including cooperation with internationally recognised and experienced suppliers of goods, works and services.

Delivering Local Content targets is an important commitment of KPO to the Republic of Qazaqstan and is well recognized by KPO.

As a transparent operator, KPO annually publishes its procurement plans on its website at <https://www.kpo.kz/en/suppliers/contract-plan>.

Potential suppliers interested in participating in KPO tenders are encouraged to register and keep their "vendor's profile" up-to-date in [KPO Vendor database](#) (please see details at www.kpo.kz) or directly in Qazaqstan Unified Vendor ALASH Database. It is very important for potential contractors and suppliers to provide accurate and relevant information on their competencies and experience to be considered by KPO in its sourcing strategies.



KPO provides also opportunities to companies in raising any possible questions on the page <https://cp.kpo.kz/> on its website. The questions are directed to the responsible KPO department. There is also a tab with answers on "Frequently Asked Questions" available on this page. **GRI 2-29, 3-3**

KPO Company fully supports initiatives of the Government of the Republic of Qazaqstan aimed at the development of the local providers and recognizes the importance of attracting more domestic manufactures for the Karachaganak project implementation. With this end KPO has introduced mechanisms in the procurement process to facilitate the participation of domestic companies in KPO activities. At the same time, there are risks associated with the quality of locally produced goods, as well as with an increase in the cost of production both for the Company itself and for the Authority on behalf of the Republic of Qazaqstan and local manufacturers due to the limited raw material market in the Republic of Qazaqstan, the changing taxation system and requirements for certification under international standards.

LOCAL CONTENT DEVELOPMENT GRI 203-2, SDG 8.1, 8.3, 9.2, 9.3, 17.7, 17.9, 17.17

Since the beginning of the Karachaganak field development, KPO has been actively working to increase the share of local content in the Karachaganak project by involving Qazaq manufactures and service providers, which implies a decrease in imports and an increase in the volume of local goods, services and works in the total volume of goods, works and services procured under the Karachaganak project.

Since 2001, KPO develops and implements a Local Content Development Programme for the Karachaganak project on a regular basis. The objectives of the Programme for the period 2022 – 2023 are consistent with state initiatives for the development of mechanical engineering, industrialization and digitization of the Republic of Qazaqstan and KPO Local Content Development policy. The Programme identifies the target areas for local content development, and also the key indicators for monitoring and assessing performance. **GRI 3-3**

In 2022, KPO local content development initiatives have led to achieve the following results: **GRI 204-1**

- ▶ In 2022, the Local Content share in purchases of goods, works and services in Karachaganak project reached 56.4% (US\$ 511.7 mln);

- ▶ 18.0% of total goods procured by KPO are locally produced (US\$ 42.5 mln) with 7.3% Local Content share as specified in the SR-KZ Certificate¹⁵.

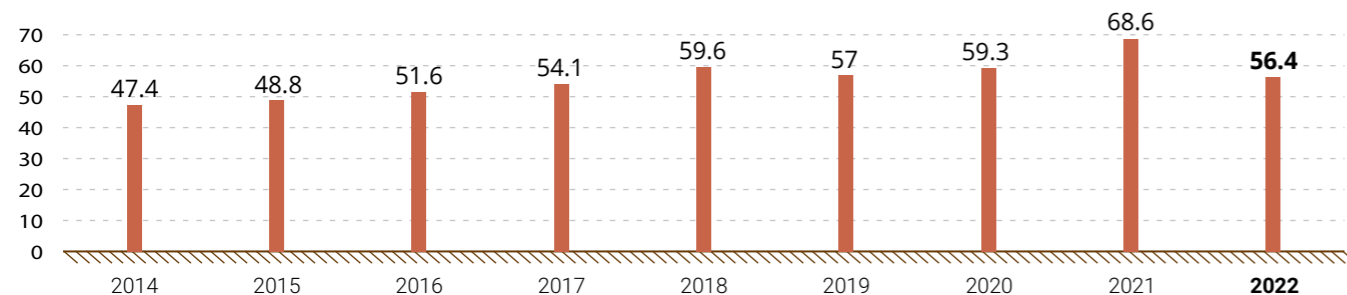
Since signing the FPSA in 1997 by the end of 2022, the cumulative Local Content share in goods, works and services had exceeded US\$ 9.37 bln. **GRI 204-1**

KPO gives the highest priority to Local Content share increase for goods locally made in Qazaqstan.

In 2022, 27 contracts were awarded for a total value of US\$ 115 mln to produce goods in Qazaqstan for the Karachaganak project, such as valves, transformers, instruments, fastening and piping materials, etc.

‘Kazakh tendering’ contributes to the growth of competitiveness of local manufacturers and suppliers. In 2022, KPO initiated 10 so-called ‘Qazaqstani tenders’ to be held exclusively among local companies for a total value of US\$ 389 mln. As a result, KPO awarded three contracts for a total amount of US\$ 15.5 mln. The tender processes for the remaining contracts continue.

Graph 28. Local Content Share in total KPO purchases of goods, works and services, 2014–2021 **GRI 204-1**



¹⁵ A certificate confirming that the product was produced or processed on the territory of Qazaqstan. This certificate is intended for circulation on the territory of Qazaqstan, for example, when participating in the procurement of subsurface users or in public procurement.

KPO intentionally contributes to the sustainable development of manufacturers within its footprint in the West Qazaqstan Oblast (WQO). KPO regularly invites WQO enterprises, including enterprises of the machine building sector, to participate in market research and tenders for the supply of goods, works and services, as well as to various events held by the Company in order to develop and increase the competitiveness of local businesses.

Following the awarded contracts results, in 2022 KPO paid US\$ 308.1 mln to the WQO enterprises for deliveries of goods, works and services, and Local Content share reached US\$ 230.5 mln or 74.8%.

Long-term initiatives **GRI 2-28**

KPO works closely with the RoQ ministries, industry partners and associations on supply chains, involving the Qazaqstani goods producers.

In 2020, the International Centre for Development of Oil and Gas Machine Building (IMBC) was established as a part of Action Plan for the RoQ Oil and Gas Machine Building development for 2019–2025, the main focus of which is the procurement of goods manufactured in Qazaqstan for the machine-building industry by major oil and gas projects in Qazaqstan.

IMBC began its work in 2021. IMBC conducts its activities on behalf of the three operators – KPO, TCO and NCOC, and closely interacts with the Ministry of Industry

and Infrastructure Development, the Ministry of Energy, the PSA LLP Authority and petroleum associations involved in the development of the national oil and gas machinery building.

In 2022, KPO participated in the following general meetings of the Association members:

- ▶ January – discussion of the results of IMBC activity in 2021, Work Programme and Budget, including KPI indicators in 2021;
- ▶ July – discussion of the results of IMBC activity for the first half-year period.

KPO provided IMBC with technical requirements/ specifications for product group “B” – pumps and gaskets, line pipes, industrial filters, HVAC for the analysis.

The meeting of the Association Board was held in February 2022, as a part of events carried out by the Centre. Following the meeting the RoQ Minister of Energy prepared and sent to Operators the Roadmap for Local Content development, aimed at increasing the level of procurement by Operators of three categories of goods (valves, instrument and electrical equipment). As part of Roadmap implementation, KPO jointly with the RoQ Ministry of Energy held weekly meetings from May to September 2022 to discuss the procurement issues:

- ▶ Six contracts were concluded for the total amount of US\$ 93 mln;
- ▶ Four contracts are awaiting to be signed;
- ▶ One contract is under development.



In order to attract investment for development of local production in the territory of RoQ, in 2022 KPO continued working with Original Equipment manufacturers (OEM) to implement the signed roadmaps, as well as attracting new manufacturers. Since the implementation of OEM products localization initiative, KPO has signed 16 roadmaps for goods localization, awarded four contracts for US\$ 10.4 mln with Original Equipment manufacturers. KPO will continue works on implementing 13 roadmaps with potential investments of more than US\$ 11 mln and creation of more than 350 new jobs.

Engagement on local content issues

As part of the local content development and increase in the production activities and projects in 2022 KPO Company holds regular events to familiarize domestic and international suppliers, relevant authorities

PAYMENTS TO THE REPUBLIC GRI 207-1, 207-2, 207-3, SDG 8.1, 10.4

KPO performs its operations as the Operator in conformity to the terms of the Final Production Sharing Agreement (hereinafter "FPSA") executed between the Karachaganak Project shareholders and the Government of the Republic of Qazaqstan.

The Venture is financed by shareholders and all main assets built or acquired by KPO are not written off, exhausted or depreciated, considering the stipulated right of the shareholders to use the assets as per the FPSA. The FPSA envisages capitalization with regard to the debt and the capital. Accordingly, the KPO financial reporting does not contain information about the volumes of sales and results of financial and economic activities. The revenues resulting from the KPO activities are shared between the Government of the Republic of Qazaqstan and the shareholders who separately reflect information on their financial activities, including revenues, netbacks, capitalization and other in their financial reports.

GRI 2-6, 201-1

In accordance with the article XIX of the FPSA the current activities under the above-mentioned agreement are not subject to corporate income tax in Qazaqstan. The corporate income tax is a commitment of shareholders or Parent Companies of KPO and is reflected in their financial reports. **GRI 207-4**

(Ministry of Energy, PSA LLP, WQO Akimat), local content development associations with current and future volumes, demands for goods, works and services (GWS) during the implementation of production activities and projects, as well as technical conditions and specifications, where in order to increase the level of local content in goods, KPO proposed and recommended International and Qazaqstan market players to engage not only in the assembly of oil and gas equipment, but also consider the possibility of local production of components / spare parts for existing equipment and new types of equipment. As a result of initiative, in 2022 KPO signed the roadmaps that include localization of oil and gas equipment components/ spare parts with the following non-OEM companies: KIOS TECHFLOW, Turanmunaiconsalting LLP, Leser, ProControl KZ LLP, KIOS Techflow LLP, Yeskertkish Kyzmet Kazakhstan LLP/ DPI SEKUR.

During the last few years KPO has been repeatedly recognised as the second largest tax-payer, whose contributions amount to a substantial part of the entire tax income of the state budget, in the National Reports on implementation of the Extractive Industries Transparency Initiative in the Republic of Qazaqstan.

The KPO tax regime is regulated by the Final Production Sharing Agreement and the applicable tax legislation of the Republic of Qazaqstan.

KPO, wherever possible, seeks to build up an open dialogue and co-operative relationship with the tax authorities based on the mutual respect and transparency in order to form a favourable environment for business development and social area in West Qazaqstan Oblast. When tax benefits or tax exemptions are applicable KPO also seeks to ensure their transparency and compliance with legislative and regulatory framework.

On the practical plane, the KPO tax strategy consists of correct calculation of taxes, minimization of double taxation risks and prevention of any disputes with tax authorities. In relation with this, the Company's key principle is the timely payment of all taxes payable and prompt submission of all information required by the law or necessary for correct determination of taxes payable to the relevant authorities.



Currently, there are Risk Management Systems (RMS) in place throughout Qazaqstan used in the planning and organisation of tax inspections, the risk level assessment criteria have been developed and approved. This system represents a set of measures implemented in order to evaluate the probability that a tax payer may fail to pay or fully pay his taxes payable resulting in damage to the Republic. The RMS also includes measures applied by the tax authorities to identify and prevent such risks. Based on the risk assessment results the tax control forms are applied in a differentiated mode.

Thus, in the first half of 2022 the tax authorities ranked KPO as a low level of risk and in the second half of 2022 as a medium level of risk.

For KPO, the average level of risk could impact the amount of VAT return under the new VAT return rules with the RMS applied because the criteria to determine the level of tax payer's risk (low / medium / high) in the majority of cases are identical to the risk level criteria applied to confirm the credibility of the exceeded VAT return amounts.

KPO strictly follows the RoQ legislation norms and fulfils its tax legal relationships in accordance with the Extractive Industries Transparency Initiative (EITI) global standard that promotes reflection of the income transparency and accountability in the oil & gas and mining industries.

Extractive industries transparency initiative GRI 2-28

KPO supports the Extractive Industries Transparency Initiative (EITI) in order to ensure the transparency of revenues and the whole value creation chain in the process of natural resources management in the Republic of Qazaqstan (RoQ).

In 2022, KPO paid taxes to the RoQ budget in the amount of USD 3 bln (as per the exchange rate in the internal SAP accounting system) in accordance with the EITI requirements. This information is reflected in the 17th RoQ National Report on the Extractive Industries Transparency Initiative for 2022.

KPO submits separate EITI reports on its tax liabilities to the RoQ authorities from 2014. KPO payments for the period from 2014 to 2022 are represented in Table 46.

Information about the taxes, paid by KPO to the state budget of the RoQ, is publicly available at <http://egsu.energo.gov.kz> in the section "Final report on tax and non-tax payments/contributions from the RoQ oil & gas and mining payers".

Tab. 46. KPO taxes and compulsory payments in 2014 – 2022 (USD)

2014	2015	2016	2017*	2018	2019	2020**	2021	2022
2.1 bln	1.2 bln	0.369 bln	0.746 bln	1.9 bln	1.6 bln	0.971 bln	1.6 bln	3 bln

Note:

* Variance from the amount of 897MM published in the Sustainability Report 2017 is explained by the reflected return amount after the reconciliation of data between the payer and the beneficiary at a later stage.

** Starting from 2020 converting from KZT to USD KPO uses calculations at the moment of payment in accordance with the internal SAP accounting system and not in accordance with the RoQ National Bank rate as of the end of the accounting period.

POWER SUPPLY SDG 7.1

For production needs within the Karachaganak field, KPO generates electrical power at its own Gas Turbine Power Plant (further as GTPP). Generated power is transmitted to the own production units throughout the Field, which include Karachaganak Processing Complex, Unit-2, Unit-3, Gathering system, Eco Centre, Pilot Camp, IT&T Data Centre in Aksai and the Karachaganak – Atyrau transportation system covering the oil pumping station in Bolshoi Chagan and block valve stations 1-26.

Four turbines, three of which are dual-fueled, are installed and operating at the KPO Gas Turbine Power Plant.

In addition, KPO annually supplies electricity for the needs of the West Qazaqstan Oblast communities with capacity of circa 25 MW in winter and circa 20 MW in summer.

In 2022, annual boroscopic inspections of turbines were carried out at the GTPP to diagnose the internal condition of the turbine sections, as well as combustion chamber inspections and their replacement at turbine No. 4 in the latter half of October and turbine No. 1 in the latter half of November. The works were performed without delays, within the schedule and with good quality; materials and spare parts were provided in a timely manner.

Power supply to West Qazaqstan Oblast GRI 203-1

As part of the Karachaganak Field Final Production Sharing Agreement (Art.I, Section 1.1.) KPO generates and exports power to West Qazaqstan Oblast.

KPO exports power to electricity suppliers, such as AksaiEnergol LP and Batys EnergolResursy LLP, who in their turn supply the power to the communities and other end consumers in West Qazaqstan Oblast.

Throughout 2022, KPO exported from 20 to 35 MW to the regional grid, while the total volume of power export to WQO was equal to 246.3 mln kWh or about 28% of Oblast's total power consumption. Reduction of the power export by almost 9.2% in comparison with 2021 was due to planned preventive maintenance in 2022, with terms not exceeding 15 days, and Turnaround at the Field's facilities. Terms and scope of planned

preventive maintenance is regulated by the operating hours of the main GTPP equipment.

Supply of power and fuel gas in 2020–2022 is listed in Table 47.

In 2022, KPO used mainly its own gas for power generation. At the same time, in September-October, given the absence of KPO's own gas due to shutdown of all field facilities for the planned TA, supplies for power generation for KPO and Oblast needs were ensured from a third-party supplier. Purchase of gas from a third-party supplier for the generation of power for the Oblast's needs amounted to about 18.43% of the GTPP's total gas consumption. In addition to the aforementioned period, gas from a third-party supplier was delivered during certain periods of unstable operation of the fuel gas production unit at KPC plant area 5-339.

Tab. 47. KPO's supply of power and fuel gas in 2020–2022

Description	UOM	2022	2021	2020
Power exported to WQO, including:	mln kWh	246.33	225.56	296.93
to AksaiEnergol LP	mln kWh	26.28	26.28	26.35
to Batys EnergolResursy LLP	mln kWh	220.05	199.28	270.58
Use of fuel gas to generate power for WQO, including:	mln m ³	84.74	75.88	99.35
KPO gas sale to generate power for WQO	mln m ³	69.12	70.98	89.95
From the third-party supplier to generate power for WQO	mln m ³	15.62	4.90	9.40

Power supply system

The local power system at Karachaganak Oil Gas Condensate Field consists of 110 kV power grids, which, according to lines of responsibility, are owned by three entities represented by KPO, AksaiGasProenergo JSC and West Qazaqstan REC LLP, as well as KPO power lines of 35 kV.

At the beginning of 2022, KPO Field Management set a goal to analyse the condition and develop measures to reduce accident rate and increase the stability of the in-field power system in order to significantly reduce and minimize production losses due to the influence of the power grid. Thereunder, a working group of KPO experts performed an analysis, which was approved by the management for further action. The work is ongoing with the third parties involved and the proposals received are being analysed.

In June 2022, during stormy weather with heavy rain and intense multiple lightning strikes, especially near the KPO plant and along the 110/35 kV overhead power line route, which caused overvoltages and insulation blackouts and subsequent mass shutdown of all 110 kV and 35 kV overhead lines, resulting in process shutdown at Unit 2, Unit 3 and gathering system.

Another accident on 110 kV overhead line No. 137 also occurred in June 2022, but that shutdown did not result in big losses in production.

In 2022, KPO focused on improving the quality of maintenance work on 110 kV and 35 kV overhead lines, during which detailed bottom-up inspections of the conditions of concrete bases of poles attachment were carried out, random top inspections of insulators conducted, the condition of wire and line fittings were checked, damaged elements were replaced, and additional



Employees of the energy sector in front of the Meteorological mast

insulator strings were installed to eliminate the faults and ensure high reliability of electric grids. The relevant works were done with West Qazaqstan REC and AGPE to eliminate the faults related to their lines, the works with AGPE are ongoing to ensure the quality of maintenance of 110 kV and 6 kV overhead lines is in accordance with the regulatory requirements.

Obligations imposed by the Law of the Republic of Qazaqstan on Support of the Use of Renewable Energy Sources (RES)

GRI 201-2, O2, SDG 7.2, 9.4, 17.7

KPO generates power at its own GTPP, so our Company is classified as a contingent consumer in accordance with the Law of the Republic of Qazaqstan on Support of the Use of Renewable Energy Sources.

Contingent consumers are obliged to purchase power generated at RES facilities in amounts proportional to their share in total power generation. Thus, KPO, as a responsible entity, purchases appropriate volumes of RES power from the authorized company, "Financial Settlement Centre of RES" LLP, thereby complying with the legislative requirements aimed at supporting RES and making contribution to the Green Energy development in Qazaqstan. KPO purchased similar energy in the volume of 151,280,061 kWh in 2022, amounting to over 661 mln KZT.

SUPPORTING SOCIAL INFRASTRUCTURE GRI 203-1, SDG 9.1, 17.17

KPO implements social and infrastructure projects in the West Qazaqstan Oblast (WQO) on the annual basis under the terms of Annex 5 to the Final Production Sharing Agreement.

The list of social projects to be implemented is annually approved between KPO and the WQO Akimat based on the priorities of the Oblast's social development. The list is compiled by the WQO Akimat in accordance with state priorities and programmes and considering the needs of developing West Qazaqstan Oblast infrastructure, education and healthcare systems, sports and infrastructure in the region.

Further on, the list is established by the Joint Operating Committee. From here KPO manage projects, including procurement processes, until the facilities are fully ready and then handed over to the balance sheet of the Republic of Qazaqstan. In case of failure to complete implementation of the projects by the end of the year as scheduled, the unspent funds are carried over the next calendar

year. All social projects are to be implemented by local companies. **GRI 3-3**

Within 2022, KPO has been implementing seven social and infrastructure projects in the West Qazaqstan Oblast, including the new 2022 projects and those carried forward from previous periods.

Thus, in 2022, KPO completed the major social project implementation on the reconstruction of the International Airport in Uralsk, aimed at improving air traffic conditions and increasing air and passenger flow in the region. In addition, in order to create comfortable conditions for city residents, new micro-districts' vertical layout and landscaping projects including street lighting were completed in Uralsk. All these projects were executed by local construction companies.

In addition, a number of social infrastructure projects implementation started in 2022, including Sports and Health Centre construction for 160 spectators in Taipak village of Akzhaiksky district, the 'Khan Ordasy'



Classes in the rehabilitation center, in the building constructed by KPO within the SIP framework



Multifunctional Palace of Culture "Atameken", Uralsk

visit center construction, school construction for 108 pupils in Poima village of Terektinsky district, Sports and Health Centre construction completion for 320 spectators in Chapayevovillage of Akzhaikskiy district. Moreover, in 2022, in order to improve the regional education quality and ensure educational programs development, KPO awarded contracts for the construction of 14 small-scale schools for 108 and 60 students in the regional districts.

SDG 4.a

In November 2022, KPO has received "PARYZ – 2022" Award in the nomination "The Best social project of the year" for the implementation of the Multifunctional Palace of Culture in Uralsk that was built as part of the Company's

programme for social infrastructure development of the region. The event was attended by national and local authorities, representatives of business community of WQO. The construction of the Multifunctional Palace of Culture was completed within two years. KPO total investment into the project exceeded \$24 million. The main contractor for this social project was Uralsk-based Altair LLP company.

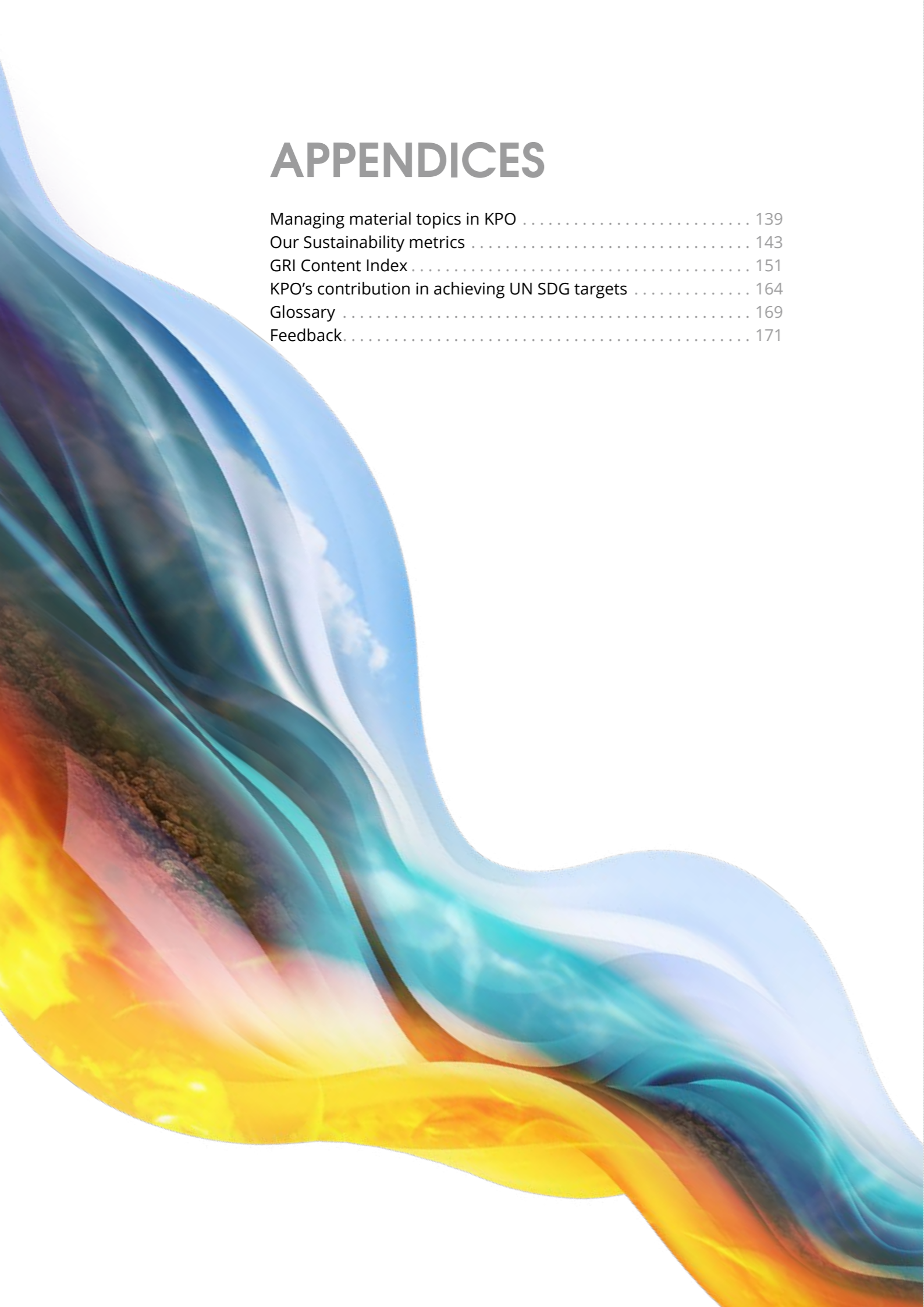
In December 2022, a contract was awarded for provision of design works for former Berezovka and Bestau villages demolition project.

The list of completed projects in 2022 is shown in table 48.

Tab. 48. Social infrastructure projects in Uralsk completed by KPO in 2022 GRI 203-1, SDG 17.17.1 (C171702)

Area	Project name	Actual costs (mln KZT) *	Actual costs (mln USD) *
Civil construction	Reconstruction of Uralsk International Airport	6,720	15.85
	Vertical layout and landscaping of microdistricts Uralsk-Atyrau, Uralsk-Saratov, Zachagansk village, Uralsk, WQO (street lighting)	190	0.41
	Vertical layout and landscaping of microdistricts Uralsk-Atyrau, Uralsk-Saratov, Zachagansk village, Uralsk, WQO (landscaping)	338	0.74
	TOTAL	7,248	17.0

*Amounts are VAT including



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Managing material topics in KPO **GRI 3-3**

Good governance is essential for ensuring the sustainability of large-scale investments, and particularly important in a complex governance structure as the one of KPO in which our strong governance, internal controls and assurance processes are vital to our ongoing success.

In all aspects of its activities and in accordance with the FPSA, KPO operates to internationally recognized standards, which are implemented through a number of policies, procedures and appropriate best practices embedded in KPO's management systems.

KPO's management systems and regulatory documents related to sustainable development for each of material topics are shown on the following table.

Managing documents on sustainability issues in KPO (by material topics) **GRI 3-3**

Material topics	Management System documents
Social topics	Personnel development and training Annual Training Plan Business Continuity Plan for Training Development Centre Training Planning and Budgeting Preparation Procedure for KPO Employees Enhanced Development Programme KPO scholarship for national employees and their children
	Industrial relations with contractors Industrial Relations Policy Contractor HSE Performance Management Strategy Schedule D – Contract HSE Requirements Schedule H – Contract Industrial Relations “Care for People” Programme
	Freedom of association and collective bargaining Collective Agreement Policy on Labour Disputes Discipline Handling Procedure
	Security practices Security Management System Framework KPO Security Policy In-House Investigation Policy Employees' Personal Data Management Policy KPO Clear Desk Policy
	Respect for human rights Social, cultural and gender diversity, equal opportunities KPO Sustainable Development Chapter KPO Business principles KPO Code of Conduct Hotline Ethic and Compliance Training Program Compliance Investigations Procedure

Material topics	Management System documents	
Socio-Environmental topics	Occupational safety and health	Health, Safety and Environmental Policy Golden Rules Life Saving Rules Health, Safety and Environmental Management System Framework Safety & Asset Integrity Controllership System Manual H ₂ S Protection Strategy KPO 4-Year Strategic HSE Plan KPO HSE Improvement Plan 2023 Safety Leadership & Culture Programme
	Protection of health	Occupational Health and Health Promotion Policy No Smoking Policy Prohibition on Use of Alcohol, Drugs, Psychotropic and Toxicomaniac Substances (their analogues) in KPO COVID Outbreak Prevention Policy Employee wellness plan for 2023 Fatigue Risk Management Programme Mental Health Programme Stress Resilience Programme
	Process safety	Safety & Asset Integrity Controllership System Manual KPO 5-YEAR Strategic Asset Integrity Plan Process Safety Fundamentals Simultaneous Operations Risk Management Strategy Competence Development and Assurance Philosophy Barrier Model Guideline
	Emergency Response	Terms of Reference for the KPO Civil Defence Terms of reference for the KPO evacuation commission Strategy for Protection of People in H ₂ S Emergencies in the Field Field Manning Strategy Action Plan for Elimination of Emergency Situations
	Community relations: impact assessment and mitigation, grievance redress	KPO Social Performance Policy and Standards KPO Community Grievance and Suggestion Management Procedure Socio-economic Baseline and Impact Assessment Operating Procedure Stakeholder Engagement Operating Procedure Cultural Heritage Operating Procedure Involuntary Resettlement Operating Procedure KPO Community Development Procedure

Material topics	Management System documents	
Socio-Economic topics	Employment and compensation	HR Management System Manual Annual Pay Review Remuneration Policy for Kazakhstan Employees Procedure of Reduction of the number or the staff of KPO employees Program on Voluntary Dissolution of Employment Relationship with Provision of Benefits for KPO Employees
	Increase of local content in staff	2020–2025 Programme for Local Content Increase in Staff Procedure of Nationalisation plan development and reporting on its implementation
	Social infrastructure projects	Karachaganak Field's Final Production Sharing Agreement (Annex 5) Social Projects Department Management System Social Investment Operating Procedure Social and Infrastructure Projects Control Procedure Social and Infrastructure Projects Management of Change Procedure
	Sponsorship and charity	KPO Sponsorship and Donations Policy KPO Scholarship Programme for Rural District Community
	Supply of electrical power to regional network	Karachaganak Field's Final Production Sharing Agreement (Art.I, Section 1.1.)
	Anti-corruption and Compliance	Anti-Bribery and Corruption and Anti-Money Laundering Manual Guidelines on Managing Conflicts of Interest Trade Compliance Manual Ethic and Compliance Training Program Ethical Due Diligence Procedure
Economic topics	Local content development and its share in procurement of goods, works and services	Local Content Policy Local Content Development Programme 2022–2023 Procedure on Reporting purchased goods, works and services Local Content Audit Procedure Early Tender-Trial Order Testing Procedure
	Technologies and innovations	Digital Roadmap Digitalization and Continuous Improvement Strategy Business Communications Social Media and Use of IT Policy
	Estimated proved reserves and production	Reserves Re-Determination Report for the Karachaganak field
	Procurement practices and supply chain	Contracts and Procurement Policy Karachaganak JOC's Tender Procedures Annex 1 to JOC Resolution dated April 2020 Ethical Due Diligence Procedure
Transparency of payments to the government (EITI)	Karachaganak Field's Final Production Sharing Agreement (Art.XIX); Tax Accounting Policy of Kazakhstan Branch of Karachaganak Petroleum Operating B.V.	

Material topics	Management System documents
Environmental-Economic topics	Energy efficiency KPO Energy Policy and Green Rules Energy Management System Manual Guideline on Green Office Energy Management System Plan
	Environmental compliance Environmental Controllership Guidance Environmental Impact Assessment Arrangement Procedure during Development of Construction Projects Procedure for identification of Environmental Legislation Requirements Environmental Legal Compliance Register
	Environmental investments KPO Environmental Protective Measures Plan Summary Environmental Aspects Register KPO Environmental Culture and Awareness Enhancement Program for 2022–2024
Environmental topics	Spills Oil Spill Contingency Plan KOTS and Gathering main pipelines and infield pipelines rivers / aerial crossings oil
	Air quality monitoring PEC: Production Environmental Monitoring Environmental Monitoring Data Assurance Programme
	Reduction of GHG and pollutants' emissions Conditions Compliance Procedure Air Emissions Management Procedure Greenhouse Gas Emissions Management Procedure Procedure for measuring industrial emissions with instruments at the KOGCF facilities Vertical Flare Hydrocarbon Flaring Accounting and Reporting Accounting and Reporting Procedure for hydrocarbons flaring at vertical and horizontal Flare Stacks
	Water conservation Water Management Strategy Procedure for the management of water consumption and discharge, accounting and reporting during KPO water management activities Karachaganak Field Potable and Technical Water Consumption Records and Report Procedure Procedure for register, storage and utilization of saltsaturated subsurface water in cell No 2
	Management of waste and effluents Waste Management Procedure; Procedure on Acceptance and Classification of Waste at WMC (Eco Centre) Solid Industrial Waste Burial Landfill
	Biodiversity and ecosystems conservation Biodiversity Action Plan
	Environmental grievance mechanisms Odour Complaints Management Procedure for the communities adjacent to the Karachaganak field

Our Sustainability metrics

Parameter / Indicator	Unit of meas.	2022	2021	2020	2019	2018
Parent Companies' shares						
Eni	%	29.25	29.25	29.25	29.25	29.25
Shell	%	29.25	29.25	29.25	29.25	29.25
Chevron Corporation	%	18	18	18	18	18
LUKOIL	%	13.5	13.5	13.5	13.5	13.5
NC KazMunayGas	%	10	10	10	10	10
Parent Companies' Investment by year end GRI 201-1	bln USD	29.8	28.4	27	26	24.4
Taxes and payments to RoQ Government (Extractive Industries Transparency Initiative)	bln USD	3	1.6	0.971	1.6	1.9
Aggregate investment into social infrastructure of West Qazaqstan Oblast, including construction of Ural Gas Pipeline	mln USD	754	748	722	695	663
Overall KPO's Local Content share in goods, works and services	bln USD	9.37	8.85	8.29	7.7	7
Operations GRI 2-6						
Estimated proved reserves & production OG1						
Liquid hydrocarbons	bln barrels	13.6	13.6	13.6	13.6	13.3
Gas	Trln cubic feet	59.4	59.4	59.4	59.4	60.23
Recovered	%	14	13.5	13	13	12
Production GRI 2-6, 2-7						
Total Production	Mboe	128.5	134.1	143.9	137.9	147.5
Total equivalent stable oil	Kt	10,134	10,338	10,941	10,147	10,953
Total gas production	Mscm	19,442	18,980	20,214	18,614	18,913
Gas Injection	Mscm	11,131	9,998	10,362	8,710	8,589
Sweet Gas (used for internal needs)	Mscm	843	789	761	685.4	723.6
Electrical power supply to West Qazaqstan Oblast GRI 203-1	KWh	246.3	225.56	296.93	330.26	305.06
Sales GRI 2-6, 2-7						
Total Sales	Mboe	124.9	130.7	139.4	134.7	143.5
Stable Liquids	kt	10.2	10,366	10,857	10,160	10,365
Unstable Liquids (from 2019 deliveries to JSC Condensate only)	kt	30	1.5	24	9.9	615
Raw Gas to Orenburg Gas Plant	Mscm	7,455	8,182	8,986	9,113	9,493
Sweet Gas as energy to the WQO community	Mscm	70	70	90	89	95

Parameter / Indicator	Unit of meas.	2022	2021	2020	2019	2018
Drilling GRI 2-7						
Total well stock	number	471	468	467	466	462
Producing wells	number	117	118	114	110	114
Re-injection wells	number	20	19	19	18	17
Wells brought in production	number	1	1	4	4	5
Drilling rigs in operation	number	3	1	1	1	2
Turnover (shutdown)						
KPC	coverage	full	partial	partial	full	partial
Unit 2	coverage	full	partial	partial	full	partial
Unit 3	coverage	full	full	full	full	full
Karachaganak – Orenburg Transportation System	coverage	full	partial	partial	full	partial
Occupational Health & Safety						
Safety GRI 403-9						
Lost Time Incidents (LTI)	frequency	0.22	0.03	0.06	0.06	0.29
Road Traffic Incidents (RTI)	frequency	0	0	0	0.02	0.03
Total Recordable Incident Frequency (TRIF)	frequency	0.40	0.09	0.18	0.28	0.5
Fatality Frequency	frequency	0	0	0	0	0.04
Occupational health GRI 403-10						
Absenteeism rate	frequency	749	720	736	691	718
Occupational diseases	frequency	0	0	0	0	0
Loss of Primary Containment OG13, 403-2						
Tier 1	number	0	1	0	0	1
Tier 2	number	0	0	1	1	0
Tier 3	number	12	7	17	14	15
Significant spills GRI 306-3						
Analysis of HSE Cards by type of observation GRI 2-23, 403-2, 403-4						
Hazard	number	9,035	10,508	10,856	13,782	12,387
Good practice	number	10,573	10,379	10,357	9,793	10,804
Suggestion	number	1,053	1,188	1,806	2,242	2,108
Unsafe act/behaviour	number	2,137	2,204	2,559	3,525	3,376
Near miss	number	24	21	27	61	27

Parameter / Indicator	Unit of meas.	2022	2021	2020	2019	2018
Emergency response GRI 2-23, 3-3						
Integrated Emergency Response Exercises (I,II,III levels)	number	1	2	2	2	3
Emergency Response Exercises (III level)	number	1	2	2	0	0
Emergency Response Exercises (II level)	number	1	2	1	5	5
Emergency Response Exercises (I level)	number	114	103	80	129	126
Security GRI 3-3						
Illegal tapping	number	0	0	0	0	0
Training on Human Rights and Security Principles for security contractors GRI 410-1	% of staff	100	100	100	100	100
Compliance and grievances						
Compliance awareness training GRI 205-2	%	98	98	99	99	95
Employee grievances & applications GRI 3-3, 2-26	number	106	169	102	99	37
Employees						
Employees based on geographical location GRI 3-3, 2-7						
Aksai	%	89.6	91.4	93.9	93.4	94
Oral	%	8.4	6.4	4	4.5	4
Nur-Sultan	%	0.7	0.6	0.6	0.6	0.8
Bolshoi Chagan	%	0.7	0.9	0.9	0.9	0.6
Atyrau	%	0.6	0.7	0.6	0.6	0.6
Number of employees						
RoQ citizens	number	4,053	4,076	4,368	4,532	4,493
Expatriates	number	3,782	3,784*	4,133*	4,202	4,140
	number	271	292*	235*	330	353
* The data for 2020–2021 has been adjusted. In 2022, the methodology for counting local and foreign KPO personnel was adjusted. For all previous periods, the calculation was based on the division of positions held by employees into local positions and positions assigned to Parent Companies. It was revealed that with such a calculation, citizens of the EEC member states fall into the category of local personnel, and citizens of the Republic of Qazaqstan seconded by Parent Companies fall into the category of foreign personnel. It was decided that the display of personnel by nationality would be the most correct.						
Employees by type of employment GRI 203-1						
KPO employees (direct contract)	number	2,941	2,951	3,063	3,137	3,130
Sending parties' employees	number	931	927	1,070	1,065	1,010
Parent Companies' secondees	number	181	198	235	330	353

Parameter / Indicator	Unit of meas.	2022	2021	2020	2019	2018
Employees by gender						
Men	number	2,936	2,968	3,148	3,277	3,261
Women	number	1,117	1,108	1,220	1,255	1,232
Local employees by age GRI 401-1						
Between 20-30	number	266	291	431	437	458
Between 30-40	number	1,465	1,484	1,627	1,573	1,553
Between 40-50	number	1,121	1,095	1,153	1,099	1,074
Between 50-60	number	913	905	1,007	964	938
Above 60	number	108	103	179	129	60
Dynamics of local staff turnover	%	0.8	0.7	1.1	1.7	1.8
Released employees	number	195	354	167	179	135
Newcomers	number	189	102	97	244	221
Temporary employees	number	104	120	120	138	125
Voluntary dissolution of employment	number	0	43	43	42	24
Local Content in staff GRI 3-3, 202-2						
Management	%	86	85	83	79	77
Professional and supervised workers	%	98	98	97	96	95
Personnel trained at certified programmes of International Qualifications GRI 404-2						
International diploma of the Chartered Institute of Procurement and Supply	number	19	13	10	15	11
Emergency response training course MEMIR by OPITO standard	number	17	17	0	19	43
Well control/well pressure control during gas, oil and water shows (IWCF)	number	46	61	13	59	39
Non-destructive testing certification (NDT)	number	20	13	3	33	30
International certificate in health, environment and safety (NEBOSH)	number	0	9	12	11	0
OPITO Expert competency assessment	number	0	0	0	15	0
Certified internal auditor (CIA)	number	0	0	3	2	0
International Financial Reporting Certification (ACCA)	number	0	2	3	0	0
API Technical Standards Certification (American Petroleum Institute)	number	9	10	6	0	0
Master of Business Administration	number	1	1	1	0	0

Parameter / Indicator	Unit of meas.	2022	2021	2020	2019	2018
Project Management Professional (PMP)® Certification	number	0	1	0	0	0
IEMA certificate in environmental management	number	1	1	0	0	0
ASME Plant Inspector Course	number	23	0	0	0	0
Average number of training hours per course completed by nominated employees GRI 401-1	average hours					
Professional courses	average hours	36.93	33.56	59.32	42.96	33.64
Language courses	average hours	51.96	56.06	42.89	55.49	62.62
Certified programmes	average hours	34.21	43.1	412.99	43.49	32.09
Technical & HSE courses	average hours	13.49	11.7	12.99	12.79	6.62
KPO Scholarship Programme GRI 404-2	USD	42,270	45,800	37,639	82,332	97,969
Employees	number	9	14	9	19	20
Employees children	number	27	22	20	39	37
Total	number	36	36	29	58	57
Trainees						
Students Placement Programme	number	212	39	106	313	299
Youth Placement Programme	number	7	7	1	33	20
Employed	number	6	1	2	6	10
Environmental performance GRI 3-3						
Expenses for implementation of the Environmental Protective Measures Plan	thous. KZT	2,616,942	5,991,327	11,580,444	9,677,175	7,604,066
within the Karachaganak Field	bln KZT	2.6	5.97	11.06	9.64	7.6
on the KPC-Bolshoi Chagan-Atyrau export condensate pipeline (Western Qazaqstan)	mln KZT	10.443	10.343	362.5	11.12	9.3
on the KPC-Bolshoi Chagan-Atyrau export condensate pipeline (Atyrau Oblast)	mln KZT	6.499	10.984	157.5	22.4	26.25
Gas utilization OG6	%	99.93	99.94	99.92	99.91	99.94
Delivery to Orenburg Gas Plant	%	38.34	43.11	44.45	49.19	50.19
Gas injection	%	57.25	52.68	51.26	47.02	45.41
Fuel gas	%	4.34	4.16	4.21	3.7	4.33
Flared associated gas	%	0.07	0.06	0.08	0.09	0.06
Flared associated gas	mln m³	12.95	11.49	15.27	16.76	11.95

Parameter / Indicator	Unit of meas.	2022	2021	2020	2019	2018
Air emissions GRI 305-7						
Permitted volumes of pollutants' emissions	tonnes	12,044	13,219	17,527	18,544	19,986
Actual volumes of pollutants' emissions	tonnes	5,236	4,798	7,591	7,597	7,759
Emissions rate per unit of production	tonnes per 1k tonnes of produced HC	0,19	0,18	0,26	0,29	0,28
Total GHG emissions GRI 305-1	tonnes of CO ₂ equivalent	1,849,112	1,745,768	1,821,604	1,870,324	1,893,447
Specific GHG emissions (CO ₂ +CH ₄ +N ₂ O (CO ₂ e)) GRI 305-4	tonnes per 1k tonnes of produced HC	66	63	62	64	69
Specific GHG emissions (CO ₂) IOGP international data	tonnes per 1k tonnes of produced HC	119	113	123	130	130
Specific GHG emissions (CO ₂) IOGP European data	tonnes per 1k tonnes of produced HC	78	83	88	84	83
Energy consumption GRI 302-1						
Fuel gas	tonnes of coal equivalent	1,105,821	1,026,088	1,063,251	1,018,625	1,037,274
Electric power	tonnes of coal equivalent	889	825	767	891	825
Diesel fuel	tonnes of coal equivalent	958	888	1,498	932	1,058
Gasoline	tonnes of coal equivalent	258	251	220	249	271
Heating	tonnes of coal equivalent	1,351	1,486	1,399	1,249	1,175
Water consumption GRI 303-3						
Technical water	m ³	309,010	395,386	470,601	527,853	515,141
Potable water	m ³	84,130	81,259	82,429	93,456	94,364
Effluents						
Discharge of treated wastewater GRI 303-2	m ³	809,719	855,415	761,119	701,128	735,152
Reuse of treated wastewater GRI 2016 303-3	m ³	75,452	35,061	18,313	38,545	18,241
Discharged wastewater with contaminants GRI 303-4						
Actual discharges	tonnes	60,730	58,981	46,006	39,683	42,280
Within the MPD Limits	tonnes	60,729.3	58,166	45,961	35,732	39,695
Excess discharge	tonnes	0.481	815	45	3,951	585

Parameter / Indicator	Unit of meas.	2022	2021	2020	2019	2018
Waste generated GRI 306-3						
Non-hazardous waste	tonnes	3,973	3,574	2,717	2,955	5,064
Hazardous waste	tonnes	32,035	14,957	29,378	53,482	44,916
Waste generated, treated, disposed and recycled GRI 306-3, 306-5						
Waste incinerated	tonnes	600	793	772	955	737
Waste treated	tonnes	24,302	15,247	18,247	31,610	27,218
Waste reused and recovered to process stream	tonnes	5,843	4,740	2,762	6,256	5,979
Disposed and buried at waste disposal facilities	tonnes	14,424	12,322	12,665	27,843	22,547
Waste handed over to the third party for further recycling, use, incineration and burial	tonnes	5,839	5,667	5,500	6,929	6,591
Waste accumulated at the end of year	tonnes	35,280	338,242	341,419	340,781	323,328
Social Performance and Economic Impact GRI 3-3						
Community engagement						
Public hearings	number	12	4	4	10	10
Village Councils meetings	number	9	9	10	6	13
Community grievance						
Gas odour complaints	number	7	3	7	17	42
Resettlement complaints (Beryozovka, Bestau villages)	number	17	94	198	218	267
Social infrastructure	number	15	15	9	0	0
Investments into Local Community Development Programmes GRI 413-1						
Health	thousand USD	31,943	12,919	28,090	42,319	49,199
Education	thousand USD	10,850	11,214	3,536	-	-
Charity	KZT, mln	0	190	15	0.389	25
Sponsorship	KZT, mln	16.8	25.5		98.0	40.0
Investments into Social Infrastructure in the region of presence GRI 203-1						
Social Infrastructure Investment in WQO/Uralsk	KZT, mln	7,248	13,352	10,458	3,030	13,561
Completed social projects in WQO/Uralsk	number	3	8	6	3	26
Social Infrastructure Investment in Burlin District/Aksai	KZT, mln	0	0	0	-	2,338
Completed social projects in Burlin District / Aksai	number	0	0	-	-	5

Parameter / Indicator	Unit of meas.	2022	2021	2020	2019	2018
Local Content share in total purchases of works, goods and services GRI 204-1						
Total purchases of works, goods and services	mIn USD	511.7	564.3	586.7	683.5	474
Share of local content in total purchases	%	56.4	68.6	59.3	57	59.6
Share of local goods in the total scope of goods, works, and services	%	18	17.7	33	30	35
'Qazaqstani tenders'	number	10	13	35	32	NA
Number of local companies received training	number	0	0	165	7	22
Road map on localization of Original Equipment Manufactures	number	6	5	4	NA	NA
Supply chain GRI 2-6						
Companies registered at KPO Vendor database	number	337	456	439	434	405
Suppliers awarded with contracts and amendments	number	400	500	500	580	564
Local vendors	number, %	326 (84%)	398 (80%)	410 (80%)	418 (72%)	389 (69%)
Foreign vendors	number, %	62 (16%)	91 (20%)	117 (20%)	162 (28%)	175 (31%)
Contracts for supply of goods	number	270	600	800	1,037	982
Value of contracts for goods	mIn USD	327.5	264.2	180	254.1	120.1
Contracts for provision of services	number	500	800	700	658	604
Value of contracts for services	mIn USD	837.9	1,417	880	889.9	1,095.6

NA – not applicable

GRI Content Index

Statement of use

Karachaganak Petroleum Operating B.V. has reported in accordance with the GRI Standards for the period 01.01.2022-31.12.2022.

GRI 1 used

GRI 1: Foundation 2021

Applicable GRI Sector Standard(s)

GRI 11: Oil and Gas Sector 2021, G4 Oil & Gas 2012

UNIVERSAL STANDARDS			
No.	Disclosures	Location	Comments to SR / Omissions
GRI 2: General disclosures 2021			
The organization and its reporting practices			
2-1	Organizational details	6, 18, 36 (back cover)	
2-2	Entities included in the organization's sustainability reporting	This Report covers the operations and development projects of the KPO B.V. Branch in Qazaqstan	
2-3	Reporting period, frequency and contact point	7, 171 (back cover)	
2-4	Restatements of information	68	
2-5	External assurance	8	
Activities and workers			
2-6	Activities, value chain and other business relationships	7, 18-21, 36, 128, 132	No significant changes
2-7	Employees	68-69	
2-8	Workers who are not employees	68	
Governance			
2-9	Governance structure and composition	36-37	
2-10	Nomination and selection of the highest governance body	36, 38	
2-11	Chair of the highest governance body	36	
2-12	Role of the highest governance body in overseeing the management of impacts	37-40	
2-13	Delegation of responsibility for managing impacts	36-37, 39-40	
2-14	Role of the highest governance body in sustainability reporting	39	
2-15	Conflicts of interest	44-45	
2-16	Communication of critical concerns	26, 39-40	
2-17	Collective knowledge of the highest governance body	8	
2-18	Evaluation of the performance of the highest governance body	36	

UNIVERSAL STANDARDS				
No.	Disclosures	Location	Comments to SR / Omissions	
2-19	Remuneration policies	38, 72-73		
2-20	Process to determine remuneration	72		
2-21	Annual total compensation ratio	72		
Strategy, policies and practices				
2-22	Statement on sustainable development strategy	4		
2-23	Policy commitments	2, 4, 29, 31, 35, 42, 46, 49, 50, 55, 58, 66, 82, 86, 87, 91, 94, 109, 127		
2-24	Embedding policy commitments	42, 44, 83, 94		
2-25	Processes to remediate negative impacts	26, 46, 83, 88		
2-26	Mechanisms for seeking advice and raising concerns	46, 71, 83-84, 88		
2-27	Compliance with laws and regulations	47, 95		
2-28	Membership associations	9, 131, 133		
Stakeholder engagement				
2-29	Approach to stakeholder engagement	12-13, 31, 55-56, 88, 95, 129		
2-30	Collective bargaining agreements	71, 73		
GRI 3: Material Topics 2021				
3-1	Process to determine material topics	12, 14, 94		
3-2	List of material topics	12, 14	No significant changes	
TOPIC-SPECIFIC DISCLOSURES				
GRI Standard/ Material topics	Disclosure	GRI 11 Sector Standard Ref. No.	Location in Report	Comments to SR / Omissions
Topic 11.1 GHG emissions				
GRI 3: Material Topics 2021	3-3 Management of material topics	11.1.1	94, 104, 108-110	
GRI 302: Energy 2016	302-1 Energy consumption within the organization	11.1.2	109	302-1 – c (ii, iii, iv), d. Not applicable. KPO does not keep separate records on steam consumption and energy consumption for cooling; this data is included in the total amount of electricity consumption. KPO does not sell electricity, heat, air conditioning and steam. KPO applies standards, methods and conversions regulated by the RoQ normative documents in energy saving and energy efficiency.
	302-2 Energy consumption outside of the organization	11.1.3		Not applicable
	302-3 Energy intensity	11.1.4	110	

TOPIC-SPECIFIC DISCLOSURES				
GRI Standard/ Material topics	Disclosure	GRI 11 Sector Standard Ref. No.	Location in Report	Comments to SR / Omissions
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	11.1.5	107	
	305-2 Energy indirect (Scope 2) GHG emissions	11.1.6	107	
	305-3 Other indirect (Scope 3) GHG emissions	11.1.7		Information unavailable
	305-4 GHG emissions intensity	11.1.8	107	
G4 Oil and Gas Sector Disclosures 2012	OG6 Volume of flared and vented hydrocarbon		106	
Topic 11.2 Climate adaptation, resilience, and transition				
GRI 3: Material Topics 2021	3-3 Management of material topics	11.2.1	92-94	
GRI 201: Economic Performance 2016	201-2 Financial implications and other risks and opportunities due to climate change	11.2.2	135	Information unavailable
G4 Oil and Gas Sector Disclosures 2012	OG2 Total amount invested in renewable energy		135	
GRI 305: Emissions 2016	305-5 Reduction of GHG emissions	11.2.3	93	Information incomplete
GRI 308: Supplier Environmental Assessment 2016	308-1 New suppliers that were screened using environmental criteria		96	Information incomplete
	308-2 Negative environmental impacts in the supply chain and actions taken		96	

TOPIC-SPECIFIC DISCLOSURES				
GRI Standard/ Material topics	Disclosure	GRI 11 Sector Standard Ref. No.	Location in Report	Comments to SR / Omissions
Topic 11.3 Air emissions				
GRI 3: Material Topics 2021	3-3 Management of material topics	11.3.1	94, 104	
GRI 305: Emissions 2016	305-7 Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	11.3.2	105-107	
GRI 416: Customer Health and Safety 2016	416-1 Assessment of the health and safety impacts of product and service categories	11.3.3	21	There were not registered any impacts with regards to customer health and safety.
Topic 11.4 Biodiversity				
GRI 3: Material Topics 2021	3-3 Management of material topics	11.4.1	94, 122	
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	11.4.2	Website https://kpo.kz: Preservation of Biodiversity	
	304-2 Significant impacts of activities, products, and services on biodiversity	11.4.3	124; website https://kpo.kz: Monitoring of flora and fauna	
	304-3 Habitats protected or restored	11.4.4	99	
	304-4 IUCN Red List species and national conservation list species with habitats in areas affected by operations	11.4.5	Website https://kpo.kz: Preservation of Biodiversity	

TOPIC-SPECIFIC DISCLOSURES				
GRI Standard/ Material topics	Disclosure	GRI 11 Sector Standard Ref. No.	Location in Report	Comments to SR / Omissions
Topic 11.5 Waste				
GRI 3: Material Topics 2021	3-3 Management of material topics	11.5.1	94, 118	
GRI 306: Waste 2020	306-1 Waste generation and significant waste-related impacts	11.5.2	118	
	306-2 Management of significant waste-related impacts	11.5.3	119	
	306-3 Waste generated	11.5.4	119-120	
	306-4 Waste diverted from disposal	11.5.5	119-121	
	306-5 Waste directed to disposal	11.5.6	119-121	
G4 Oil and Gas Sector Disclosures 2012	OG7 Amount of drilling waste and strategies for treatment and disposal		118, 121	
Topic 11.6 Water and effluents				
GRI 3: Material Topics 2021	3-3 Management of material topics	11.6.1	94, 112	
GRI 303: Water and Effluents 2018	303-1 Interactions with water as a shared resource	11.6.2	112-113	
	303-2 Management of water discharge-related impacts	11.6.3	114, 117	
	303-3 Water withdrawal	11.6.4	113-114	
	303-4 Water discharge	11.6.5	114-115	
	303-5 Water consumption	11.6.6	113-114	
GRI 303: Water 2016	303-3 Water recycled and reused		116	

TOPIC-SPECIFIC DISCLOSURES				
GRI Standard/ Material topics	Disclosure	GRI 11 Sector Standard Ref. No.	Location in Report	Comments to SR / Omissions
Topic 11.7 Closure and rehabilitation				
GRI 3: Material Topics 2021	3-3 Management of material topics	11.7.1	67, 94	
GRI 402: Labor/ Management Relations 2016	402-1 Minimum notice periods regarding operational changes	11.7.2		In accordance with the Collective agreement, KPO has the obligation to raise a minimum two-month (8 weeks) notice to Trade Unions in case of liquidation of the Company with a subsequent reduction in staff, system or amount of remuneration leading to deprivation of employees' conditions.
GRI 404: Training and Education 2016	404-2 Programs for upgrading employee skills and transition assistance programs	11.7.3	67	
GRI 304: Biodiversity 2016	304-3 Habitats protected or restored	11.4.4	99	
Topic 11.8 Asset integrity and critical incident management				
GRI 3: Material Topics 2021	3-3 Management of material topics	11.8.1	26	KPO impact boundary covers KPO facilities at the Karachaganak field, the export pipeline in West Qazaqstan and Atyrau oblasts. The topic covers KPO and contractors.
GRI 306: Effluents and Waste 2016	306-3 Significant spills	11.8.2	28	
G4 Oil and Gas Sector Disclosures 2012	OG13 Number of process safety events, by business activity	11.8.3	26-28	

TOPIC-SPECIFIC DISCLOSURES				
GRI Standard/ Material topics	Disclosure	GRI 11 Sector Standard Ref. No.	Location in Report	Comments to SR / Omissions
Topic 11.9 Occupational health and safety				
GRI 3: Material Topics 2021	3-3 Management of material topics		41, 50, 58	
GRI 403: Occupational Health and Safety 2018	403-1 Occupational health and safety management system	11.9.2	41; website https://kpo.kz/Integrated-HSE-Management-System	
	403-2 Hazard identification, risk assessment, and incident investigation	11.9.3	26, 28, 51, 60, 62; website https://kpo.kz/HSE-Card-Programme	
	403-3 Occupational health services	11.9.4	60-65	
	403-4 Worker participation, consultation, and communication on occupational health and safety	11.9.5	website https://kpo.kz/HSE-Card-Programme	
	403-5 Worker training on occupational health and safety	11.9.6	29, 55, 79	
	403-6 Promotion of worker health	11.9.7	60-63	
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	11.9.8	26, 28, 41, 55	
	403-8 Workers covered by an occupational health and safety management system	11.9.9	41	
	403-9 Work-related injuries	11.9.10	51-53, 57	
	403-10 Work-related ill health	11.9.11	62	

TOPIC-SPECIFIC DISCLOSURES				
GRI Standard/ Material topics	Disclosure	GRI 11 Sector Standard Ref. No.	Location in Report	Comments to SR / Omissions
Topic 11.10 Employment practices				
GRI 3: Material Topics 2021	3-3 Management of material topics	11.10.1	66-67	
GRI 401: Employment 2016	401-1 New employee hires and employee turnover	11.10.2	70	
	401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	11.10.3	71, 73	
	401-3 Parental leave	11.10.4	73	
GRI 402: Labor/ Management Relations 2016	402-1 Minimum notice periods regarding operational changes	11.10.5	In accordance with the Collective Agreement, KPO has the obligation to raise a minimum two-month (8 weeks) notice to Trade Unions in case of liquidation of the Company with a subsequent reduction in staff, system or amount of remuneration leading to deprivation of employees' conditions.	
GRI 404: Training and Education 2016	404-1 Average hours of training per year per employee	11.10.6	73, 79	
	404-2 Programs for upgrading employee skills and transition assistance programs	11.10.7	71, 76, 78, 80-81	
	404-3 Percentage of employees receiving regular performance and career development reviews		73	
GRI 414: Supplier Social Assessment 2016	414-1 New suppliers that were screened using social criteria	11.10.8	46, 128	
	414-2 Negative social impacts in the supply chain and actions taken	11.10.9	59, 83-84	

TOPIC-SPECIFIC DISCLOSURES				
GRI Standard/ Material topics	Disclosure	GRI 11 Sector Standard Ref. No.	Location in Report	Comments to SR / Omissions
Topic 11.11 Non-discrimination and equal opportunity				
GRI 3: Material Topics 2021	3-3 Management of material topics	11.11.1	42-43, 66-67	KPO impact boundary covers Qazaqstan. Terms of the Collective Agreement are reviewed every 2-3 years.
GRI 202: Market Presence 2016	202-1 Ratios of standard entry level wage by gender compared to local minimum wage		72	202-1-a. Not applicable. There are no differences in salary levels by gender. Karachaganak O&G condensate field located in the Western Qazaqstan Oblast (Republic of Qazaqstan) relates to 'significant location of operations'.
	202-2 Proportion of senior management hired from the local community	11.11.2	74	By 'senior management' is meant to be Executive management and their deputies' given in category 1+2 in «Increase of Local Content in Staff by categories of employees» (Tab. 16, p. 70). 'Local' in the context refers to national employees, the citizens of the Republic of Qazaqstan. Karachaganak O&G condensate field located in the Western Qazaqstan Oblast (Republic of Qazaqstan) relates to 'significant location of operations'.
GRI 401: Employment 2016	401-3 Parental leave	11.11.3	73	
GRI 404: Training and Education 2016	404-1 Average hours of training per year per employee	11.11.4	73, 79	
GRI 405: Diversity and Equal Opportunity 2016	405-1 Diversity of governance bodies and employees	11.11.5	68-70, 74	
	405-2 Ratio of basic salary and remuneration of women to men	11.11.6	Karachaganak O&G condensate field located in the Western Qazaqstan Oblast (Republic of Qazaqstan) relates to 'significant location of operations'. Basic salaries are established for employee categories regardless of gender, and hence basic salaries for women and men are equal.	
GRI 406: Non-discrimination 2016	406-1 Incidents of discrimination and corrective actions taken	11.11.7	There were not registered any cases of discrimination during the reporting period.	

TOPIC-SPECIFIC DISCLOSURES				
GRI Standard/ Material topics	Disclosure	GRI 11 Sector Standard Ref. No.	Location in Report	Comments to SR / Omissions
Topic 11.12 Forced labor and modern slavery				
GRI 3: Material Topics 2021	3-3 Management of material topics	11.12.1	42-43	KPO impact boundary covers West Qazaqstan Oblast. Terms of the Collective Agreement are reviewed every 2-3 years.
GRI 408: Child Labor	408-1 Operations and suppliers at significant risk for incidents of child labor		43	
GRI 409: Forced or Compulsory Labor 2016	409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor	11.12.2	43, 83	
GRI 414: Supplier Social Assessment 2016	414-1 New suppliers that were screened using social criteria	11.12.3	46, 128	
Topic 11.13 Freedom of association and collective bargaining				
GRI 3: Material Topics 2021	3-3 Management of material topics	11.13.1	43, 46, 82	KPO impact boundary covers West Qazaqstan Oblast. Terms of the Collective Agreement are reviewed every 2-3 years.
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	11.13.2	83	

TOPIC-SPECIFIC DISCLOSURES				
GRI Standard/ Material topics	Disclosure	GRI 11 Sector Standard Ref. No.	Location in Report	Comments to SR / Omissions
Topic 11.14 Economic impacts				
GRI 3: Material Topics 2021	3-3 Management of material topics	11.14.1	66-67, 128, 130	
GRI 201: Economic Performance 2016	201-1 Direct economic value generated and distributed	11.14.2	132	
GRI 202: Market Presence 2016	202-1 Ratios of standard entry level wage by gender compared to local minimum wage		72	202-1-a. Not applicable There are no differences in salary levels by gender. Karachaganak O&G condensate field located in the Western Qazaqstan Oblast (Republic of Qazaqstan) relates to 'significant location of operations'.
	202-2 Proportion of senior management hired from the local community	11.14.3	74	By 'senior management' is meant to be Executive management and their deputies' given in category 1+2 in «Increase of Local Content in Staff by categories of employees» (Tab. 16, p. 70). 'Local' in the context refers to national employees, the citizens of the Republic of Qazaqstan.
GRI 203: Indirect Economic Impacts 2016	203-1 Infrastructure investments and services supported	11.14.4	61, 134, 136-137	
	203-2 Significant indirect economic impacts	11.14.5	130	
GRI 204: Procurement Practices 2016	204-1 Proportion of spending on local suppliers	11.14.6	130-131	
G4 Oil and Gas Sector Disclosures 2012	OG1 Volume and type of estimated proved reserves and production		18	Information incomplete

TOPIC-SPECIFIC DISCLOSURES				
GRI Standard/ Material topics	Disclosure	GRI 11 Sector Standard Ref. No.	Location in Report	Comments to SR / Omissions
Topic 11.15 Local communities				
GRI 3: Material Topics 2021	3-3 Management of material topics	11.15.1	86	The KPO impact boundary covers the local communities in villages along the perimeter of the Karachaganak field and Aksai town in the Burlin district of WQO
GRI 413: Local Communities 2016	413-1 Operations with local community engagement, impact assessments, and development programmes	11.15.2, 11.15.4	87-88, 100-101, 103; website https://kpo.kz: Atmospheric air monitoring in the villages adjacent to the Karachaganak field	
	413-2 Operations with significant actual and potential negative impacts on local communities	11.15.3		
Topic 11.16 Land and resource rights				
GRI 3: Material Topics 2021	3-3 Management of material topics	11.16.1	86	The KPO impact boundary covers the local communities in villages along the perimeter of the Karachaganak field and Aksai town in the Burlin district of WQO
G4 Oil and Gas Sector Disclosures 2012	OG12 Operations where involuntary resettlement took place, the number of households resettled in each and how their livelihoods were affected in the process	11.16.2	87, 89; website https://kpo.kz: Resettlement of the Berezovka and Bestau villages , KPO Sustainability Report 2017, pp.105-106	
Topic 11.17 Rights of indigenous peoples				
Not applicable for Qazaqstan				
Topic 11.18 Conflict and security				
GRI 3: Material Topics 2021	3-3 Management of material topics	11.18.1	82, 85	The impact boundary covers KPO and contractors within the facilities of the Karachaganak field, the West Qazaqstan Oblast and the export pipeline facilities in the Atyrau Oblast
GRI 410: Security Practices 2016	410-1 Security personnel trained in human rights policies or procedures	11.18.2	85	

TOPIC-SPECIFIC DISCLOSURES				
GRI Standard/ Material topics	Disclosure	GRI 11 Sector Standard Ref. No.	Location in Report	Comments to SR / Omissions
Topic 11.19 Anti-competitive Behavior				
GRI 3: Material Topics 2021	3-3 Management of material topics	11.19.1	42	
GRI 206: Anticompetitive Behavior 2016	206-1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	11.19.2	47	
Topic 11.20 Anti-corruption				
GRI 3: Material Topics 2021	3-3 Management of material topics	11.20.1	42	
GRI 205: Anti-corruption 2016	205-1 Operations assessed for risks related to corruption	11.20.2	44, 46	
	205-2 Communication and training about anti-corruption policies and procedures	11.20.3	45-46	
	205-3 Confirmed incidents of corruption and actions taken	11.20.4	44	
Topic 11.21 Payments to governments				
GRI 3: Material Topics 2021	3-3 Management of material topics	11.21.1	130	
GRI 201: Economic Performance 2016	201-1 Direct economic value generated and distributed	11.21.2	132	
	201-4 Financial assistance received from government	11.21.3		KPO did not receive monetary financial assistance from the republic for the reporting period and doesn't make any donations to government/political needs.
GRI 207: Tax 2019	207-1 Approach to tax	11.21.4	132	
	207-2 Tax governance, control, and risk management	11.21.5	132	
	207-3 Stakeholder engagement and management of concerns related to tax	11.21.6	132	
	207-4 Country-by-country reporting	11.21.7	132	
Topic 11.22 Public policy				
As stated in the KPO Business Principles and the Code of Conduct, Political Payments or "in-kind contributions" must never be made by KPO or by Trade Associations with KPO funds. KPO must not take part in party politics.				

KPO's contribution in achieving UN SDG targets

SDG targets	Chapter / topic disclosed in the Report
3. Ensure healthy lives and promote well-being for all at all ages	
3.4 By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being	Occupational health: Disease control in employees, Healthy lifestyle promotion
3.5 Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol	Occupational health: alcohol test, Prohibition on Use of Alcohol, Drugs, Psychotropic and Toxicomanic Substances (their analogues) in KPO
3.6 By 2020, halve the number of global deaths and injuries from road traffic accidents	Health and safety performance: Road safety
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	Occupational health: Health Department response to COVID-19 pandemic, Social 'Aksai Hospital Emergency Capability Upgrade Project', Disease control in employees
3.9 By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination	Asset Integrity, ER management, Safety Practices, Workplace Attestation, Environmental monitoring, Air emissions, Waste management, Water consumption and disposal
4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all	
4.3 By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university	KPO scholarship programme and partnership with universities, Graduates Development Programme
4.4 By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship	Graduates Development Programme
4.5 By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations	Local communities: Scholarship Programme for rural school graduates, Case study "Support for local specialists training"
4.a Build and upgrade education facilities that are child, disability and gender sensitive and provide safe, non-violent, inclusive and effective learning environments for all	Supporting social infrastructure: construction of kindergartens, schools, sports complexes within the framework of social infrastructure projects
4.b By 2020, substantially expand globally the number of scholarships available to developing countries, for enrolment in higher education, technical, engineering and scientific programmes*	Local communities: Scholarship Programme for rural school graduates, Case study "Support for local specialists training" , KAZENERGY educational grants funded by NCOC and KPO
4.c By 2030, substantially increase the supply of qualified teachers, including through international cooperation for teacher training in developing countries, especially least developed countries and small island developing States	Local communities: Case study "Support for local specialists training"
5. Achieve gender equality and empower all women and girls	
5.1 End all forms of discrimination against all women and girls everywhere	Compensations and benefits, Personnel training and development, KPO Female Network

* The text is adapted to the reality of the region of presence

SDG targets	Chapter / topic disclosed in the Report
5.4 Recognize and value unpaid care and domestic work *	Data on Parental and child care leaves at KPO
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	Number of local and expatriate managers by age and gender, KPO Female Network
6. Ensure availability and sustainable management of water and sanitation for all	
6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally	Water consumption and disposal
6.4 By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity	Re-use of treated and other wastewater
6.6 By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes	Biodiversity Conservation
7. Ensure access to affordable, reliable, sustainable and modern energy for all	
7.1 By 2030, ensure universal access to affordable, reliable and modern energy services	Power supply
7.2 By 2030, increase substantially the share of renewable energy in the global energy mix	KPO 365, Obligations imposed by the Law on Support of the Use of Renewable Energy Sources
7.3 By 2030, double the global rate of improvement in energy efficiency	Energy efficiency
8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	
8.1 Sustain per capita economic growth in accordance with national circumstances and, in particular, at least 7 per cent gross domestic product growth per annum in the least developed countries	KPO Indirect economic impact on the region development: Supply chain, Local Content development, Payments to the Republic, Compensations and benefits
8.2 Achieve higher levels of economic productivity through diversification, technological upgrading and innovation, including through a focus on high-value added and labour-intensive sectors	Technologies in drilling, Digitalization and continuous improvement
8.3 Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises *	Supply chain, Local Content development
8.4 Improve progressively, through 2030, global resource efficiency in consumption and production and endeavour to decouple economic growth from environmental degradation, in accordance with the 10-Year Framework of Programmes on Sustainable Consumption and Production, with developed countries taking the lead	KPO 365, Gas Flaring
8.5 By 2030, 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	Compensations and benefits, Industrial Relations
8.6 By 2020, substantially reduce the proportion of youth not in employment, education or training	Graduates Development Programme, Case study "Support for local specialists training"
8.7 Take immediate and effective measures to eradicate forced labour, end modern slavery and human trafficking and secure the prohibition and elimination of the worst forms of child labour, including recruitment and use of child soldiers, and by 2025 end child labour in all its forms	Human Rights, Industrial relations

* The text is adapted to the reality of the region of presence

SDG targets	Chapter / topic disclosed in the Report
8.8 Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment	Safety Practices, Workplace Attestation, Employee relations, Industrial relations
9. 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	Supporting social infrastructure
9.2 Promote inclusive and sustainable industrialization and, by 2030, significantly raise industry's share of employment and gross domestic product, in line with national circumstances, and double its share in least developed countries	Local Content development
9.3 Increase the access of small-scale industrial and other enterprises, in particular in developing countries, to financial services, including affordable credit, and their integration into value chains and markets	Local Content development
9.4 By 2030, 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, with all countries taking action in accordance with their respective capabilities	KPO 365, Digitalization and continuous improvement, Digitalization program in Health Department, Obligations imposed by the Law on Support of the Use of Renewable Energy Sources, Environmental Protective Measures Plan
10. Reduce inequality within and among countries	
10.1 By 2030, progressively achieve and sustain income growth of the bottom 40 per cent of the population at a rate higher than the national average	Compensations and benefits, Economic Impact, Industrial relations
10.3 Ensure equal opportunity and reduce inequalities of outcome, including by eliminating discriminatory laws, policies and practices and promoting appropriate legislation, policies and action in this regard	Business conduct, Code of Conduct
10.4 Adopt policies, especially fiscal, wage and social protection policies, and progressively achieve greater equality	Compensations and benefits, Employee relations, Industrial relations, Payments to the Republic
11. Make cities and human settlements inclusive, safe, resilient and sustainable	
11.4 Strengthen efforts to protect and safeguard the world's cultural and natural heritage	Research on preservation of historical and cultural heritage sites , Biodiversity Conservation, Case study "Move of the monument from Berezovka village to Araltal neighbourhood"
11.5 By 2030, significantly reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses relative to global gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations	Asset Integrity and Emergency response management
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	Environmental impact
12. Ensure sustainable consumption and production patterns	
12.1 Implement the 10-Year Framework of Programmes on Sustainable Consumption and Production Patterns, all countries taking action, with developed countries taking the lead, taking into account the development and capabilities of developing countries	KPO 365

SDG targets	Chapter / topic disclosed in the Report
12.2 By 2030, achieve the sustainable management and efficient use of natural resources	KPO 365, Environmental Impact
12.4 By 2020, 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	Waste management
12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse	Waste management
12.6 Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle	KPO 365, Technologies in drilling, Environmental Impact
12.8 By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature	Overall KPO Sustainability Report (10 th Principle of the KPO Sustainable Development Charter)
13. Take urgent action to combat climate change and its impacts	
13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries	KPO 365, KPO Green Strategy
13.2 Integrate climate change measures into national policies, strategies and planning	KPO 365, KPO Green Strategy
13.3 Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning	KPO 365, KPO Green Strategy
15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss	
15.1 By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements	Biodiversity Conservation
15.2 By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally	Project "Organization and improvement of the estimated KOGCF sanitary protection zone"
15.5 Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species	Biodiversity Conservation
15.9 By 2020, integrate ecosystem and biodiversity values into national and local planning, development processes, poverty reduction strategies and accounts	Biodiversity Conservation
16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels	
16.1 Significantly reduce all forms of violence and related death rates everywhere	Conflicts and security
16.2 End abuse, exploitation, trafficking and all forms of violence against and torture of children	Business conduct (Human rights)
16.3 Promote the rule of law at the national and international levels and ensure equal access to justice for all	Business conduct
16.5 Substantially reduce corruption and bribery in all their forms	Business conduct

SDG targets	Chapter / topic disclosed in the Report
16.6 Develop effective, accountable and transparent institutions at all levels	Governance structure and management approach
16.7 Ensure responsive, inclusive, participatory and representative decision-making at all levels	Governance structure and management approach
16.10 Ensure public access to information and protect fundamental freedoms, in accordance with national legislation and international agreements	Sustainability Report, Public hearings, Grievance mechanisms
16.b Promote and enforce non-discriminatory laws and policies for sustainable development	KPO Code of Conduct, KPO Business Principles, KPO Sustainable Development Charter, KPO 365
17. Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development	
17.6 Enhance North-South, South-South and triangular regional and international cooperation on and access to science, technology and innovation and enhance knowledge-sharing on mutually agreed terms, including through improved coordination among existing mechanisms, in particular at the United Nations level, and through a global technology facilitation mechanism	Digitalization and continuous improvement
17.7 Promote the development, transfer, dissemination and diffusion of environmentally sound technologies to developing countries on favourable terms, including on concessional and preferential terms, as mutually agreed	Local Content Development, Obligations imposed by the Law on Support of the Use of Renewable Energy Sources, Best available techniques (BAT) for environmental protection
17.8 Fully operationalize the technology bank and science, technology and innovation capacity-building mechanism for least developed countries by 2017 and enhance the use of enabling technology, in particular information and communications technology	Digitalization and continuous improvement
17.9 Enhance international support for implementing effective and targeted capacity-building in developing countries to support national plans to implement all the Sustainable Development Goals, including through North-South, South-South and triangular cooperation	Local Content development
17.14 Enhance policy coherence for sustainable development	KPO 365
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	Stakeholder engagement, Business partnerships and associations, Uralsk Green Forum
17.17 Encourage and promote effective public, public-private and civil society partnerships, building on the experience and resourcing strategies of partnerships	Supporting social infrastructure, Local Content development, Stakeholder engagement, Business partnerships and associations, Uralsk Green Forum
17.18 By 2020, enhance capacity-building support to developing countries, including for least developed countries and small island developing States, to increase significantly the availability of high-quality, timely and reliable data disaggregated by income, gender, age, race, ethnicity, migratory status, disability, geographic location and other characteristics relevant in national contexts	Our Sustainability metrics
17.19 By 2030, build on existing initiatives to develop measurements of progress on sustainable development that complement gross domestic product, and support statistical capacity-building in developing countries	KPO 365

*The text is adapted to the reality of the region of presence

Glossary

ABBREVIATION	DESCRIPTION
ASME	American Society of Mechanical Engineers
BAP	Biodiversity Action Plan
ConCom	Contractor Committee
COVID-19	Coronavirus disease of 2019
CPC	Caspian Pipeline Consortium
EMS	Environmental Monitoring Station
EOPS	Early Oil Production Satellite
EPMP	Environmental Protection Measures Plan
ESME	Electronic System of Medical Examination
FPSA	Final Production Sharing Agreement
Gcal	Gigacalorie
GHG	Greenhouse Gases
GOR	Gas Oil Ratio
GRI	Global Reporting Initiative
GTPP	Gas Turbine Power Plant
HC	Hydrocarbons
HSE	Health, Safety and Environment
IOGP	International Oil and Gas Producers' Association that collects safety incident and environmental data from its member companies globally since 1985.
ISO 14001	Internationally accepted standard that sets out requirements for putting in place an effective Environmental Management System
ISO 45001	Internationally accepted standard that sets out requirements for putting in place an effective occupational health and safety
ISO 50001	Internationally accepted standard that sets out requirements for putting in place an effective Energy Management System
ISO 90001	Internationally accepted standard that sets out requirements for putting in place an effective Quality Management System
JMC	Joint Marketing Committee
JOC	Joint Operating Committee
KATS	Karachaganak Atyrau Transportation System
KOGCF	Karachaganak Oil and Gas Condensate Field
KOTS	Karachaganak Orenburg Transportation System
kt	kiloton
KPC	Karachaganak Processing Complex
KPI	Key Performance Indicators
LOPC	Loss of primary containment
LTI	Lost Time Injury

ABBREVIATION	DESCRIPTION
LTIF	Lost Time Injury Frequency
MPC	Maximum permissible concentration
MPD	Maximum permissible discharge
Mscm	Million standard cubic metres
MW	Megawatt
NCOC	North Caspian Operating Company
NGO	Non-governmental organisation
O&G	Oil & Gas
OPITO	Offshore Petroleum Industry Training Organisation
OPS	Oil Pumping Station
Parent Companies or Contracting Companies	ENI, Shell, Chevron, Lukoil and KazMunayGaz National Company
PDR	Personnel Development Review
PEC	Production Environmental Control
PEP	Plateau Extension Projects
PPE	Personal Protective Equipment
RoQ	Republic of Qazaqstan
RTI	Road Traffic incidents
RTIF	Road Traffic Incident Frequency
SDG	Sustainable Development Goals
SPZ	Sanitary Protection Zone
TCO	Tengizchevroil
TRI	Total Recordable injuries
TRIF	Total Recordable Injury Frequency
WQO	West Qazaqstan Oblast
CH ₄	Methane
C ₆ H ₆	Benzene
C ₇ H ₈	Toluene
C ₈ H ₁₀	Xylene
CO	Carbon monoxide
CO ₂	Carbon dioxide
H ₂ S	Hydrogen Sulphide
NO ₂	Nitrogen dioxide
N ₂ O	Nitrous oxide
SO ₂	Sulphur dioxide

FEEDBACK GRI 2-3

We believe that our readers' feedback would help us improve our reporting.

1. Name, surname _____

Organization _____

2. Which stakeholder group best describes you?

- | | |
|---|---|
| <input type="checkbox"/> Parent Companies | <input type="checkbox"/> Counterparties (suppliers / contractors, customers, banks) |
| <input type="checkbox"/> Authorised body – PSA LLP | <input type="checkbox"/> Local communities |
| <input type="checkbox"/> Employees | <input type="checkbox"/> Industry partners |
| <input type="checkbox"/> Local authorities | <input type="checkbox"/> Media |
| <input type="checkbox"/> RoQ ministries / Agencies (industry) | <input type="checkbox"/> Non-government organisations |
| <input type="checkbox"/> Regulators | <input type="checkbox"/> Trade Unions |
| | <input type="checkbox"/> Young generation (students, schoolchildren, young specialists) |

If you do not belong to any of the groups listed above, please indicate your connection to KPO:

3. Which material topics or issues disclosed in the KPO Sustainability Report are important for you as a KPO stakeholder? Please, limit your choice to 5 topics of the most interest to you.

Social topics:

- Personnel development and training
- Social, cultural and gender diversity, equal opportunities
- Industrial relations with contractors
- Freedom of association and collective bargaining
- Security practices
- Respect for human rights

Socio-Economic topics:

- Increase of local content in staff
- Employment and compensation
- Social infrastructure projects
- Sponsorship and charity
- Supply of electrical power to regional network
- Local Content development and its share in procurement of goods, works and services
- Anti-corruption

Economic topics:

- Technologies and innovations
- Estimated proved reserves and production
- Procurement practices and supply chain
- Transparency of payments to the government (EITI)

Environmental-Economic topics:

- Energy efficiency
- Environmental compliance
- Environmental investments

Environmental topics:

- Spills
- Air quality monitoring
- Reduction of GHG and pollutants' emissions
- Water conservation
- Management of waste and effluents
- Biodiversity and ecosystems conservation
- Environmental grievance mechanisms

Socio-Environmental topics:

- Occupational safety and health
- Protection of health
- Process safety
- Emergency Response
- Community relations: impact assessment and mitigation, grievance redress

4. Your suggestions for improving KPO Sustainability Report:

Please send your feedback, comments to this edition or contribution to the Report 2023 to the address indicated on the back cover, or by email at Sustainability@kpo.kz.



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