LUKOIL


RELIABILITY
PARTNERSHIP
SAFETY
ENVIRONMENT
ETHICS
30 years
OF SUSTAINABLE
DEVELOPMENT
LUKOIL Group
Sustainability Report
for 2020

We have defined LUKOIL's next mission in the context of a global energy transformation as a "responsible hydrocarbon producer". We believe that considering LUKOIL's competitive advantages, the best we can do is to continue to supply the world economy with the most efficient fossil energy resources, while at the same time focusing on reducing the carbon footprint of their production.

Vagit Alekperov

President,
Chairman of the Management Committee
of PJSC LUKOIL

30 YEARS OF SUSTAINABLE

DEVELOPMENT

The e-version of the LUKOIL Group Sustainability Report 2020:

MESSAGE FROM THE PRESIDENT OF PJSC LUKOIL

Dear Readers,

We are pleased to present you with the LUKOIL Group Sustainability Report for 2020. The year 2020 proved to be uniquely challenging for the entire world, on account of the COVID-19 pandemic and all the economic consequences that entailed. Epidemiological restrictions for the energy market as a whole, and for LUKOIL in particular, translated into an unprecedented drop in the consumption of our products, significant difficulties in organizing the production process, and uncertainty surrounding planning our work.

Looking back on the year-end results, we see that LUKOIL was able to successfully navigate these challenges. Our Company's corporate governance system once again proved its effectiveness: we provided a flexible – one might say online – response to the volatile dynamics of global markets by optimizing our production structure and reorganizing our product supply chains.

The year 2020 witnessed disinvestment in the oil and gas industry as a result of the consumption slowdown and the need to comply with the OPEC+ agreement, with many companies within the industry leaving the market. At the same time LUKOIL, thanks to its robust financial position and low debt load, confidently fulfilled all its obligations to the states and regions where we operate, employees, shareholders, partners, and customers.

We also optimized our investment program and cut down on our production volumes; however, this did not affect the implementation of our principal growth projects across all business segments or our environmental initiatives. LUKOIL's capital investments in 2020 surpassed the figure for 2019. We believe that retaining investment in growth projects was the right decision, since the situation vis-à-vis the global economy is gradually returning to normal and energy demand is recovering – and we are ready to satisfy this demand as restrictions on production are eased.

That said, we understand that many other challenges the world is facing will continue to be relevant in 2021 and beyond, which is why we stick to our traditional conservative assessment of macroeconomic parameters and remain cautious in our investment decisions.

Last year we increased the amount of financial support for the regions where we operate. We spent over RUB 2 billion alone on preventing the spread of the pandemic and on supporting medical institutions, both in Russia and abroad. In addition, all our sales and distribution entities worked as usual and ensured a consistent fuel supply to customers in all regions where our gas stations and oil depots are located. We also provided fuel to ambulances and other medical service vehicles free of charge.

LUKOIL also did its utmost to protect its personnel. We promptly arranged for remote working options to be available, and around a quarter of our employees switched to telecommuting, which enabled sick colleagues to be diagnosed early, and this thereby protected other staff members. Enhanced safety measures and special working conditions were introduced at our non-stop production facilities. We were able to prevent mass infection, and our personnel continued to work throughout the pandemic.

Despite all the external challenges faced, LUKOIL fully met its wage indexation plans, and we preserved all previously approved employee guarantees and compensations. In addition, a new agreement between the employer and the trade union association for 2021–2023 stipulates an increase in the scope of a number of guarantees.

In 2020 LUKOIL continued to roll out its environmental and industrial safety programs to the fullest extent and stepped up efforts to adapt the Company's strategy to tackling climate change.

We thoroughly revised the factors affecting greenhouse gas emissions from our operations and analyzed the risks associated with climate change. These steps allowed us to make a fair assessment of our potential and to proceed with developing our climate strategy.

Our climate change adaptation and decarbonization plans will form an essential part of LUKOIL Group's Strategic Development Program, which we will be updated in 2021. As part of this work we have analyzed various scenarios regarding the long-term development of the global energy industry, including the possibility of the most stringent climate-related regulations being enforced.

LUKOIL is approaching its 30th anniversary as a leader in the global energy market. We continue to evolve in line with UN Sustainable Development Goals and the highest environmental standards.

We place great value on the assessment of our efforts by our stakeholders. It is gratifying to observe that LUKOIL is ranked higher in leading international and Russian ratings and is receiving awards for the quality of our non-financial reporting. We see this as proof of our commitment to the principle of responsible business conduct.

President of PJSC LUKOIL
Vagit Alekperov

30 YEARS OF SUSTAINABLE DEVELOPMENT

E ENVIRONMENTAL RESPONSIBILITY

S SOCIAL RESPONSIBILITY

G CORPORATE GOVERNANCE

1991–1994

E

The Department of Industrial and Environmental Safety and Labor Protection was created

S

Establishment of the LUKOIL Charity Foundation and the Association of Trade Union Organizations

First cooperation agreements signed with Russian regions

G

The LANGEPASURAICOGALYMNEFT oil company was founded ("LUKOIL") and incorporated as LUKOIL Oil Company OJSC

Start of organized trading of the Company's shares on the secondary market (Russian Commodity Exchange

1995–1997

E

The first Environmental Safety Program was put into effect

LUKOIL's first Energy Saving Program was adopted

The first APG utilization projects were implemented

S

An agreement was signed between the employer and the trade union associations across Russian entities
The Institute of Trade Unions for Occupational Safety and Health was established

G

LUKOIL's single share gained blue-chip status, and LUKOIL bonds were listed on the London Stock Exchange

1998–2000

E

A zero-discharge principle was introduced for offshore projects

S

The Social Code was adopted

The first collective agreements were signed

G

The HSE Policy of LUKOIL Group in the 21st Century was adopted.

2001–2005

E

The Company Sea and River Terminals Safe Operation Concept was approved

An inventory of GHG emissions was conducted, implementation of Kyoto projects in progress

S

A quality management system was created

Russia's first Social Project Competition was held

The Company's HR Policy was adopted

G

Committees of the Board of Directors were established

The first Sustainability Report was published

2006–2010

E

The first renewable energy projects were implemented

S

An agreement was signed between the employer and trade union associations across foreign entities

The Council for Young Professionals was founded

G

LUKOIL became a member of the UN Global Compact and the Social Charter of Russian Business (the Russian Union of Industrialists and Entrepreneurs — RSPP)

The LUKOIL Code of Business Conduct and Ethics was adopted

2011–2015

E

Certification for compliance with the international standard ISO 50001 Energy Management System

Participation in international CDP Reporting and the Global Environment Facility's Biodiversity Conservation Program

An agreement was signed with the WWF

S

A cooperation agreement was signed with the ILO

Transition to the production of only Class 5 gasoline (Euro-5 compliant)

G

LUKOIL Group's Technical Policy on Energy Efficiency was adopted

The Risk management function was established and elaborated

2016–2020

E

Adoption of the Arctic Biodiversity Program

Joining the World Bank's "Zero Routine Flaring by 2030" initiative

Improvements to the carbon management system

S

The Human Capital Management Policy was adopted

G

The HSE Committee was established

The Strategy and Investment Committee was reorganized as the Strategy, Investment, Sustainable Development and Climate Adaptation Committee

LUKOIL Group's strategic goals for sustainable development were determined

The Antimonopoly Policy and Anti-Corruption Policy were approved

BUSINESS MODEL

LUKOIL is a global vertically integrated company accounting for around 1.4% of global oil production and around 0.5% of proved hydrocarbon reserves.

EXPLORATION AND PRODUCTION

EXPLORATION

LUKOIL is among leaders by proved liquid hydrocarbon reserves and by proved reserves to production ratio. The majority of LUKOIL reserves are of conventional type.

Climate zones:
from subarctic to equatorial

DEVELOPMENT OF RESERVES AND HYDROCARBON PRODUCTION

We develop reserves located, inter alia, in major oil and gas provinces in Russia, Uzbekistan and Iraq, producing liquid hydrocarbons (oil and gas condensate), natural and associated petroleum gas.

- Leadership in development of hard-to-recover reserves in Russia
- Share of international projects hydrocarbon production in total hydrocarbon production — around 15%.

Offshore
(0.3 to 3,000 m) and onshore projects

POWER GENERATION

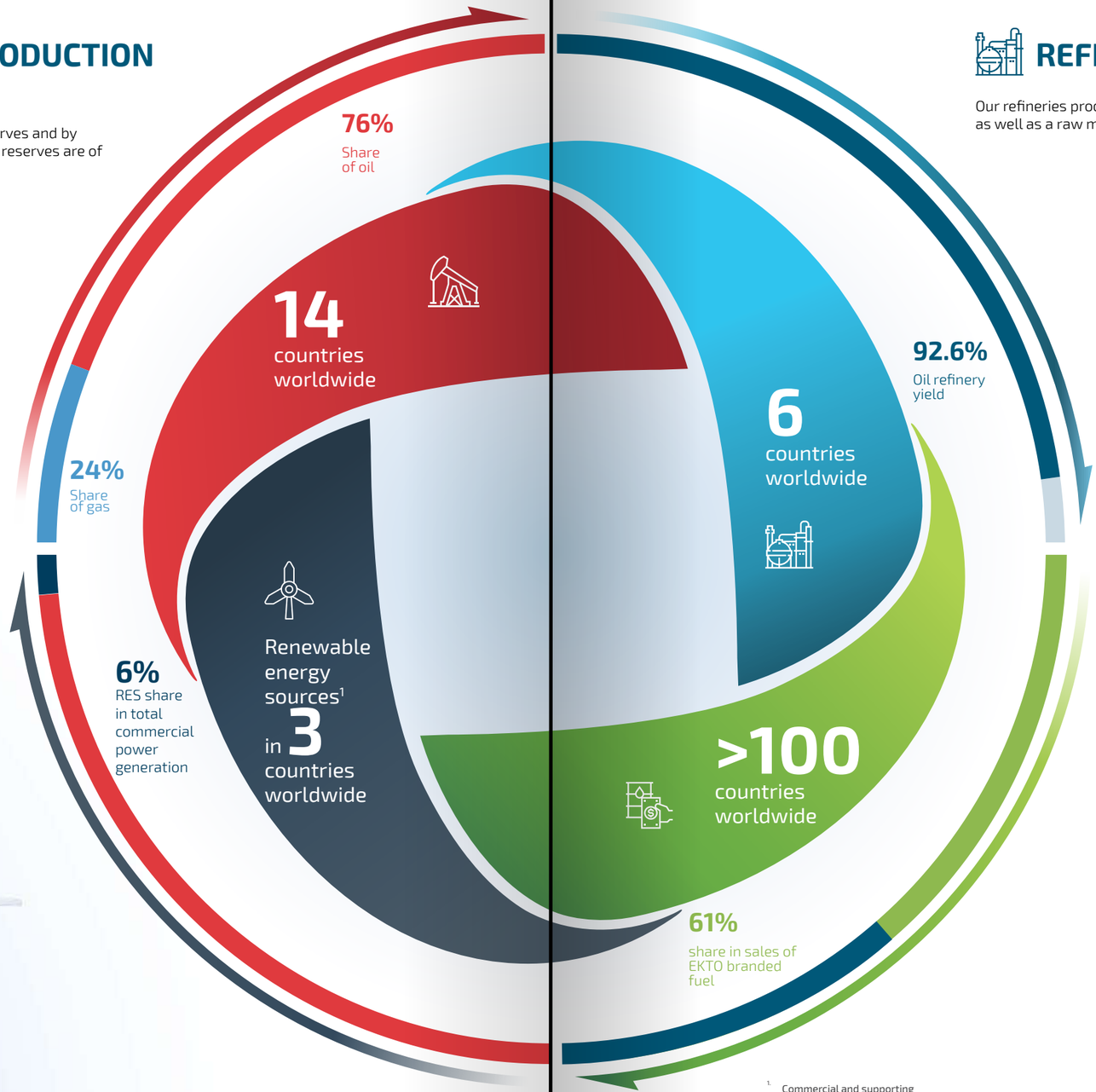
The power generation sector is represented by a complete chain from generation to transmission and sale of thermal and electric energy to external consumers.

Thermal power plants and boiler houses in the southern part of Russia

4 hydroelectric power plants

3 solar power plants

1 wind power plant



REFINING

Our refineries product mix is used as a fuel for a variety of means of transport, as well as a raw material in other industries

OIL REFINING

4 oil refineries in Russia and 4 — in Europe[2]

Products: motor fuel, lubricants and bitumen, bunker and jet fue

GAS PROCESSING

4 gas processing plants and 2 processing facilities at other plants in Russia

Liquid hydrocarbon and marketable gas

PETROCHEMICALS

2 petrochemical plants in Russia and 2 production facilities at European oil refineries

Pyrolysis and organic synthesis products, fuel fractions and polymeric materials

MARKETING AND DISTRIBUTION

LUKOIL is a major crude oil and marketable gas trader and a supplier of premium quality fuels and lubricants.

International trading: wholesale of our crude oil and petroleum products, trading third-party hydrocarbons

Lubricants production and marketing:

>800 types of lubricants

Retail sales: fuel stations network

23 countries worldwide

Marine and river bunkering

Aircraft refueling

1. Commercial and supporting
2. LUKOIL owns a 45% share in the Dutch refinery.

GEOGRAPHY

OFFSHORE PROJECTS

- "Zero discharge" principle
- Satellite monitoring of marine and coastal ecosystems

REGULATION ON CLIMATE

- GHG emissions reduction projects

RENEWABLE ENERGY

Wind monitoring project

Construction of small hydro-power stations

ARID REGIONS

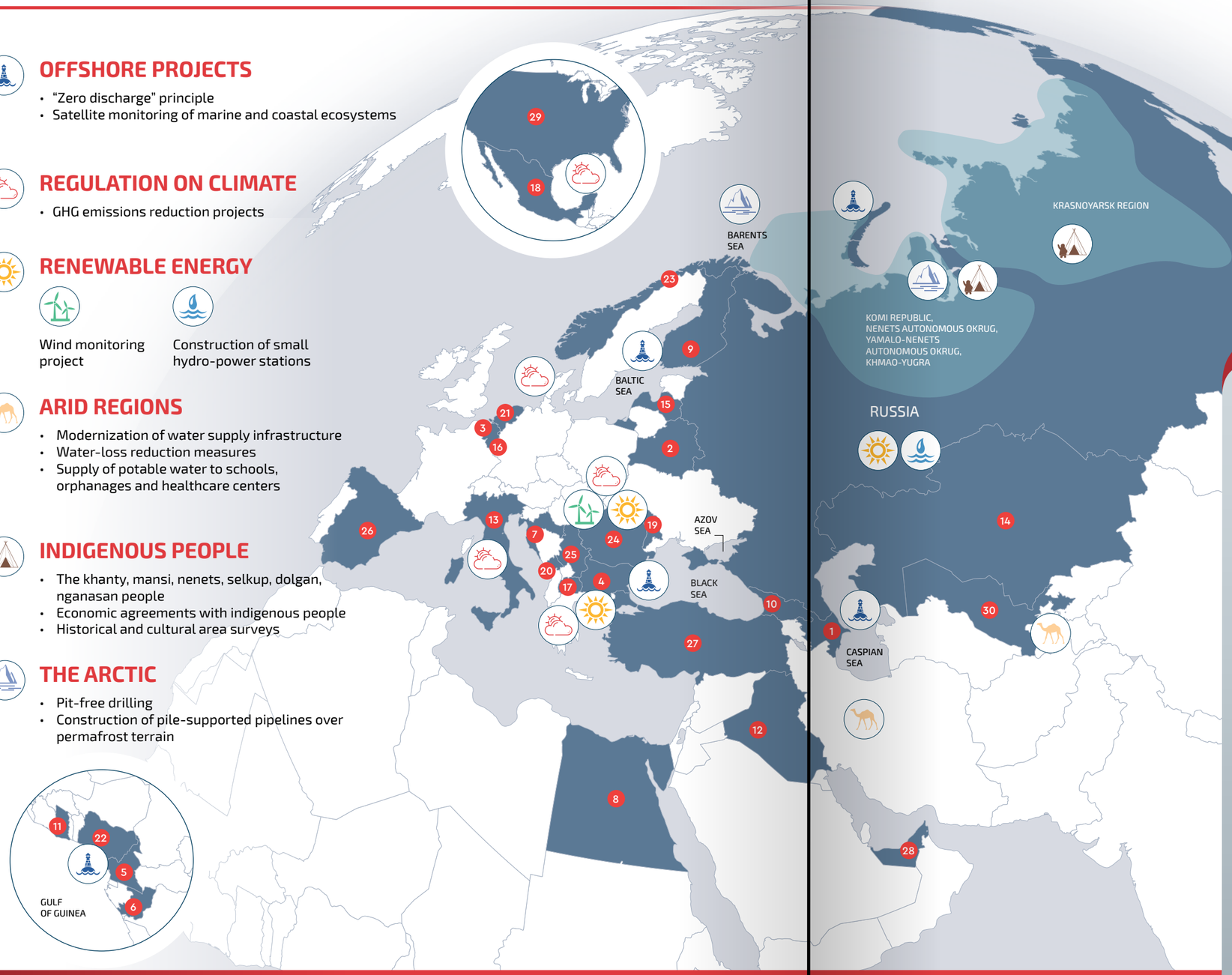
- Modernization of water supply infrastructure
- Water-loss reduction measures
- Supply of potable water to schools, orphanages and healthcare centers

INDIGENOUS PEOPLE

- The khanty, mansi, nenets, selkup, dolgan, nganasan people
- Economic agreements with indigenous people
- Historical and cultural area surveys

THE ARCTIC

- Pit-free drilling
- Construction of pile-supported pipelines over permafrost terrain



IN RUSSIA, WE OPERATE IN OVER 60 CONSTITUENT ENTITIES

WE OPERATE

>30 COUNTRIES WORLDWIDE

4 CONTINENTS

STAFF IS EMPLOYED[1]

11% IN EUROPE

84% IN RUSSIA

Exploration
Production of oil & gas
Oil refining, gas processing and petrochemicals
Marketing and transportation
Power generation

RUSSIA

1 Azerbaijan
2 Belarus
3 Belgium
4 Bulgaria
5 Cameroon
6 Congo
7 Croatia
8 Egypt
9 Finland
10 Georgia
11 Ghana
12 Iraq
13 Italy
14 Kazakhstan
15 Latvia
16 Luxembourg
17 Macedonia
18 Mexico
19 Moldova
20 Montenegro
21 Netherlands
22 Nigeria
23 Norway
24 Romania
25 Serbia
26 Spain
27 Turkey
28 UAE
29 USA
30 Uzbekistan

1. Of the average headcount as at December 31, 2020.

01

STRATEGIC GOALS OF LUKOIL GROUP REGARDING SUSTAINABLE DEVELOPMENT

INDUSTRIAL AND ENVIRONMENTAL SAFETY, RELIABILITY, AND EFFICIENCY OF PROCESSES

We are committed to improving industrial safety, reducing on-the-job injury rates, ensuring accident-free operations at our production facilities, and continuously reducing our environmental impacts.

SDGs

6 CLEAN WATER AND SANITATION	8 DECENT WORK AND ECONOMIC GROWTH	12 RESPONSIBLE CONSUMPTION AND PRODUCTION	13 CLIMATE ACTION	14 LIFE BELOW WATER	15 LIFE ON LAND
TARGETS 6.3, 6.4	TARGETS 8.3, 8.8	TARGET 12.5	TARGET 13.1	TARGETS 14.1, 14.5	TARGET 15a

KPIs

- **97.8%**[1] efficiency of APG usage throughout LUKOIL Group
- **0.28** lost time injury frequency rate (LTIFR)

CONTRIBUTION TO NATIONAL PROJECTS OF THE RUSSIAN FEDERATION

Ecology

SUSTAINABLE DEVELOPMENT MANAGEMENT SYSTEM INDICATORS

- **0.15** lost time injury frequency rate (LTIFR)
- **7%** cut of air pollutant emissions in Russian entities

PLANS

- Further increase in the APG use
- Further implementation of industrial and environmental safety programs
- Improvement and expansion of our working relationship with Contractors in the area of occupational health and safety

REPORTING GUIDELINES

GRI / IPIECA / UNCTAD / SASB / RSPP

COMPETITIVENESS

We are focused on boosting our overall operational performance and achieving more rational use of resources (natural, human, production, and financial).

SDGs

7 AFFORDABLE AND CLEAN ENERGY	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	13 CLIMATE ACTION
TARGETS 7.2, 7.3	TARGET 9.4	TARGET 13.1

KPIs

- **92.7%**[2] Refinery yield
- **95.1%**[3] Energy intensity index EII (Solomon)
- **280** kWh/t electricity intensity of refining one tonne of basic raw material at entities of the "Petrochemicals" business sector

CONTRIBUTION TO NATIONAL PROJECTS OF THE RUSSIAN FEDERATION

Digital Economy of the Russian Federation

SUSTAINABLE DEVELOPMENT MANAGEMENT SYSTEM INDICATORS

- **55%** reduction in flaring GHG emissions across LUKOIL Group compared to 2016
- **6% per year** average share of electric power generated from renewable sources

PLANS

- Development of the Decarbonization Program
- Further implementation of the energy conservation program and of renewable energy projects
- Further improvement of the efficiency of processing raw materials and the modernization of the product mix
- Implementation of programs related to boosting operational efficiency, digitalization and investments

REPORTING GUIDELINES

GRI / IPIECA / UNCTAD / SASB/ RSPP

In 2017, the Board of Directors of PJSC LUKOIL determined four strategic goals of LUKOIL Group in the field of sustainable development, which can be related to 11 UN Sustainable Development Goals and 15 targets.

SOCIAL RESPONSIBILITY, A WORTHY CONTRIBUTION TO SOCIAL DEVELOPMENT

We are very responsive to the requirements of our many stakeholders and always take their needs into account. We pursue a responsible social policy towards our employees and make a significant contribution to improving living standards in the regions where we operate.

SDGs

4 QUALITY EDUCATION	5 GENDER EQUALITY	8 DECENT WORK AND ECONOMIC GROWTH	17 PARTNERSHIPS FOR THE GOALS
TARGET 4.4	TARGET 5.5	TARGETS 8.3, 8.8	TARGET 17.17

KPIs

- **RUB 56 million / person** Specific revenue (labor productivity)

CONTRIBUTION TO NATIONAL PROJECTS OF THE RUSSIAN FEDERATION

- Labor Productivity and Employment Support
- Education
- Healthcare
- Culture

SUSTAINABLE DEVELOPMENT MANAGEMENT SYSTEM INDICATORS

- **90%** of LUKOIL Group employees covered by collective agreements
- **584 thousand person-courses** of training reached across LUKOIL Group
- **RUB >8 billion** external social support contributions in LUKOIL Group

PLANS

- Creation of a pool of key management personnel
- Further implement social and economic development programs in the Russian regions

REPORTING GUIDELINES

GRI / IPIECA / UNCTAD / SASB / RSPP

RETURN ON EQUITY, RETURN ON INVESTMENT, AND CONTINUOUS CREATION OF SHAREHOLDER VALUE

We follow a flexible reinvestment policy, work constantly to improve our performance, and foster technological development. Thanks to the successful implementation of our strategy, we maintain our competitive advantages, create shareholder value, and boost the Company's investment appeal.

KPIs

- **RUB 281 billion** Free cash flow
- **RUB 5,639 billion** revenue of LUKOIL Group
- **RUB 407 billion** paid in dividends shares

PLANS

- Implementation of programs to improve operational efficiency, digitalization, and investment programs Improvement of corporate governance

REPORTING GUIDELINES

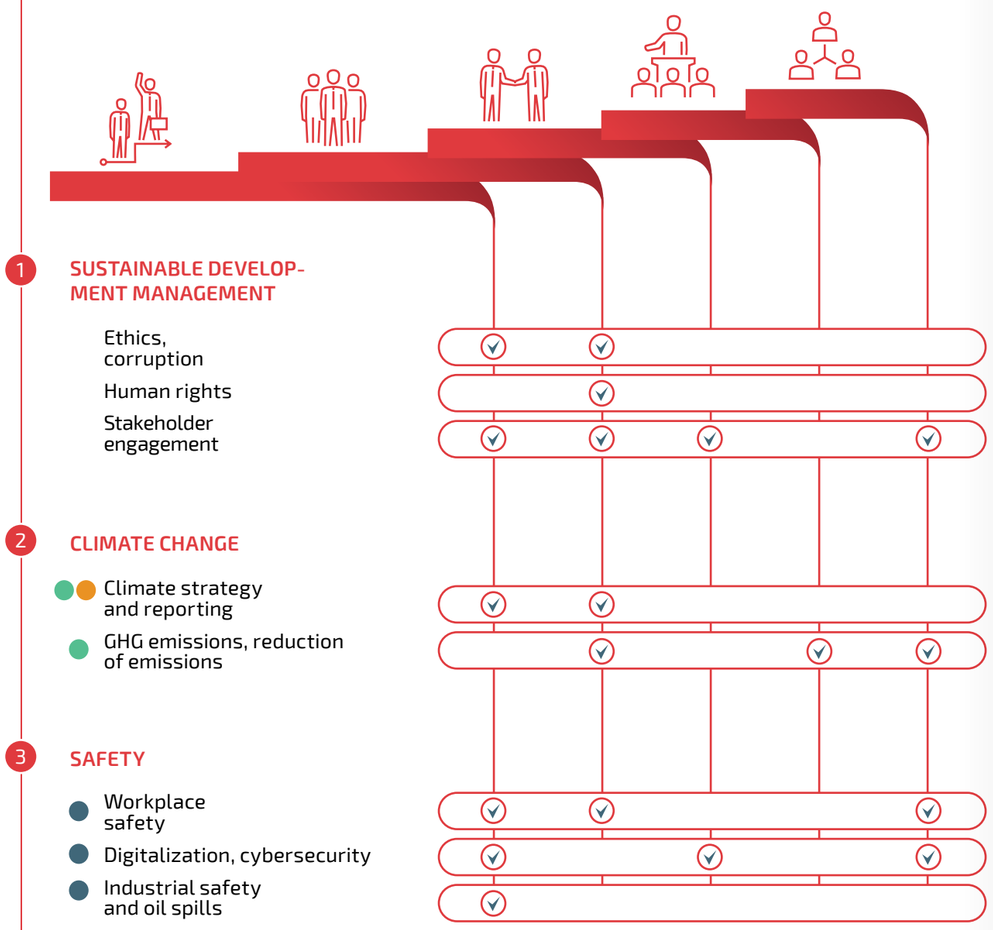
GRI / UNCTAD

1. Indicator-related dynamics are assessed in relation to 2019, unless otherwise stated. Comparison with indicators for a longer period is caused by the specifics of indicators.
2. The indicator relates to the processing of raw materials by LUKOIL Group entities at its own refineries (excluding mini-refineries).
3. The value is calculated against the 2014 base year. The decrease in the indicator relative to the base year reflects increased energy efficiency.

01

MATERIAL TOPICS AND ISSUES OF THE REPORT

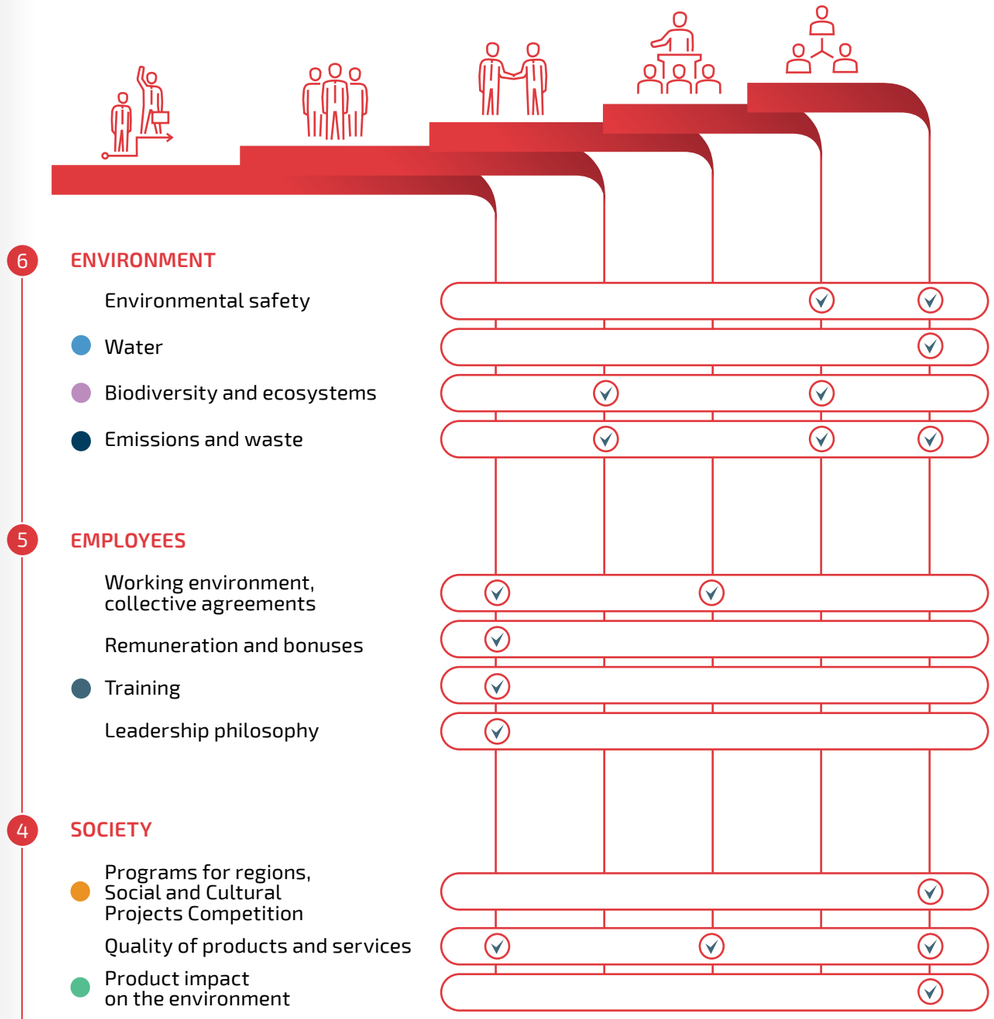
Based on the result of a comprehensive analysis six topics were identified as material[1] for public reporting



[1] Information on the procedure for material topics identification is provided in Appendix 2. Details on page 158

MAIN GROUPS OF STAKEHOLDERS

Employees and trade unions | Shareholders and investors | Clients. Suppliers and contractors | State authorities | Society (residents of regions, media and public organizations)



Long term trends:

- "Green (carbon-free) economy"
- Technological revolution
- Natural ecosystems degradation
- Freshwater availability
- Engagement and collaboration
- Waste and plastic recycling

OUR CONTRIBUTION TO THE UN SUSTAINABLE DEVELOPMENT GOALS IN 2020

RUB **224** billion

Total investment in achieving the UN Sustainable Development Goals in 2020

Taking into account the strategic guidelines of LUKOIL Group, the Company's experience in implementing environmental and industrial safety programs, social programs for employees of our entities and for the regions where we operate, as well as the expectations of stakeholders, we have chosen 11 priority UN Sustainable Development Goals and 15 Targets. Considering the events of 2020 (the COVID-19 pandemic), the estimated contribution of LUKOIL Group to the achievement of the Sustainable Development Goals includes costs associated with the protection of health of LUKOIL Group employees and residents of the regions of operation (SDG 3 "Good health and well-being").

These goals and targets are harmoniously combined with operational programs implemented by LUKOIL Group entities, and are part of corporate planning and budgeting. Therefore, we believe that their implementation, alongside the other steps taken by the Company, largely determines the contribution LUKOIL Group makes to achieve the UN Sustainable Development Goals.

3 GOOD HEALTH AND WELL-BEING

Expenses RUB 2,086 million

OUR PROGRAMS

- Charity projects in regions
- Social programs for employees

4 QUALITY EDUCATION

TARGET 4.4

Expenses RUB 939 million

OUR PROGRAMS

- A comprehensive program of interaction between LUKOIL Group entities and higher education institutions with oil and gas, chemical or energy profiles
- Support programs for students and professors of higher and secondary education institutions in Russia
- Charitable support of schools and educational institutions
- Employee education programs
- Charitable support of the "Sirius" center

5 GENDER EQUALITY

TARGET 5.5

Expenses RUB 721 million

OUR PROGRAMS

- Support for families

6 CLEAN WATER AND SANITATION

TARGETS 6.3, 6.4

Expenses RUB 3,005 million

OUR PROGRAMS

- Environmental Safety Program of LUKOIL Group entities, "Clean Water" subprogram
- Charity projects and programs in Iraq and Uzbekistan
- Social and Cultural Projects Competition ("Ecology" nomination)
- Voluntary cleanup campaigns to remove waste from riverbanks

7 AFFORDABLE AND CLEAN ENERGY

TARGETS 7.2, 7.3

Expenses RUB 3,426 million

OUR PROGRAMS

- RES development projects
- Energy Conservation Programs of LUKOIL Group entities

8 DECENT WORK AND ECONOMIC GROWTH

TARGETS 8.3, 8.8

Expenses RUB 156,597 million

OUR PROGRAMS

- Social programs and remuneration costs
- Industrial safety, workplace safety and occupational health improvement, emergency prevention and response Program of LUKOIL Group entities (Occupational safety subprogram)

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

TARGET 9.4

Expenses RUB 7,389 million

OUR PROGRAMS

- Program for scientific and technical works
- Digitalization Programs as part of the Information Strategy of LUKOIL Group

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

TARGET 12.5

Expenses RUB 3,751 million

OUR PROGRAMS

- Environmental Safety Program of LUKOIL Group entities, "Waste" subprogram

13 CLIMATE ACTION

TARGET 13.1

Expenses RUB 18,131 million

OUR PROGRAMS

- The Environmental Safety Program of LUKOIL Group, "Clean Air" subprogram
- Program for the rational use of APG of LUKOIL Group entities

14 LIFE BELOW WATER

TARGETS 14.1, 14.5

15 LIFE ON LAND

TARGET 15a

Expenses RUB 27,024 million

OUR PROGRAMS

- Industrial environmental control
- Emergency prevention and response
- Biodiversity Conservation Program for the Company's facilities operating in the Arctic zone of the Russian Federation
- Environmental Safety Program, "Biodiversity" subprogram
- Environmental Safety Program, "Remediation" subprogram

17 PARTNERSHIPS FOR THE GOALS

TARGET 17.17

Expenses RUB 829 million

OUR PROGRAMS

- Participation in the Project of the World Bank and the UN
- Membership in the UN Global Compact Initiative

ABOUT THE REPORT

PJSC LUKOIL is pleased to present the 11th Sustainability Report of the LUKOIL Group (the "Report"), summarizing performance for the period from January 1, 2020 to December 31, 2020. The previous report was published in June 2020 (for the reporting period from January 1, 2019 to December 31, 2019).

We have been publishing sustainability reports since 2005[1]. They are addressed to a wide range of stakeholders and seek to provide balanced information relevant to the interests of each stakeholder group. The Company pays significant attention to the corporate governance of sustainability issues and continuously strives to improve the quality of reported information. We believe that independent audits of disclosed information and external assurance of the Report contribute to these objectives. The audit firm's opinion is published on page 204. The conclusion of the RSPP Council on Non-Financial Reporting concerning the external assurance of the Report is published on page 208. The Report was reviewed at the meeting of the Strategy, Investment, Sustainability and Climate Adaptation Committee and was recommended for disclosure.

In preparing this Report, we used the following non-financial reporting standards and guidelines:

- Business Reporting on the Sustainable Development Goals (SDGs)
- Global Reporting Initiative (GRI) Sustainability Reporting Standards ("Core" option) The table of standard general and specific GRI disclosures is provided in Appendix 4
- The United Nations Global Compact
- The Basic Performance Indicators and the Responsibility and Transparency and the Sustainable Development Vector indices of the Russian Union of Industrialists and Entrepreneurs (RSPP)

We also used the following reporting platforms:

- Guidance on Core Indicators for Entity Reporting on Contribution Towards Implementation of the Sustainable Development Goals, UNCTAD, 2019
- SASB (Sustainability Accounting Standards Board) reporting standards – material topics and individual indicators
- IPIECA (International Petroleum Industry Environmental Conservation Association) Oil and Gas Industry Guidance on Voluntary Sustainability Reporting, 2019

The words "LUKOIL Group," LUKOIL," "the Company," "the Group," the pronoun "we" and its various related forms refer to PJSC LUKOIL and LUKOIL Group entities, unless specified otherwise. Some indicators in the Report are abbreviated; see Appendix 7 for details. The list of abbreviations, formulas for calculating indicators, and definitions of terms can be found in Appendix 6.

Previous reports are available on the PJSC LUKOIL website, at:

1. Previous reports are available on thePJSC LUKOIL website, at: http://www.lukoil.ru/InvestorAndShareholderCenter/ReportsAndPresentations/SustainabilityReport.

Strategic environment

The UN annual report for 2020[1] states that after considerable progress towards the 2030 deadline (having passed one third of 2016-2030 period) for achieving the UN Sustainable Development Goals (SDGs), there was a drastic slowdown in sustainable development efforts in many countries due to the COVID-19 pandemic and "the worst peacetime recession[2]". Visible progress had been made in many countries on some SDGs before the COVID-19 pandemic outbreak, such as education (SDG 4) and healthcare (SDG 3), providing clean drinking water (SDG 6), access to energy (SDG 7), and reducing unemployment (SDG 8). Improvements at a global level, however, have been uneven, and stronger and more extensive efforts will need to be made in all countries.

The authors of the Report estimate that the crisis has affected every social stratum, economic sector, and geographic location of the world. As a result, the pandemic undid decades of work regarding several SDGs, with profound economic and social implications[3]. What needs to focus the world's attention now is how this situation can be overcome by creating economic and social systems with greater flexibility and resilience to various challenges. If this was to happen, 2021 could mark the beginning of a decade of bold action to achieve the Sustainable Development Goals, based on the "Make it better than before" principle. The European Council, for example, has approved a new mechanism, the "Taxonomy of Sustainable Development", which will allow both companies and investors to identify economic activities that contribute to sustainable development and to channel investments accordingly. The United Nations, in turn, intends to mobilize efforts across the board in support of cooperative actions.

In 2020, the United Nations published the First Voluntary National Review of the Implementation of the 2030 Agenda for Sustainable Development in the Russian Federation[4]. The Review noted that several SDGs had already been achieved in Russia and that significant progress had been made on the remaining goals through existing government programs and national projects. Areas of greatest accomplishment include SDG 1 "No Poverty," SDG 4 "Quality Education," and SDG 8 "Decent Work and Economic Growth." At the same time, there are still issues that require increased joint efforts by the state, business, and society, most prominently in such areas as, for example, improving the efficiency of water resources management, developing models for responsible production and consumption of goods and services, creating a modern waste management system, developing a national system for regulating greenhouse gas emissions, improving forest management, etc.). Concurrently, the Ministry of Economic Development of the Russian Federation has identified[5] promising areas for sustainable development in the next decade, such as health care, recycling and waste management, and required changes in the industrial and energy sectors.

When the Report was drafted, LUKOIL representatives were included in 17 thematic working groups under the Analytical Center for the Government of the Russian Federation, provided materials, and took part in expert discussions throughout the year. The Report features LUKOIL's projects that best demonstrate the Company's contribution to attaining certain SDGs in Russia, specifically SDG 8.5 ("Provide full and productive employment and decent work for all"); SDG 13.2 ("Integrate climate change measures into national policies, strategies, and planning"), and SDG 14.1 ("Prevent and significantly reduce marine pollution of all kinds").

1. Source: The Sustainable Development Goals Report. United Nations, 2020.
2. Source: The Global Risk Report 2020. WEF, 2021.
3. Sources: ibid (footnotes 2 and 3).
4. Source: Voluntary National Review of the Implementation of the 2030 Agenda for Sustainable Development. Analytical Center for the Government of the Russian Federation, Ministry of Economic Development of the Russian Federation, Ministry of Foreign Affairs of the Russian Federation, Federal State Statistics Service, 2020.
5. Source: Global Trend for Sustainable Development: Business Opportunities. Department for Multilateral Economic Cooperation and Special Projects of the Ministry of Economic Development of the Russian Federation, 2020.

ABOUT THE COMPANY: HIGHLIGHTS OF THE YEAR

Public Joint-Stock Company "Oil Company 'LUKOIL'" is one of the world's largest publicly traded, vertically integrated oil and gas companies in terms of total proved reserves and hydrocarbon production. PJSC LUKOIL is the corporate center of LUKOIL Group. LUKOIL Group entities employs over 100 thousand people across the globe – in Russia, Europe, Asia, Africa, and the Americas (more than 30 countries worldwide). LUKOIL stays true to its mission of making the energy of natural resources serve the interests of and provide benefits to humankind. We strive for technological leadership that is based on an ecological balance so that all of us can share in a prosperous future.

LUKOIL Group's operations and financial activities are coordinated from its head office located in Moscow in the Russian Federation. We divide our operations into three business segments:

- **EXPLORATION AND PRODUCTION**
- **REFINING, MARKETING AND DISTRIBUTION**
- **CORPORATE AND OTHER**

Exploration and production

The Company has a high-quality portfolio of assets, diversified both geographically and by type of reserves. Our proved reserves of oil and gas are mostly conventional. In 2020, they amounted to 15.4 billion BOE[1], 24 percent of which was gas. The Company's proved reserve life is 20 years.

LUKOIL Group's oil and gas condensate production in 2020, excluding the West Qurna-2 project, was 77.2 million tonnes, 10.1 percent lower than in 2019. This decrease is attributable to the OPEC+ agreement and the impact of the COVID-19 pandemic on global demand for hydrocarbons. Despite a sharp decline in oil prices and external restrictions on production output, we continued with our forward-looking strategy based on the development of priority projects in Western Siberia, the Caspian Sea, and the Komi Republic. During the year the Company launched oil production at nine new fields in Western Siberia, the Volga Region, the Urals, and Timan-Pechora.

Refining, marketing and distribution

This business segment includes organizations[2] whose operations relate to the refining of hydrocarbons, transportation, wholesale and retail trade and trading, and generation of electricity and heat.

In 2020, refinery throughput at LUKOIL's refineries decreased by 15 percent compared to 2019, following the optimization of some refineries' utilization rates amid lower demand for oil products and refining margins caused by the COVID-19 pandemic, as well as to scheduled maintenance at four refineries. Despite the challenging situation, we continued to build a delayed coking facility and isomerization unit at the Nizhny Novgorod refinery and moved forward with projects to boost energy efficiency at European refineries.

The output of fuel oil decreases, while the share of light products and low-sulfur marine fuel with enhanced environmental properties continues to grow. LUKOIL continues to develop new formulas for oils and lubricants. In 2020, petrochemical output was up by 8 percent compared to 2019, mainly due to increased utilization at the Stavrolen complex after repairs. In 2020, the Company continued designing polypropylene production complexes at the Nizhny Novgorod Refinery and the refinery in Bulgaria.

The Power Generation business sector is represented by a complete vertically integrated chain, from generation to transmission and distribution of heat and power to external consumers (commercial power generation) and for operational needs (supporting power generation). The aggregate installed capacity of our power generating facilities[1] in 2020 was 6.2 GW[2], including a combined capacity of renewable power generating facilities of 395 MW. The construction of a 20 MW second solar power plant at the Volgograd Refinery and digital substations continued in 2020.

The Corporate and Other business segment consists of PJSC LUKOIL and other entities. One of the main functions of the Corporate center is to coordinate and manage organizational, investment, and financial processes at the Company's subsidiaries. A full list of LUKOIL Group entities in accordance with IFRS can be found in Appendix 1.

1. According to the classification of the Securities and Exchange Commission (SEC); BOE – barrels of oil equivalent.
2. This business segment includes several business sectors, such as: Oil refining in Russia, Oil refining abroad, Petrochemicals, Oil product supply in Russia, Oil product supply abroad, Transportation, and Other entities from the Refining, Marketing and Distribution business segment.

Key financial and operational indicators

	2018	2019	2020
Financial			
Revenue, RUB billion	8,036	7,841	5,639
EBITDA, RUB billion	1,115	1,236	687
Total debt to EBITDA, %	48	45	96
Capital expenditures, RUB billion	452	450	495
Free cash flow, RUB billion	555	702	281
Research and development costs, RUB billion	6	6	5
Number of patents received	37	30	25
Labor productivity, RUB million / person	78	77	56
Operational			
Production of oil and gas condensate (including the share in associates), million barrels of oil equivalent	644	646	590
Production of oil and gas condensate (including the share in associates), thousand tonnes	87,124	87,488	80,049
Gas production, million cubic meters	33,543	35,046	29,005
• including APG	8,772	9,548	9,176
Output of petroleum products, thousand tonnes[3]	70,188	69,296	54,964
Lubricants production (full cycle), thousand tonnes	961	963	923
Output of marketable petrochemicals, thousand tonnes	1,246	1,137	1,229

More information is available:

in the Company's financial reports: The Annual Report of PJSC LUKOIL for 2020 The Analyst Databook for 2020

1. The total electric capacity of the Group's entities takes into account facilities owned by the Company but leased out to other legal entities.
2. The data do not include the West Qurna-2 project.
3. At own, affiliated, and third-party refineries (according to the Group's share).

Responsible BUSINESS

We are committed to integrating the goals of the UN 2030 Agenda for Sustainable Development into our activity. The Company has implemented a system of interaction on sustainability matters at the strategic and operational management levels.

SUSTAINABLE DEVELOPMENT MANAGEMENT

LUKOIL is one of the leaders in the global oil and gas market, and is committed to the responsible production of affordable energy in order to meet the needs of people and the economy in Russia and around the world, while striving to develop resources in a cleaner and more environmentally friendly manner.

The Company's management and its employees share this view of corporate goals and strategy in the context of a speeding up in global developments. The positions that we take largely determine how our customers and partners, investors and shareholders, government agencies, and all other stakeholders perceive LUKOIL.

We recognize our social responsibility and remain committed to integrating the goals of the 2030 Agenda for Sustainable Development and the Paris Agreement into our activities with regard to reducing greenhouse gas (GHG) emissions, advancing new technologies and improving energy efficiency, preserving natural ecosystems, and ensuring workplace safety. LUKOIL actively participates in international initiatives and discussions on a wide range of sustainability-related issues and supports actions that are required to mitigate the consequences of climate change

OUR MISSION

All of LUKOIL's activities support the Company's mission — to use the energy of natural resources for the benefit of progress and humanity. Our operations are based on corporate values that allow us to conduct our business while adhering to the highest ethical standards.

OUR VALUES

- **EFFICIENCY AND TECHNOLOGIES**
- **PEOPLE DEDICATED TO ACHIEVING THE COMPANY'S GOALS ARE OUR MOST VALUABLE ASSET**
- **SAFETY AND ENVIRONMENTAL SUSTAINABILITY**
- **SOCIAL RESPONSIBILITY**
- **PARTNERSHIP**
- **ETHICS**

KEY DOCUMENTS

- The LUKOIL Code of Business Conduct and Ethics
- The Anti-Corruption Policy of PJSC LUKOIL
- The Risk Management and Internal Control Policy of PJSC LUKOIL
- The LUKOIL Group Antimonopoly Policy
- The Health, Safety, and Environment Policy of LUKOIL Group in the 21st century
- Human Capital Management Policy of PJSC LUKOIL
- The Social Code of PJSC LUKOIL
- LUKOIL Group's Technical Policy on Energy Efficiency
- The Information policy

LUKOIL's positions in ratings

In 2020, LUKOIL substantially enhanced its positions in leading international and domestic sustainability ratings. The ratings in particular underscored the improvement of carbon management and the development of anti-corruption practices within the Company.

KEY DOCUMENTS

	Previous	Current[1]
CDP	D	C
S&P Global	30	46
SUSTAINALYTICS	42	33
ISS ESG	C–	C
MSCI	BB	BBB

Note.
In terms of Sustainalytics Risk Rating, the assessment corresponds to the level of risk. The lower, the better. For SAM S&P, the higher the score, the better.

LUKOIL's improved standing is also reflected in the following ratings and rankings:

- The MOEX — RSPP Responsibility and Transparency Index and MOEX — RSPP Sustainable Development Vector Index: **in the top 10**
- The FTSE Russell ESG International Rating: **3.7 scores** (out of 5)
- The Corporate Human Rights Benchmark: **7.5** (Russian average: 7.3)
- The ESG Corporate Rating RAEX Rating Review: **2nd place**
- World Wildlife Fund (WWF) and CREON analytical group rating of environmental transparency of Eurasian oil and gas companies: **top three**

1. As at the end of 2020.

AWARDS

The LUKOIL Group Sustainability Report for 2019 won top positions at both Russian and international report contests:

- **LUKOIL won first place in the Russian Ministry of Energy Contest for the best socially-oriented energy company in the Best Non-Financial Report by an Oil and Gas Company Category among Companies with 20 to 110 Thousand Employees.**
- **LACP (League of American Communications Professionals) awarded LUKOIL a Gold Winner rank among sustainability reports presented by oil and gas companies.**
- **The LUKOIL Group Sustainability Report won Silver at the world's biggest corporate annual reports contest ARC Awards, in the Sustainability Report: Americas & Europe category**
- **The interactive e-version of the Report won a LACP Silver and an ARC Awards Bronze**
- **LUKOIL was the winner at the RSPP All-Russian competition "Leaders of Russian Business: Dynamics, Responsibility, Sustainability-2020" in the nomination "For High Quality of Sustainability Reporting."**

SUSTAINABLE DEVELOPMENT AWARDS

- **LUKOIL won the ComNews Awards in the category of Best Solution for Remote Work of GeographicallySeparated Specialists. The 2020 awards celebrated the best digital projects and solutions for the at-homeand remote working regimes neccesitated by the COVID-19 pandemic.**
- **LUKOIL won an award in the Best in Social Good and Public Service category for its media project "LUKOIL's Cultural, Social and Tourism Initiatives in Kogalym".**
- **LUKOIL received the Grand Prix of the Eventiada IPRA Golden World Awards 2020 for the best initiative supporting the Ninth UN Sustainable Development Goal (Building resilient infrastructure, promoting sustainable industrialization, and fostering innovation). Since 2020, the Eventiada IPRA Golden World Awards has partnered with the United Nations and joined the program to support UN Sustainable Development Goals.**

Management

PJSC LUKOIL President Vagit Alekperov and several other LUKOIL executives made the list of the top 1,000 Russian managers, an annual rating published by the Kommersant Publishing House and the Russian Managers Association.

Vagit Alekperov, President of LUKOIL, was named among the Russian business leaders.

Toby T. Gati, an Independent Member of the PJSC LUKOIL Board of Directors, won in the Best Independent Director nomination as part of the top-1,000 award for managers in a Russian company of the Russian Institute of Directors.

Victor Blazheev, Roger Munnings, and Pavel Teplukhin, Independent members of the Board of Directors, were named among the 50 Best Independent Directors in the XV National "Director of the Year" Award.

Alexander Matytsyn, First Vice President of LUKOIL, was listed as one of the 100 best Russian financial directors.

Evgeny Khavkin, Vice President — Chief of Staff of PJSC LUKOIL, was named among the 50 most effective corporate governance directors.

Gleb Ovsyannikov, Head of LUKOIL Public Relations, was named one of the 100 best public and corporate relations directors.

MESSAGE FROM THE CHAIRMAN OF THE STRATEGY, INVESTMENT, SUSTAINABILITY AND CLIMATE ADAPTATION COMMITTEE

Chairman of the Strategy, Investment, Sustainability and Climate Adaptation Committee

Sergei Shatalov

The spectrum of matters that fall under the responsibility of our Committee rose significantly in the reporting year. This change was reflected in the Committee's new name and expanded functionality. In 2020, it was renamed the Strategy, Investment, Sustainability, and Climate Adaptation Committee, demonstrating the importance the Company's management places on climate change. The Committee's new responsibility includes elaborating recommendations to the Board of Directors on strategic climate adaptation goals and setting out a roadmap for achieving them, while taking into account both the risks and opportunities associated with global decarbonization.

The focus of the Committee in 2020, as instructed by the Board of Directors, was to improve the accounting system for greenhouse gas emissions. This involved completing several projects that facilitated setting the next corporate goals aimed at reducing greenhouse gas emissions. (For more information, see the Climate Change section of the Report).

We consider the work we have accomplished in the past year to be a milestone in the development of the Company's climate agenda and a validation of the effectiveness of the consistent approach we have pursued in our activities. Our efforts have yielded positive results: both on the ground and as reflected in the improvement of the Company's positions in the CDP and other sustainability ratings.

Adaptation to climate change is not the only topic covered by the Committee. Last year, we addressed issues related to occupational health and safety and the work of the Sustainability Task Force.

I would also like to acknowledge the Company's substantial contribution to the joint efforts to fight the COVID-19 coronavirus at LUKOIL entities, in the regions where we operate and at Company locations abroad.

In the coming year we plan to continue to develop our climate adaptation strategy and to implement it throughout the Company. We will also continue to enhance the quality of our corporate sustainability management.

THE REPORTING YEAR'S CHANGES AND RESULTS

GREATER INVOLVEMENT ON THE PART OF THE BOARD OF DIRECTORS IN MATTERS OF SUSTAINABILITY, SOCIAL AND ENVIRONMENTAL RESPONSIBILITY, AND CLIMATE CHANGE

APPROVAL OF THE ANTI-CORRUPTION AND HUMAN CAPITAL MANAGEMENT POLICIES

CONTINUOUS IMPROVEMENT OF THE CARBON MANAGEMENT SYSTEM

CHANGES TO PROCUREMENT MANAGEMENT BUSINESS PROCESS, THE INTRODUCTION OF A COUNTERPARTY INTEGRITY MONITORING SYSTEM

CONTRIBUTION TO SDGs

The total financial contribution to achieving SDGs stood at RUB **224** billion

PLANS FOR 2021 AND THE MIDTERM

Finalize LUKOIL Group's Strategic Development Program for 2022–2031 and Climate Strategy

Improve the cooperation in the supply chain in order to implement responsible business practices

MANAGEMENT SYSTEM

LUKOIL's long-term development model is focused on satisfying society's energy needs in an economically, environmentally, and socially acceptable manner. Environmental, industrial, social, and personal safety are among the Company's absolute priorities. LUKOIL Group's Strategic Development Program defines sustainable development as one of its strategic goals.

Organizational structure

The Company has created a system of communication on sustainable development matters. The established organizational structure incorporates all management levels, from the Board of Directors to LUKOIL Group entities. Sustainable development tasks are monitored at both the strategic and operational levels.

The Board of Directors, the Strategy, Investment, Sustainability and Climate Adaptation Committee of the Board of Directors[1], the President and the Management Committee of PJSC LUKOIL determine the course of action to be taken at a strategic level. In addition, the Sustainability Task Force and Corporate Secretary actively engage with the Board of Directors and its committees on these matters.

At the operational level LUKOIL's Health, Safety and Environmental Committee (the HSE Committee), the Sustainability Task Force, the Decarbonization and Climate Change Adaptation Task Force, heads of LUKOIL's structural business units, and heads of Group entities analyze sustainable development activities and elaborate necessary proposals.

The communication structure on aspects of sustainability (see the chart) illustrates the changes that were introduced in 2020 following the creation of the climate strategy (see the Climate Change section for more details). Sustainable development indicators are incorporated within the personnel incentive program, and cover all PJSC LUKOIL employees as well as the heads and managers of the Group's entities.

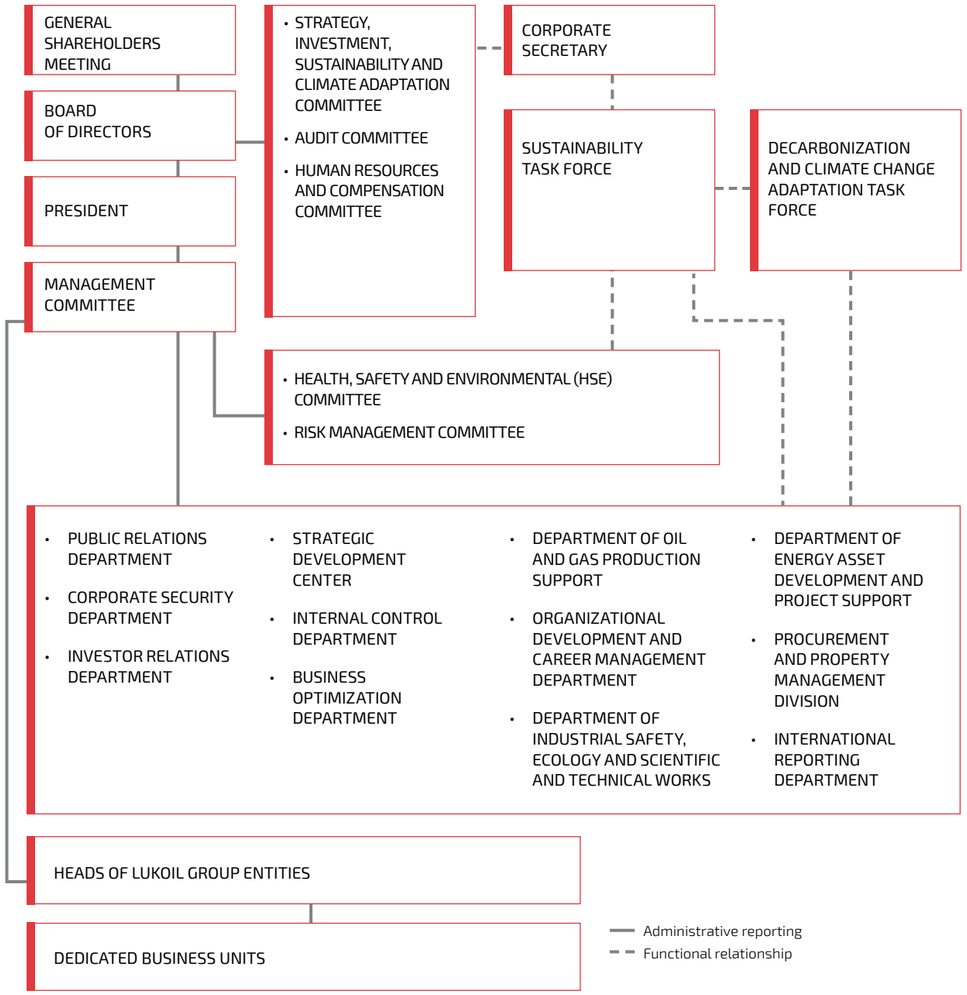
During the process of improving our sustainability management system we adhere to the UN Sustainable Development Goals and the guidelines of the World Business Council for Sustainable Development (WBCSD).

In 2020, LUKOIL was invited by the Russian Ministry of Economic Development to join the Expert Council for Sustainable Development, chaired by Russian Minister of Economic Development Maksim Reshetnikov. The Council addresses the social and environmental aspects of corporate activities as well as the private sector's contribution to attaining the UN SDGs.

A detailed description of communication functions and issues related to sustainability at each management level can be found on the website.

[1] Before 2020: the Committee was called the Strategy, Investment and Sustainability Committee.

Organizational Structure of the Sustainable Development Management System



Risk Management

PJSC LUKOIL has established a risk management system that regularly identifies, describes, evaluates, and monitors possible events that could adversely affect the Company's activities, and elaborates measures to prevent their occurrence or to minimize their negative impact should they occur. The Company is constantly working to identify and assess new risks and to update information in the corporate information system, including as it applies to sustainability risks.

PJSC LUKOIL's Risk Management and Internal Control Policy sets forth unified and mandatory basic principles and approaches to organizing the Company's risk management system, outlining its key objectives, and defining the tasks of risk management system participants.

The Company has identified the following key sustainability risks:

- Risks to public health and those associated with the spread of epidemics
- Climate change risk
- Health, safety and environmental risks
- Risk of shortage of qualified personnel
- Reputational risk

Risk data are included in reports submitted to the Company's management when deciding on whether to take part in investment projects and when creating budgets, investment programs related to the Group's entities, and strategic development programs. Information on the most pertinent sustainability risks, including climate change and HSE risks, can be put forward for discussion by the Audit Committee as well as the Board of Directors, if necessary.

Detailed descriptions of risks and their management can be found in our quarterly reports and in annual reports of PJSC LUKOIL (Appendix 2 of the Annual report for 2020).

Board of Directors

The Board of Directors of PJSC LUKOIL plays a critical role in defining the Company's strategy and initiatives concerning sustainability and the climate change agenda. The growing involvement of Board members is evidenced by the increased number and frequency of issues addressed: during 2020, reports on specific issues were included on the agenda of almost every meeting. The appointment in 2020 of Leonid Fedun, Vice President for Strategic Development, and member of the Strategy, Investment, Sustainability and Climate Adaptation Committee, as the member of the Board of Directors who is directly responsible for Company activities related to climate change was a significant event for the Company.

An independent Board member, Toby T. Gati, contributes significantly to advancing the Board's efforts to address climate change and the SDGs. She is actively involved in the discussion of these topics and brings international experience and in-depth expertise to the table.

In 2020, the Board of Directors addressed 13 issues, including:

- LUKOIL Group's development in the context of energy transformation
- Enhancement of the risk management and internal control system
- Assessment of the occupational health and safety status and measures to improve the level of work safety
- Assessment of the results of remediation efforts following environmental incidents
- Relations with investors and shareholders
- Approval of the Anti-Corruption and Human Capital Management policies of PJSC LUKOIL
- Review of the LUKOIL Group's Sustainability Report for 2019

Information updates for members of the Board of Directors and the Management Board were held thanks to extensive assistance from the Corporate Secretary, Natalia Podolskaya.

Information on the independence of the Board members, its committees, gender composition, number of meetings, and other performance indicators for 2020 can be found in Appendix 7.

Information on the structure of the PJSC LUKOIL Board of Directors, compliance of the Company's corporate governance practices with the Corporate Governance Code of the Central Bank of Russia, and other information can be found in annual reports of PJSC LUKOIL and in the Corporate Governance section of LUKOIL's website:

Issues addressed at Board Committees

COMMITTEE	SUSTAINABILITY-RELATED ISSUES ADDRESSED
Strategy, Investment, Sustainability and Climate Adaptation Committee	Seven meetings were held in 2020 to review various issues, including: • The Roadmap for the Climate Adaptation Strategy • The Program for the development of renewable energy sources (RES) • The petrochemical and gas industry development program • HSE status and measures to improve work safety
Audit Committee	Key issues covered included further improving the risk management and internal control system, as well as recommendations to the Board of Directors for approval of the Anticorruption Policy of PJSC LUKOIL.
Human Resources and Compensation Committee	The committee reviewed the issue of recommendations to the Board of Directors on the approval of the Human Capital Management Policy of PJSC LUKOIL. The matters discussed included: • Improvement of the payroll system for senior executives of PJSC LUKOIL • KPI performance in the reporting period • The effectiveness of proactive and preventive measures to ensure compliance with workers' labor rights • Measures to incorporate ethical standards and the analysis of employee feedback on these issues

Full information on Board committees activities is available in the Company's Annual Report for 2020, page 88.

Health, Safety and Environment Committee of PJSC LUKOIL

The HSE Committee is an effective mechanism for facilitating interactions between the Company's management and functional and linear divisions of PJSC LUKOIL and LUKOIL Group entities on health, safety, and environmental issues.

The Committee holds meetings twice a year. The first meeting considers material risk registers for LUKOIL Group in HSE issues, as well as regulatory developments in the countries of operation. These factors are subsequently taken into account during the development and implementation of target programs. The second meeting summarizes the results of the health and safety programs for the reporting year, schedules activities for the next period, and considers measures to enhance the culture of safety. In 2020, the Committee also discussed the results of the GHG emissions inventory and potential paths towards decarbonization.

See the Climate Change section for more information.

Task Force

Sustainability Task Force

The Sustainability Task Force focuses on establishing a uniform corporate position and preparing recommendations for LUKOIL's management bodies on various aspects of sustainable development. The Task Force also serves as a liaison between the Company's structural units and augments the system used to gather, prepare, and disclose reporting information.

Despite the necessity to work remotely during the pandemic, the Task Force held seven meetings in 2020 (four in 2019), addressing 20 issues related to sustainability reporting, climate change, human rights, and responsible supply chain. To expand the expertise of Sustainability Task Force members, independent consultants and experts spoke at the meetings on the following topics:

- The Climate Action 100+ Net-Zero Emissions Company Benchmark
- Reporting requirements in the CDP and recommendations of TCFD[1]
- An assessment of physical risks due to climate change
- An analysis of legislation regulating GHG emissions in the countries where LUKOIL Group operates
- Human rights and responsible supply chain management

The Sustainability Task Force focuses specifically on organizing the preparation of the LUKOIL Group Sustainability Report, as well as analyzing stakeholder feedback. Sustainability Task Force meetings regularly included information on the preparations progress and results of the independent audit of the Report, on the concept of the 2020 Report and material topics to be included in it, and on the Company's priority SDGs. Toby T. Gati, an independent member of the Board of Directors, was an active participant in discussing the material issues of the Report for 2020.

In future periods the Sustainability Task Force objectives include further improving sustainability practices and their integration into the Company's business processes, with special emphasis on developing responsible supply chain and strengthening human rights observance practices.

The Decarbonization and Climate Change Adaptation Task Force

This task force was set up in 2020 to elaborate future steps to be taken to implement the Company's climate strategy.

See the Climate Change section for more information.

Corporate Secretary

The Corporate Secretary, Natalia Podolskaya, is actively involved in improving LUKOIL's sustainable development activities, focusing on supporting corporate initiatives and the practical application of the expertise and exceptional competencies of Board of Director members in this area.

Natalia Podolskaya pays special attention to developing the annual action plan for the Sustainability Task Force, preparing meetings, and organizing presentations by external experts and other stakeholders. In 2020, she initiated training sessions and courses for members of the Sustainability Task Force, as well as for employees of PJSC LUKOIL and Group entities.

The Corporate Secretary is involved in promoting LUKOIL's best practices in sustainable development to the expert and scientific community, and speaks at professional forums dedicated to shaping the corporate management system for sustainable development. Natalia Podolskaya has been appointed Head of the Sustainability / ESG Task Force of the National Association of Corporate Secretaries. In 2020, the Sustainability Task Force had its first video meeting, featuring Toby T. Gati, a Board member, as a speaker on a panel dealing with corporate governance trends as they relate to Environmental, Social and Governance (ESG) factors.

1. The Task Force on Climate-related Financial Disclosures.

30 YEARS of sustainable development. Responsible business practices

LUKOIL's corporate culture was shaped by the views and values of its founders, who were well ahead of their time. In the early 1990s, when the first private companies started to appear in Russia, V. Alekperov, now the President of PJSC LUKOIL, was convinced that business could be built with the environmental and social well-being of society in mind. Bringing this idea to life, in the early years of the Company's operations basic mechanisms were established, facilitating the step-by-step transformation of diverse and persistent activities into a coordinated sustainability management system.

The very first staff schedule of PJSC LUKOIL introduced the position of a Health, Safety and Environment Specialist. It was not until almost 10 years later that a federal law[1] was approved in Russia requiring all entities that have an impact on the environment to appoint specialists responsible for this aspect of their business. By that time, LUKOIL had already completed its first environmental safety program, The Health, Safety and Environmental Policy of LUKOIL Group in the 21st Century had been elaborated, and the Zero-discharge principle for offshore projects had been put in effect.

Despite the challenging social and economic situation in Russia in the 1990s, the LUKOIL Charity Fund was established to support people and businesses across Russia. Indeed this was one of the first-priority decisions made by Company managers. The development of corporate philanthropy in Russia only began in the 2000s. By that time the LUKOIL Charity Fund, together with the Group's entities, had been holding a Social Projects Competition in several regions of the country.

A crucial decision relating to the social sector was preserving the trade unions. These were later merged into one structure: the Association of Trade Union Organizations. Trade unions joined together with employees and helped develop the Company's social policy as full partners.

In 2020, 30 years after the Company was established, LUKOIL Group has clear strategic goals defined and a sustainable development management system in place that is committed to achieving new goals related to climate change, the environment, labor protection, and social welfare.

"One of the goals of creating the Company was to prove to society that it is possible to build not only a successful venture, but a socially responsible business as well."

V. Alekperov,
President of PJSC LUKOIL, 1995

1. Federal Law No. 7 of January 10, 2002 "On Environmental Protection".

ETHICS AND HUMAN RIGHTS

Our corporate values are at the heart of our business approach. These values enable us to observe high ethical standards, including unconditional statutory compliance, strict observance of human rights, zero-tolerance towards corruption of any kind, and adherence to the rules of fair trade.

Business Ethics

The ethical principles set forth in the PJSC LUKOIL Code of Business Conduct and Ethics are a fundemental part of our corporate culture and cover all aspects of doing business. We also promote ethical behavior among our business partners, suppliers and contractors, informing them about our rules, and requiring them to familiarize themselves with the Code of Business Conduct and Ethics of PJSC LUKOIL.

Group entities are instructed to ensure that all personnel are made familiar with the Code of Business Conduct and Ethics as well as main local regulatory acts (LRAs). This recommendation is communicated to the entities' directors, as well as to HR managers during annual meetings. All new hires at LUKOIL Group entities are required to sign a document affirming that they are familiar with the Code of Business Conduct and Ethics and key LRAs.

The Company has grievance mechanisms (a hotline, Business Ethics Commission) that any staff member can use to report violations. In 2020, nine inquiries were filed with the Business Ethics Commission (seven in 2019); the inquiries mainly related to labor relations during the COVID-19 pandemic, including the specifics of working remotely. Each case was investigated, and the Commission provided clarifications or feedback.

The Company's internal control and internal audit systems are intended, among other things, to enhance the efficiency of risk management and to provide LUKOIL's management bodies and external stakeholders with reliable and up-to-date information on Company activities.

Among the most effective methods of monitoring compliance with LRA requirements and corporate ethics standards are internal audits and consultations. Audits conducted in 2020 uncovered 88 significant[1] deviations/deficiencies related to non-compliance with LRA requirements (53 in 2019). This growth was the result of changes made to the audit process, including an increase in the scope and number of audited areas, as well as in the provision of consultations by the internal audit unit for LUKOIL Group entities during the year.

The deficiencies identified were mainly associated with the unsatisfactory execution of corporate procedures. At the same time, no violations of the Code of Business Conduct and Ethics of PJSC LUKOIL and LRAs were recorded that would have had a significant effect on the Company's achievement of its strategic goals.

Preventative guidelines have since been prepared for LUKOIL Group entities. Details of the most significant and systematic deviations/deficiencies were reported to the heads of group entities and the functional and line managers of PJSC LUKOIL.

LUKOIL's Code of Business Conduct and Ethics can be found on the corporate website at:

Detailed information on the performance of the business ethics monitoring system is available at:

1. See Appendix 6 for the definition of a significant deviation/deficiency related to non-compliance with LRA requirements.

Anticorruption Policy

LUKOIL Group adopts a zero-tolerance approach towards corruption of any kind or manifestation, regardless of jurisdiction and local laws, even if the local laws permit certain types of behavior (for example, facilitation payments).

We do not engage in or in any way encourage corrupt practices, including by our business partners, and we do our utmost to prevent them. The Company does not tolerate any payments or other forms of incentives provided to representatives of state authorities.

LUKOIL's stance on the above issues is outlined in the LUKOIL Anticorruption Policy, which was elaborated and approved in 2020 according to the instructions of the Board of Directors.

The Policy sets common principles, goals, and objectives for combatting corruption, and defines key activities that reduce the chance of corruption risks in the following contexts: gifts and hospitality, conflicts of interest, charitable donations and sponsorships, interaction with counterparties, participation in politics, relations with competitors and public authorities, etc.

The Company conducts due diligence screenings of the Group's counterparties (see details in the "Supply chain" section).

New employees are required to sign the Policy upon joining the Company.

Any stakeholder can report suspected or known violations of anti-corruption laws or Company Policy via an established hotline and can also agree to assist in such investigations.

The Hotline can be reached via **anticorruptionline@lukoil.com**. The confidentiality of messages received is guaranteed.

LUKOIL's Anti-Corruption Policy is available at

Tax Policy

LUKOIL is one of the largest taxpayers in Russia, paying taxes in more than 60 constituent entities of the Russian Federation. Thus, the Company has a significant impact on the income of Russian regions. Foreign entities of LUKOIL Group operate in over 45 jurisdictions, of which the largest taxpayers are companies located in Romania, Bulgaria, Italy, and Belgium.

We strictly abide by the applicable tax laws of the Russian Federation, international treaties, the legislation of foreign jurisdictions where Group entities operate, and the provisions of international statutes and directives. Group companies do not enter into transactions intended to reduce tax remittances and do not engage in aggressive tax planning practices.

The management and control system for tax relations in LUKOIL Group[1] is integrated with the general mechanism for strategic and corporate management, planning, and control[2] and is designed to prevent tax risks and ensure timely and complete fulfillment of tax liabilities.

There is a consolidated system in place for managing tax relations, ensuring a systematic and uniform approach to applying tax legislation across LUKOIL Group. All of the main processes for monitoring and fulfilling tax liabilities are automatic, and their effectiveness is assessed regularly. LUKOIL's Tax Department is a unified competence center for tax matters.

Detailed description of the system of management and control over the implementation of legal relations regarding taxes can be found on the website:

1. PJSC LUKOIL Management Committee approved LUKOIL's Policy on Cooperation with its Subsidiaries in Managing the Tax Planning and Administration Business Process through Resolution No. 18 dated September 16, 2019.
2. LUKOIL Group's Policy on Strategic Management, Planning, and Control in LUKOIL Group was approved by Resolution No. 12 of the Management Committee dated June 18, 2018.

The Company's reputation as a good-faith taxpayer has been confirmed by the recent transitioning of the Group's Russian entities to a new form of tax administration. This new system of tax monitoring gives the tax authorities real-time access to data from the Group's accounting systems and documents.

A global trend in tax administration is the tightening of tax controls over the activities of international holdings through a set of measures elaborated by the OECD (BEPS Plan). These are intended to strengthen controls over the distribution of the tax base of multi-national holdings, including more stringent tax controls in the area of transfer pricing.

LUKOIL Group has created the necessary environment to comply with transfer pricing legislation. We have controls in place that allow us to perform a comprehensive assessment of applicable market pricing principles in principal supply chains and intra-group financing. We effectively employ the method of signing transfer pricing agreements with the tax authorities to eliminate transfer pricing risks. Such agreements have been concluded in Russia, the Netherlands, Austria, Cyprus, Switzerland, Italy, Romania, and the United States of America. To ensure the transparency and completeness of the tax base in the context of the jurisdictions where Group entities operate, LUKOIL annually prepares the BEPS 13 Country Report, Master File, and National Documentation.

In 2020, a total of RUB 1,096 billion was remitted to governments according to IFRS[1].

Statutory compliance

LUKOIL respects the laws of the countries in which its facilities and offices operate, constantly strives to prevent legal violations, and upholds the principles of fair business conduct. LUKOIL Group does not tolerate any manifestations of bad faith, or abuse of a dominant or monopolistic position.

There were no penalties imposed on the Company in 2020 by state authorities in cases[2] related to breaches of anti-corruption regulations, or involving product quality and labor relations, which resulted in personal injuries or loss of life of personnel and product consumers, or in amounts exceeding RUB 1 million. No material claims[3] relating to any violations of antitrust laws were initiated against the Company. Five significant fines[4] totaling RUB 105 million related to the Company's environmental impact were paid in Russia. In 2019, there was one major fine of RUB 68.9 million.

Details of fines paid can be found in Appendix 3.

1. Data include the amount of taxes (except income tax), excise and export duties, income tax (current + deferred).
2. See Appendix 6 for the definition of a "Case".
3. See Appendix 6 for the definition of a "Material claim relating to a breach of antitrust law".
4. See Appendix 6 for the definition of a "Material claim relating to a breach of environmental law". Information about the amount of the significant fine is included in the description of this term.

Human Rights

We engage in a constructive dialogue on human rights with stakeholders in the Group's operating regions. Our stance on human rights extends to our relationships with partners and counterparties.

We recognize, respect, and uphold human rights, including freedom of speech, and operate under the fundamental principles outlined in the UN Universal Declaration of Human Rights. Our commitments apply to all the Company's regions of operation and areas of activity. Risk assessments related to human rights form part of the general risk management system.

LUKOIL Group prohibits all forms of violence and abasement of human dignity, aggression of any kind, and the use of child, forced, or slave labor. We believe that it is unacceptable to hinder the work of human rights organizations and show respect for their activities carried out within the existing legal framework.

In terms of labor rights, the Group's entities comply with established norms related to working hours, create a favorable environment for professional training and career development, and ensure equal pay for employees in the same job positions. The Company regularly organizes meetings to discuss human rights issues, such as the right to fair and favorable working conditions and social security rights, arranges sessions with trade union representatives, and maintains a high level of collective agreement coverage for employees.

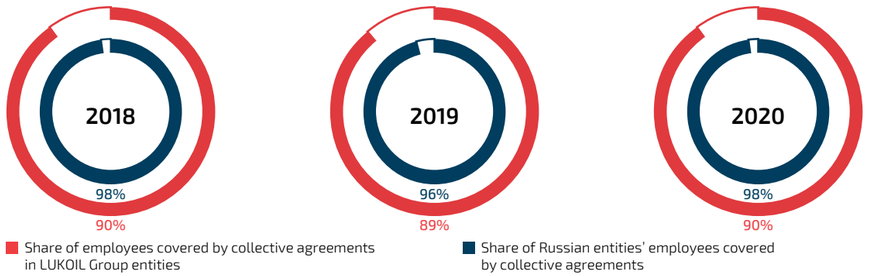
Twice a year, Professional Training Days for managers of LUKOIL Group entities are organized, where the most current issues are discussed. For example, in 2020, this event included training on "Social engineering" devoted, among other things, to security issues in modern conditions of information systems development.

The Company continuously monitors the observance of human rights. In 2020, there were no reports of human rights violations (including child, forced, or slave labor, and involuntary resettlements of indigenous people) by the Group's entities. HR audits[1] were conducted in six Group entities: no material[2] violations of human and labor rights were identified.

Stakeholders can raise concerns about the Company's non-compliance with human rights via various communication channels (e.g., ethics and anti-corruption hotlines) and through the HR units or trade unions. If a violation of human rights is committed as a result of the activities of the Company or its representatives, LUKOIL takes the necessary measures to eliminate the consequences of such violations.

Detailed information on human rights activities and on observing the rights of the indigenous minorities of the North and interaction with them can be found on the website and in the Society section of this Report.

Share of employees covered by collective agreements in LUKOIL Group, %



1. HR audits are performed to check the compliance of processes related to the registration of employment relations and the payment of wages, with the labor legislation of the host country and corporate regulatory acts, as well as other labor law requirements.
2. See Appendix 6 for the definition of a "Material violation of human rights".

STAKEHOLDER ENGAGEMENT

LUKOIL recognizes its responsibility to stakeholders and maintains a continuous dialogue with them. We endeavor to build long-term constructive relations that are based on the principles of partnership, Company participation in implementing long-term development goals, and transparency of operations and information. These principles are set forth in the Social Code, the Code of Business Conduct and Ethics, and the LUKOIL Group's Health, Safety and Environment Policy in the 21st Century. The corporate website, Annual Report, and Sustainability Report are the main channels used to update our stakeholders on our activities.

In 2020, in response to the COVID-19 pandemic, many traditional contacts and work processes were successfully switched to a remote format using modern digital solutions. We made every effort to stay as open and transparent as ever in response to the emergence of fundamentally novel issues related to the pandemic. LLK-International, for example, provided excellent online customer support and quality training in new digital logistics skills for employees and dealers.

Leading media outlets, both in Russia and abroad, extensively covered LUKOIL's efforts to provide assistance in the fight against the pandemic, to improve the situation through deliveries of medical equipment, ventilators, medicines, protective clothing for doctors, and disinfectants.

See the relevant sections of the Report for details.

We distinguish the following groups of stakeholders:

- CLIENTS
- SHAREHOLDERS AND INVESTORS
- EMPLOYEES AND TRADE UNIONS
- SUPPLIERS AND CONTRACTORS
- NATIONAL AND LOCAL LEGISLATIVE AND EXECUTIVE AUTHORITIES
- SOCIETY

Stakeholder engagement

Principal regular channels for interaction	Main events in 2020	Issues of importance in 2020	Results
CLIENTS			
Surveys and studies Loyalty programs Mobile apps Universal hotline and grading system in a mobile application Registration of Company addresses in social networks	Ongoing information campaign for gas station retail customers and wholesale clients to promote goods and services and the placement of materials focused on enhanced safety measures to fight the pandemic	Compliance with sanitary regulations Providing information on gas station operations and product ranges, the benefits of the "Fill Up with Profit" loyalty program, and publicizing features of the LUKOIL gas stations mobile app	**The Company is perceived as being a supplier of quality goods and services** Leader in consumer trust and brand awareness ratings among the largest Russian fuel suppliers Consistent growth in the quality of fuels and services at gas stations
EMPLOYEES AND TRADE UNIONS			
Meetings of the President of PJSC LUKOIL with employees Collective agreements and contracts with trade unions Social and safety culture programs Corporate events and media, sports competitions	The 10th agreement between the Employer and the Trade Union Association for 2021–2023 was signed Ongoing information campaign for employees related to COVID-19 pandemic	Most questions are related to remote working arrangements and changes to work schedules and processes due to restrictions	**The Company is perceived as being a responsible employer** A system of social partnership is in place Commitments under the Agreement between the Employer and Trade Unions are fulfilled
SUPPLIERS AND CONTRACTORS			
Tenders Hotline Agreements with strategic suppliers Technology field days in the Russian regions	Workshop (Perm, the Russian Federation)	A road map for the development of cooperation with enterprises in the Perm Territory was signed. The primary issues in the supply chain: • Digital logistics, changes in contract terms due to the pandemic • Protecting the employees of contractors and service entities against infection	**The Company is perceived as being a reliable partner** Extensive experience in international projects Transparency of tender procedures Engagement with 'local producers'
SHAREHOLDERS AND INVESTORS			
Lines of communication: • investor conferences – regularly • meetings and calls with investors – regularly • senior management interviews in the media • press releases – regularly • annual and other reports, analyst handbook – annually • corporate website – regularly	Participation in 16 conferences, over 250 meetings attended by more than 500 investors. Over 1.5 thousand requests from shareholders and professional securities market participants processed. Two General Shareholders Meetings held. The most popular international sustainability ratings, which are of interest to the investment community, were analyzed. The Company's position in these ratings was significantly improved.	Responses to inquiries from representatives of the investment community and credit rating agencies were provided, including on the following topics: • fiscal policy to deal with adverse conditions • climate strategy and the climate management system • results of the inventory of GHG emission sources, reduction of GHG emissions and pollutants • sustainability KPIs for top management • measures to reduce injuries, including for contractors • activities to minimize oil spillages in the Komi Republic • impact of the COVID-19 pandemic • ensuring the safety of facilities in the Arctic zone	As of December 31, 2020, 63 percent of analysts of investment banks and finance companies recommended buying the Company's shares

Principal regular channels for interaction	Main events in 2020	Issues of importance in 2020	Results
NATIONAL LEGISLATIVE AND EXECUTIVE AUTHORITIES			
Participation in industry associations, expert councils, and working groups as part of public discussion mechanisms for the drafting of regulatory legal acts	Company experts and representatives were involved in developing the system of government oversight	The Company submitted proposals as part of its anti-crisis response to the pandemic, including the following issues: • tax and environmental regulation • investment and export incentives • control and supervision activities • labor relations and other matters. Some of the Company's initiatives were included in the National Action Plan to restore employment and personal income, ensure economic growth, and provide long-term structural changes. The Company contributed to the discussion of the Energy Strategy of the Russian Federation	**The Company is perceived as being a responsible business participant**
SOCIETY			
Meetings of the President of PJSC LUKOIL with the heads of the constituent entities of the Russian Federation Workshops and meetings with the governments of the constituent entities of the Russian Federation and executive authorities	Online meetings between the President of PJSC LUKOIL and the heads of the constituent entities of the Russian Federation	Cooperation agreements (or supplementary agreements) signed with nine constituent entities of the Russian Federation	**The Company is perceived as being a strategic social investor** Consistent support to businesses and regions in the social areas that matter most in people's lives Youth support and new opportunities Ongoing involvement jointly with our regional partners in projects designed to improve the quality of life
Roundtables, dialogues	Roundtables (Astrakhan and Elista, Russia)	Saiga antelope population rescue program Increased efforts in the area of ecological safety	
	Public discussions on the D33 project (Kaliningrad, Russia, online)	Project impact on the natural environment and local communities	
	Roundtable held by the Federal Agency for Ethnic Affairs, attended by representatives of the National Delphic Council of Russia (Syktyvkar, Russia)	Support for indigenous minorities of the North and public organizations, preservation of languages and folk crafts	
	III International Youth Scientific and Practical Forum "Oil Capital -2020" (Nizhnevartovsk, Russia)	The 90th anniversary of Yugra, production of the twelve-billionth tonne of oil in the region, and the 55th anniversary of the Samotlor oil field discovery. Oil and gas industry development trends	
	Talk show, "Dialogue of Equals" (Usinsk, Russia)	LUKOIL-Komi Environmental Policy Human Resources Policy Social projects in the Komi Republic	
Social and Cultural Projects Competition	The Accelerator for Active Youth Project (Kogalym, Russia)	Selection of the best youth ideas for subsequent support	

PRINCIPLES OF SUSTAINABLE DEVELOPMENT IN PRODUCTION PROJECTS OUTSIDE RUSSIA

The Group's entities operating abroad adhere to the common corporate standards and sustainability principles outlined in the Integrated Project Management System. The general approach is tailored to each country's environment and LUKOIL's license liabilities, and coordinated with the management systems of partners (project operators) and with the requirements of local legislation and other norms, such as the Directives of the European Parliament and the EU Council.

LUKOIL has international hydrocarbon production projects in Uzbekistan, Iraq, and Egypt, where it acts as the operator, and also in Azerbaijan, Kazakhstan, the UAE, and the Republic of the Congo, where LUKOIL is a project participant. Exploration and development of hydrocarbon reserves are underway in Kazakhstan, Norway, Romania, and West Africa (Ghana, Nigeria, and Cameroon). In the Gulf of Mexico, LUKOIL is an operator of one of four hydrocarbon production and exploration projects.

Sustainability principles

Respect for human rights and strict compliance with the norms of the Code of Business Conduct and Ethics and the Anti-Corruption Policy are fundamental prerequisites for LUKOIL Group entities' participation in projects outside Russia. Our priorities across all countries include ensuring worker and facility safety and choosing the best technologies to reduce GHG emissions as well as any impacts on the environment and the way of life of local communities.

LUKOIL Group entities comply with these principles and ethical standards at all stages (design, implementation, and project closure or exit). Project managers are responsible for their implementation. Regardless of its share in each project, LUKOIL informs its partners of its corporate standards during preliminary negotiations and when signing agreements, and takes part in decision-making during project implementation.

Application of Corporate Standards

Social and environmental impact assessments are carried out during project feasibility studies in all countries, and the results of these assessments are agreed upon by all project participants and state authorities. Local communities are also involved in discussions. Assessments are generally based on international standards (for example, the World Bank). Project feasibility studies always specify measures related to energy efficiency, APG utilization, and GHG emission reduction, as well as support for residents and small businesses, if the project affects their interests.

If there is a difference between standards of project participants and local legislation, the general approach is to adhere to the most stringent rules (of the country of operation, LUKOIL, or the project operator).

The main technical solutions for designing each project and the results of social and environmental assessments are reviewed for compliance with the requirements of the corporate standards by LUKOIL's Technical Support Center. For major capital projects, or when a project moves from one phase to the next, the Company's functional units conduct a comprehensive review of the documentation package to decide on further participation in project execution.

When a project is in progress, LUKOIL maintains regular contact with state authorities, partners, as well as local residents (if LUKOIL is the operator). Committees, workgroups, and other joint managing bodies are created to boost the transparency and efficiency of communications and to discuss environmental, safety, and sustainability issues.

Project operator

Projects in which LUKOIL acts as the operator are implemented in full compliance with corporate requirements and standards. Since the employees on such projects are usually local hires, they undergo mandatory orientation training on LUKOIL's Code of Business Conduct and Ethics. Specific employees or functional units of the Group's entities are responsible for ensuring this procedure is fulfilled. The document is available to all employees (via the intranet, or on information boards at facilities). Compliance with ethical standards is monitored during internal inspections and audits.

In line with the Integrated HSE (Health, Safety, Environment) Management System (IMS — see the Safety section for details), an HSE Management policy or project Plan is elaborated; in Iraq there is an HSE Observation Management System in place.

In host countries, LUKOIL is often the originator of new technology and engineering solutions, the application of which noticeably reduces the negative impacts on local communities of operations, and on ecosystems and the social environment. For example, a custom tail gas recovery unit was designed to treat gas with high hydrogen sulfide content as part of the Yamama project in Iraq.

Approaches to sustainability management and an assessment of results achieved are standard for LUKOIL Group entities.

SUPPLY CHAIN

Each year, LUKOIL Group entities procure a significant amount of goods, work, and services and interact with a large number of suppliers and contractors from different economic sectors. At the same time, LUKOIL supplies products to a wide range of wholesale and retail consumers worldwide.

Events surrounding the COVID-19 pandemic did not have a significant impact on the operation of our supply chains, although, in some cases, delivery times for goods and equipment or the provision of work/services were extended. Each issue was discussed individually with suppliers and contractors. A joint decision was reached in each case, and a supplementary agreement was signed to extend existing contracts or postpone the timeline for delivering work/services. No cases were recorded of contractors refusing to fulfill their contractual obligations.

Tenders

Most goods, work, and services are procured through public tenders, with mandatory open public bidding on the contract tendered. The selection of suppliers is performed in accordance with the Regulations on Holding Tenders to Select Suppliers and Contractors of LUKOIL Group Entities (in Russia) and based on similar documents approved by the foreign entities. Interested candidates with the right experience, resources, and technology can participate in tenders by completing a qualification questionnaire and submitting a package of documents.

When dealing with bidders in Russia and abroad, great attention is paid to safety, quality of goods, work and services supplied, responsible business practices, and technological innovations.

We have introduced a procedure for assessing the level of HSE management based on completion of a qualifications questionnaire, which includes information related to injury and accident rates, availability of certificates and licenses, staff qualifications, safety compliance control procedures, and other factors. New bidders undergo field audits to confirm the information they have provided in the qualifications questionnaire. (Similar procedures are in place at foreign production entities, based on the International Standards on Internal Auditing for detecting fraud risks).

The following procedures are prescribed when interacting with suppliers of material and technical resources that are used, for example, to produce chemical reagents: incoming inspection of material and technical resources to confirm compliance with stated parameters; technical audits of suppliers; committee investigations into failures involving supplier representatives; multilevel control of supplied raw materials; and the storage rules for raw materials and finished goods. Incoming inspections involve collecting retained samples, inspecting raw materials before their transfer to production, and inspecting finished goods based on retained samples.

Candidates can contest actions taken or omissions on the part of tender organizers that may have violated their rights or tendering procedures, and can appeal the decision of the Tender Committee of a LUKOIL Group entity to the PJSC LUKOIL Internal Audit Service (in Russia) for review, as outlined in the Instructions to the Candidate.

In 2020, 94 percent of bidders in Russia and 100 percent abroad who were subject to HSE assessment successfully passed the due diligence procedure. The share of local suppliers of material and technical resources (MTR) in Russia remained the same in terms of quantity (in 2020, as well as in 2019, it stood at 93 percent) and rose insignificantly in financial terms (from 95 in 2019 up to 96 percent in 2020).

Information on potential tender participants that submitted tender bids for the procurement of goods, work, and services for the benefit of LUKOIL Group entities

Reporting period consolidation perimeter	Total number of potential tender bidders	Including for tenders requiring HSE assessment		Number of potential tender participants admitted to tenders based on the assessment results	
		Number	Percentage of the total number of potential tender participants submitting bids	Number	Percentage of the total number of potential tender participants checked
Russian entities					
2018	4,241	1,720	41%	1,579	92%
2019	3,330	1,465	44%	1,352	92%
2020	3,181	1,588	50%	1,492	94%
Foreign entities of the Exploration and Production Business Segment					
2018	268	93	35%	93	100%
2019	305	94	31%	94	100%
2020	41	16	39%	16	100%

Counterparty due diligence

In accordance with the principle of due diligence, an integrated management system "Counterparty Due Diligence Monitoring System" was introduced in 2021, allowing to assess the level of risk of Russian counterparties when signing contracts for acquisition of goods and services, as well as when executing the contract.

The system allows to automate the process of contractors due diligence and decrease the human factor impact on the assessment of tax, commercial and reputational risks. The system facilitates screening applicants and monitoring the integrity of the Group's counterparties. LUKOIL has developed a counterparty due diligence index calculation model, which comprises 62 risk indicators and has been tested on more than two thousand active contracts. There is also a Counterparty's Personal Account subsystem for the centralized registration of information on LUKOIL Group's counterparties.

Corporate security, tax, and legal services are chiefly responsible for conducting these inspections. The Internal Audit Service performs an additional (selective) due diligence of bidders who are the proposed winners of tenders. In addition to this improvement, internal regulatory documents on procurement activities approved in 2021 were updated.

Detailed information on the organization of the "Procurement Management" business process, on corporate documents, the system for evaluating tenders, and also on interaction with applicants and counterparties at the stages of participation in the tender and performance of contractual obligations can be found on the website.

TECHNOLOGIES

In 2018, we launched a program[1] to further enhance the Company's automation processes. The main purpose of the program is to boost the efficiency of decision making at all levels: from wellsite operations to integrated planning at the PJSC LUKOIL level. By applying information technology, we can ascertain and prevent a wide range of risks early on, including investment mistakes and the ineffective execution of investment projects, the loss and corruption of data, big data analysis, and poor integration of management processes.

Investment projects have been developed that are currently at different stages of implementation. Most of them are at the pilot stage in Russian entities, and a decision will be made on whether to roll them out in other areas. The Company works on developing end-to-end technologies across all business segments, including in the following areas:

- Digital information management and cybersecurity
- Operational data analytics
- The robotic automation of routine operations
- Predictive equipment maintenance and repairs
- Health controls and the automation of mobile personnel functions
- Intelligent video analysis systems
- Digital social interaction and a knowledge-sharing support platform
- Mobile services

In 2020, we continued to implement and roll out projects across key business segments.

Sample projects in the Exploration and Production business segment

- Integrated simulation (implementation). The models created determine the optimal risk-adjusted production potential. During 2020, we built 61 field models.
- Drilling emergency forecast (pilot stage). These projects optimize drilling times, reduce the number of complications from operations, and mitigate the severity of consequences from unavoidable complications.
- Management of mature field development using neural networks (pilot stage). The project is designed to optimize the operation of reservoir pressure maintenance systems, which positively affects the energy output ratio.
- Completion of the pilot project of the power equipment maintenance system, based on a predictive condition analysis in LUKOIL-West Siberia. In 2021, we plan to roll out the project for all regional subdivisions of LUKOIL-West Siberia, LUKOIL-Komi, and LUKOIL-Perm.

1. In 2019, the Board of Directors decided call this program the LUKOIL Group's Functional Development Program for Information and Technology Support.

Sample projects in the Refining, Marketing and Distribution business segment

The following projects have been put into commercial operation:

- Predictive analytics of the technological and dynamic equipment state (duplication stage). The project will boost the availability of process equipment by cutting down on unscheduled repairs and detecting early signs of equipment wear. Predictive analytics systems have been implemented at the Perm Oil Refinery (70 equipment items are being monitored) and at the Volgograd Oil Refinery (10 items of equipment). A task force made up of predictive analytics engineers has been set up to consolidate their experience for the subsequent roll out of solutions. In 2021, the Volgograd Oil Refinery plans to continue this project, involving the monitoring of an additional 50 units of equipment.
- The APC+ enhanced management systems make it possible to optimize the operation of process units using artificial intelligence methods and the analogs of virtual analyzers and to use artificial intelligence to predict the future conditions of units. The project is at the final stage of implementation at the Nizhny Novgorod Oil Refinery and the Oil Refinery in Bulgaria.
- An intelligent video surveillance and video analysis system has been installed at the Volgograd Oil Refinery to enhance operational safety: 25 cameras are able to detect fire and smoke and record violations of personal protective equipment rules.

The following projects are at the final stage of implementation: Unified Digital Platform and Mobile Personnel (Perm Oil Refinery), and implementation of enhanced management systems.

Sample projects in the Corporate and Other business segment

- A working prototype of the new Intranet Portal has been developed to display information and provide services, depending on the user profile and employee category. The system will go into pilot operation in 2021.
- As part of the Data-Driven and Visual Analytics Employee Performance Management project prototype services for goal-based management, employee performance analysis, and decision support were developed.

Improving cybersecurity

- Design of the information security system for significant facilities of critical information infrastructure has been completed.
- Solutions to protect resources and services of the Shared Information System against modern cyberthreats have been implemented, and the quality of access controls improved.
- Transition to a new secure Internet access solution is in progress, to bolster anti-malware and cyber-fraud protection.
- A Zero-Day Exploit defense solution has been implemented, which provides additional scanning of corporate email messages for threats.

Responsible producer of ENERGY

We take a responsible approach to climate change and strive to make the most possible contribution to the achievement of the global climate goal.

KEY CLIMATE CHANGES AND RESULTS IN THE REPORTING YEAR

RESPONSIBILITY FOR CLIMATE CHANGE ISSUES IS A PRIORITY AT THE BOARD OF DIRECTORS LEVEL

LUKOIL GROUP'S CARBON MANAGEMENT SYSTEM CONTINUED TO IMPROVE

LUKOIL GROUP'S GHG EMISSIONS FROM FLARING[1] DECREASED BY 56 PERCENT COMPARED TO THE 2016 LEVEL

CONTRIBUTION TO IMPLEMENTATION OF SDG

- Controlled GHG emissions (Scope 1 + Scope 2) reduced by 2.15 million tonnes of CO_2E between 2016 and 2019 and by 4.78 million tonnes of CO_2E in 2020 compared to 2019.
- The volume of GHG emissions was reduced to 340 thousand tonnes of CO_2E in 2020 by selling electric power generated from renewable sources and by substitution of grid electricity used internally.

PLANS FOR 2021 AND THE MIDTERM OUTLOOK

Development and implementation of the Decarbonization Program and the Climate Adaptation KPIs.

Development of the Energy Conservation Program for 2022–2024, taking into account the climate adaptation strategy.

Further development of renewable energy sources projects.

1. At stationary units in the Exploration and Production and Refining, Marketing and Distribution business segments.

CONTEXT

The COVID-19 pandemic took center stage for much of the year, reducing the attention to climate change issues for many months. However, this was a temporary phenomenon and the attention of both countries and companies is now intensely focused on next steps. At the Global Economic Forum in Davos in 2021, for the first time all discussions of "risks"[1] were related to climate change and the human impact on the global ecosystem.

In 2020, the downturn in economic activity and transportation, complete or partial shutdowns in a number of industries, and the general decline in consumption led[2] to reduced anthropogenic GHG emissions, clearly illustrating the scale of human impact on the climate[3]. According to the forecasts[4], however, the effect of this reduction will be short-lived, and emissions are forecast to increase in 2021 as national economies recover. Experts estimated[5] that the lockdown period only slightly affected global warming, reducing the temperature increase expected by 2030 by only 0.001 °C. Reductions of a much greater magnitude are required every year for the next decade[6] just to avoid the worst effects of climate change.

On the other hand, some countries have not only kept their commitments to reduce GHG emissions, but have announced more ambitious emission goals, committing themselves to pursue long-term breakthrough solutions.

The EU has presented plans to accelerate the transition to a net-zero development path[7] under the Green Deal, aiming to reduce GHG emissions by 55 percent by 2030 as compared to 1990 levels. The European Union Emissions Trading System (EU ETS) is one of the instruments to stimulate change: cutting down the emission allowances for major industrial enterprises will increase the cost of purchasing them. It is also planned to add maritime and road transport to the EU ETS.

In March 2021, the European Parliament adopted a resolution supporting the implementation of another instrument — a carbon border adjustment mechanism for imported carbon products from countries that do not have national GHG emissions regulation systems in place. Later in the year, the European Commission will consider four possible options for a mechanism compatible with WTO principles.

Expanded economic mechanisms, tied to EU direction, will require specific actions from oil and gas companies among others to ensure sustainability in the long term.

The EU and other countries, including Japan, India, and the UK have committed to ambitious goals concerning carbon neutrality first by 2050, China — by 2060. US policy has already changed dramatically. One of the first steps of the Biden Administration was to rejoin the Paris Agreement and a series of far reaching domestic and international initiatives have been proposed.

International cooperation on the climate agenda will intensify, and, if the steps outlined are implemented, more than half of the world's GHG emissions will be controlled through decarbonization projects by mid-century.

Russia has set a national goal to reduce emissions to 70 percent of the 1990 level by 2030[8], and a Strategy for Socio-Economic Development as a Low-Carbon Country up to 2050 is being developed. Governments and experts are discussing[9] the prospects of creating a national trading system for GHG emission quotas or 'low-carbon' certificates. A pilot project with special regulation of GHG emissions is already being implemented in the Sakhalin Region. This pilot may result in establishing a national GHG emissions trading system and its integration with international systems.

Russia's two year chairmanship of the Arctic Council in 2021-2022 will also bring renewed attention to issues of climate change in the North – the area of the planet that is warming most rapidly and is most likely to be affected by the melting of permafrost.

Among the significant external factors for oil and gas companies, in 2020[10] was the COVID-19 pandemic, which significantly influenced the structure of supply and demand in 2020, exacerbating operational and financial efficiency issues. This is considered as the beginning of a long-term trend, which will inevitably lead oil and gas companies to change their strategies and business models. Guided by the accumulated experience of structural transformation and innovation, companies will need to find solutions in line with their objectives to reduce GHG emissions.

LUKOIL contributes to SDG 13 (Climate action), consistently reducing GHG emissions and developing projects with low carbon footprints.

1. Source: The Global Risks Report 2020. World Economic Forum, 2021.
2. Source: The Global Risks Report 2020. World Economic Forum, 2021.
3. Source: https://climate.nasa.gov/news/3054/seeing-the-covid-19-pandemic-from-space/
4. Sources: Climate Gap Report. UN Environmental Program, 2021; The COVID-19 Effect on the Paris Agreement. Nature, 2021 (https://www.nature.com/articles/s41599-020-00698-2#Tab1).
5. Source: Report "Global Climatic Threat and Russian Economy: Searching for the Way". Moscow School of Management SKOLKOVO, 2021.
6. Source: The Global Risks Report 2020. World Economic Forum, 2021.
7. Source: https://ec.europa.eu/clima/policies/eu-climate-action/2030_ctp_en
8. Source: Decree No. 666 of 04 November 2020 "On Reducing Greenhouse Gas Emissions".
9. Source: Report "Russia's Climate Agenda: Responding to International Challenges". Center for Strategic Research, Analytical Center of the Fuel and Energy Complex of the Russian Energy Agency of the Ministry of Energy and Situation Center LLC.
10. For example, Oil and Gas after COVID-19: The day of reconning or a new age of opportunity. McKinsey & Company, 2021

CARBON MANAGEMENT SYSTEM

With more than 15 years of successful experience in implementing measures to reduce GHG emissions, LUKOIL's goal is to narrow the gap between what can be done to contain global warming based on economically sound calculations and technologically feasible solutions and what needs to be done to achieve global climate goals. The first corporate target set for the Group's Russian entities was to reduce direct GHG emissions by 1.2 percent by 2020 from the 2016 level. This goal was achieved ahead of schedule[1]. In 2020, another major step forward was made in GHG emission management by setting 2030 as the target date for achieving even larger cuts in GHG emissions.

Management

Leonid Fedun, Vice President and a member of the Board of Directors of PJSC LUKOIL, is responsible for the Company's climate change activities

PJSC LUKOIL established a Decarbonization and Climate Change Adaptation Task Force

Strategy

The target[2] to reduce GHG emissions by 2030 was announced based on presentations of several climate scenarios to contain global warming at 1.5 and 2 ° centigrade.

Risks

The main risks associated with climate change are enumerated in the Company's risk management system[3]. Requirements for assessing the climate change impact on production facilities and infrastructure are documented in the corporate standard[4]

Reporting

An extended inventory of GHG emissions

Data on GHG emissions is published in the draft CDP, Sustainability Report, Annual Report, Analyst's Handbook

1. Detailed information is provided in the LUKOIL Group Sustainability Report 2019.
2. The new target was announced by LUKOIL President V. Alekperov in March 2021 at Investor Day.
3. Information is published in the issuer's quarterly reports. https://lukoil.ru/InvestorAndShareholderCenter/RegulatoryDisclosure/EmitentReports.
4. The requirements are in the form of amendments to LUKOIL STO 1.6.9.2. "Pre-project and Project Documentation. Requirements to the Composition and Content of Supporting Materials".

Our actions

Climate change issues are prioritized and decisions taken in the Strategy, Investment, Sustainability and Climate Adaptation Committee. Proposals developed at the Committee meetings are then considered by the Board of Directors. In 2020, new management bodies were established at the operational level and were involved in the formation of a climate strategy and in activities aimed at achieving the stated goals of reducing GHG emissions.

As part of implementing the decision of the Board of Directors of PJSC LUKOIL, amendments were made to the LUKOIL Group's Health, Safety and Environment Policy for the 21st Century. We supplemented the Policy with objectives aimed at minimizing the impact of the Company's operations on the climate and a commitment to continuous improvement of the GHG emission management system.

Corporate requirements for mandatory assessment of the impact of climate change on planned production facilities and critical infrastructure that will be located in vulnerable areas (primarily in the Arctic) have been put into effect.

To develop competencies on climate-related topics, a lecture course for employees, specialists, and managers of LUKOIL Group entities was conducted in 2020 on Global Climate Change and GHG Emissions Management at the Company level. More than 500 people were trained; at the end of the course, they were tested and certificates were issued. It is planned to continue such training activities within the framework of the corporate Distance Learning System.

The main changes in the functions of management bodies and new management bodies are presented in the table below.

Climate risk analysis is performed within the framework of the Company's risk management system. Detailed description of the risks is given in the Annual Report for 2020, page 71.

Detailed Safety measures are described in the Safety of Facilities in the Arctic Zone case study.

Key changes in the functions of governing bodies and of new governing bodies

MANAGEMENT LEVEL	FUNCTIONS AND TASKS
The Board of Directors of PJSC LUKOIL	Leonid Fedun, Vice President for Strategic Development, Member of the Strategy, Investment, Sustainability and Climate Adaptation Committee of PJSC LUKOIL, has been given responsibility as a member of the Board of Directors for the Company's climate change activities. Further steps to adapt the Company to climate change will be planned and implemented under his supervision and with his direct participation. His functions include: • preparing recommendations for the Board of Directors on defining strategic goals and related measures; • assessing the impact of decarbonization projects on the Company's asset portfolio; • building a unified corporate position on various climate change issues.
Strategy, Investment, Sustainability and Climate Adaptation Committee of the Board of Directors	To ensure the effective performance of strategic goals, the name and functions of the Committee[1] were changed and documented in the new version of the Committee Regulations. The Committee's new responsibility is to develop recommendations for the Board of Directors on strategic climate adaptation goals and provide a roadmap to move the Company toward achieving these goals, as well as to manage risks associated with changes in global supply chains.
Decarbonization and Climate Change Adaptation Task Force	The Task Force was created under the leadership of Vadim Vorobyov, First Executive Vice-President of PJSC LUKOIL. It includes Vice Presidents of PJSC LUKOIL in charge of all areas of the Company's operations: finance, strategy, economics and planning, and sustainability, as well as heads of key specialized departments. The main functions of the Task Force include: • regular assessment of climate risks and opportunities; • drafting the LUKOIL Group's decarbonization program and monitoring its implementation; • establishing criteria for assessing the effectiveness of investment projects aimed at reducing GHG emissions; • improving the Decarbonization and Climate Change Adaptation business process The first meeting of the Task Force was held in December 2020, when the standard STO LUKOIL "Regulations for the Inventory of Greenhouse Gas Emissions" was approved, and instructions were given to develop a new business process "Decarbonization and Adaptation to Climate Change."
The Department for Industrial Safety, the Environment and Scientific and Technical Development	The Department for Environmental Safety and Decarbonization is the center for expertise and coordination of activities of PJSC LUKOIL and Group entities in operational management of GHG emissions, including regulation, monitoring, implementation of the decarbonization program, and reporting.

1. Formerly the Strategy, Investment and Sustainability Committee of the Board of Directors of PJSC LUKOIL.

REPORTING

In preparing public carbon reporting, we strive for fuller disclosure of climate data in accordance with the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD) and the new benchmarking system for companies to ensure "net zero" emissions under the Climate Action 100+ initiative.

In 2020, in preparation for the development of the climate strategy and the setting of a new GHG reduction goal, we performed a full inventory of emission sources and calculated emissions of the three types of GHG emissions (methane, carbon monoxide, nitrous oxide) in accordance with the new methodological approaches (GHG Protocol) and the recommendations of Russian regulatory documents[1]. The data is consolidated based on the "operational control" criteria. Based on the results of the adjusted methodological approach to the consolidation of GHG emissions data, indicators for 2016–2020 are presented in the approved reporting boundaries.

The inventory data reflects a consistent decrease in GHG emissions (Scope 1 + 2) for LUKOIL Group between 2017 and 2019[2]. The reduction in direct emissions is mainly due to an increase in the share of APG utilization.

The reduction of indirect (energy) emissions was achieved as a result of the implementation of APG utilization and energy efficiency programs at production and processing entities.

Details are in the "APG utilization and flaring reduction" and "Energy conservation" subsections of this section of the Report.

1. The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard Revised Edition; Methodology and Guidelines for Quantifying Greenhouse Gas Emissions by Entities Engaged in Economic and Other Activities in the Russian Federation approved by Order of the Ministry of Natural Resources and Environment of the Russian Federation of June 30, 2015 No. 300.
2. Methodological Guidelines for Quantification of Indirect Energy Emissions of Greenhouse Gases approved by Order of the Ministry of Natural Resources and Environment of the Russian Federation of June 29, 2017 No. 330; 2006 IPCC Guidelines for National Greenhouse Gas Inventories.

GHG emissions of LUKOIL Group

Indicators	2016	2017	2018	2019	2020
Scope 1. Direct gross GHG emissions, million tonnes of CO_2E	**40.150**	**40.448**	**39.599**	**39.796**	**36.705**
Including by GHG composition:					
CO_2, million tonnes of CO_2E	38.574	39.024	38.615	38.999	35.764
Methane (CH_4), million tonnes of CO_2E	1.545	1.396	0.959	0.772	0.916
Share of methane, %	3.8	3.5	2.4	1.9	2.5
Nitrogen monoxide (N_2O), million tonnes of CO_2E	0.031	0.028	0.025	0.025	0.024
Other GHGs	0	0	0	0	0
Scope 2. Indirect (energy) GHG emissions (CO_2), million tonnes of CO_2E	**10.435**	**10.450**	**8.947**	**8.636**	**6.947**
Scope 1 + Scope 2, million tonnes of CO_2E	50.585	50.897	48.546	48.433	43.651
Total energy consumption (purchased and internally generated) within the calculation of GHG emissions (Scope 1 + Scope 2), excluding mobile sources, million GJ	**NA**	**NA**	**502**	**502**	**465**

Notes.

1. Detailed data, including the reporting boundaries, are given in Appendix 7.
2. In the LUKOIL Group Sustainability Report 2019 data on GHG emissions (Scope 1) were presented based on calculations in accordance with the previously used methodology: "Methodology and Guidelines for Quantifying Greenhouse Gas Emissions by Entities Engaged in Economic and Other Activities in the Russian Federation" approved by Order of the Ministry of Natural Resources and Environment of the Russian Federation of 30 June 2015 No. 300. The 2019 Report contains the following information: 2016 — 38.02 million tonnes CO_2E; 2017 — 37.85 million tonnes CO_2E; 2018 — 36.44 million tonnes CO_2E; 2019 — 37.22 million tonnes CO_2E.
3. In 2020, the reduction in GHG emissions was mainly driven by a decrease in demand and production of major types of products due to the pandemic.
4. The increase in CO_2 emissions in 2017 was caused by a rise in exploration and production drilling in the Exploration and Production business segment.
5. The 2020 results are not indicative because they are mainly driven by changes resulting from the pandemic.
6. In the LUKOIL Group Sustainability Report 2020, the indicators of greenhouse gas emissions were adjusted compared to those presented in the Annual Report of PJSC LUKOIL 2020.

Greenhouse gas emissions (Scope 1) of LUKOIL Group, by type of activity and geography, million tonnes of CO_2E

	2016	2017	2018	2019	2020
Russian entities	**33.765**	**34.043**	**33.403**	**32.851**	**30.780**
Exploration and Production	10.883	10.043	9.833	10.065	9.920
Oil Refining and Petrochemicals, KGPZ and LLK International	10.170	11.454	11.271	11.217	10.770
Power Generation	12.625	12.468	12.213	11.479	9.980
Transportation	0.086	0.078	0.087	0.091	0.111
Foreign entities	**6.385**	**6.405**	**6.196**	**6.945**	**5.924**
Exploration and Production (Uzbekistan, Central Asia)	0.043	0.223	0.393	0.360	0.297
Oil Refining and Petrochemicals (EU countries)	6.342	6.181	5.803	6.585	5.628
Share of emissions (Scope 1) accounted for by countries where the regulation of GHG emissions has been implemented (Romania, Bulgaria, Italy), %	16	15	15	17	15

Note.

The 2019 growth in GHG emissions of the Exploration and Production business segment was due to the growth of exploration and production drilling and the increase in production mainly in the Caspian Region and the Komi Republic, as well as the commissioning of additional power capacity at oilfields, which led to an increase in diesel fuel consumption. The increased GHG emissions at oil refining and petrochemical entities in 2017 were caused by production of the largest volume of high value-added products between 2016 and 2019.

Specific GHG emissions, by types of activity (Scope 1 + Scope 2)

Business segment/ business sector	2016	2017	2018	2019	2020
Exploration and Production across LUKOIL Group					
tonnes CO_2E / thousand BOE	25.396	23.954	21.106	21.009	21.622
tonnes CO_2E / GJ	4.334	4.008	3.602	3.585	3.690
Oil Processing and Petrochemicals across LUKOIL Group (excluding LLC LUKOIL-KGPZ and LLC LLK-International)					
tonnes CO_2E / tonne of processed raw materials	0.281	0.293	0.282	0.291	0.305
Power Generation (Russian entities)					
tonnes CO_2E / MWh of generated electrical and heat energy (excluding emissions of LLC LUKOIL-ENERGOSETI)	0.341	0.340	0.323	0.328	0.350

Note.

The increase in specific GHG emissions in all business sectors in 2020 was related to a decline in production due to the pandemic and the need to maintain the working capacity of production units and technological processes, as well as to rising complexity of production processes and an increase in the refinery yield at oil refining and petrochemicals entities.

CLIMATE STRATEGY

Scenario analysis

In 2020, new targets for reducing GHG emissions were calculated in accordance with the Recommendations of the Intergovernmental Panel on Climate Change (IPCC) and with the Paris Agreement goals based on scenarios of keeping global temperature increases between 1.5 ºC and 2 ºC. In addition to the "Evolution"[1] scenario previously discussed, we have developed the "Equilibrium", "Transformation", and "Two Degrees Celsius" scenarios. All these scenarios assume a significant increase in the share of renewable energy sources, recycled plastic and accelerated electrification of vehicles.

Each of these scenarios presents complex challenges for the global community, which cannot be overcome quickly. In addition, it is very important that progress towards energy transformation does not conflict with the achievement of other SDGs. To ensure that all sustainability goals are taken into account, alternative energy must be affordable and sufficient to not only gradually replace fossil fuels, but also to provide additional power to a growing global economy. For these reasons, none of the scenarios we have developed involves a complete rejection of fossil fuels. Oil will retain a significant role in the global energy balance and as a raw material for the production of consumer goods for a long time to come. Oil and gas companies, suppliers of energy resources, are to ensure energy supplies for the global economy, adjusting their operations to SDGs and global efforts in reducing GHG emissions.

Climate Strategy

Given LUKOIL's competitive edge and our commitment to reduce emissions, we will continue to supply the world economy with the most efficient fossil fuels while focusing on reducing the carbon footprint associated with production. To support this mission, we have identified three tasks for LUKOIL's climate strategy and the goals and means associated with each.

MISSION: RESPONSIBLE HYDROCARBON PRODUCER

Task 1	Task 2	Task 3
Continue development of core business.	Reduce controlled GHG emissions (Scope 1 + Scope 2).	Participate in climate initiatives and develop climate opportunities.
Focus on efficiency of using conservative oil pricing and domestic carbon price scenarios in investment decisions.	Improve energy efficiency Enhance RES energy consumption Develop carbon capture and storage projects Optimize the asset portfolio.	Implement GHG emission reduction technologies Develop the regulatory environment in Russia Expand commercial generation from renewable energy sources Study low-carbon energy resources (biofuel and hydrogen) Implement reforestation projects.

1. Source: "Major Trends in the Global Liquid Hydrocarbon Market to 2035" report: http://www.lukoil.ru/Business/Futuremarkettrends.

We have set a new goal for the reduction of GHG emissions by 2030. We plan to reduce controlled emissions (Scope 1 + Scope 2) per unit of energy equivalent by 20 percent compared to 2017. We have chosen this year as a baseline in accordance with the approach of the Intergovernmental Panel on Climate Change. This target is the equivalent of reducing gross GHG emissions by 10 million tonnes, given comparable conditions.

Based on an assessment of technologically achievable and potentially effective measures, we have identified about 60 measures to help reduce emissions. The economic efficiency of these projects can be increased with government support. The introduction of national regulation and support for decarbonization measures and adaptation projects which take into account the specifics of the Russian oil industry will significantly expand the Company's capabilities to reduce GHG emissions in Russia.

Interaction on climate policy

We constantly monitor climate regulation and actively participate in discussions of the climate agenda and policy-making initiatives in the Russian Federation and abroad. In Russia, we are in direct dialogue with the Government Executive Office of the Russian Federation, the Ministry of Energy, the Ministry of Economic Development, the Ministry of Natural Resources and Environment, and other institutions. LUKOIL representatives take part in the work of industry associations, for example, in the work of the Committee on Climate Policy and Carbon Regulation created by the Russian Union of Industrialists and Entrepreneurs[1]. The Committee is a platform for discussing the policy-making initiatives of the Government of the Russian Federation and determining the position of business regarding various options for regulating GHG emissions in the context of the national goals set by the Russian Federation. LUKOIL presents its position[2] and experience in implementing greenhouse gas emissions reduction projects.

The legislative program of PJSC LUKOIL in Russia for 2021 contains initiatives — in particular amendments to the Forestry Code of the Russian Federation – which would allow including reforestation as a measure to reduce GHG emissions, as well as participation in the discussion of draft laws related to the regulation of GHG emissions and the introduction of a low-carbon certification system, as well as national support for emissions reduction.

PJSC LUKOIL also actively participates in the discussion of key legislative initiatives in the European Union, including such topics as the EU ETS emissions trading system, emission standards in the transport sector, and renewable energy. Much attention is paid to discussions on the impact of introducing the EU carbon border adjustment mechanism, which is expected to be implemented in 2023.

1. Leonid Fedun, Vice-President of PJSC LUKOIL, was appointed the Deputy Chairman of the Committee.
2. In particular, LUKOIL presented its position on Russian draft laws and regulations on Limiting Greenhouse Gas Emissions, on Amendments to the Guidance for Quantification of Indirect Energy Emissions of Greenhouse Gases Approved by Order of the Ministry of Natural Resources of Russia dated June 29, 2017 No. 330, on the Approval of Guidance and Target Indicators on Adaptation to Climate Change, on Amendments to the Federal Law on the Electric Power Industry.

30 YEARS of Sustainable Development. Climate-related projects

LUKOIL was one of the first Russian companies to start implementing projects to reduce APG flaring and to utilize this energy resource in gas turbine power plants to generate electricity. In 2012, a corporate program for the sustainable use of APG was launched, to which more than half of the Company's environmental budget was allocated annually.

Even earlier, in 2007, the first projects were developed based on the provisions of the Kyoto Protocol. At that time, a corporate system for managing and accounting for GHG emissions was established. The implementation of these Kyoto projects produced major results: 32.8 million emission reduction units.

During the intervening year, LUKOIL has continued implementing projects to reduce GHG emissions, and by 2021 formalized them in its climate strategy.

1990s		2020
APG utilization at the fields of Western Siberia (where the Company was founded) in the mid-1990s was about 70 percent .	>>	APG utilization in LLC LUKOIL-West Siberia amounted to 98.3 percent.
Carbon dioxide was not considered a pollutant in Russia, and data on CO_2 emissions was not subject to statistical reporting.	>>	A carbon management system has been created and is constantly being improved taking into account modern requirements: a comprehensive climate strategy is being developed.

REDUCING METHANE EMISSIONS

According to the inventory results, in 2018–2020 the share of methane in the total GHG emissions (Scope 1) is less than 3 percent. The volume of emissions is mainly due to methane emissions from APG flares during production.

The amount of permissible dispersion of methane, including as part of APG, is regulated by legal requirements[1] and corporate standards. For all entities of oil and gas production in Russia, standards for losses during APG production at fields are developed annually[2]. Considering the high level of APG utilization at LUKOIL's fields, the share of methane dispersion is much lower than the established standards.

The Group's entities regularly take measures to reduce gas leaks into the atmosphere caused by scheduled repairs and equipment failures. The technical condition of main and interfield gas pipelines is monitored once a year during a helicopter inspection using lasers to locate gas leaks. Gas pipelines are inspected and examined on a monthly basis to ensure maintenance of equipment and prevent depressurization. As part of the inspection, the corrosion rate and residual life, service life, specific failure rate and other parameters are assessed. In 2020, gas pipelines in the Perm Territory and the Volgograd Region of a total length of 45 km, were diagnosed.

Based on the results of inspections and diagnostics, the action plans of the Program of Industrial Safety, Improvement of Labor Conditions and Occupational Safety, and Emergency Prevention and Liquidation of LUKOIL Group entities will include necessary repairs of gas pipelines and gas collection and compression facilities.

Industrial safety expert evaluation and technical inspection of gas equipment and pipelines are carried out annually by independent certified organizations. Based on the results, judgements are made concerning future operations. The results of expert evaluations are used to make decisions on the timely upgrading (replacement) of equipment.

An important tool for maintaining a high level of safety in connection with gas leaks is control of the work of service organizations. Their responsibilities include monitoring emissions using gas analyzers installed at the wellhead of each well. If the sensor gives a signal of an approaching explosive concentration, the contractor must immediately close the wellhead and inform representatives of the LUKOIL entity.

Engineering solutions to prevent methane leaks

The possibility of gas migration during well construction is one of the problems in the development and operation of gas fields. Gas in a formation under pressure can penetrate through cracks and clearances in the equipment into the annular space. As a result, a buildup of pressure building at the wellhead can threaten its safe operation.

LUKOIL-Engineering has developed a solution to ensure the airtightness of the annular space using special grouting slurries prepared on the basis of "self-healing" cements with the addition of gas blockers. Additional airtightness is provided by filling the annular space with gel-polymer compounds. The use of these substances allows for a quick restoration of an annular space and prevention of gas migration. This approach has already been applied at the Pyakyakhinskoye field and has proven its effectiveness, since the occurrences of annular pressures have been significantly reduced. LUKOIL-Engineering is carrying out further research and development work, as a result of which it will be possible to completely eliminate the likelihood of behind-the-casing gas migration.

1. Regulations, federal policies and procedures of the oil and gas sector, such as FZ-116 of July 21, 1997 on the Industrial Safety of Hazardous Production Facilities, FZ-22 of March 4, 2013 on Making Amendments to the Federal Law on the Industrial Safety of Hazardous Production Facilities, STO LUKOIL 1.19.1-2012, Federal Policies and Procedures on the Rules for the Safe Operation of In-Field Pipelines.
2. Calculations are carried out by specialized institutes and approved by the Russian Ministry of Energy.

APG UTILIZATION AND FLARING REDUCTION

Since 2017, we have been a member of the World Bank's "Zero Routine Flaring by 2030" initiative and committed to reducing APG flaring through further technologically achievable APG utilization.

Since 2003, Russian entities have been implementing an investment program for the sustainable use of APG[1], including measures for the construction of new facilities and reconstruction of facilities for APG preparation, transportation and processing that have been in operation for a long time. In 2020, 12 projects of the program were completed in the Perm Territory, the Komi Republic, and in the Khanty-Mansi Autonomous Area — Yugra.

As part of the "Zero Routine Flaring by 2030" initiative, two investment projects are being implemented in the Perm Territory and the Khanty-Mansi Autonomous Area — Yugra in Russia. In 2020, the project to construct a system for collecting and transporting APG from the Zhilinskoye, Belskoye, and Rostovitskoye fields (Perm Territory) was fully completed. The project began in 2018, and the targets were set during the planning phase. Upon completion of the project in 2020, all the targets were achieved.

- The volume of APG flaring decreased over three times (from 17.8 million to 5.3 million cubic meters).
- The APG utilization increased from 87.8% to 97.1%.
- The volume of GHG emissions decreased by 44 thousand tonnes of CO_2E per year (from 62.5 thousand to 18.5 thousand tonnes of CO_2E).

Design and survey work has been completed under the second project, "Reconstruction of the Povkhovskaya Compressor Station". Compressor equipment will be supplied and the elements of the APG collection system will be installed in 2021. The expected date of completion of the project is 2022.

In 2020, the level of efficient APG use across LUKOIL Group increased to 97.8 percent. Since 2016, this indicator has grown by 5.7 percentage points.

Total volume of APG flaring and APG utilization rate across LUKOIL Group

	2016	2019	2020
Total volume of APG flaring, million cubic meters	**952.5**	**309.534**	**275.556**
including:			
• Russian entities	937.6	298.933	269.271
• Foreign entities	14.9	10.601	6.285
APG utilization rate, %	**92.1**	**97.6**	**97.8**
including:			
• Russian entities	91.7	97.5	97.7
• Foreign entities	98.1	98.9	99.4

Note.

The indicator boundaries include the following Russian and foreign entities (based on thePJSC LUKOIL shares in the projects): LUKARCO B.V. (Tengiz project in Kazakhstan), LUKOIL Overseas Kumkol B.V. (Kumkol project in Kazakhstan[2]), and LUKOIL Upstream Congo SAU (Marine XII project in Republic of the Congo). In Egypt and Iraq, in accordance with the concluded agreements, APG is not subject to production sharing, and the entire volume of APG produced is contractually owned by the host countries.

1. The program covers a 3-year period and is revised and approved by management of PJSC LUKOIL on an annual basis. The program for 2020–2022 was approved in 2019. During the previous reporting period, the program for 2019–2021 was in effect.
2. PJSC LUKOIL withdrew from the project in December 2020; the data is shown until the end of the license period, i.e. until 10 December 2020 inclusive. Marine XII project in the Republic of the Congo was included in reporting in 2019.

ENERGY CONSERVATION

Management system

ELEMENTS OF THE MANAGEMENT SYSTEM	CORPORATE DOCUMENTS
GOALS	
The strategic goals and key activities to improve the energy efficiency in each business segment were determined	LUKOIL Group's Technical Policy on Energy Efficiency was approved by the Management Committee OJSC LUKOIL on March 26, 2012
PRIORITIES/STANDARDS	
The composition of process-related indicators, fuel consumption rates and other indicators were formalized	Seven corporate STO 1.20 standards
KPIs	
Specific energy consumption per tonne of fluid produced (in the Exploration and Production business segment). The Solomon Energy Intensity Index (EII) Energy intensity per tonne of basic raw material for entities in the Petrochemicals business sector Delivery of the approved energy conservation program[1]	The KPI regulations were approved by the Management Committee of PJSC LUKOIL on September 16, 2019
CERTIFICATION OF THE MANAGEMENT SYSTEM	
The Russian entities of LUKOIL Group integrated the ISO 50001:2011 and ISO 50001:2018 compliant energy management system. As of December 31, 2020, 25 entities possessed compliance certificates covering 69 percent of the total headcount of LUKOIL Group.	STO LUKOIL 1.20.6-2019 "Energy Conservation. Energy Management System of LUKOIL Group Entities. General Provisions and Regulated Facilities" (introduced by order of PJSC LUKOIL No. 229 of December 17, 2019)
TARGETED PROGRAMS, PROJECTS, AND INITIATIVES	
Energy Conservation Program of LUKOIL Group Entities for 2020–2022 in Russia[2]	STO LUKOIL 1.20.2-2017 "Energy Conservation. Energy Conservation and Energy Efficiency Improvement Program for LUKOIL Group Entities. General Requirements to Development and Execution" (introduced by order of PJSC LUKOIL No. 184 of November 20, 2017)
ENERGY AUDITS	
Energy audits performed at the entities of the Exploration and Production and Refining, Marketing and Distribution segments	STO LUKOIL 1.20.3-2019 "Energy Conservation. Energy Audits of LUKOIL Group Entities. Methodology" (introduced by order of PJSC LUKOIL No. 229 of December 17, 2019)
FURTHER INFORMATION	
The examination of investment projects covers the evaluation of energy efficiency of business plans and related activities. The findings are an important part of the considerations that go into the general assessment of the project's economic performance	

1. The KPI relates to the Exploration and Production in Russia, Oil Product Supply in Russia, Transportation in Russia and Power Generation business sectors, as well as to the following entities belonging to the Refining, Marketing and Distribution business segment: LLC LUKOIL-Trans, transshipment facilities, and LLC LUKOIL-AERO.
2. The energy conservation program covers a 3-year period and is revised and approved by management of PJSC LUKOIL on an annual basis. The program for 2019–2021 was approved on May 31, 2018. During the previous reporting period, the program for 2018–2020 was in effect.

Our goals

We view energy efficiency improvement as one of the key ways to adapt to global climate change. The Company's policy is focused on the sustainable and efficient use of energy resources, which helps to reduce GHG emissions and improve overall production efficiency.

Long-term energy efficiency goals are an integral part of the LUKOIL Group's Strategic Development Program and Climate Strategy. Within the framework of the energy management system, medium- and short-term planning is carried out by setting quantitative goals in relation to the amount of energy savings for one year and for three years. Activities aimed at achieving the goal are monitored during the year. The achievement of the goal is assessed annually at the end of the year and the planned indicators for three years are adjusted. The KPI "Implementation of the Energy Conservation Program" was introduced and is used to motivate the Group's entities to achieve the goals set.

Our energy efficiency goals include:

- Ensuring the efficiency of operating procedures and the functioning of process equipment
- Securing the effective use of fuel and energy resources
- Effective development and upgrade of energy assets
- Reduction of indirect GHG emissions

Price-dependent reduction in consumption

With the adoption of the Decree of the Government of the Russian Federation No. 287 dated March 20, 2019, a mechanism for managing the electricity demand from retail consumers, i. e. price-dependent reduction in consumption (Demand Response), began to operate in a pilot mode in Russia. This mechanism is considered one of the promising areas to facilitate the "energy transition".

By changing levels of electricity consumption during peak hours on the electricity market, the participants in price-dependent reduction in consumption contribute to lower prices for consumers in the electricity market as well as to increased efficiency of the entire energy system by levelling the load schedule and optimizing the composition of equipment at generating capacities.

Managed energy consumption can obviate the need for the construction of new generation facilities, facilitate decommissioning of inefficient and expensive facilities — which ultimately contributes to the reduction of GHG emissions within the unified energy system of the Russian Federation — and also create economic benefits for each participant in plans based on price-dependent reduction in consumption.

Based on the selection made in 2020, two of the LUKOIL Group entities, LUKOIL-West Siberia and LUKOIL-Perm, were among the largest participants in the demand response market. Their total reduction in load volume for the year amounted to 6.6 MW, and the economic effect for PJSC LUKOIL was RUB 16.5 million.

In terms of sustainable development goals, this project represents one of the models for the future, corresponding not only to SDG 13 "Climate action", but also SDG 12 "Responsible Consumption and Production".

Management system changes

The Russian entities of LUKOIL Group have an energy management system based on the requirements of ISO 50001:2011 and ISO 50001:2018 "Energy Management System" standards. Key management tools include energy audits and internal audits, energy efficiency programs and activities. Energy efficiency requirements are monitored in all business segments of the Group.

In accordance with the approved schedule for certification of LUKOIL Group entities under ISO 50001:2018 standard, 19 entities passed the certification of management systems for compliance with the requirements of the new version of the standard. A draft checklist has been developed that will allow for a comparative analysis of the efficiency of energy management systems throughout the Group's entities.

Targeted program

The power saving program of Russian LUKOIL Group entities is aimed at increasing the efficiency of power consumption and reducing its losses as a result of planned annual activities in the main business segments. For 2018–2020, power savings as a result of the implementation of the power saving program in Russian entities amounted to 11.9 million GJ[1].

In 2020, program performance results were achieved primarily by the following activities.

- For production entities: introduction of power-efficient equipment (replacement of asynchronous motors with magnet motors (PMSM) and upgrading of fluid lifting and formation pressure maintenance system pumps)
- In processing entities: technical upgrading, optimization of production processes, schemes for the distribution of power flows and heat transfer among technological facilities
- In power entities: replacement and modernization of technical equipment, shifting heat loads from inefficient boiler stations which can then be subsequently closed
- In oil product supply and transportation entities: lighting systems upgrades

In the Exploration and Production segment, we are developing a partnership with Sulzer to localize production of spare parts for formation pressure maintenance system pumps in Kogalym. In addition, the possibility of joint research with international oil service companies for the production of asynchronous motors with magnet motors (PMSMs) of various types for pump drives is being considered.

In 2020, within the framework of the continuous improvement system, the Energoproryv strategic project was launched at refineries and petrochemical plants[2], with the goal of increasing energy efficiency. At the first stage, a portfolio of measures is planned which are aimed at reducing CO_2 emissions, eliminating the consumption of liquid fuel, increasing the efficiency of heat transfer, and reducing the Energy Intensity Index EII Solomon. The expected target effect for 2020–2030 includes:

- the Energy Intensity Index (EII)[3] Solomon at refineries will be reduced by an average of 13 percent (compared to the 2018 level)
- the CO_2 emissions will be reduced by an average of 10 percent (~ 1.5 million tonnes of CO_2E per year).

Between 2014 and 2020, as part of the continuous improvement system, the Energy Intensity Index was improved by 5 percentage points (the reduction relative to 2010[4] was 12 percentage points).

Dynamics of Solomon EII as compared to 2014, %

1. Hereinafter in the section, data on power consumption is within the reporting boundaries for GHG emissions, details in the "Climate Change" section.
2. At four refineries in Russia, Stavrolen and Saratovorgsintez, refineries in Bulgaria and Romania.
3. The EII Solomon Energy Intensity index is calculated pursuant to the HSB Solomon Associated LLC methodology with the use of its own factors.
4. 2010 data are given in the comparable boundaries with 2020 boundaries.

Energy consumption for production purposes across LUKOIL Group entities within the GHG emissions reporting boundaries (Scope 1 + Scope 2), mln GJ

	2018	2019	2020
Energy consumption for production purposes (1.1 + 1.2 + 1.3 - 1.4)	**502**	**502**	**465**
1.1. Purchased energy consumption for production purposes, including:	79	74	69
• electricity	59	57	54
• thermal power	20	17	15
• cold	0	0	0
• steam	0	0	0
1.2 Supporting power generation from non-renewable energy sources and fuel consumption by stationary production units, including:	553	545	515
1.3. Supporting generation from renewable energy sources	0.00525	0.03726	0.04905
1.4. Power sales and supply, including:	130	117	119
• electricity	74	66	68
• thermal power	56	51	51
• cold	0	0	0
• steam	0	0	0

Notes.

1. Consumption for production purposes does not take into account utility electricity/heat consumption, or power consumption by mobile sources.
2. When converting data, the following factors under GOST R 51750-2001 were used: 1,000 kWh = 3.6 GJ, 1 Gcal = 4.19 GJ, 1 tonne of oil equivalent = 29.3 GJ).
3. Indicators of energy consumption for production purposes for 2018-2019 were specified:
   a) ISAB fuel consumption data were recalculated using unified conventional units corresponding to the coal equivalent (7000 kcal/kg) used in the Russian Federation;
   b) data on fuel consumption at LLC LUKOIL-Nizhnevolzhskneft were calculated taking into account the fuel used by the energy complex to generate electric and heat energy, as well as the fuel used in gas turbines of mechanical drive of high-pressure compressors.
4. In the LUKOIL Group Sustainability Report 2020 the indicator "Energy consumption for production purposes" was adjusted compared to the data presented in the Annual Report of PJSC LUKOIL 2020.

Power consumption by types of activity, mln GJ

	2018	2019	2020
LUKOIL Group	**502**	**502**	**465**
Exploration and Production business segment	179	182	172
• Russian entities	176	178	169
• Foreign entities	2.9	4.4	3.1
Refining, Marketing and Distribution business segment	323	320	293
• Russian entities	244	238	225
– including Power Generation	72	69	64
• Foreign entities	79	82	68

Specific power consumption in producing entities, GJ/boe

	2018	2019	2020
Specific power consumption in the Exploration and Production business segment	0.297	0.302	0.320

Note.
The data are given for producing entities of Exploration and Production in Russia business segment and project in Uzbekistan.

Specific power consumption in refining entities, GJ/tonne of manufactured products

	2018	2019	2020
Total for the business segment, including:	3.9	3.7	4.0
• Russian entities	3.7	3.5	3.7
• Foreign entities	4.3	4.3	4.8

Note.

1. The data are given for "Refining in Russia" and "Refining abroad."
2. The increase in specific power consumption in 2020 was due to a decrease in refinery utilization during the pandemic.

Parma Energy

In 2020, the 16 MW Chashkinskaya GTEPS, operating on APG from the Zhilinskoye, Belskoye and Rostovitskoye fields, as well as Chashkino 110/35/6 kV, the first digital substation across LUKOIL Group and in the Perm Territory, of 2x16 MVA installed transformer capacity were commissioned. Both stations provide electricity to the oil production facilities of LUKOIL-Perm and to the residents of the territories of the Bereznikovsko-Solikamsky power center.

These facilities are key components of the LUKOIL Group's large-scale investment project in the energy sector covering the entire production cycle, including APG collection, transportation, preparation, compression, power generation, distribution, and consumption. Within the framework of this project, a second digital substation is being built, Shustovo of 8 MVA installed transformer capacity. The construction is planned to be completed in 2021.

RENEWABLE ENERGY SOURCES

The Company is focused on green power generation development in those regions of operation with suitable climatic conditions and existing renewable energy support programs.

Our goals

Our goal in the field of renewable energy is to increase LUKOIL Group's competitiveness and contribute to the SDGs by implementing renewable energy projects for generating green energy.

The key tasks include:

- Implementation of commercial RES projects, including with the involvement of government support mechanisms[1]
- Reduction in GHG emissions
- Synergy[2] from the construction of RES facilities at existing oil and gas production entities and refineries

In 2020, LUKOIL's renewable energy capacity amounted to 395 MW and included four HPPs in Russia with a total capacity of 291 MW, four solar power plants at its own refineries in Russia, Romania, and Bulgaria with a total capacity of 20 MW, and an 84 MW wind power plant in Romania.

Energy that is produced by the SPPs in Russia and the WPP in Romania is supplied to the power system and sold on electricity markets. Electricity generated by solar power plants at the refineries and filling stations in Romania and refineries in Bulgaria is used for the entities' own production needs. When electricity generated from renewable energy sources is supplied to the power system, it serves to prevent GHG emissions at thermal power plants using fossil fuels, as well as up the supply chain at the stages of fuel extraction and transportation.

2020 projects

In 2020, the construction of the second line of the solar power plant on the territory of the Volgograd Refinery continued. The first phase (with a capacity of 10 MW) was commissioned in 2018. The new phase will have a capacity of 20 MW, which will bring the total plant capacity to 30 MW. The phase is to be commissioned in 2021.

The project will be implemented using a long-term capacity supply agreement for generating facilities based on renewable energy sources on the wholesale electricity and capacity market. All capacity will be supplied to the wholesale electricity and capacity market at a special price under the agreement effective for 15 years. The commissioning of the second phase of the station will additionally generate more than 24 million kWh of green electricity per year, which is equivalent to preventing CO_2 emissions of up to 12 thousand tonnes per year (Scope 3).

The development of a construction project for a 50 MW WPP in the area of the Tsimlyanskaya HPP (Rostov region) continued during 2020. Winds were monitored for a year, and based on the results of the data obtained, the wind energy potential was clarified. A final decision on the project may be made in 2021.

Another area of "green" energy investment includes upgrading and improving efficiency of hydropower assets. After analyzing the options for advancing the hydropower cluster in the vicinity of Krasnopolyanskaya HPP, it was decided to reconstruct a small 1.5 MW HPP on the Beshenka river. In 2020, the following main works were completed: the operation of the hydroelectric unit was restored, equipment for the automation of technological processes was installed, and communication channels for remote control from the Tsimlyanskaya HPP were arranged. The station will supply power to the retail electricity market of the Krasnodar Territory, providing electricity to consumers in the Krasnaya Polyana mountain climate resort and the Big Sochi. The project will serve as a platform for the introduction of advanced technologies for automating the operation of HPPs with remote control from the dispatch center (without the physical presence of personnel).

1. Capacity supply agreement for qualified generating facilities based on renewable energy sources.
2. The synergistic (economic) effect means reducing the cost and time for the development and implementation of RES projects due to the availability of free sites at production facilities not involved in the production cycle, as well as the infrastructure and resources of the Group's entities.

Plans

Our plans for the mid-term include further expansion of solar generation at the sites of LUKOIL entities located in the south of Russia (20 MW SPP in Volgograd and 2.35 MW SPP in Krasnodar).

The project for the construction of a SPP in Krasnodar was one of the winners of an open competition held by the Administration of the Krasnodar Territory and will become a participant in the government RES support program for the retail electricity market; it is also included in the Scheme and Program for the Development of the Electric Power Industry in the Krasnodar Territory. All generated electricity will be supplied to the local power grid company at special rates under a long-term electricity purchase and sale agreement (for 15 years) in order to compensate for electric power grid losses.

The SPP will be located on land plots of the Krasnodar CHPP of LLC LUKOIL-Kubanenergo which are not involved in production. The commissioning of the power plant will make it possible to generate about 3 million kWh per year of 'clean' electricity for consumers, which is equivalent to preventing emissions of up to 1.5 thousand tonnes of CO2 per year (Scope 3). The SPP is to be commissioned in 2022.

Indicators

Over the past three years, the HPP electricity generation has been declining , which is mainly explained by lower water levels in rivers and reservoirs, and, as a consequence, a decrease in water consumption by HPPs. This is especially true at the Tsimlyanskaya HPP and the Krasnopolyanskaya HPP. Given that the volume of electric power generated from renewable sources depends on weather conditions and other natural phenomena, LUKOIL analyzes risks and pays due consideration to the forward-looking conclusions of scientists and experts. In particular, as part of the GHG emission inventory, climate change risks were assessed for the southern regions of Russia where generating capacities are located , including those powered by RES.

Total volume and share of electric power generated from renewable sources across LUKOIL Group

	2018	2019	2020
Commercial electric power from renewable sources, million kWh	**1,365**	**1,100**	**822**
including:			
• wind power	192	218	211
• solar power	17	14	12
• hydroelectric power	1,156	868	599
Total electric power produced by commercial generating facilities of LUKOIL Group, million kWh	19,919	18,307	17,139
Share of commercial electric power generation from renewable sources in total electric power produced by commercial generating facilities of LUKOIL Group, %	6.9	6.0	4.8

Economic indicators

	2018	2019	2020
Investments in RES advancement, million RUB	2,580	526	1,855
Share of investments in renewable sources in CAPEX in the Power Generation business segment, %	47	12	36
Share of income from sales of electric power produced from renewable sources, %	10.5	11.7	13.9

Note.
The indicator "Share of income from sales of electric power produced from renewable sources" is calculated as the ratio of income received from the sale of electricity produced from renewable sources to the total amount of income received from the sale of electricity generated by commercial generation facilities of LUKOIL Group.

Technology LEADER

Our main priorities are to improve accident-free performance, to ensure safe working conditions, to preserve the life and health of our employees and employees of contractors employed at our facilities.

THE REPORTING YEAR'S CHANGES AND RESULTS

A SUSTAINED LONG-TERM TREND TOWARDS REDUCTION IN ON-THE-JOB INJURY RATES BOTH AT LUKOIL GROUP ENTITIES AND CONTRACTOR ORGANIZATIONS

INTRODUCTION OF DRONES AND INNOVATIVE OIL LEAK DETECTION SYSTEMS

INCREASED SHARE OF CORROSION-RESISTANT PIPELINES IMPROVED THE SITUATION IN SIBERIA, AND THE PERM TERRITORY

ON THE AVERAGE, AN 11 PERCENT INCREASE PER YEAR DURING THE PAST FIVE YEARS OF PIPELINES WITH INTERNAL ANTI-CORROSION COATING

AN INCREASE IN THE SHARE OF THE COMPANY'S CORROSION-RESISTANT PIPELINES — NOW OVER ONE-THIRD OF THE TOTAL (32.2 PERCENT) (23.6 PERCENT IN 2016)

CONTRIBUTION TO IMPLEMENTATION OF SDG

8 DECENT WORK AND ECONOMIC GROWTH

- 82 percent was the coverage of employees of LUKOIL Group entities, which have occupational health and safety and environmental management systems certified of compliance with the requirements of ISO 14001 and ISO 45001 standards.
- Outbreaks of COVID-19 were treated and contained.

PLANS FOR 2021 AND THE MIDTERM

To implement the Program of Industrial Safety, Improvement of Labor Conditions and Occupational Safety, and Emergency Prevention and Liquidation of LUKOIL Group entities for 2021–2023.

To continue integration of digital technology and new safety culture tools.

To implement and replicate best practices for safe operation and actions in both routine situations and emergencies.

To review Company oil and oil product spill prevention and response plans at the hazardous facilities of the Group entities.

CONTEXT

Occupational safety and health, a key element of well-regulated workplaces[1], have become increasingly important during the COVID-19 pandemic[2]. Changes in the organization of work and production processes (for example, limiting the number of people on the premises) may create new hazards that need to be identified early. There is also a growing need for measures to reduce the level of work-related stress.

The demands of workers and the requirements for safe working conditions are certain[3] to change in the post-coronavirus world.

Companies must prepare for this[4] by implementing appropriate health and safety measures and creating a comfortable work environment to ensure the safety of all personnel. The effectiveness of business continuity plans tailored to specific situations will largely determine how quickly companies are able to act.

Furthermore, experts note that the quality of management of information technology related to swift spread of data analysis instruments, machine learning and neural networks needs to be enhanced. This pervasive reliance on complex algorithms can pose risks to both business processes and employees, since the internal structure and functioning of the systems are usually hidden from end users, making it difficult to assess the correctness of their work.

LUKOIL contributes to SDG 8 ("Decent work and Economic Growth") keeping high coverage of Group's entities with occupational health and safety management system, and expanding measures to reduce injuries and emergencies considering external environment changes and internal objectives.

1. Source: Ensuring Safety and Health at Work during the Pandemic. International Labor Organization (ILO), 2020.
2. In response to the pandemic, ISO published on an expected basis newly developed standard ISO/PAS 45005, Occupational health and safety management — General guidelines for safe working during the COVID-19 pandemic.
3. Source: COVID-19 and the World of Work. International Labor Organization (ILO), 2020.
4. Source: The Sustainable Development Goals Report, United Nations, 2020.

Integrated Health, Safety, and Environmental Protection Management System

ELEMENTS OF THE MANAGEMENT SYSTEM	CORPORATE DOCUMENTS
GOALS	
Corporate policy establishes LUKOIL Group's strategic goals, principles, and obligations	LUKOIL Group Policy for Health, Safety, and Environmental (HSE) Protection in the 21st Century; approved by the decision of the Management Committee of PJSC LUKOIL dated May 25, 2020 [1]
PRIORITIES / STANDARDS	
Corporate standards are applicable to all LUKOIL Group entities. Safety culture tools are used	15 corporate standards of STO 1.6 "HSE Management System" series (approved by Orders of PJSC LUKOIL No. 26 dated February 11, 2019, No. 86 dated May 17, 2019, No. 98 dated June 11, 2019, and No. 149 dated August 26, 2019)
RISK MANAGEMENT	
The Material HSE Risks Register and the Material Environmental Issues Register are updated on an annual basis. These Registers are analyzed by the HSE Committee of PJSC LUKOIL and approved by the First Executive Vice President of PJSC LUKOIL	STO LUKOIL 1.6.6 (order of PJSC LUKOIL No. 133 dated July 24, 2019)
COMMUNICATION WITH TRADE UNIONS	
An ongoing contact is maintained with authorized occupational health and safety representatives and trade unions	Agreement between the employer and the Trade Union of PJSC "Oil Company 'LUKOIL'" for 2015–2020
KEY PERFORMANCE INDICATORS	
The composite indicator "Ensuring the Required HSE Levels at LUKOIL Group Entities" comprising those related occupational injuries and accident rates, and also the key environmental impacts (pollutant emissions and discharges, waste management) is established annually	Regulations on Evaluating the Key Performance Indicator "Ensuring the Required HSE Levels at LUKOIL Group Entities," approved by Order of PJSC LUKOIL No. 83 dated April 22, 2020
CERTIFICATION OF THE MANAGEMENT SYSTEM	
The Integrated HSE Management System has been certified for compliance with the international standards ISO 14001-2015 and ISO 45001–2018	As at December 31, 2020, certificates issued to 42 LUKOIL Group entities were in effect (covering 82% of total LUKOIL Group headcount)
TARGETED PROGRAMS, PROJECTS, AND INITIATIVES	
The Program of Industrial Safety, Improvement of Labor Conditions and Occupational Safety, and Emergency Prevention and Liquidation of LUKOIL Group entities for 2020–2022. The Environmental Safety Program for 2020–2022[2]	The Programs were approved by Order of PJSC LUKOIL No. 28 dated February 18, 2020
FURTHER INFORMATION	
Corporate HSE Policy:	Integrated Management System:
Insurance Policy	

1. HSE Policy
2. ESP. The Environmental Safety Program. During the previous reporting period, the target programs for 2019–2021 were in effect.

INTEGRATED HSE MANAGEMENT SYSTEM

According to its corporate HSE policy, LUKOIL Group's top priorities are to create a safe work environment, protect the health of its employees and people living in the areas where we operate, and ensure sustainable use of natural resources drawing on the best available technologies to preserve a healthy environment. We apply the precautionary principle and prioritize preventive measures over reactive ones as part of the existing risk management system.

The Integrated System of Management of Industrial, Fire, Radiation Safety, Emergency Prevention and Mitigation, the Protection of Civilians, Occupational Safety and Environmental Protection (the Integrated HSE Management System) has been implemented and operating for more than 20 years to address these tasks. The Integrated HSE Management System was introduced on the Company's own will; it is compliant with Russian legislation and best international practices and covers all Group entities as part of the operational control of PJSC LUKOIL.

Our strategic goal is to enhance industrial safety, reduce on-the-job injury rates, ensure accident-free operation of production facilities and consistently reduce our environmental footprint.

Elements of the Integrated HSE Management System

The Integrated HSE Management System provides for the identification and management of risks and environmental issues. The risk-oriented approach is applied to system planning, implementing targeted functional programs, and monitoring results by assessing KPIs and reporting to the Management Committee and the Board of Directors of PJSC LUKOIL.

The targeted functional programs are aligned with the corporate mid-term planning procedures; they are developed for three years, reviewed annually and approved by the management of PJSC LUKOIL. Measures implemented as part of the targeted programs are funded and form an integral part of the LUKOIL Budget and the Investment Program. In addition, research and engineering projects are undertaken as part of the R&D program.

The incentives system for managers and employees based on the "Ensuring the Required HSE Levels" KPI is a critical element of the Integrated HSE Management System shaping our corporate culture. The Management Committee of PJSC LUKOIL annually sets KPIs for each Group entity, for PJSC LUKOIL, and LUKOIL Group. Heads of the Group entities receive quarterly bonuses based on their safety record. The requirements include a record of zero fatal on-the-job accidents among their full-time employees, and the absence of accidents and incidents resulting in significant property damage or facility downtime of more than thirty days. If any of the above occur, the Group's entity receives the maximum number of penalty points.

Annual HSE training programs ensure that we maintain employee awareness and skills as appropriate under legal regulations and corporate standards.

The data on the amount of HSE training and training costs are given in Appendix 7. Information on the Integrated HSE Management System can be found on the website

Leadership and Safety Culture

We enhance the Integrated Management System by using leadership and safety culture tools that focus primarily on minimizing human error, which is most often the principal cause of accidents. Implementation of safety culture tools at our entities is intended to stimulate safe employee behavior.

PJSC LUKOIL holds annual Safety Days[1]. Heads of PJSC LUKOIL subdivisions and LUKOIL Group entities take part in Safety Leadership Visits. We work continuously on raising awareness and competence of the Group's specialists and executives. For example, the Safety Days program always includes discussions of best practices and challenging cases, as well as training sessions.

Projects are under way to introduce leadership tools and to involve personnel at all levels in conscious

1. Safety Days are held in each LUKOIL Group entity at least twice a year.

and active efforts to improve safety and develop strong beliefs and behavioral patterns in employees. In our daily operations, we already use electronic work permits and on-the-job training for more than twenty occupations[1], digital video surveillance and intelligent video analysis systems, instructional videos on the safe operation of certain types of activities, and the Mobile Inspector application, among other safety tools. Every year, we hold competitions[2] where we award the participants developing the best projects, and the success of safety culture measures is taken into account when drawing up the results.

The information about the implementation of safety culture tools can be found on the website.

Liability insurance

The Integrated HSE Management System includes voluntary third-party civil liability insurance of the Group entities and compensation for personal injury and environmental damages. The insurance principles, including those concerning catastrophe coverage, are defined by the Insurance Policy of PJSC LUKOIL and LUKOIL Group entities.

In the event of an accident or incident at a hazardous production facility, the Company is committed to taking responsibility and providing compensation for the damage caused. All the Group entities that operate hazardous production facilities are insured and compensated for damage using insurance coverage or profits, if the insurance coverage is insufficient.

Efficiency assessment of the Integrated HSE Management System

The Integrated HSE Management System is constantly updated following the results of internal and external audits for compliance with legal requirements and corporate standards, the result is the development of systemic actions to eliminate violations both at the audited facilities and at similar LUKOIL Group sites. Internal audits are intended to assess the system's performance and provide the Company's management with unbiased and relevant information on the HSE status. In 2020, due to the COVID-19 pandemic we adjusted the number of routine internal audits to focus on unscheduled, targeted audits of facilities operating in the most vulnerable areas — the Arctic and the Baltic Sea.

Changes in the Integrated HSE Management System during 2020

During the reporting year, the HSE Policy, risk assessment system and target program structure were modified. We updated the KPI evaluation criteria and introduced new leadership and safety culture tools.

- The HSE Policy reflects changes related to PJSC LUKOIL's transition to the new ISO 45001 Occupational Health and Safety Management Systems standard (instead of OHSAS 18001); it adds an accident risk reduction goal and obligations to consult with employees on HSE requirements and effective management of GHG emissions (see the "Climate change" section for details). We successfully passed an external audit, confirming our compliance with the requirements of ISO 45001.
- The risk management system introduced criteria for a more comprehensive analysis of the causes of risk events and responsibility for their occurrence. When compiling the registers of significant risks, a new risk typical for all Group entities associated with the COVID-19 pandemic and potential similar events in the future was identified.

Number of entities where audits of management systems were performed

	2018	2019	2020
External audits (for compliance with ISO 14001 and ISO 45000 standards)	19	20	16
Internal audits (for compliance with corporate requirements)	27	23	17

Notes.
External audits are conducted in a three-year cycle in accordance with ISO committee recommendations. During this period, all 42 LUKOIL Group entities that had applied for certification, and where certification or supervisory audits take place, are examined.

1. This project will be completed across the LUKOIL Group entities in 2021.
2. In the Group's entities and PJSC LUKOIL.

- The following changes were introduced into the assessment methodology of "Ensuring the Required HSE Levels at LUKOIL Group Entities" KPI:
  - a new criterion for evaluating the Group entities ("an unsatisfactory assessment based on the results of HSE compliance audits") was incorporated;
  - a procedure for interaction between PJSC LUKOIL structural subdivisions during the KPI evaluation was added.
- The structure of targeted functional programs was amended to focus on emergency prevention. From 2020, all activities related to ensuring the reliability of production processes and equipment are formulated within the Industrial Safety Program, resulting in more funding for the program.
- The Regulation on Best HSE Practices was approved to ensure continued strengthening of our safety culture[1]. Identifying and sharing best practices will help improve existing practices and implement new management and manufacturing processes and operations, and this will enhance safety overall.
- In addition to the leadership programs of the Group's entities, the Technical Inspectorate of the Trade Union Association (IATUO of PJSC LUKOIL) also rolled out activities on safety culture through the Occupational Safety commissioners. In 2020, a new method of improving occupational safety — the Leadership and Safety Culture System of Occupational Safety Commissioners. Its principal objective is to convince each employee of their ability to become a safety leader, thus shaping a new mindset in the workforce. The IATUO Chairman has already held his first Leadership Visits. We have organized seminars attended by 479 occupational safety commissioners and created the e-learning course on "Leadership and Safety Culture" to continue the training.

Financing of HSE targeted and investment programs at LUKOIL Group, RUB million

Program	2018	2019	2020
Environmental Safety Program	**35,529**	**35,903**	**22,440**
including:			
• capital costs	28,498	30,046	17,857
Industrial Safety Programs, Better Working Environment, Emergency Prevention and Response Program	**10,093**	**12,008**	**31,161**
including:			
• costs to improve labor conditions and protect health, reduce occupational injury and occupational disease rates	4,946	5,281	6,532
• costs to reduce accident, incident, fire, and emergency risks	5,147	6,727	24,629
R&D, experimental engineering, and scientific technical works in Russia	**80**	**57**	**29**
including:			
• environmental protection	58	34	19
• industrial safety	22	23	10
Total, RUB million	**45,702**	**47,968**	**53,630**

Note.
Following the decision of the HSE Committee in 2020, expenses for several activities related to emergency prevention and response (including activities to improve the reliability of pipeline transportation) were reallocated from ESP to ISP. Cost changes for R&D projects depend on funding schedules for approved projects.

1. Full name of the document: Regulation on Best HSE Practices of LUKOIL Group to fulfill the objective of improving industrial safety, reducing injuries and ensuring accident-free operation of production and other facilities, as well as continuous reduction of environmental impact and systematization of the experience accumulated in LUKOIL Group entities.

INDUSTRIAL SAFETY

LUKOIL is engaged in onshore and offshore activities that can potentially pose a risk to territories, residents, and the environment. We cannot prevent every incident, but we recognize our responsibility and apply the principle of due diligence to mitigate risks and prevent incidents and emergencies[1], including those caused by oil and petroleum product spills. In accordance with the laws of the countries where we operate and on the basis of voluntary commitments undertaken by LUKOIL, the Company has established a comprehensive system of measures to prevent, respond and eliminate the consequences of emergencies.

Our goals

- Improving HSE conditions, reducing the risk of accidents at hazardous production facilities, including by improving the reliability of process equipment, including the integrity of pipelines
- Ensuring the preparedness of the management bodies of the LUKOIL Group entities, personnel and Emergency Response Teams (ERT) to liquidate potential accidents, fires, and emergencies
- Improving procedures for the preparation and implementation of programs addressing the most pressing issues of industrial, fire, environmental safety, occupational health and safety, and prevention of emergencies

To achieve these goals, LUKOIL Group has committed to take all available steps and to effectively implement them in order to mitigate the risk of injuries and occupational diseases, accidents, and emergencies. This commitment is part of the LUKOIL Group HSE Policy. Reliable functioning of the Integrated HSE Management System is key to achieving the goals.

We strive to comply with global best practices and have consistently maintained low rates of accidents, work-related injuries, and occupational diseases for a long time[2].

Industrial Safety Program

Thanks to the measures taken as part of the ISP programs over the long term, there has been a steady improvement in pipeline system reliability and a reduction in injuries among full-time employees and contractor personnel. Most of the ISP activities scheduled for 2020 were completed, despite the challenges presented by the COVID-19 pandemic.

The year 2020, however, saw several indicators decline as a result of oil spills and an increase in the number of accidents (for detailed information, see the sections “Reliability of Pipeline Transportation in Russia” and “Occupational Health and Safety”). The meetings of the HSE Committee and the Board of Directors addressed the issues of occupational injuries and accidents and approved action plans to reduce the likelihood of any recurrence.

The President of PJSC LUKOIL met with the heads of the Group’s entities to discuss the need to enhance industrial and environmental safety measures. Following the meeting, the President gave instructions to carry out additional audits of production facilities. As part of implementing this order, we arranged for an inspection of equipment and preparedness of all our Russian organizations to prevent and respond to oil spills.

- The technical condition of facilities and machinery was inspected and evaluated with due regard to the environmental impact. Emphasis was placed on reservoirs and tank farms located in the vicinity of water bodies.
- All mothballed sites were inspected, and proposals were prepared to terminate or continue operating the equipment.
- Technical means and the availability of trained personnel of the Emergency Response Teams were carefully reviewed. A new procedure for continuous monitoring of the ERT efficiency was introduced during the pandemic. Plans for emergency operation drills were adjusted: in regions with a complicated epidemiological situation, full-scale drills were replaced by office- and site-based training to minimize contact among participants.

1. In Russia, an emergency is defined as a situation resulting from, among other things, an accidental oil or petroleum product spill that may cause or has caused human casualties, damage to human health or the environment, significant material losses, and disruption of living conditions of people. Emergencies can be split into categories. The minimum category refers to spills of less than 100 tonnes (or 714 boe, with 1 boe = 0.14 tonnes).
2. Transportation safety issues are not significant for LUKOIL’s operations as they apply to a small volume of traffic (which includes the personnel transfers and transportation of fuel by motor vehicles for retailing) and are taken into account in the corporate occupational safety system. The bulk of products is supplied to foreign and domestic customers through the transportation systems of Transneft and Russian Railways, as well as by marine and river tankers of third party carriers. LUKOIL does not have its own rolling stock of rail cars and tanker fleet.

Measures to prevent spills and emergencies

The Company has a system of measures to prevent spills and emergencies.

A mandatory assessment is made of the risks of potential spills using scenario simulation at the stage of designing production activities, as well as during the operation of production facilities.

All of our Russian entities operating hazardous production facilities have Emergency Spill Prevention and Response Plans (SPR Plans) in place. Each document contains step-by-step instructions for emergency prevention, detection, and response activities to ensure a rapid response and efficient cooperation between emergency response and recovery personnel.

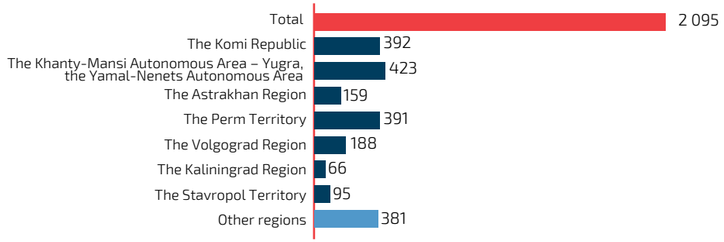
LUKOIL Group entities have set up emergency response teams[1] from among the Company’s employees to address accidents. The total number of responders exceeds 2 thousand people, some of whom are stationed directly at production facilities. In addition, we have signed agreements with third-party professional response teams. All response teams have been certified to perform emergency response and recovery operations.

The arrival of ERT on the scene of an incident is regulated by the SPR Plans. If an incident takes place in a remote area, the first to respond is the ERT closest to the site of the emergency. The containment period for the oil spill may not exceed four hours (in case of a spill on waters) and six hours (in case of a land spill) from the moment the spill is detected or the notification about the spill is received.

Employees from our corporate ERTs are also involved in liquidating emergencies that occur in LUKOIL’s regions of operation but are not associated with the Company’s activities. This way, LUKOIL assists regional administrations and local communities. For instance, our response workers helped with putting out forest fires in Western Siberia in 2019.

Detailed description of the prevention system for oil spills, including spill risk assessment, description of spill prevention and response plans, Emergency Response Teams activities can be found on the website.

ERT headcount, people



1. Establishing in-house emergency response teams and contracting professional response teams is regulated by the legislation of the Russian Federation.

Measures for contractors' performance quality enhancement

PJSC LUKOIL uses a comprehensive approach which combines control and interaction methods with contractors to enhance the quality of work performed by service organizations of exploration and production.

- In-house and outsourced supervisors, who act as authorized representatives of the customer, continuously monitor service companies' compliance with design documentation, work plans, industrial safety requirements. Checklists were elaborated to cover the entire scope of issues, from record-keeping to the quality and safety of work performance. Carrying out hydraulic fracturing works is accompanied by enhanced control of supervisors and hydraulic fracturing specialists.
- Joint discussions of field engineering reports with service companies and the chief designer (LUKOIL-Engineering) for design solutions implementation and cooperation on ways to improve the quality of service.
- Regular control field audits are conducted to inspect work performance of engineering and technical personnel of drilling units and occupational and industrial safety departments.
- West Siberian sites employ a method designed and tested to rate well construction and reconstruction service companies.
- Constant interaction is maintained with service companies, for discussion of pressing issues and a joint search for improving the quality and safety of operations. Contractor representatives' participation in Safety Days, where there is an opportunity to learn best practices and present their own experiences.

The existing contracts with all contracting entities provide for penalties for any violations of health, safety, and environmental requirements.

In 2020, more than a thousand inspections[1] of contractors were conducted at the Russian entities of LUKOIL Group as part of corporate governance and production control. Employees of counterparties were held liable for any violations and penalties were imposed. Counterparties were required to initiate measures to eliminate and prevent violations in a timely manner.

In 2020, LUKOIL launched pilot projects to compile contractor ratings at LUKOIL-West Siberia and the Perm refinery to encourage contractors to improve their safety culture. The experience was deemed positive, and there are plans to replicate it at other entities.

1. Full details of the total scope of the inspections are provided in the Annual Report for 2020, page 70.

RELIABILITY OF RUSSIAN PIPELINE SYSTEM

Management system

ELEMENTS OF THE MANAGEMENT SYSTEM	CORPORATE DOCUMENTS
GOALS	
The Company's policy related to improving the functional reliability of pipeline transport is governed by legal requirements and corporate standards	Federal Law No. 116-FZ "On the Industrial Safety of Hazardous Production Facilities" dated July 21, 1997, Federal rules and regulations on industrial safety "Safety rules in oil and gas industry" (approved by Rostekhnadzor order No. 534 dated December 15, 2020); "Rules for the Safe Operation of In-Field Pipelines" (approved by Rostekhnadzor order No. 515 dated November 30, 2017); other federal regulations and rules on industrial safety
PRIORITIES/STANDARDS	
Our priority is to adopt an integrated approach to the safe operation of pipelines: inhibitor coating, the introduction of corrosion-resistant pipes, timely diagnostics, and the prompt elimination of detected defects	Corporate regulations (STO LUKOIL 1.19.1-2012; 1.19.2-2013 and 1.19.3-2013)
INDICATORS	
The pipeline failure rate for oilfield pipelines, number of failures per 1 km, per year	Resolution of the Network Group "Improvements to the Oilfield Pipe and Tubing Reliability" of PJSC LUKOIL (further, Network Group)
ASSESSMENT	
The principal source of expertise is the activities of LUKOIL's Improvement of the Oilfield Pipe and Tubing Reliability Network Group, which forms part of the Corporate Knowledge Management System	Regulations on the Knowledge Management System of the Exploration and Production business segment (approved by the First Executive Vice President Ravil Maganov on March 19, 2014)
RESPONSIBILITY	
The system covers all management levels, from senior management to specialized units at LUKOIL Group entities. Responsible individuals in this area also include the experts and the head of the Network Group	The approved annual work plan of the Network Group as part of the Industrial Safety Program
TARGETED PROGRAMS, PROJECTS AND INITIATIVES	
Every Russian oil and gas producer has an investment program "The renovation and technical re-equipment of pipeline transport facilities"	Annual and mid-term investment programs of PJSC LUKOIL The Integrated Program on the Improvement of Oilfield Pipeline Reliability, adopted by each entity of the Exploration and Production business segment

Our goals

In Russia, LUKOIL operates a well-developed field pipeline system that is longer than the Earth circumference at the equator and the most extensive offshore pipeline system among Russian oil and gas companies (over 550 km, in length). We consistently carry out work to mitigate pipeline failure risks and have a well-run reliability management system for oilfield and mainline pipelines in place[1].

Our goal is the consistent maintenance and stabilization of the system and the reduction of pipeline accidents as per the best global practices.

Continuous and targeted work to improve pipeline reliability indicators is crucial for minimizing the risk of accidents. At the same time, other underlying causes, such as "human error" during construction, maintenance, and repair activities performed by service organizations, the integrity of other process equipment, etc., also influence the overall accident results. For this reason, we combine measures to improve the reliability of the pipeline system with steps to ensure the safety of production facilities and contractor responsibility.

Prevention of land spills

To improve pipeline reliability, we continuously monitor the condition of pipelines using various methods designed to prevent corrosion, as well as unintentional or intentional damage that may be caused by third parties.

The main activities under the "Reconstruction and technical re-equipment of pipeline transport facilities" program resulted in the following:

- Increase of the share of pipelines with anti-corrosion coating: when replacing corroded sections of pipelines, we used such pipes 100 percent of the time.
- Additional laying of internally coated pipes, which has increased on average 11 percent per year over the last five years.
- The share of pipes with a longer service life, as well as pipes made of non-corrosive materials, is being increased.
- The share of pipeline replacement in 2020 was 2.3 percent. The replacement volume and rate[2] are determined based on the results of diagnostics, examinations, and inspections of their technical condition and subject to the following criteria: any potentially hazardous sections and preconditions for incidents, scheduled increase in product transfer volumes, and elimination of regulations by regulatory authorities.

The share of operating pipelines, including corrosion-resistant pipes older than 20 years has been reduced. This indicator was 19 percent of the total length of the pipeline system in 2020 and decreased significantly over the past five years (it was 23 percent in 2016). The inspection and monitoring of these pipes are more frequent, with the concurrent use of several methods of control during one visit (for example, magnetic inspection, automated diagnostic complexes, and other modern methods).

Thanks to the comprehensive measures taken, reliability indicators improved in 2020 in the main oil production areas — Siberia and the Perm Territory. The specific coefficient of pipeline failures[3] in all Russian entities continued to decline in 2020 and stood at 0.062 cases per 1 km of pipeline per year (0.081 in 2019).

Reliability indicators of the Russian pipeline system, %

	2018	2019	2020
Share of corrosion-resistant pipelines	26.8	30.4	32.2

The principal methods of improving reliability of field pipeline operation

- Quality control of tubular products at manufacturing plants and close interaction with suppliers
- Industrial safety reviews, early engineering diagnostics, and corrosion monitoring of pipelines with a risk rating of anomalies and defects identified. Based on the results of inspections, identification of potentially hazardous sections that need to be repaired or replaced
- Expanding the application of alternative non-corrosive materials and pipes with internal protective coatings
- Application of inhibitor and electrochemical protection of pipelines

1. The information in this section pertains only to the Russian entities of LUKOIL Group.
2. The rate of replacing rejected pipes is determined not only by the Company's investment plans but also by the need to comply with statutory procedures and documentation.
3. A pipeline failure does not always entail a spill of oil, oil products or formation water, or a gas leak. Pipeline failure means a failure of performance associated with a sudden total or partial shutdown of the pipeline due to depressurization of the pipeline itself or shut-off and control valves or a blockage of the pipeline. The calculation uses the total length of pipelines (oil pipelines, gas pipelines, and water pipelines).

Pipes made of alternative materials. We see the use of pipes made of alternative (polymer) materials as the primary way to improve the corrosion-prone sections of pipelines. Non-metallic pipes are already in use at RITEK's facilities in the Volgograd Region, and field trials are ongoing at LUKOIL-West Siberia and LUKOIL-Perm's facilities.

The Ministry of Energy of the Russian Federation appointed an interdepartmental task force to develop national standards for the use of polymer pipe products. LUKOIL's experts partake in the work of the task force. In 2020, a national standard was developed for the design and operation of field pipelines made of fiberglass pipes, and this standard is expected to be approved in 2021, while two other standards for using polymer-reinforced pipes are to be developed and approved. We believe that with the new national standards in place and, given positive test results, the use of non-metallic pipes in the oil and gas industry will increase significantly.

Interaction with suppliers. Incoming quality control of pipe products delivered and cooperation with pipe manufacturers to improve the performance characteristics of pipes are vital aspects of our efforts to increase the reliability of pipelines.

The proposal by LUKOIL experts to use the manufacturer's pipe labeling will help in tracing products, including their reliability and quality indicators, and contribute to better reliability of pipelines in the Russian oil and gas industry overall.

In 2020, LUKOIL, together with a pipe manufacturer and with the participation of St. Petersburg Polytechnic University, conducted tests of various labeling methods, which resulted in determining the most promising types. Labeling durability and traceability of the pipe life cycle will be demonstrated by pilot trial runs scheduled for 2021–2022.

New methods for monitoring pipeline integrity

During the last two years, new methods to improve pipeline safety have been tested and implemented. These include:

- oil leak detection systems and technical devices that prevent hydraulic shocks;
- unmanned aerial vehicles (UAVs).

Leak and tamper detection systems, pressure stabilizers. Leak detection systems are being installed along vulnerable sections of pipelines to allow for early detection of even minor oil leaks and enable a response within 2 hours. The equipment has already been delivered to the Komi Republic and to RITEK facilities. Four of these systems have already been installed in the Komi Republic. We plan to continue expanding their use by installing seven more systems in the Komi Republic, the Perm Territory, RITEK facilities, and the multiphase pipeline at the new D-33V field in the Kaliningrad Region.

To ensure the safe operation of high-pressure water pipelines, self-pressure stabilizers that prevent fractures resulting from internal hydraulic shock are installed at potentially hazardous sections. This solution increases the reliability of high-pressure water pipeline operation.

Unmanned aerial vehicles. We started using UAVs (including those with internal combustion engines that can operate in Arctic conditions) for aerial surveillance of production facilities and monitoring of changes in conditions during emergencies. The main advantage of UAVs is the early detection of depressurized pipelines with oil spills. The frequency of flights depends on local conditions and the nature of the facilities: in particular, in-field and inter-field pipelines are circled at least once every three days.

LUKOIL's specialists have been working closely with contractors who perform aerial patrols using UAVs to fine-tune the software of the drones when operating in different weather conditions, as well as to improve methods of surveying and processing the data obtained.

Indicators

Since 2016, the indicators for the pipeline system reliability of Russian entities improved as a result of annual ISP activities. Yet, four significant[1] oil spills occurred in 2020 with oil released into water bodies (in the Komi Republic, the Nenets Autonomous Area, and in Western Siberia), which affected the data dynamics.

The detailed description of incidents can be found in Appendix 3, including preliminary data on the accident in the Komi Republic in 2021

LUKOIL's personnel acted strictly in accordance with the Spill Prevention and Response Plans with operational headquarters set up in all cases.
For localization and clean-up, the Company mobilized:

- 47 emergency response workers from the ERT, more than 19 pieces of equipment, and 4.5 tonnes of sorbent (on the Laia River in the Komi Republic);
- over 500 emergency response workers, more than 100 pieces of machinery and equipment, and over 27 tonnes of sorbent (on the Kolva River in the Nenets Autonomous Area);
- more than 20 emergency response workers from ERT, 12 pieces of equipment, and 1.5 tonnes of sorbent (on the Nong-Egan River in Western Siberia).

The root causes of accidents and lessons learned were analyzed by each of the Group entities and during the LUKOIL Safety Day. The root causes identified were:

- violation of labor regulations and work discipline by employees;
- use of unsafe work practices by contractors;
- improper handling of pipelines and their safe operation;
- failure of the production equipment.

Steps that were taken to efficiently respond to these emergencies were highlighted as "lessons learned".

- The use of UAVs made it possible to significantly cut the leak detection time and to accurately determine the contamination area and working conditions.
- The methodology for removing a spill in a fast-flowing river was finalized to include the following: the technology for installing oil booms was improved; the most suitable transportation (small vessels with outboard motors) and equipment (portable sprayers) were prioritized.
- The availability of trained personnel (including those with skills to operate non-standard equipment) facilitated the prompt cleanup of the spilled oil.
- Local residents were consistently kept informed, and the environmental community was engaged.

Indicators of oil spills in Russian LUKOIL Group entities

	2018	2019	2020
Volume of oil spilled in accidents, tonnes	32	16	43
Including significant spills, tonnes	0	0	6
Number of significant spills, incidents	0	0	4
Specific coefficient of spills, kg of spilled oil and oil products per 1,000 tonnes of extracted oil and gas condensate	0.4	0.2	0.6

Notes.
1. Data are provided for all the Russian oil and gas production entities under operational control (the list of LUKOIL Group entities can be found in Appendix 1).
2. The specific coefficient of spills is calculated based on the volume of oil and gas condensate production in Russia (excluding the share in affiliates).

1. The definition of a material spill is given in Appendix 6.

PREVENTION OF SPILLS AT SEA

Oil field development offshore is technologically more complicated than onshore, and, therefore, requires special attention and efforts to ensure the reliability of equipment and the safety of operations.

For over 15 years, LUKOIL has been operating offshore facilities (terminals, oil and gas production platforms, subsea pipelines) accident-free. This is the result of the Company's highly responsible approach to safety and preservation of marine resources.

Our actions

LUKOIL's system of in-house regulations and internal standards and procedures accords with the Safety Rules for Offshore Oil and Gas Facilities of the Federal Service for Environmental, Technological and Nuclear Supervision (Rostekhnadzor) and the Rules of the Register for classification and construction of offshore fixed platforms and Pipelines of the Russian Maritime Register of Shipping[1]. Construction and operation of offshore facilities is permitted upon availability of statements of compliance with these requirements and based on permits issued by state authorities.

PJSC LUKOIL has developed Methodological Guidelines for ensuring reliability of offshore pipelines and corporate standards, which contain even more stringent safety requirements as compared to the Russian legislation. There is also a standard operating procedure in effect, which provides for the classification of well defects and the rules for their repair. Starting from 2018, all work has been performed in accordance with these documents.

Design and construction

Design, construction, maintenance, diver inspection, and repair of offshore facilities are carried out by specialized service organizations that are selected through tender procedures and technical audits. At the design and construction stage, LUKOIL assesses compliance of design and working documentation with reliability and safety requirements by engaging independent expert organizations. All well construction work at the fields is performed by contractors under the supervision of LUKOIL Group entities through drilling supervisors (working directly on drilling platforms) and production engineers (working from the office).

In accordance with the Oil and Oil Product Spill Prevention and Response Plans, special vessels with full equipment for emergency management (under a contract with professional emergency rescue teams) are on 24-hour duty around all LUKOIL's offshore facilities.

Well condition monitoring

Wells are assessed and monitored during downhole operations using instruments that assess the condition of downhole equipment and the string operation (pressure and temperature sensors and devices for measuring other parameters). The operation and condition of the equipment are monitored 24 hours a day; the measurement results are sent to the remote-control system, which is constantly monitored in the presence of service personnel.

1. This organization is a full member of the International Association of Classification Societies and oversees compliance with the maritime law and the requirements of international conventions for offshore facilities.

Offshore pipeline monitoring

Every year, diver inspections of subsea pipeline routes and work to maintain their proper technical condition are carried out. In-line and visual diagnostic methods are used: pipeline wall thickness is measured, metal loss/stratification and equipment spatial positioning are assessed, and corrosion monitoring systems are installed. The results of inspections are entered into databases for GIS applications. The frequency of inspections is strictly regulated by industry legislation[1] and corporate standards.

There was no need to replace pipelines during the entire life of the projects at the Northern Caspian and Baltic fields. LUKOIL adopted the new Russian technology "Beluga", which can be used to perform repairs without stopping the pumping of the product.

In order to avoid environmental risks, a safety system is in place to ensure a high degree of protection of the marine environment from the possible negative impact of production operations.

Zero Discharge

The main principle of offshore work is Zero Discharge, which prohibits disposal of any type of waste generated as a result of production activities into the marine environment. All waste is collected in hermetically sealed containers, which are then transported to the shore for decontamination and disposal.

Environmental and Satellite Monitoring of Offshore Zones and Shorelines

In Russia, LUKOIL-Kaliningradmorneft and LUKOIL-Nizhnevolzhskneft entered into contracts with specialized organizations for continuous environmental monitoring of the waters of the Baltic and Caspian seas within the boundaries of the licensed subsoil areas.

For more details, please refer to the "Environmental Protection" section.

Platforms in the Caspian Sea

The duty rescue vessels Langepas and Kogalym are on duty around the LUKOIL platforms in the Caspian Sea. In 2020, new equipment to localize and eliminate emergency oil spills was purchased for them. The Speed Sweep allows cleaning the oil film from the water surface at a higher speed. This technology goes down from the vessel and does not require the use of a loader crane and auxiliary equipment, all of which all of which increase the response speed.

1. Russian Maritime Register of Shipping "The Guidelines on Technical Supervision during Construction and Operation of Subsea Pipelines. Regulatory Document No. 2-030301-002"

OCCUPATIONAL HEALTH AND SAFETY

The Company's key priorities are to ensure safe working conditions, to preserve life and health of its employees, as well as employees of contractor organizations working at LUKOIL facilities. The Policy includes the Company's obligations to require all employees of LUKOIL Group entities and personnel of contracting organizations to comply with the established safety rules, to offer training and continuously improve the qualifications of employees, and to provide incentives.

Our actions

In order to prevent injuries, we regularly identify risks (including critical risks) in accordance with the corporate standard and take measures to manage them, take occupational safety measures, and regularly inform our staff and contractors about the state of injuries.

In the event of accidents, all LUKOIL Group entities carry out investigations and the results are communicated to the heads of LUKOIL entities and structural subdivisions of PJSC LUKOIL, considered at the meetings of the HSE Committee of the PJSC LUKOIL Board of Directors and included in the annual report to the PJSC LUKOIL Management Committee and on the agenda of the Board of Directors' meetings.

As part of the Industrial Safety Program, measures are taken annually to ensure safe working conditions and preserve the health of employees. The timeframe for implementation is one year, while some of them are of an ongoing nature. The main areas for the reduction of injuries and occupational diseases include the following measures:

- Key safety rules and liability mechanisms for non-compliance by LUKOIL employees and contractor personnel have been introduced.
- Best practices in the work of LUKOIL entities and contractors are disseminated and replicated.
- Digital solutions and equipment are introduced.
- The institute of technical labor inspectors[1] is introduced in key contracting organizations with the participation of the IATUO association of trade unions.

The COVID-19 pandemic accelerated the introduction of digital technologies based on remote operations.

- An automated system for generating and approving work permits is used, which made it possible to minimize interaction between employees when issuing hazardous work permits.
- Automated systems for briefing projects are being implemented and full implementation is planned for 2021.
- Digital video surveillance systems are installed at the oil refineries to detect and prevent the occurrence of abnormal[2] situations.
- Interactive training calendars for 2021 named "Safety Culture" have been developed.
- A solution was implemented in the corporate automated control system for fuel stations: i.e., pop-up windows now remind personnel of the safety rules before the start of hazardous operations (for example, receipt of fuel tankers).

Additional information on occupational health measures can be found on the website.

1. The Institute of Technical Labor — exercise of public control (on behalf of trade union organizations) over compliance with labor laws and other regulations in the field of labor protection by forces of technical labour inspectors.
2. Abnormal situation is the occurrence of conditions and states in the operation of technical systems that differ from those envisaged by projects, standards and regulations and can lead to dangerous conditions.

Implementing a safety culture at oil refineries and petrochemical entities

LUKOIL refineries are state-of-the-art production facilities with a large amount of complex equipment and potentially hazardous technological processes. Therefore, we are constantly focused on fostering safety culture. At the entities of the PJSC LUKOIL oil refining units, Industrial Safety Committees have been established, and extensive campaign work has been carried out using visual materials, including:

- stands with statements of the Company's President, Vice President and Chief Executive Officers;
- leadership visits by the plant management and Unit managers;
- accident-free counters;
- broadcasting of materials on safe behavior on monitors in places where employees will see them;
- "Five steps" safety rules;
- "Stoppage of unsafe work and self-monitoring of risks" cards.

Open Days on safety for employees' families and competitions among employees for best projects are held. Accident-free work is rewarded both financially and non-financially.

Since 2019, a contest has been held annually to create the best video on industrial and occupational safety.

In 2020, a new tool was tested — the International intellectual game "Occupational Safety Online". The game aroused great interest not only among the employees, but also among the "fans", 17 teams from nine entities took part in the first game. It is planned to hold the second game at the Volgograd Oil Refinery in 2021 to coincide with the World Day for Safety and Health at Work.

Liability and compensation

In all the countries where LUKOIL Group entities operate, the employer's responsibility for preserving life and health of its employees at the workplace is enshrined in law[1]. Employees who have suffered from accidents at work, from an illness or disability as a result of an accident, shall be provided with monetary payments, the amount of which is determined by the terms of insurance contracts and local laws and bylaws[2].

In most countries, employers are required to take out individual or group life and health insurance policies for their employees. The Group entities fully comply with the legislative requirements and apply a uniform approach in accordance with the Insurance Coverage Program for LUKOIL Group entities, including entering on a voluntary basis into certain types of contracts that are not mandatory in the country of operation (for example, third-party liability insurance contracts, insurance contracts in Iraq or Uzbekistan[3]). In addition to mandatory insurance benefits, employees may be paid lump sum benefits in accordance with collective bargaining agreements. The terms and amount of benefits are determined during negotiations with trade unions and representatives of labor collectives.

Case studies of LUKOIL Group foreign operations

On an annual basis, the oil refinery in **Bulgaria** takes out "Health" group joint policy (supplementary health insurance) and "Life" risk insurance. The "Health" policy enables the employee to be reimbursed (up to a certain limit) for inpatient and outpatient treatment, medicines, and dental care. The "Life" policy covers the risks of death of the insured, as well as their loss of labor capacity by more than 50% as a result of an accident or illness.

In **Iraq**, local workers are insured against accidents at work, terrorism or mass disorders, and occupational diseases. If the amount of damage to health is not covered by insurance, an additional lump-sum benefit is paid, the entire period of sick leave is paid, and the cost of medical services is compensated within the limit. Seconded Russian workers are also provided with insurance policies and VHI policies.

1. In Russia the Group entities are insured for civil liability under the Federal Law No. 225-FZ "On Compulsory Insurance of Civil Liability of the Owner of a Hazardous Object for Inflicting Damage as a Result of an Accident at the Hazardous Object" dated July 27, 2010.
2. In Russia in accordance with the Federal Law No. 116-FZ of July 21, 1997 "On Industrial Safety at Hazardous Production Facilities".
3. The legislation of Uzbekistan does not establish the requirement for mandatory conclusion of insurance contracts. However legislative acts provide for mandatory monetary compensation for those injured as a result of accidents at work and for employees with occupational diseases.

Occupational injuries

Ensuring safe working conditions is a priority task for all LUKOIL Group entities. Every year measures are taken to prevent workplace injuries among full-time employees and contractor personnel. According to our internal analysis, LUKOIL's injury rates are lower than those of companies with comparable production volumes and headcount.

In 2020, we note an increase in the number of accidents at LUKOIL entities and the number of injured (mostly in foreign entities). Due to continuous efforts to improve the safety culture, the rate of fatalities as a result of work-related injury remains at the same level[1]. The change is mainly due to an increase in the number of minor injuries (for example, as a result of employees falling on a flat surface). At the same time, LUKOIL Group was able to prevent group injuries. Moreover, the number of accidents resulting from traffic accidents decreased (one case in 2020, nine cases in 2019). Based on the results of our investigations, the main causes of occupational injuries were the violation of labor regulations and labor discipline by employees and personal negligence by the injured, i.e. the so-called "human factor".

We regret to say that we were unable to avoid fatalities in 2020: two of our employees (at LUKOIL-Perm and the Nizhny Novgorod Oil Refinery) and four employees of contracting organizations died. The cause of both fatal injuries involving our employees at LUKOIL's entities was a fall from height. In contracting organizations, the accidents occurred as a result of one employee falling from height and the others were a result of extreme temperatures. All accidents involving employees of LUKOIL Group entities were investigated.

Measures taken

In order to prevent cases like those which occurred in 2020, the following measures were taken based on the results of the investigations.

- LUKOIL-PERM. The circumstances and causes of accidents were communicated to employees, and unscheduled briefing and extraordinary checks of knowledge of labor safety requirements for the operation of wells equipped with sucker-rod pumps were carried out.
- Nizhny Novgorod Oil Refinery. The assignment of personnel between technological facilities of the entity according to process characteristics was organized. Additional control over the work of operators using video surveillance systems is now exercised; new various means of communication are used and checklists on the actual employment of technological personnel during the shift are maintained, while unauthorized access to the premises of ventilation chambers is excluded.

Information on the injury case on 2019 that was investigated in 2020 is provided in Appendix 3.

At the end of the year, two LUKOIL entities with fatal injuries were found to have failed to meet the KPI "Ensuring the required level of HSE". As a result, the annual remuneration of the CEOs of those entities was reduced.

In order to strengthen occupational safety measures, the circumstances and causes of injuries are communicated to the LUKOIL Group entities on a quarterly basis via information letters, which provide an overview of injuries and a description of measures to be taken (including communication with contractors). When identifying risks and hazards in the area of industrial safety and occupational health and safety, the Group entities should apply the results of these analyses in their work.

For example, based on the analysis of the frequency of injuries to employees (including contractor personnel), in 2020 we increased our assessment of the probability of exposure to the risk of falling from height during high-risk work. To mitigate the risk, it is planned to equip the Corporate Training Center with a training complex where personnel working at heights and emergency rescue teams will be trained. Also, stationary safety systems for safe passage at height are being installed at production facilities. A project to equip oil tank farms with bottom loading systems

1. Further quantitative information on injury rates is given in Appendix 7.

is being implemented in Oil Product Supply entities.

In addition, it is planned to check the knowledge of those responsible for organization and safe performance of work at height in contractor organizations before allowing them access to LUKOIL facilities. If the assessment is unsatisfactory, the contractor's personnel will be sent for training to the centers equipped with simulator complexes, and will not be allowed to work at height until positive results on the knowledge check are obtained.

To ensure compliance with the requirements of safe work at height, disciplinary measures are applied in the event violations are detected or personal protective equipment is not used.

Indicators related to occupational injuries at LUKOIL Group

	2018	2019	2020
Lost time accident frequency rate (LTAFR)	0.20	0.19	0.28
Lost time injury frequency rate (LTIFR)	0.12	0.13	0.15
Rate of fatalities as a result of work-related injury	0.01	0.01	0.01
Rate of high-consequence work-related injuries (net of fatalities)	0.03	0.05	0.04
Rate of registered occupational injuries or damage to health	0.15	0.18	0.19

Notes.
1. The lower all indicators the better.
2. The formulae used to calculate the indicators are provided in Appendix 6.

Number of occupational accidents and employees injured in workplace accidents at LUKOIL Group entities

	2018	2019	2020
Total number of occupational accidents	**21**	**19**	**28**
Including:			
• fatal	1	2	2
• high-consequence work-related injuries	5	8	7
Number of victims of accidents	**23**	**25**	**28**

Note.
If during the reporting period an employee suffered more than one injury, each case is counted as a separate injury.

Measures to prevent injuries in contractor organizations

Injury rates in contractor organizations have improved (of particular note is that the number of injured has decreased significantly), in part due to increased cooperation in this area. Pre-tender assessments of contractors for compliance with the HSE requirements are performed on a regular basis, and compliance checks are performed in the course of work. In addition, representatives of contractor organizations are invited to attend Safety Days and quarterly meetings held by the Group entities to analyze injuries and discuss measures to prevent accidents in the future.

Detailed information can be found in the "Supply Chain" section on the website.

Indicators related to occupational injuries at contractor organizations in Russia and abroad

	2018	2019	2020
Including:	**9**	**13**	**10**
fatal			
• high-consequence work-related injuries	1	6	3
• Number of victims of accidents	3	1	1
Number of victims of accidents	**9**	**16**	**11**

Note.
The detailed calculation can be found in Appendix 7.

Health in the workplace

In 2020, significant efforts of the Company's medical services were focused on protecting employees from COVID-19 (for details, see the section "Our Employees").

The corporate health control system for employees is based on managing the risks of occupational and work-related diseases. The risk management system identifies typical hazards, such as increased noise, vibration, chemical exposure, labor intensity and others. If the risks identified at the LUKOIL Group entity level are assessed as significant, measures are developed to control and reduce their impact.

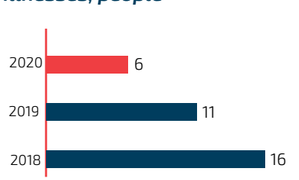
The Company has appointed a Health Protection Officer to hold regular consultations with employees on health-related issues; trade union organizations are also involved in this work.

Occupational illnesses are extremely rare among the LUKOIL Group employees. LUKOIL-Komi is the only entity where difficult conditions remain (i.e., in the shaft oil production).

LUKOIL-Komi implements projects to improve working conditions in oil mines, such as introduction of new ventilation systems; purchase of equipment that excludes contact with vibration sources; introduction of automation equipment; and the use of specialized personal protective equipment. Priority is given to the early identification of workers predisposed to occupational diseases, and their treatment, and transfer to work that excludes contact with sources of harmful production factors.

In 2020, a priority project was launched to reconstruct the oil mines at the Yaregskoye field and the related infrastructure. Among other things, this project is intended to improve safety and working conditions in accordance with the Rules for industrial safety in the mine development of oil fields, which were developed at the initiative of LUKOIL.

Number of LUKOIL-KOMI workers with newly diagnosed occupational illnesses, people



Occupational illness trends in Russian LUKOIL Group entities

	2018	2019	2020
Occupational disease rate (ODR) per 1,000 workers	0.19	0.13	0.071
per 1,000,000 man-hours	0.11	0.08	0.04

SAFETY OF FACILITIES IN THE ARCTIC ZONE

The safety of production operations of nature resource producing companies in the Arctic Zone became particularly important in 2020 due to a number of major accidents and accelerated climate changes in the region. LUKOIL pays special attention to environmental and industrial safety in the Arctic, applying cutting-edge technical solutions and methods of engineering protection of facilities and territories.

Observations of the Arctic climate

According to estimates[1] of climatic changes in the Arctic, average surface air temperatures are predicted to rise across a large part of the Arctic over the next decade, and, according to the WWF[2], the ice cover may almost completely disappear by the end of the 21st century. These trends indicate physical risks primarily associated with the degradation of permafrost. The expansion of the area and depth of seasonal soil thawing can lead to critical disruption of the reliability of production processes, equipment and safety systems at engineering facilities, especially those built decades ago.

At the same time, there is[3] a growing global interest in the Arctic macro-region, since more than a quarter of the world's hydrocarbon reserves are located here, and the development of these territories is intensifying rapidly. New economic opportunities are also associated with the use of ice-free waters of the Arctic Ocean for transportation. This opportunity is already being implemented in the Arctic region countries, including Russia[4], and, in accordance with national objectives, will expand. In 2020, LUKOIL used the Northern Sea Route (NSR) for the first time to deliver products to the eastern region.

Our actions

There are 30 fields in the Arctic Zone of the Russian Federation (onshore) developed by LUKOIL Group organizations (in the Yamal-Nenets Autonomous Area, the Nenets Autonomous Area and the Komi Republic[5]), the largest of which are the Pyakyakhinskoye and Nakhodkinskoye fields. The length of the pipelines is about 2 percent of the total length of the existing field pipelines. The largest production facility in the Arctic Zone is the Varandey Terminal.

The Company has built an effective management system that enables timely control of the condition of facilities located in the permafrost area. The climatic specifics of the northern territories are taken into account at the design, construction and operation stages of all production facilities located in the Arctic Zone; all facilities are insured against the risks of property loss or damage.

Design and construction stages

At the design stage of production facilities possible thawing of permafrost is taken into account, facilities are designed with a large safety margin based on engineering calculations and geological surveys. Engineering solutions are used, which make it possible to prevent permafrost thawing, maintain equipment integrity and reduce product losses.

- Pipelines, buildings, structures and tank farms are built on pile foundations.
- Aerial crossings are constructed when water bodies are crossed.
- Boreholes are drilled using the slant-hole directional drilling method ("pipe-in-pipe"), which prevents intense warming of soils.

Construction on piles. During construction of facilities, piles made of cold-resistant steel are submerged in boreholes. Cavities within the seasonal freezing and thawing layer are filled with frost-resistant concrete. The lower ends of the piles are at least 0.5 m lower than the ice foot. The piles are marked with geodetic markers that indicate pile deflection due to settling or movement of the ground. For timely identification of equipment sludge, the pile substructure and foundation markers are leveled (once every two years).

For example, five oil storage tanks with a volume of 10,000 cubic meters each are located at the site of acceptance and delivery point of Pyakyakhinskoye field (the Yamal-Nenets Autonomous District). The tanks are installed on a pile foundation. The base of the tank farm is equipped with thermometer wells up to 25 m deep. Soil temperature is measured twice a year, and the measurement results are recorded in logs and reviewed.

Thermal stabilization systems. Temperature stabilization systems, plastic-frozen soil stabilizers, thermal insulation screens at the base of underground tanks and external thermal insulation of facilities are used to maintain the temperature regime of permafrost soils and eliminate unforeseen heat releases.

This approach is also used at the Pyakyakhinskoye field. Temperature stabilization systems "GET" and "VET", which are hermetically sealed structures made of pipes filled with refrigerant, are installed in the base of oil storage tanks. A similar system was used in the construction of the tank farm of the Yuzhnoye Khylchuyu Central Gathering Facility (the Nenets Autonomous Area): temperature of foundation soils is stabilized using the "GET" temperature stabilization systems and plastic-frozen soil stabilizers.

Operation stage

At the operation phase, systematic maintenance and control of the buildings and equipment condition are carried out, including:

- control of temperatures of critical units, characteristics and vibration, check of alignment of the main technological equipment;
- monitoring of the foundations of buildings and structures;
- control of the depth of seasonal thawing and the groundwater level.

Equipment is monitored at least once a year by qualified specialists engaged on a contractual basis and by LUKOIL employees (surveying inspections, geotechnical monitoring). In the event any violations of the thermal regime of soils exceeding the permissible values are identified, additional measures are taken to restore the original temperature.

The technical condition of the main gas pipeline of the gas transportation system of the Bolshekhetskaya Depression is monitored once a year by helicopter inspection using a laser gas leakage locator, as well as on a monthly basis by visual inspection driving along line pipes.

During the entire period of operation of the equipment, buildings, structures and tanks, no significant changes related to thawing of permafrost soils have been identified. In the future, we will continue to pay more attention to the risks associated with activities in the permafrost zone as part of our climate strategy and to developing measures to deal with identified risks and prevent damage to the environment.

1. Sources: The IPCC Fifth Assessment Report on climate change for 2014 (https://www.ipcc.ch/site/assets/uploads/2018/02/SYRAR5FINALfullru.pdf); publication of the Sixth Assessment Report is expected in 2021. Report of the Russian Federal Service for Hydrometeorology and Environmental Monitoring (Roshydromet) on climate change and its consequences in the Russian Federation for 2019 (http://www.meteorf.ru/press/news/20626/). Specialized research projects (https://www.weforum.org/agenda/2020/08/arctic-sea-ice-global-warming-climate-change-predictions/; https://arctic-rcc.org/sites/arctic-rcc.org/files/documents/acf-fall-2020/ACF-6ConsensusStatementFinal.pdf); Global Climatic Threat and Russian Economy: Searching for the Way. Energy Center of the Moscow School of Management SKOLKOVO, 2020. (https://energy.skolkovo.ru/downloads/documents/SEneC/Research/SKOLKOVOEneCClimatePrimerRU.pdf)
2. Source: https://wwf.ca/habitat/arctic/last-ice-area/.
3. Source: https://www.cfr.org/emerging-arctic/#!/
4. The strategic objectives of Russia are outlined in the 2018 Comprehensive Plan for the modernization and expansion of trunk infrastructure for the period up to 2024. The development of the Northern Sea Route is indicated as one of nine federal projects.
5. In 2020, the municipality of Usinsk was added to the land territories of the Arctic Zone in the Komi Republic.

THE KOMI REPUBLIC

"LUKOIL-Komi" is one of the largest subsoil users in the Timan-Pechora oil and gas province in the north-western Russia and operates in the Komi Republic and the Nenets Autonomous Area. The entity includes territorial production enterprises (TPE) LUKOIL-Usinskneftegaz, LUKOIL-Ukhtaneftegaz, LUKOIL-Severneftegaz, the Yareganeft oil and mines division, as well as the Usinsk gas processing plant. High-viscosity oil is produced in the region, including by means of shafts. Production volume in 2020 was 14 million tonnes, 12 percent less than in 2019 (16 million tonnes). The Group also includes the Ukhta oil refinery located in the region.

Our actions

When planning and performing the production activities, we take into account the complexity of issues that need to be resolved in the Komi Republic. LUKOIL is committed to reducing environmental risks for LUKOIL-Komi producing companies and the population, in 2020 the implementation of the program Comprehensive Organizational and Technical Measures to Reduce Social and Environmental Risks in the Komi Republic (2020–2022) started. It is a part of the LUKOIL Group's investment program and includes measures, that are aimed at significantly reducing the negative environmental impact of LUKOIL-Komi's operations in the following key areas:

- liquidation of the sediment ponds of oil mines 1, 2 and 3
- construction of water pipelines for the injection of wastewater from the combined-cycle plants (Usinskoye field);
- implementation of the roadmap to restore water bodies from historically accumulated pollution (the Maly Voyvozh stream);
- disposal of accumulated oil-saturated sandstone from the mine workings of oil mines (with the involvement of a qualified contractor), as well as testing of mobile technology for washing this waste at the oil production site;
- rehabilitation of contaminated land.

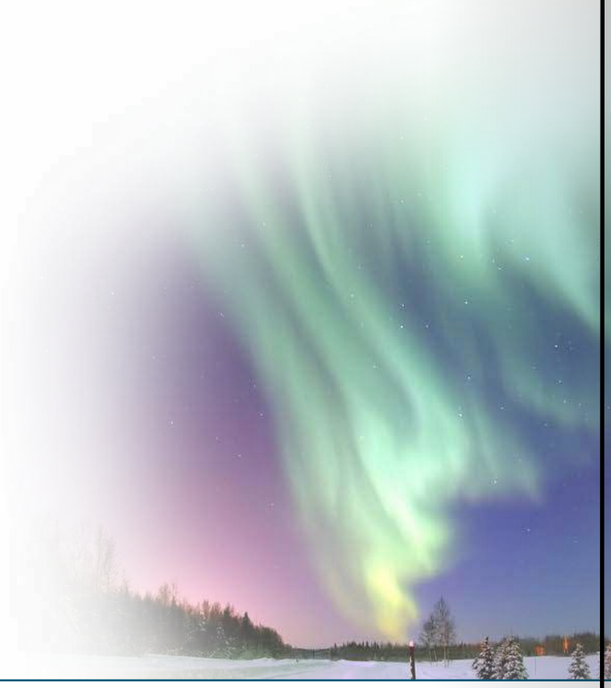
Measures to improve reliability and safety of the pipeline system and improve the environmental situation in the Komi Republic are determined during the annual planning process and are also funded as part of the ISP and the ESP. In 2020, RUB 8.9 billion was allocated to implementation of these.

Treatment facilities at Yarega

In 2020, a hallmark event of long-term importance for the region was the completion and commissioning of new treatment facilities at all oil mines of the Yareganeft oil mine production enterprise. The old facilities did not provide the necessary treatment level of wastewater discharged into surface water bodies, which led to chronic pollution of the Maly Voyvozh stream. The new facilities were commissioned at three sites: in the villages of Yarega (near oil mine No. 1), Pervomaysky (near oil mine No. 2) and Nizhny Domanik (near oil mine No. 3).

After the commissioning of the new facilities, the volume of insufficiently treated water discharges was reduced to a minimum already in 2020 (from over 400 thousand to 43 thousand cubic meters), and the mass of pollutants contained in the wastewater decreased by 94 percent (as compared to 2019). At the same time, fresh water intake from local surface water bodies was reduced (by three times) due to the fact that wastewater from the oil mines after deep treatment is sent to a closed cycle for the production of steam required for high-viscosity oil production. The operation of the treatment facilities is under constant control of the control center. The project cost amounted to RUB 1.9 billion.

We took a comprehensive approach to the task of improving the environmental situation in the area of the oil mines in Yarega. In addition to the commissioning of new treatment facilities, two other projects were undertaken to eliminate liquid waste and pollution accumulated in the pre-privatization period.



- Treatment (disposal) of wastewater from the combined cycle plants. The work will be carried out in stages and is planned to be completed in 2022.
- Elimination of old settling tanks of the treatment facilities of oil mines. It is planned to pump out the oil-containing liquid, as well as to remove and dispose of bottom sediments. The pits will then be backfilled with the mined-out rock of the oil mines and reclaimed. The completion of the project is expected in 2023.

Maly Voyvozh

One of the environmental problems in Yarega is pollution of the Maly Voyvozh stream (part of the ecosystem of the Yarega and Ukhta rivers) which accumulated both in the pre-privatization period and during LUKOIL-Komi's operations. LUKOIL set as its goal to carry out a complete cleaning of the stream and return the water body to its original state if possible. In 2019, a stationary hydraulic seal was commissioned to prevent the spread of pollution downstream.

In 2020, LUKOIL-Komi and the Biological Institute of Tomsk State University entered into a contract to clean the water and bottom sediments of the stream of oil and oil products. Our partner has its own technology for bottom sediments treatment, which has already been tested on Shchuchiy Lake (the Komi Republic). The project underwent a public hearing procedure and then, during the first stage, the steam was examined and samples of water, bottom sediment and soil were taken. In 2021, it is planned to implement the second stage — the treatment of water, bottom sediments and the shoreline. The completion of the project is expected in 2023.

Land remediation

In 2020, 40 hectares of contaminated land were remediated, including in the Ukhta District (near the Maly Voyvozh stream) and the Izhemsky District (in a forest area).

The implementation of all those projects will significantly improve the environmental safety of oil production at the Yaregskoye field.

Prevention of oil spills

LUKOIL continues to act diligently to improve reliable operation of our pipelines. Key areas to improve reliability and safety of the LUKOIL-Komi pipeline system include pipeline corrosion protection, timely current repair and overhaul, pipeline reconstruction, continuous corrosion monitoring, in-line diagnostics and cleaning, as well as expert examination of industrial safety and technical diagnostics of pipelines.

The most stable result is achieved by replacing pipeline sections with corrosion-resistant pipelines. The following results were obtained thanks to the measures taken by LUKOIL: the length of corrosion-resistant pipelines has increased by 18 percent since 2018 while during the same period, the specific failure rate of pipelines has decreased by 30 percent. A promising area is the use of corrosion-resistant pipelines (about 200 km of non-metallic pipelines are in operation as part of a pilot project).

- In accordance with the roadmap, the reconstruction of the interfield oil pipeline of the central gathering facility Lekkerka, booster pump station V. Masterel, was performed on time. In 2021, the remediation of contaminated lands at the pipeline location will be completed.
- Pilot testing of polymer pipes made of polyethylene with higher temperature resistance produced by the Stavrolen complex will begin in 2021. Facilities at Yareganeft's fields have been selected for testing.

We made an important decision to use UAVs to assess the condition of the pipelines and adjacent infrastructure in addition to the traditional types of monitoring (walk-round checks and snowmobile patrols in winter). UAV flights help to identify even minor oil transportation equipment malfunctions more quickly and with greater area coverage. Flights have been carried out since July 2020 according to an approved schedules, and, based on the results, a database is being formed for further monitoring purposes.

THE KOMI REPUBLIC

Environmental performance of LLC LUKOIL-Komi

	2018	2019	2020
Pollutant emissions, thousand tonnes	72	64	57
Intake of water from surface sources, thousand cubic meters	380	340	122
Discharge of insufficiently treated water, thousand cubic meters	452	416	43
Discharge of polluted water, million cubic meters	0	0	0
Total weight of pollutants contained in wastewater discharged to surface water bodies, thousand tonnes,	571	701	42
• including hazard classes 1 and 2, tonnes	0.33	0.5	0.03
Waste generated, thousand tonnes	42.2	206.9	421.1
Waste disposed of, thousand tonnes	42.7	209.6	421.4
Volume of oil spilled in accidents, tonnes	19.6	13.8	33.2
Remediated lands, ha	41.2	49.6	40.0

Treatment facilities at the Ukhta oil refinery

One of the tasks to be solved is related to the condition of treatment facilities at the Ukhta oil refinery. The facility was designed and built in the late 1960s; it receives both wastewater from the plant's production processes and municipal wastewater, which accounts for more than 80% of the total wastewater volumes to be treated. After mechanical and biological treatment and disinfection, wastewater is discharged into the Ukhta River.

As part of the investment project to upgrade the oil refinery treatment facilities, this important facility is being re-equipped to significantly improve the quality of wastewater treatment. Total investments will exceed RUB 1 billion.

In the first stage, new equipment of settling basins, aeration systems and biological treatment was installed, which led to a significant reduction in the pollutant concentrations. The second stage was completed in 2020 with the re-equipping of the mechanical cleaning system. As a result, wastewater treatment quality significantly improved in terms of phosphorus compounds, nitrates, and organic substances.

By the end of 2023, it is planned to complete the last stage (i.e., to complete mechanical and biological treatment facilities and to equip the facility with an automated system of industrial environmental control) and to bring the quality of wastewater to regulatory requirements.

Social interaction

We also take actions to improve the social situation in the republic. On an annual basis, LUKOIL supports projects of local administrations, municipal and public organizations. In 2020, the funding for social projects in the Komi Republic amounted to about RUB 229 million[1]. Examples include purchase of medicines for disabled children, numerous projects to repair schools, hospitals, cultural institutions and other socially important facilities.

Applications from local organizations are considered as part of external social programs. When an application is received, the request is evaluated based on the following criteria: the cost of implementing the project; territory of implementation; audience coverage; reputation of the organization. LUKOIL-Komi assesses the effectiveness of the projects by monitoring social networks and mass media for positive feedback.

Interaction with residents and public organizations

At key stages of projects, LUKOIL holds consultations with residents whose interests may be impacted by corporate plans. Various communication channels are used for this purpose, including public hearings on projects, personal meetings between LUKOIL Group management and specialists and residents, and a permanent hotline to interact with the public. The opinion of local residents is taken into account when deciding on project implementation parameters.

1. Excluding the costs of the agreement between PJSC LUKOIL and municipal administrations.

In 2020, 14 applications on environmental issues were received via the hotline (26 applications in 2019). Based on the review of the applications, all the applicants were provided with clarifications on LUKOIL-Komi's production activity plans.

We regularly hold meetings with local residents and heads of settlements, cooperate with many public organizations, such as Komi Voityr (Komi People), Izvatas (Izhemtsy), Rus Pechorskaya and others.

- Interaction with residents of the Ust-Usa village and the Novikbozh village (Usinsky District)

Both settlements are located at a distance of about 15 km from the Usinskoye field, so the Company is constantly in contact with the local residents. In 2019, the Company's plans to construct a production facility (prospecting well) were discussed at the public control meetings. Based on the discussion results, LUKOIL decided to move the construction site farther away from the villages. In 2020, as a continuation of the dialogue, a working group was created that included representatives of LUKOIL-Komi management, administration of the Usinsk urban district and the initiative group of the residents. Repeated hearings on the project were organized and the dialogue continues.

Another topic for discussion was the performance of seismic exploration works in the floodplain of the Pechora River in 2018, which caused concern among residents in connection with forest devastation. After completion of the seismic work, LUKOIL-Komi organized flights over the territories where the work was performed, during which time photo and video recordings of the disturbed land condition were made. In October 2019 and in August 2020, repeated flights around the territories were made together with representatives of supervisory authorities and representatives of the villages. As a result, formal notes were drawn up on the absence of comments on the quality of cleaning of wood residues in the cuttings. Seedlings of spruces were then planted.

- Interaction with the residents of Shellyayur and Diyur villages (Izhemsky District)

LUKOIL's plans to build a solid and liquid oil sludge landfill that would enable LUKOIL-Komi to neutralize oil sludge, without risks to the environment initially led to protests by the environmental community and residents of two villages of the Izhemsky district. Following the public hearings, it was decided to move the construction of the facility to the territory of the Makaryelskoye field of the TPE LUKOIL-Ukhtaneftegaz. The territory where the landfill was supposed to be built is being reclaimed.

Eco-friendly BUSINESS

Our strategic goal is to consistently reduce technogenic impact on the environment by introducing the best available technologies and equipment, as well as by increasing the automation level of controls of technological processes.

KEY CHANGES AND RESULTS IN THE REPORTING YEAR

AIR POLLUTANT EMISSIONS ACROSS LUKOIL GROUP WERE REDUCED BY 8 PERCENT

RUSSIAN LUKOIL ENTITIES CUT WATER CONSUMPTION FOR THEIR OWN NEEDS BY 8.1 PERCENT

THE WASTE MANAGEMENT KPIS WERE ALL COMPLIED WITH IN RUSSIAN ENTITIES: THE VOLUME OF WASTE DISPOSAL MATCHED THAT OF WASTE GENERATION

PRE-PRIVATIZATION DAMAGE AT THE VOLGOGRAD REFINERY WAS FULLY ELIMINATED

CONTRIBUTION TO IMPLEMENTATION OF SDG

Environmental and satellite monitoring covers the shoreline within the licensed areas, the Varandey marine terminal territory, and offshore area.

PLANS FOR 2021 AND THE MIDTERM

Implementation of the Environmental Safety Program for 2021–2023.

CONTEXT

Tackling the ecological issues associated with human impact on the environment continues to require[1] considerable public attention, as the future of humanity depends directly on the sustainable use of limited territory and the remaining natural resources. By 2020, LUKOIL planned to fulfill eight objectives related to biodiversity conservation (SDG 15) and marine ecosystems (SDG 14)[2]. Thanks to a real team efforts by all SDG supporters, target 14.5 was met[3]. We see more sustainable use of forests, while more land, freshwater, and mountain areas are now under protection. There has also been an increase in public environmental awareness, which is crucial for catalyzing change. Nonetheless, progress on most of the other objectives is still rated[4] as moderate or weak.

The decision[5] to include ocean and coastal ecosystems in the scope of the UN Framework Convention on Climate Change as factors contributing to climate change adaptation and reducing human impacts on climate should be viewed positively. As a result, projects to conserve the ocean and coastal ecosystems qualify as activities under the Paris agreement, which serves to boost investment in this area.

Among the most pressing issues are the importance[6] of increased efforts to conserve fresh water and significantly lower pollution levels, transitioning to integrated water resource management, and improving water supply quality[7]. The World Resources Institute has revised its forecasts of water supply/demand shortages by 2030[8], and the World Bank has analyzed the economic, health, and environmental damage caused by contaminated water[9].

The environmental crisis we face can serve as an opportunity to take bold measures, such as incorporating the valuation of natural capital into financial decision-making and making more significant investments in preservation, so as to move from transforming nature to reformulating humanity's relationship with nature[10].

LUKOIL contributes to SDG 14 (Life Below Water) by conducting constant monitoring of environmental impact of production sites on shoreline and offshore areas.

1. Source: The Sustainable Development Goals Report, United Nations, 2020.
2. Target 14.5: By 2020, conserve at least 10% of coastal and marine areas, consistent with national and international law and based on the best available scientific information.
3. Source: ibid. According to the report, 17% or 24 million square kilometers of coastal marine areas (up to 200 nautical miles from shore) received protected area status at the national level in various countries.
4. Source: ibid.
5. Source: Biodiversity and Ecosystem Services: Horizon Scanning Report. IPIECA, UN Environmental Program, WCMC, 2021.
6. Source: CDP report on behalf of 525 investors. Cleaning up their act, CDP Global Water Report, 2019.
7. Source: http://iwrmdataportal.unepdhi.org/
8. Source: Strong, C., Kuzma, S., Vionnet, S., and Reig., P. Achieving Abundance: Understanding the Cost of a Sustainable Water Future. World Resources Institute, 2020.
9. Source: Damania, R., Desbureaux, S., Rodella, A., Russ, J., Zaveri, E. Quality Unknown: The Invisible Water Crisis. World Bank, 2019.
10. Source: Making Peace with Nature: A scientific Blueprint to tackle the climate, biodiversity and pollution emergencies. UN Environmental Program, 2021.

Our goals

Our production activities in all business segments have an impact on the environment. LUKOIL recognizes its responsibility to society and future generations and works continuously to preserve a healthy environment, and to use natural resources sustainably in the regions where the Company operates.

In compliance with statutory requirements and voluntary principles, LUKOIL assesses and monitors the impact of its operations at all stages, from design to completion. Through continuous identification of risk, we strive to prevent negative scenarios from occurring whenever possible.

We continue to improve the awareness and competence of specialists and managers of the Group's entities regarding environmental protection activities. For this purpose, we hold annual competitions across the Group's entities and at the corporate level of PJSC LUKOIL. The authors of the best eco-projects receive rewards. The Safety Days program always covers best environmental protection practices and also deals with other challenging issues.

The Environmental Management System is a part of the Integrated Health, Safety and Environmental Protection Management System detailed in the "Safety" section of this report.

Assessment and monitoring

As part of the current risk management system, LUKOIL employs a precautionary approach in the performance of Environmental and Social Impact Assessment procedures and in planning Environmental Safety Program activities. The ESIA operations are performed at the design stage as per the legislation of the countries of operation, the requirements of international financial corporations, and LUKOIL's corporate standards. The results of this assessment form an integral part of the project documentation and are later used in environmental monitoring. Overseas exploration and mining activities also require social and environmental impact assessments before project launch. (See the relevant case study in the "Principles of Sustainable Development in Production Projects outside Russia" section).

Our strategic goal is to gradually reduce the environmental footprint resulting from human activity by introducing the best available technologies and equipment and by increasing the level of automation in all technical processes.

Interaction with local communities

Interaction with local residents, public and environmental organizations, administrations, and government agencies to exchange information on our scheduled activities and find the best solutions to problems is an essential part of our business. We use the ISO 14001:2015 standard, which requires a mandatory response to inquiries regarding the environmental management system of our company. We hold public hearings on new projects and current operations (as part of the ESIA) in our operating regions; many Group entities provide local residents with an opportunity to submit their concerns and suggestions via our hotline. All LUKOIL's entities organize annual environmental campaigns to clean up natural areas and plant trees, bushes, and plants.

Detailed description of ESIA procedure and industrial environmental control system can be found on the website.

Environmental safety program

The Environmental Safety Program for 2020–2022[1] consists of nine subprograms and includes more than 900 events; 45 Russian and foreign entities of LUKOIL Group participate in the program. The program is planned for three years, and targets are set annually. The structure of activities is determined by the nature of the primary production's impact on the environment taking into account continuous improvements in management. Under the program, we build environmental protection facilities and upgrade and expand the extensive fleet of machinery and equipment used for environmental purposes.

As a result of dedicated work to ensure compliance with legal requirements, the share of excess payments[2] for adverse environmental impacts has been steadily decreasing over the past five years. At the same time, the share of excess payments in the total amount of payment for such impacts in 2020 was 13.6 percent (4 percent in 2019). Higher indicator values were due to the delay in obtaining permits caused by the new requirements of Russia's Ministry of Natural Resources and Environment[3] coming into force, according to which only the methodologies on the regulator's list may be used to calculate the impact indicators.

1. During the previous reporting period, the target program for 2019–2021 was in effect.
2. Excess payments may arise, inter alia, due to delays in obtaining approvals and permits.
3. Order of the Ministry of Natural Resources and Environment of the Russian Federation No. 341 of July 31, 2018, On Approval of the Procedure for Establishing and Maintaining a List of Methodologies for Calculating Emissions of Harmful (Contaminating) Substances into the Atmosphere by Stationary Sources. The Ministry of Natural Resources of the Russian Federation is responsible for maintaining the list of methodologies. To date, the methodologies used to calculate emissions of oil and gas production enterprises have not been included in the list. Information on over-the-limit payments refers to LUKOIL-Kaliningradmorneft LLC

Indicator boundaries

The reporting boundaries for environmental indicators include all Russian entities having a significant environmental impact as well as the following foreign entities: refineries in Italy (ISAB S.r.l.), Romania (PETROTEL-LUKOIL SA), and Bulgaria (LUKOIL Neftohim Burgas); production project operator in Uzbekistan (LUKOIL Uzbekistan Operating Company); oil product supply companies abroad (IOOO LUKOIL Belorussia in Belarus and LUKOIL-BULGARIA EOOD in Bulgaria).

Below is a summary of the quantitative indicators. These are disclosed in detail according to the requirements of the non-financial reporting systems in Appendix 7.

Indicators of LUKOIL Group's Environmental Safety Program

	2019	2020	Goals for 2021
APG utilization rate, LUKOIL Group	97.6%	97.8%	Maintaining the 95% APG utilization rate at the Company level and further increasing it
Pollutant emissions into the atmosphere, thousand tonnes, LUKOIL Group	429	395	Maintaining air pollutant emissions no higher than the 2020 level
Wastewater discharged into surface water objects, million cubic meters, Russian entities	10.7	8.8	A further reduction in the indicator's value
Water consumption for our own needs, million cubic meters, Russian entities	358	329	A reduction in the indicator's value
Disposal of waste accumulated during the pre-privatization period, thousand tonnes, LUKOIL Group	69	52	A reduction in waste by 50 thousand tonnes across the entire Group in 2021–2023
Rehabilitation of contaminated land, hectares, Russian entities	56.6	44.4	About 10 hectares a year

Minimizing the impacts of operations of LUKOIL Group entities on the biodiversity of vulnerable territories, including the Arctic Zone of the Russian Federation

2019	2020	Goals for 2021
Providing in-production environmental controls and monitoring of environmental components	Providing in-production environmental controls and monitoring of environmental components Identifying indicative animal species for inclusion in the Biodiversity Conservation Program	Confirmation based on in-production environmental controls and monitoring of environmental components to check that Company activities have no adverse impact on biodiversity; improvement of management mechanisms

30 YEARS of Sustainable Development. Ecology is our technology

From the very beginning LUKOIL has understood the urgent need to make production greener. Most of the plants that became part of the Company were built mainly in the 1950–60s. Therefore, plans to retrofit and renovate these facilities were bound to include environmental protection solutions.

Each of LUKOIL's environmental programs produced a notable effect, such as a reduction in air pollutant emissions and the volume of contaminated runoffs, waste, and disturbed land. A uniform approach within the environmental management system was applied across all Russian entities, ensuring improvements in all regions where the Company operates. New projects were thoroughly developed, producing unique solutions that the Company is proud of even today. (For example, the "Zero Discharge" principle for offshore facilities, integrated environmental monitoring, and others).

We completed the first projects to remediate the Soviet-era accumulated pollution in Western Siberia, Volgograd, and Perm. LUKOIL-Nizhnevolzhskneft was one of the first in Russia to launch an oil sludge processing unit. Production and refining entities were outfitted with state-of-the-art equipment to facilitate responses to potential emergency spills of oil and oil products.

Despite the considerable complexities of the production processes, already by 2000, the specific indicators of environmental impact from LUKOIL entities were lower than the industry average.

1990s		2020
The Department of Industrial and Environmental Safety and Labor Protection was established	>>	Integrated HSE Management System put in place
Specific air pollutant emissions at refineries were about 5 kg/t of processed stock	>>	Specific air pollutant emissions were 0.8 kg/t of processed stock
Water consumption in the refining process was about 1.5 cubic meters/t of processed stock	>>	Water consumption in the refining process was 0.5 cubic meters/t of processed stock

WATER RESOURCES

Water is used at all production cycle stages — from exploration and production of hydrocarbons to the delivery of finished products to the consumer. In oil and gas production operations water is mainly used to maintain reservoir pressure and desalinate produced oil. Refineries and petrochemical plants use water in cooling and condensation units for distillation products, in heat-power stations for steam generation, in preparation of make-up water for boilers, cooling towers, and steam generators, as raw material and reagent for chemical production, and in other processes. Power generation companies need water to produce steam and cool the equipment of thermal power plants. At the same time, water is essential for human life and vital for healthy ecosystems.

Thus, we are fully committed to the rational use of natural resources, reducing the use of fresh water, and eliminating the discharge of contaminated wastewater on land and in water.

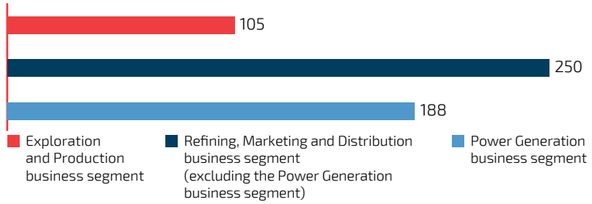
Water withdrawal by LUKOIL Group entities, million cubic meters

	2018	2019	2020
LUKOIL Group	**450**	**694**	**611**
including:			
• Russian entities	429	441	395
– including by electric power generation entities	298	304	253
• Foreign entities	21	253	216

Notes.

1. Data exclude water produced as a by-product with hydrocarbons and subsequently used for maintaining formation pressure.
2. Detailed information, including changes in reporting boundaries year-on-year, is provided in Appendix 7.

Water usage for our own needs by types of activity across LUKOIL Group, million cubic meters



Note.

Withdrawn water is used for own needs of LUKOIL Group's entities, and part of water volume is transferred to third-parties without being used by the Group's entities.

Our actions

Our principal approach to solving the issue of sustainable water use is the application of water recycling and reuse systems, increasing wastewater treatment, and reducing water losses during production.

Power generating facilities, refineries, and petrochemical plants in Russia and abroad are equipped with circulating and recycled water supply systems. At production entities, reservoir water is reused for the needs of reservoir pressure maintenance. New production facilities are required to be equipped with circulating and recycled water supply systems and treatment facilities.

We analyze water consumption issues, including in arid regions, while updating the register of environmental factors and incorporate the related risks into the general risk management system.

Activities on sustainable water management under the Environmental Safety Program have been integrated into the Clean Water subprogram. To improve the system of water consumption, measures are undertaken every year to build, renovate and re-equip water treatment and wastewater treatment systems.

85 percent of LUKOIL Group's total water usage[1] comes from circulating and recycling systems, and in Russia this figure is 90 percent. Over the last five years, the indicator for the Russian entities increased by one percentage point.

Arid regions

Most of our Russian entities operate in regions with ample freshwater resources, except for densely populated areas with a high concentration of economic activity in the Southern part of the country. These territories have average values of the Baseline Water Stress Indicator[2]. However, we consider five regions to be arid in the national context, as confirmed by Russian sources[3]. The share of water withdrawn in these regions is about 60 percent of the total water withdrawal by the Group's Russian entities, with more than half the volume of water withdrawn being compensated with volume of clean standard-quality wastewater discharged into water bodies.

- Arid regions in Russia are the Krasnodar and Stavropol Territories, Astrakhan, Volgograd, and Rostov Regions.

The Baseline Water Stress Indicator in five countries outside of Russia has high and very high levels, and the availability of freshwater supply in those countries may worsen due to climate change.

- Arid regions abroad are located in Italy, Romania (Prahov), Uzbekistan, Iraq, and Egypt.

Regular operations of LUKOIL Group entities have no significant impact on the water content in natural sources or on water quality, nor do they impact the availability of water resources to other consumers in low-water regions. We do not restrict access of the local population to water sources. In addition, our charitable work includes projects to improve water supplies and municipal infrastructure and to provide drinking water to local communities in Iraq and Uzbekistan.

Freshwater

Freshwater accounts for 58 percent of the total water withdrawal by LUKOIL entities.

In Russia, the amount of freshwater withdrawal was 84 percent (2020). Almost all of the water is supplied by LUKOIL's own water intake from surface and underground water reservoirs. Water is mainly withdrawn from the Ob, Pechora, Volga, Don, and Kuban river basins under respective permits and within established quotas. The main focus of environmental activities is the reduction of production water losses.

The share of freshwater withdrawals by foreign entities was 10 percent (in 2020) of the total water withdrawal, and comes mainly from surface water sources.

1. Total water usage includes consumption of water for own needs and storage/use of water in circulating and reused water supply systems.
2. Aqueduct data from the World Resources Institute were used to identify arid regions. Source: https://wri.org/applications/aqueduct/country-rankings/. Country territories are compared on the Baseline Water Stress indicator, which measures the ratio of total water withdrawals to available renewable surface and groundwater supplies. Water withdrawals include household, industrial, irrigation, and non-recoverable use in livestock production. Available renewable water resources include surface and groundwater supplies and consider the impact of upstream water consumers and large dams on the downstream water availability. Higher indicator values suggest increased competition among users.
3. National Report On the Condition and Use of Water Resources in the Russian Federation

Sea water

Some of the Group's oil and gas production, transportation, and refining entities use seawater in their production processes.

LUKOIL-Nizhnevolzhskneft uses water from the Caspian Sea to cool equipment and returns it back to the sea to almost natural temperature without being used in other production processes and free from contamination. The Varandey terminal withdraws water from the Barents Sea to cool equipment.

The Italian refinery brings desalinated seawater from the Mediterranean Sea to cool its refinery process units. To reduce water consumption at the plant, part of the steam condensate circuit and the recovery system has been optimized, and measures have been taken to reuse sea water after treatment.

Total water withdrawal by LUKOIL Group entities, by water withdrawal sources, million cubic meters

	2018	2019	2020
LUKOIL Group	**450**	**694**	**611**
Russian entities	429	441	395
Foreign entities	21	253	216
Including from surface sources:	287	341	286
• Russian entities	268	270	228
– Including sea water	11	11	17
• Foreign entities	19	71	58
– Including sea water	0	51	41

Notes.

1. Data exclude water produced as a by-product with hydrocarbons and subsequently used for maintaining formation pressure.
2. Detailed information on water withdrawal from different sources, including changes in reporting boundaries year-on-year, is provided in Appendix 7.

Wastewater removal and wastewater quality

In 2020, the share of clean and treated water as per the current standards for the total amount of discharges into surface water bodies remained high at 97.5 percent (97 percent in 2019).

The Company constantly monitors wastewater quality, paying particular attention to its chemical and physical properties. Improving the quality of wastewater is one of the objectives of the Environmental Safety Program. Compliance with established standards is monitored by LUKOIL laboratories as part of in-production environmental controls, as well as by independent certified organizations.

Wastewater generated from the production process is transferred to treatment facilities that use mechanical, biological, and physical-chemical treatment methods. Measures are taken to identify and prevent any potential negative impact associated with wastewater disposal. In 2020, the Company finalized some projects or continued with other investment projects to improve wastewater quality.

Commissioning of treatment facilities at Yareganeft oil mines (LUKOIL-Komi) resulted in a significant reduction of wastewater and pollutant discharges to surface water bodies of the Ukhta municipal district of the Komi Republic.

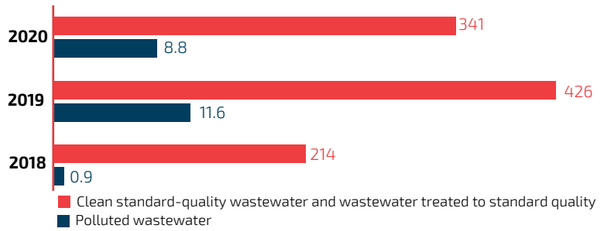
- The project to renovate treatment facilities at the Ukhta refinery is underway. Commissioning of the second stage of the production sire allowed to decrease the volume of polluted wastewater discharges. (More details on these projects can be found in the Komi Republic case study).
- Starting in 2019, Saratovorgsintez plant began to renovate its biological treatment facilities, including the replacement of four old aeration tanks. In addition, bioreactors will be installed to increase the degree of purification of the plant wastewater from suspended solids. In 2019, the old equipment was dismantled. In 2020, the installation of bioreactors began.
- Gas stations continue to undergo annual storm-water system improvements.

Water discharges by LUKOIL Group entities, million cubic meters

	2018	2019	2020
LUKOIL Group	**353**	**568**	**485**
Russian entities	338	344	298
Foreign entities	15	224	188
Including: by destination at LUKOIL Group			
water discharge into surface water bodies	218	217	162
water discharge into the sea	11	221	188
water discharge into underground formations	104	107	110
water transferred after use to a third party	18	23	26
other	0.5	0.1	0

Notes.
1. Data excludes water produced as a by-product with hydrocarbons and subsequently used for maintaining formation pressure.
2. Detailed information on water discharges by destination, including changes in reporting boundaries year-on-year, is provided in Appendix 7.
3. The total indicators may differ from the sum of components due to rounding.

Water discharges into surface water bodies, by wastewater quality across LUKOIL Group, million cubic meters



Note.
Detailed information, including changes in reporting boundaries year-on-year, is provided in Appendix 7.

Ensuring environmental safety during hydraulic fracture treatment (HFT)

The Company has been performing hydraulic fracture treatment for over ten years, with more than a thousand fracture jobs per year. This technology helps to get a more intensive oil influx at wells, increasing production volumes. However, hydraulic fracture treatment is one of the stimulation techniques that require close attention to technology and safety. Fluids used during fracturing include toxic substances (such as hydrochloric acid). In the event of a spill or accident during hydraulic fracture treatment, groundwater is negatively impacted (although only within a small area, unlike incidents involving well integrity failure). For safety reasons, we use special equipment and control methods and hire personnel with appropriate qualifications to minimize the possibility of incidents, reducing them to the level of traditional extraction methods.

When preparing wells for hydraulic fracturing, the workover crew, Geographic Information Systems, and oilfield service contractors work together. All operations are carried out in full by contractors whose activities are monitored at each stage by the Oil and Gas Production Equipment supervisory service, including in the form of field audits. Control is exercised as per the approved project which has passed governmental expert review and received all necessary permits.

Before work commences, contractors provide up-to-date certificates of compliance for the process fluids used with legal requirements and voluntary certification systems (if available), and safety data sheets as an integral part of the technical documentation.

Regardless of the fracturing method and location of the well, technological fluids containing reagents and all the operational waste are transported by the service company to its production base for further disposal upon completion of the work. Residual water unused during hydraulic fracturing is utilized for other technological operations.

Ground and surface water quality is monitored on a contractual basis by specialized contractors who oversee compliance of the work performed with industry standards and requirements. Each licensed area is assigned a local environmental monitoring project, as agreed with the state authorities. The projects define sampling points and sampling frequency. Water is withdrawn from designated water intake points, and instrumental measurements are taken. The results of environmental monitoring are submitted to the government authorities on an annual basis.

EMISSIONS

Oil and gas production companies in Russia account for the biggest share of air pollutant emissions across LUKOIL Group (about 77% in 2020), mainly due to APG flaring along with power generating entities burning fuel for power and heat generation.

In 2020, emissions generated by LUKOIL Group entities decreased by 8%, while emissions from Russian oil and gas producers were down 7%. Carbon monoxide accounts for the biggest share of emissions (36%).

The reduction of pollutant emissions into the atmosphere is a priority area of the Environmental Safety Program integrated into the Clean Air subprogram. Significant funding (an average of at least 50 percent of the ESP budget) is allocated annually for its implementation. The key initiatives of the Environmental Safety Program aimed at reducing pollutant emissions include:

- equipment replacement or upgrade, application of the best available technologies at production sites;
- application of emission capture and treatment systems;
- upgrade and construction of new generation capacities in power generating entities with improved automated systems for regulating combustion processes, heat losses, and minimization of pollutant emissions.

In 2020, oil and gas production entities continued the Program for the sustainable use of APG (including the Russian fields in the Caspian Sea and Yamal, and also the Imilorskoye field) and activities to upgrade flaring systems, including the availability of sootless flaring.

Gas stations are being equipped with breathing valves and oil product vapor recirculation and recovery systems, significantly reducing atmospheric emissions. The program for transferring petroleum storage depots to a bottom loading system was set into motion. The share of production sites with implemented bottom loading system is expected to increase from 36 percent to 95 percent by 2024.

Gross emissions of pollutants into the atmosphere (net of CO_2) by LUKOIL Group entities, thousand tonnes

	2018	2019	2020
LUKOIL Group	**451**	**429**	**395**
Russian entities	433	402	376
Foreign entities	18	27	19
including by pollutant type:			
NO_x emissions	49	50	45
SO_2 emissions	37	41	31
solid particle discharges	15	15	14
CO emissions	156	155	143
hydrocarbon emissions	74	61	49
volatile organic compounds (VOC)	116	106	111
emissions of other pollutants	4.2	1.3	1.7

Note.
Detailed information, including changes in reporting boundaries year-on-year, is provided in Appendix 7.

WASTE

Our main approach to industrial waste management lies in applying the most advanced technologies, preventing excessive build-ups of waste at the facilities of LUKOIL Group entities, and placing waste at specialized facilities that meet modern requirements.

Waste management

Most production waste in Russia and abroad falls under non-hazardous or low-hazard categories (classes).

In Russia, more than 60 percent of non-hazardous and low-hazard waste (classes IV and V under the Russian classification) consists of drilling waste and used drilling mud generated during drilling and well operation. These are mostly recycled[1]. Their volumes depend primarily on the extent of drilling and repair work, and they are mainly disposed of by contractors.

We employ a pitless drilling technology on environmentally exposed areas in Russia, according to which generated drilling waste is not stored or landfilled at drilling sites, but sent away for use or neutralization.

The share of hazardous waste (Hazard Classes I–III) was about 2 percent as at the beginning and end of 2020. Classes I and II wastes containing substances that are dangerous to human life and health and cause permanent changes in eco-systems are subject to mandatory disposal by specialized organizations. Hazard Class III (moderate) waste includes a portion of oil-containing waste (with an oil product content above 15 percent). That is also subject to mandatory disposal.

In 2020, waste generation increased because of a higher share of construction waste at the Nizhny Novgorod and Volgograd refineries, dismantling operations to build process facilities, and a 1.5-fold increase in the volume of production drilling at LUKOIL-Komi LLC.

Most of the long-term storage waste (596 thousand tonnes) still consists of waste-activated sludge generated during wastewater treatment of the Saratovorgsintez plant and is stored at the deposition site. The site is included in the State Register of Waste Disposal Facilities.

We monitor the quality of waste management operations performed by contractors by examining how they handle waste, the state of the production control system, and availability of adequate resources to fulfill their contractual obligations.

Waste by hazard class at LUKOIL Group, thousand tonnes

	2019			2020		
	Waste at the beginning of the reporting year	Waste generated per year	Waste at the end of the reporting year	Waste at the beginning of the reporting year	Waste generated per year	Waste at the end of the reporting year
Hazardous waste	**-**	**-**	**-**	**46**	**447**	**46**
Russian entities (Hazard Classes I–III)	23	253	21	21	304	21
Foreign entities	NA	NA	NA	25	143	25
Non-hazardous and low-hazard waste	**863**	**1,418**	**899**	**901**	**1,731**	**867**
Russian entities (Hazard Classes IV–V)	863	1,418	899	899	1,656	863
Foreign entities	-	-	-	2	75	4

Note.
Detailed information, including changes in reporting boundaries year-on-year, is provided in Appendix 7.

1. Hereinafter, the term "disposal" is used to mean "use, neutralization, landfilling, or handing over to a specialized organization for these purposes".

The waste management KPI was introduced to prevent accumulation of waste in Russian entities (the volume of waste generation has to match the volume of waste disposal[1]). In 2020, this KPI was met.

Waste movement at LUKOIL Group, thousand tonnes

	2018	2019	2020
Waste at the beginning of the reporting year	**956**	**910**	**947**
Russian entities	933	886	920
Foreign entities	23	19	27
Waste generated during the reporting year	**1,556**	**1,783**	**2,178**
Russian entities	1,529	1,671	1,960
Including oil-containing waste	264	294	401
Foreign entities	27	112	218
Received from third parties	**6**	**5**	**4**
Russian entities	6	5	4
Foreign entities	0	0	0
Amount of waste used, neutralized, and handed over to specialized entities, as well as landfill waste	**1,609**	**1,751**	**2,217**
Russian entities	1,582	1,642	2,000
Foreign entities	27	109	217
Waste at the end of the reporting year	**905**	**947**	**912**
Russian entities	886	920	884
Foreign entities	24	27	28

Notes.
1. Detailed information, including changes in reporting boundaries year-on-year, is provided in Appendix 7.
2. Thermal treatment is mainly used for waste neutralization.

Pre-privatization damage management

The Group entities continue their efforts to dispose of pre-privatization waste; in 2020, the amount across LUKOIL Group decreased by 52 thousand tonnes (in 2019, by 69 thousand tonnes).

Before some of the oil producing and refining assets in Russia and Eastern Europe were privatized, significant volumes of oil-containing waste (oil sludge in special sludge collectors and evaporation ponds) had accumulated at production facilities. The Company refers to these as "pre-privatization environmental damages". LUKOIL disposes of this waste at its own expense at most of its facilities. As of 2020, such waste was fully processed at the refinery in Romania and LUKOIL-West Siberia, RITEK, and the Volgograd refinery in Russia. The refinery in Bulgaria continues to operate on schedule and in compliance with government funding. According to Bulgarian national legislation, the state is the owner of this waste.

1. The KPI calculation does not take into account the volume of rock generated during shaft works at LUKOIL-Komi sites and placed at specialized waste dumps.

Pre-privatization waste, thousand tonnes

	Waste at the beginning of the reporting year	Waste eliminated in the reporting year	Waste at the end of the reporting year
2018			
LUKOIL Group	**773**	**107**	**666**
Russian entities	319	50	269
Foreign entities	454	57	397
2019			
LUKOIL Group	**666**	**69**	**601**
Russian entities	269	51	223
Foreign entities	397	18	378
2020			
LUKOIL Group	**601**	**52**	**549**
Russian entities	223	39	184
Foreign entities	378	13	365

Note.
In implementing the scheduled measures to eliminate pre-privatization damage at LUKOIL-Volgogradneftepererabotka LLC for 2020, the scope of pre-privatization damage was revised as part of a geodesic survey at the end of 2019. The total pre-privatization damage was changed from 218 thousand tonnes to 223 thousand tonnes.

Waste disposal at the Volgograd refinery

The best environmental project of LUKOIL Group in the Eco-Project 2020 competition was the project for the complete disposal of pre-privatization waste at the Volgograd refinery.

The Volgograd refinery was one of the first refining facilities to join the LUKOIL Group in the early 1990s. The refinery began operations in 1957. The plant's wastewater treatment system was designed to meet the then-existing standards: buffer ponds were dug out on an area of about 20 hectares, an emergency pit and sludge collectors were built to receive all the refinery's wastes. Open structures holding liquid waste were sources of air pollutant emissions.

In 2004, the refinery began processing oil-containing sludge. These operations were completed in 2020. A total of more than 921 thousand cubic meters of old oil-containing sludge were processed over 17 years. The environmental effect from this multi-year project was to reduce air pollutant emissions by 1.5 thousand tonnes per year and to remediate and restore large areas previously occupied by treatment facilities (evaporation ponds).

In 2015–2019, more than 80 thousand drought- and salinity-resistant shrubs were planted on the grounds of the former sewage treatment plants. Even though all the shrubs were planted in untreated soil, thanks to modern planting and care techniques, they took root and quickly began to grow. In the meantime, steppe vegetation started overgrowing the area. As a result, it was possible to restore the soil fertility on lands previously unusable. Today, the verdant shrubs are home to hares and foxes, birds, and insects.

Land remediation

Remediation of oil-contaminated land is carried out by Russian oil and gas production entities at all fields. In 2020, 44 hectares of land were reclaimed.

Following an oil spill and after the cleanup of the leaks and site containment, the contaminated land remediation stage begins. Specialized organizations carry out the entire scope of reclamation activities on a contractual basis following the remediation projects. These projects are developed and approved under established procedures.

The remediation comprises the following stages:

- technical (collecting as many pollutants as possible and replacing contaminated surface soil, applying oil-oxidizing biopreparations, loosening soil for better aeration);
- biological (sowing seeds or seedlings, fertilizing).

Remediation may involve complete removal of the contaminated layer, which is moved to specialized bioremediation sites, while clean soil is brought to the reclaimed area for biological remediation. When the contaminated area is significant, the most effective method is the microbiological decomposition of oil at the spill site. Once the content of hydrocarbons in the soil is reduced to low levels, the restored areas are replanted for phytoremediation of the land. If the contamination degree is average, plant cover of the site takes two years, bringing the entire remediation process to two-three years.

After the remediation, the respective state authorities inspect the reclaimed areas for compliance with the established criteria.

Dynamics of generation and remediation of contaminated land, hectares

Indicator boundaries	Land area at the beginning of the year	Land remediated during the year	Land contaminated during the year	Land area at the end of the year
2018				
Total across LUKOIL Group	**61.3**	**50.3**	**52.1**	**63.1**
Russian entities	57.5	50.3	52.1	59.3
Foreign entities	3.8	0	0	3.8
2019				
Total across LUKOIL Group	**63.1**	**56.6**	**40.0**	**46.4**
Russian entities	59.3	56.6	40.0	42.6
Foreign entities	3.8	0	0	3.8
2020				
Total across LUKOIL Group	**46.4**	**44.4**	**136.6**	**138.6**
Russian entities	42.6	44.4	136.6	134.8
Foreign entities	3.8	0.03	0.03	3.8

Notes.

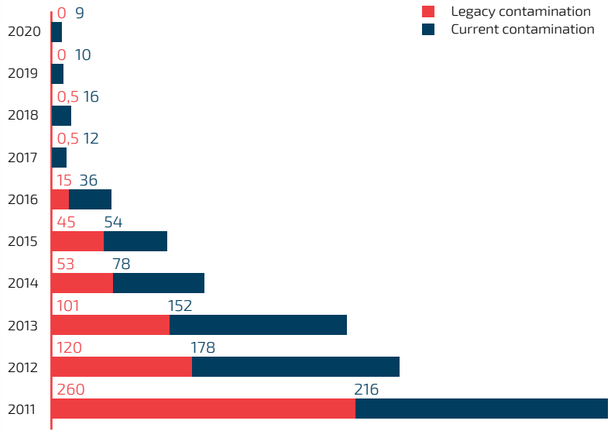
1. Data for foreign entities for 2018 pertain to LUKOIL Neftohim Burgas, PETROTEL-LUKOIL SA, LUKOIL Uzbekistan Operating Company, for 2019–2020 — to the above entities and to ISAB, IOOO LUKOIL Belorussia, and LUKOIL-BULGARIA EOOD.
2. The increase in contaminated land in 2020 was due to the land contaminated after the 2019 water spill the in Komi Republic was factored in.

Contaminated land remediation at LUKOIL-West Siberia

Land contamination resulting from long-term oil production is one of the principal environmental concerns in the Khanty-Mansi Autonomous Area — Yugra. In 1998, there was even a discussion about declaring the Khanty-Mansi Autonomous Area — Yugra an emergency disaster area. This issue also concerned the areas where LUKOIL entities had acquired licenses with a significant concentration of contaminated land. The Company adopted its first reclamation programs to restore ecosystems and began extensive and systematic work to return these areas to their natural state. During the initial stage of the programs, LUKOIL conducted research and exploration work and developed remediation technologies using microbiology which were specifically tailored to northern territories. Based on the results of the research, we developed and began implementing our remediation projects.

Thanks to the implementation of these projects, the accumulated waste at the licensed areas of LUKOIL-West Siberia was completely remediated by 2019. Since 2019, remediation has been underway at all sites contaminated as a result of current incidents. By taking measures to improve reliability of pipelines, detect leaks and respond to them in real time, we are able to annually reduce the average area of contamination. Our goal is to steadily increase the period of accident-free operation of pipelines.

Changes in the contaminated land area



Note.
Data for LUKOIL-West Siberia LLC are given in hectares (1 hectare = 2.47 acres).

BIODIVERSITY CONSERVATION

Management of biodiversity issues

ELEMENTS OF THE MANAGEMENT SYSTEM	CORPORATE DOCUMENTS AND EXTERNAL REQUIREMENTS
COMMITMENTS AND PRINCIPLES	
Our principle is 'prevention – mitigation – restoration – compensation'	LUKOIL Group's HSE Policy in the 21st Century approved by the resolution of PJSC LUKOIL Management Committee dated May 25, 2020
IMPACT ASSESSMENT MECHANISMS	
Impact Assessment of planned projects on biodiversity is undertaken during the preparation of project documents Environmental and satellite monitoring is organized	Corporate Standard STO LUKOIL 1.6.9-2019 "Health, Safety and Environment Management System. Pre-project and Project Documentation. Business Case Preparation. General Requirements". Local laws in countries of operation
RESPONSE MECHANISMS	
A center has been set up to deal with the impact of emergencies on animals, birds and flora and to implement measures to rescue them in the Caspian Sea	"Plan for Prevention and Remedy of Animal Habitat Pollution with Oil and Oil Products in the Event of a Spill from LUKOIL-Nizhnevolzhskneft Facilities"
PROGRAMS, PROJECTS, AND INITIATIVES	
The Biodiversity Conservation Program is in place for facilities operating in the Arctic zone of the Russian Federation (the Varandey Terminal, LUKOIL-Komi, LUKOIL-West Siberia)	The Program was approved by order of PJSC LUKOIL No 136 dated July 23 ,2015. Action plans on biodiversity conservation have been developed for entities operating in the Arctic region. For entities operating in other regions, biodiversity conservation measures form an integral part of the Environmental Safety Program
COLLABORATION	
Russia: joint projects with WWF Russia, nature reserves and specially protected areas	Cooperation agreements
FURTHER INFORMATION	
The results of environmental monitoring have been published on the corporate website since 2003	

Contribution to SDGs

We understand that any industrial activity impacts the natural environment to some extent. Our objective is to identify the sources of the most significant impact, monitor them, and take remedial action when necessary. Our refineries and most of our gas stations are located in highly populated areas where natural ecosystems have been irreversibly altered over many decades. That is why we focus on the principal biodiversity risks from hydrocarbon exploration and production activities and the operation of transportation systems, especially in offshore projects.

The detailed information on meeting the target is available on the website

Target 14.5 (SDG 14) calls for covering at least 10 percent of coastal and marine areas with environmental actions by 2020. LUKOIL has met this target: environmental and satellite monitoring covers the shoreline within the licensed areas, the Varandey marine terminal territory, and offshore area.

Our actions

Our goal is to preserve the natural biosystem diversity in the regions where we operate and to ensure sustainable use that does not threaten their ability to regenerate. The main activities to preserve marine ecosystems include:

- optimization of water withdrawal, wastewater recycling, and reuse of drilling mud;
- constant monitoring of the oil film formation on water;
- use of systems to protect fish;
- maintaining no-take zones in ecologically significant areas;
- introduction of biotechnologies to accelerate the self-cleaning processes of the marine environment and ensuring protection from oil contamination (artificial reefs).

In these activities we are guided by the Arctic Council's document, the Guidelines for Oil and Gas Companies on the Arctic Shelf, and Performance Standard 6: Biodiversity Conservation and Sustainable Management of Natural Resources of the International Finance Corporation (IFC).

In view of the importance of the Earth's biodiversity conservation, especially in the ecosystems of high value, the Company has committed not to conduct operations in any of the World Heritage sites and the IUCN (International Union for Conservation of Nature) Protected Areas of categories I–IV. At each stage of a project, we strive to balance any impacts that our operations might have and implement a variety of projects and activities to preserve ecosystems. We seek to avoid conducting work in habitats of valuable and highly protected plant and animal species or to minimize such impact where it cannot be avoided.

Impact assessment

The state of affected ecosystems and biodiversity in the territories and water areas is assessed or monitored at every stage of operations. Our partners and contractors include more than 50 research and environmental organizations, ensuring a scientific approach to ecosystem studies and the ability to use the data for scientific and remedial purposes.

Based on the results, measures are designed, among other things, to preserve rare and endangered animal species and their habitats. Activities implemented in most Group entities are part of the ESP. Preserving ecosystems in the Arctic (the Barents Sea, part of the onshore territory in the Komi Republic, the Nenets Autonomous Area, and the Yamal-Nenets Autonomous Area) is of particular concern.

Ecological monitoring of marine ecosystems

The specifics of using the environmental management system in offshore projects — in addition to the "zero discharge" technology — are environmental and satellite monitoring of the production facilities and conditions in the affected area. These monitoring methods are a voluntary initiative of LUKOIL Group entities. We regularly monitor a wide range of parameters in areas which may be impacted by our operations, including the condition of marine and coastal ecosystems and the biodiversity around our production sites.

There are lists of indicator species typical to ecosystems and indicative of their sustainability for all offshore projects.

The components of ecological monitoring include studies of atmospheric air, meteorological

conditions, sea waters, bottom sediments, and marine biota[1]. Vessel surveys, time-lapse shoreline and coastal monitoring, stationary observations, and bottom station studies are parts of the monitoring process. LUKOIL was the first to use bottom station monitoring.

Satellite monitoring

Satellite monitoring helps detect contamination from oil spills and predict drift directions of oil patches (including the time it takes for an oil patch to reach natural objects), and measure water temperature, salinity, and chlorophyll content. Such surveys take place every month, and from 10 to 70 images are taken depending on the time of the year.

Other types of monitoring (e.g. geodynamic, engineering and environmental monitoring) are also used to identify anomalies, toxic pollution, and significant deviations in the characteristics of ecosystems based on the specifics of local conditions.

Data analysis

We use mathematical, statistical, and analytical methods to assess the anthropogenic impact on the marine environment, including comparison with the historical background (prior to the construction of LUKOIL facilities) and the parameters of offshore areas furthest from the Company assets and other production sites. Sample analysis and measurement techniques are performed as required by state standards. At the suggestion of our partners and contractors, we introduce new research, data processing, and analysis methods.

The comprehensive approach applied makes it possible to identify contamination sources, receive information on chronic pollution in a timely manner, and respond accordingly. Monitoring results are published on the website as reviews.

No significant impact of our industrial facilities on the state of the marine environment which would require a response has been detected during the observation period[2]. The ecosystems' self-restoring capacity can naturally compensate for one-time and short term damage resulting in loss of phyto- and ichthyoplankton, fish, and algae during construction of wells and seawater withdrawal. There were no production impacts that significantly changed the habitats of birds and animals and affected their populations. The natural environment components are in a satisfactory condition and although there were local instances of increased content of pollutants in bottom sediments and seawater near LUKOIL production sites, no long-term contamination was detected.

Since 2003, we have been carrying out integrated environmental vessel surveys in the Baltic Sea from the Professor Shtokman and Shelf research vessels. Fish fauna is monitored from the AtlantNIRO vessels. The results of field observations are submitted to LUKOIL-KMN's Ecology Department, which is the center for data collection and monitoring management. The information is stored in a database that serves as a foundation for developing the specialized geoinformation system "ECOMORNEFT."

Western Siberia Biodiversity Program

In 2020, LLC LUKOIL-West Siberia launched a joint project with the Tomsk State University to monitor zoological diversity and improve the action program to preserve the wildlife of the Arctic zone of the Russian Federation which is within LUKOIL's operation areas. Because of the COVID-19 pandemic, the project was postponed until 2021. Earlier in 2019, the university specialists counted bird species, since birds are the most numerous wildlife component, and developed a program for monitoring the bird population in the licensed areas. The entity keeps records of indicator flora and fauna species.

Furthermore, over the past six years, LUKOIL-West Siberia completed restoration of cedar and pine forests on over 750 hectares by hand-planting two-year-old greenhouse-grown seedlings.

1. Biota comprises all living organisms.
2. The longest observation period of the Baltic Sea is 17 years.

Indicator species of marine ecosystems in licensed areas

1 CASPIAN SEA

Animals (mammals)

1 species
- Caspian seal (Phoca caspica)*

Birds

89 species, including
- **Dalmatian Pelican*;**
- **Spoonbill*;**
- **Black Stork*;**
- **Pink Flamingo*;**
- **Red-breasted Goose;**
- **Lesser White-fronted Goose*;**
- **Marbled Teal*;**
- **White-headed Duck*;**
- **Osprey***

Fish

Rare species*
- Russian Sturgeon (IUCN Red List);
- Caspian vimba (Red Book of Astrakhan Region);
- Black Sea Roach (Red Book of the Russian Federation, Red Book of Astrakhan Region)

2 BARENTS SEA (THE ARCTIC)

Animals (mammals)

13 species, including
- Carnivores (Sea Cow, Greenland Seal, Ringed Seal, Bearded Seal, White Polar Bear)

Birds

5 species
- Barnacle Goose;
- King Eider;
- Eider;
- Black-legged Kittiwake;
- Glaucous Gull

Fish

1 species
- Long Rough Dab

3 BALTIC SEA

Animals (mammals)

1 species
- Harbour seal (Phoca vitulina)*

Birds

4 species
- Long-Tailed Duck;
- Common Velvet Scoter;
- Ringed Plover;
- Sea ducks

Fish

2 species
- Baltic Sprat;
- East Baltic Cod

Note.
*Species is subject to protection.

Endangered species protection

Vagit Alekperov, President of PJSC LUKOIL, supported the initiative of WWF Russia to include measures for the conservation of saiga antelope biodiversity into the LUKOIL Group Environmental Safety Program. In 2020, the Ministry of Natural Resources and Environment of the Russian Federation and PJSC LUKOIL signed a cooperation agreement to implement measures under the federal project "Preservation of Biodiversity and Development of Ecological Tourism" of the national project "Ecology." The agreement adds implementation of measures for saiga conservation to the current corporate program for biodiversity conservation.

The largest EMPLOYER

Our goal is to develop an effective management system that meets international standards to ensure high labor productivity and employee motivation.

KEY CHANGES AND RESULTS IN THE REPORTING YEAR

A NEW EDITION OF THE HUMAN CAPITAL MANAGEMENT POLICY WAS APPROVED

A REMOTE WORK MODE WAS INTRODUCED FOR EMPLOYEES OF LUKOIL GROUP ENTITIES

CONTRIBUTION TO IMPLEMENTATION OF SDG

3 GOOD HEALTH AND WELL-BEING

A favorable epidemiological situation at entities is maintained, workers are provided with protection by all available means.

PLANS FOR 2021 AND THE MIDTERM

Maximum coverage of employees with vaccination against the coronavirus, continuing disease control measures, ensuring sanitary and hygienic practices.

CONTEXT

Early estimates[1] suggest that the COVID-19 pandemic had a significant and disproportionate impact on the labor sector, resulting in extensive losses of work hours, higher unemployment rates, and income losses for workers and their families. At the same time, the spread of the coronavirus accelerated (when compared to pre-crisis forecasts) trends[2] which will affect the employment structure across all industries. That may include growing automation and the introduction of new information technologies into work processes, a shift to remote or hybrid work modes, and an increase in the share of the digital economy. These innovations can give a distinct boost to productivity and result in the creation of new jobs.

In the face of rising transformational factors and risks[3], companies will have to rethink their strategies for employment, hiring and retaining employees, as well as find new ways to train and redeploy staff with a focus on highly sought after tasks. The year 2020 has reaffirmed the need to change personnel management processes[4] and plan them out thoughtfully. The main focus areas of such changes are[5] health protection, a responsible approach to labor remuneration, forecasting of highly desirable labor skills, attracting talents, and forming an integrated employee pool based on hybrid employment terms, while ensuring personnel diversity, equality, and involvement.

In 2020 LUKOIL's main contribution to SDG 3 (Good Health and Well-being) was due to the complex actions of the Company to mitigate deterioration of the current epidemiological situation at the Group's enterprises and offices.

1. Source: COVID-19 and the World of Work. International Labor Organization (ILO), 2020.
2. Source: The future of work after COVID-19. McKinsey Global Institute, 2021.
3. Source: The Global Risks Report 2020. World Economic Forum, 2021.
4. Source: Win with Empathy. Global Talent Trends 2020–2021. Mercer, 2021
5. Source: ibid.

PRIORITIES IN EMPLOYMENT RELATIONS

Management system in employment relations

ELEMENTS OF THE MANAGEMENT SYSTEM	CORPORATE DOCUMENTS
GOALS, PRINCIPLES	
The main task is to create a management system that will give the Company the recognized status of an "employer of choice" in the labor market	Human Capital Management Policy, approved by Minutes of the Board of Directors of PJSC LUKOIL No. 19 dated December 15, 2020
PRIORITIES / CORPORATE STANDARDS	
The main principles in the area of employment relations are: • Compliance with statutory requirements; • Respect for human rights; • Equal rights and opportunities for employees; • Respect for the culture and customs of countries where we operate; • Cooperation with trade unions and employees	The Code of Business Conduct and Ethics[1] No. 17 approved by Minutes of the Board of Directors of PJSC LUKOIL on December 11, 2018 The Corporate Culture Rules No. 31 approved by Minutes of the Management Committee of OJSC LUKOIL No. 31 on December 27, 2010 The Social Code of PJSC LUKOIL No. 16 approved by Minutes of the Board of Directors of PJSC LUKOIL on October 24, 2017
KEY PERFORMANCE INDICATORS	
Labor productivity	The KPI Regulations approved by the Management Committee of PJSC LUKOIL on September 16, 2019
TARGETED PROGRAMS, PROJECTS, AND INITIATIVES	
The main areas of social policy: • The remuneration and incentive system; • Social support; • Training; • Working with young professionals and employees	Programs in all the areas have been approved
EMPLOYEE SATISFACTION SURVEY	
Research: • Monitoring of the socio-psychological climate at work places; • Employee engagement and satisfaction surveys	Held at least once every 2 years
FURTHER INFORMATION	
More details are available on our corporate website:	The Social Code of PJSC LUKOIL:

1. The new edition of the Code of Business Conduct and Ethics. The document approved in 2010 was in effect earlier.

OUR GOALS

LUKOIL's Human Capital Management Policy, approved by the Board of Directors in 2020, is based on our robust corporate culture and a solid system of corporate values. Driven by many factors, the Company's success is primarily due to our staff at all levels, joined together as a close-knit team of professionals.

In our employment relations, we are guided by the laws of the countries where we operate, the conventions of the International Labor Organization , the principles of the UN Global Compact and the Universal Declaration of Human Rights, as well as the experience of international cooperation under the Industriall Global Union.

Our goals are as follows:

- maximum flexibility of the Company in response to changes in the external environment, encouraging innovation and labor mobility among employees;
- development of an effective talent management system compliant with international standards and providing equal opportunities to unlock the maximum potential of each team member to ensure high performance and productivity.

The Human Capital Management Policy is the fundamental document mandatory for all LUKOIL Group entities. It defines the HR strategy and guidelines to ensure the Company's consistent leading position as an "employer of choice" on the international labor market.

The Policy is based on transparent principles aimed at creation of a stimulating work environment; involvement of all personnel in achieving the Company's strategic goals; fair assessment of each employee's contribution to overall success; fair compensation for performance and internal continuity by attracting, nurturing, and retaining talent.

The Policy sets out ground rules, mandates respect for human rights, equal rights and opportunities for all employees, zero tolerance for violation of human dignity or discrimination in any form or on any grounds.

The document reflects the rapid development of the digital environment and technology, leadership philosophy, and current trends in the labor market. Changes have been introduced in the main sections of the Policy. For example, there have been adjustments to the advanced development of employee competencies, the use of a flexible system of incentives and the establishment of key personnel, and steps to manage the effectiveness of workforce planning.

All employees are required to familiarize themselves with Company Policy at informational events held by LUKOIL Group entities and contribute to its implementation.

Improvement of the HR management system and its structure is ongoing and in line with our strategic goals and objectives and is intended to ensure the economic efficiency of LUKOIL Group's operations. In 2020, as part of developing the service management model, it was decided to establish LUKOIL-Multifunctional Business Support Center LLC to consolidate most services, including accounting, financial, HR administration, etc.

Before undertaking this change, employees met with their immediate supervisors and heads of LUKOIL-Multifunctional Business Support Center LLC, where the terms of the transition were explained and all questions answered.

PROTECTING WORKERS DURING THE CORONAVIRUS PANDEMIC

Our top priority in 2020 was protection of employees from the coronavirus pandemic and quickly restructuring production processes to adapt to the new conditions. All Group entities (in Russia and abroad) made great efforts to prevent mass infection and ensure continuous operation of production facilities, transport terminals, and gas stations.

We established a system of COVID-19 emergency response centers to make timely decisions and coordinate actions; PJSC LUKOIL supervised the centers' operation. Every week the centers reviewed the infection rates and determined relief measures, including treatment arrangements in severe cases. All high-volume corporate events such as major meetings, drills, and other, as well as business trips, except for shift personnel, were canceled or moved to a later date. Oil product supply entities, where employees were at the highest risk of contracting the virus because of direct contact with customers, were provided continuous outreach and updates, including prevention brochures, and daily safety announcements. Customers were invited to fill up using the mobile app to minimize contact with gas station personnel.

The principal change in production processes was associated with transitioning a considerable part of our office staff to work from home — a new experience both for the Company and many of our employees. The Russian labor legislation has been amended concerning remote work, and the Company is now considering the possibility of introducing new approaches to organizing labor activities, including hiring employees to work from home on a full-time basis or alternating periods of remote work and work at an office location (combined employment).

From the very beginning of the pandemic, all personnel were provided with personal protective equipment (PPE) and disinfectants and were subject to mandatory health screenings at the entrance to the facilities and in the workplace. The process and form of food catering on the production and office premises were modified as well.

We also revised our primary health care system. Welfare services of the Group's entities, together with health care contractors, successfully adjusted the operation of corporate health care centers to the new environment. Additional medical procedures were introduced, such as examination and testing of workers before starting their shifts; transportation methods for personnel to all production facilities and work terms in quarantine areas were modified; and ongoing monitoring of workers by trained medical professionals in these areas introduced. Additional medical personnel were engaged to monitor sick employees around the clock.

Unfortunately, we also had employees come down with severe cases of the virus and it was imperative to provide medical assistance to them. The Company's specialists promptly developed evacuation plans for very sick patients and established relations with the leading regional and federal medical institutions.

LUKOIL combined measures to protect its employees with assistance to medical institutions in the regions where the Group operates in order to keep families of our employees healthy and decrease the overall infection rate. We delivered large quantities of personal protective equipment, new devices, and expensive medications to treat patients. The Company funded the construction of a new laboratory in Kogalym, which now provides testing for coronavirus antibodies.

More information about LUKOIL's assistance to the regions of operation can be found in the "Society" section of this Report.

Awards of 2020

PJSC LUKOIL won the ComNews Awards in the Best solution for remote work of geographically separated specialists category. In 2020, the award celebrated the best digital solutions during the period of enforced self-isolation. The award recognized the creation of an IT system that integrated all subsidiaries and service companies across Russia into a unified information space and the actions of the Company's specialists to ensure continuous operation of all business processes and to secure data transfers. We plan to expand the platform's functionality to continue improving the Company's responsiveness to changes in the external environment.

The COVID-19 pandemic became the first serious test of the effectiveness of our medical departments. The results of 2020 proved the effectiveness of measures previously taken: we managed to prevent massive infection and contained isolated local outbreaks. All entities and gas stations continued to operate during the lockdown. In some cities, our gas stations remained practically the only open public places.

In addition to enhanced safety measures for LUKOIL employees, we also supplemented our contractual agreements by requiring mandatory compliance with sanitary regulations to contain the infection. In particular, workers were allowed to enter the oilfields only if they tested negative for coronavirus and after completing a pre-quarantine.

EMPLOYMENT RELATIONS

LUKOIL is a large employer in Russia and abroad. We endeavor to apply uniform principles and approaches to working with our employees in all countries and regions of operation, taking into account local cultural specifics and legislative features. The principles and standards set forth in our Human Capital Management Policy and other local regulations are mandatory for all LUKOIL Group entities.

Human Capital Management Policy dictates that we conduct our activities under the principle of equal rights and opportunities and consider any form of violation of human dignity and discrimination on any grounds unacceptable.

The Company does not tolerate discrimination based on gender, race, age, or other grounds. The hiring process applies an equal opportunity approach to local applicants abroad, to men and women, to applicants with limited health abilities[1], to members of the indigenous minorities of the North, and to other social groups.

Recruitment in foreign countries

Our basic approach in all countries where we operate is to comply with legal requirements and employ the best professionals. In the Republic of Iraq, for example, foreign companies are required to hire at least 50 percent of the average headcount from local candidates. In the Republic of Uzbekistan, this number is at least 80 percent. (This requirement applies to both full-time employees and contractors.) We offer opportunities for locals to fill vacant positions and provide training if needed. In Bulgaria, Italy, Romania, and Belarus the share of local hires was 99 percent, in Uzbekistan — 93 percent, and 60 percent in Iraq[2].

1 Belarus
2 Romania
3 Italy
4 Bulgaria
5 Uzbekistan
6 Iraq

1. For applicants from special groups, jobs are provided based on statutory regulations and job openings that meet labor requirements. For example, the quota for hiring people with limited health abilities in the Company is 2–3% of the average number of full-time employees and is set separately for each region of LUKOIL's operations.
2. Given our broad geographic presence, some indicators such as the share of local hires and the average salary are disclosed for each significant region. See Appendix 6 for the definition of a significant region. In 2020, six foreign countries mentioned in this paragraph of the Report are considered significant regions. Local employees are all employees of Group's organisations, excluding seconded employees (defined in Appendix 6).

Local employment in LUKOIL MID-EAST LIMITED (Basra, Republic of Iraq)

In Iraq, candidates are hired from the local employment center database and external sources (media, recruitment agencies, and so on). Applicants from communities located near the deposit are considered first. Created specifically for the project, the Joint Local Recruitment Committee, which includes representatives of LUKOIL and national partner companies, conducts the initial screening on a competitive basis (testing and interviews). Candidates who have successfully passed the screening sign an employment contract, which must include salary, schedule for additional payments and cash incentives, working hours, and the procedure for determining terms of each shift.

We provide mandatory and continuous safety and HSE training for all local personnel (new hires and existing employees). On-the-job training for employees is organized to improve qualifications and get promoted. In addition, annual professional training is offered to specialists at training centers in Iraq, the UAE, Turkey, and Egypt, along with internships at the Group's Russian entities.

LUKOIL provides employees with career development opportunities. In 2020, more than seventy employees successfully completed a workplace internship program (Shadowing) and were appointed to supervisory (junior management) and engineering positions; three people interned to fill superintendent level positions (mid-level operations manager).

Employees with appropriate qualifications are hired for management positions in our foreign entities. If personnel with the necessary qualifications and capabilities are not available on local markets, Russian employees are appointed to managerial positions in order to promote the same corporate culture throughout LUKOIL Group and to expand their capabilities by gaining professional experience in international projects. For this purpose, the Company has a pool of employees who can be rotated. Thus, the risk of a loss to efficiency is mitigated and the need for highly qualified and managerial personnel is promptly satisfied, regardless of the situation in local labor markets. At the same time, the opportunity to work in different business and cultural environments is a motivation for employees who value diversity.

Information about local managers in foreign LUKOIL Group entities in significant regions of operation

	2018	2019	2020
Senior managers, people	89	89	88
including locals	28	29	31
Share of local senior managers, %	31	33	35

Notes.

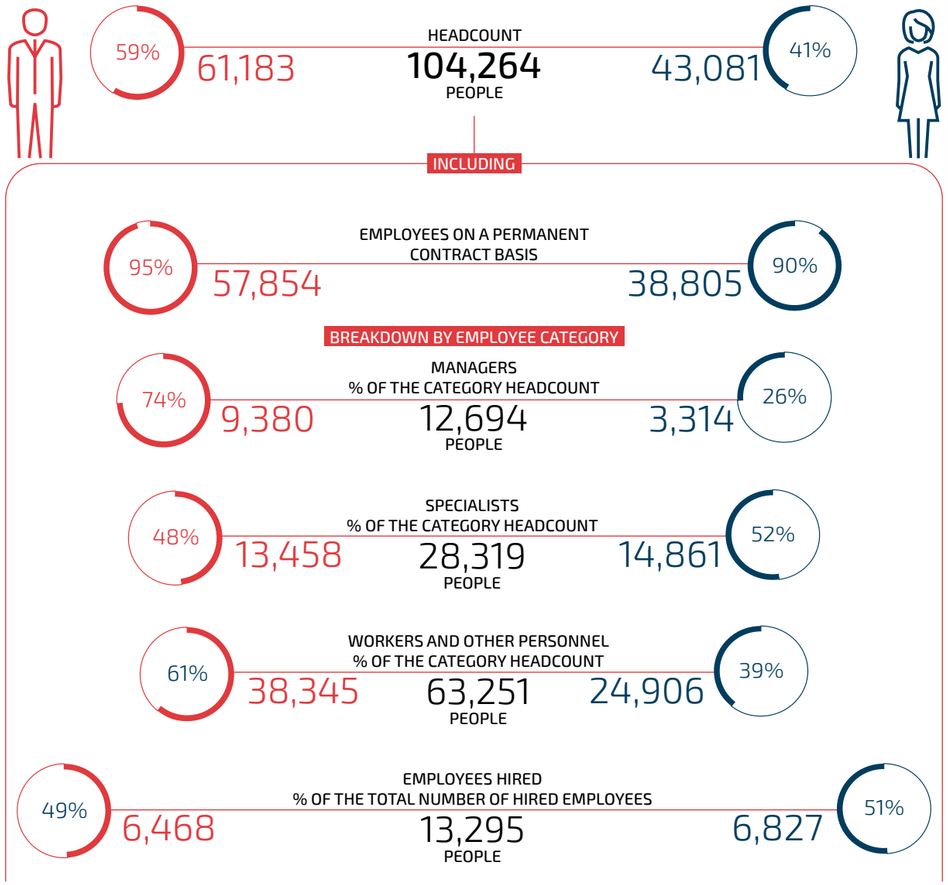
1. The indicators of the "Our employees" section are calculated based on the headcount of employees in accordance with the GRI approaches, unless otherwise stated. At the same time, similar indicators may be presented in the Annual Report based on the average headcount.
2. Senior managers include the CEO (Managing Director / General Director) and their deputies for functional areas.
3. Local senior managers mean employees who are permanently registered in or are citizens of foreign countries.

Gender equality

Despite the specifics of the oil and gas industry and the traditional prevalence of male employees, LUKOIL has maintained a balanced gender structure for many years.

We provide equal career development opportunities to all our employees. Gender monitoring of personnel job categories is carried out regularly. In doing so, we respect the desire of employees to achieve a balance between family and work. Parental leave, for example, is available to both women and men. We also encourage employee initiatives to develop groups based on specific interest. For example, a women's club has been functioning at the refinery in Nizhny Novgorod since 2013.

Personnel gender structure of LUKOIL Group in 2020



Note.
The "Managers" category includes: CEO of a LUKOIL Group entity, Deputy Heads, Chief Engineer, Chief Accountant, Head of a branch, TPU, or another standalone business unit, other managers.

PERSONNEL CHARACTERISTICS

In 2020, the LUKOIL Group entities employed more than 100,000 people, most of whom worked under permanent employment contracts (93 percent) and full-time (99.7 percent)[1]. The personnel structure has remained stable for the last three years in terms of employee categories and age. The average headcount decreased by 1.7 percent over the three years, mainly due to normal retirement and, to a lesser extent, due to optimization of the organizational structure of business segments.

About half of the employees work in the Refining, Marketing and Distribution business segment, more than a third work in exploration and production entities, and about 14 percent are employed on a rotational basis. The employee turnover rate decreased in 2019 and continued dropping in 2020 (by 0.8 percentage points relative to 2019).

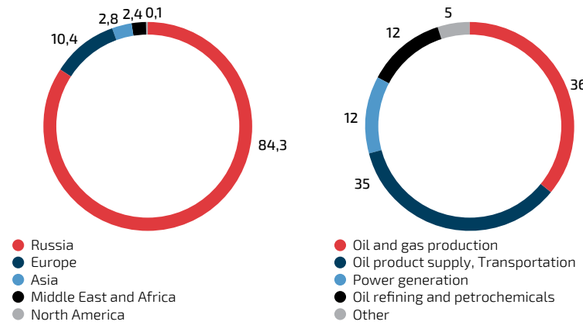
Details on personnel breakdown by different criteria (type of employment, type of contract, category) and other information according to GRI Standards are given in Appendix 7.

LUKOIL Group's headcount and average headcount, people

	2018	2019	2020
Headcount	105,991	105,624	104,264
Average headcount	102,508	101,374	100,768
Turnover rate [%]	7.8	7.5	6.7

Note.
The headcount decrease in 2020 was due to the reorganization measures and the withdrawal of LUKOIL-INFORM LLC from the Group.

Breakdown of LUKOIL Group employees by region, %



Breakdown of LUKOIL Group employees by type of activity, %

1. Hereinafter in the section, the estimates are based on the employee headcount as of December 31 of the reporting year (unless otherwise stated).

Young professionals and employees

Recruiting and retaining young professionals is an important component of LUKOIL's HR policy. The goal is to ensure continuity in management and production activities. Its elements include internships for students at LUKOIL Group entities and mentorship[1] and initiatives that facilitate the continuity of professional experience, best production traditions, and the corporate culture.

The share of young professionals of the headcount of LUKOIL Group was 35% in 2020.

Research and technology competitions and conferences for young professionals are held annually. Councils of young professionals have been established to help young people adapt to working conditions and maximize their professional talents.

Share of young professionals

35%

Indicators related to working with young employees and professionals, people

	2018	2019	2020
Number of young employees	41,174	39,179	36,955
Number of young professionals	1,639	1,423	1,317
Young employees recruited, including:	14,624	9,427	7,603
• young professionals	589	631	523
Number of students studying under agreements with LUKOIL Group entities	173	281	325

Note.
The decline in the total number of young employees aged under 35 and in the share of young employees in total headcount is due to employees exceeding the age threshold for the young employee category and the start of the pension reform in Russia in 2018, which mandated a gradual increase in the retirement age, as well as the general demographic situation.

For more information on the adaptation activities for new young workers and professionals and on the mentorship, please visit the website.

1. The mentorship procedure is described in the Regulations on Induction of New Employees at LUKOIL Group Entities approved by a Resolution of the Management Committee of OJSC LUKOIL on December 15, 2008 (Minutes No. 33). The Regulations establish the procedure for organizing and holding induction events for new employees at LUKOIL Group entities.

Choosing the best

Since 2011, LLK-International has been implementing the Prospects project targeting graduates of technical and economic higher education institutions. The main objective of the project is to recruit professionals in lubricant development and technology, and in commercial, economic, and financial sectors, on a competitive basis.

The Prospects partners include 19 universities in 10 cities (Moscow, St. Petersburg, Perm, Rostov-on-Don, Ufa, Yekaterinburg, Tomsk, Novosibirsk, Polotsk, Volgograd). The project has grown significantly thanks to the high involvement of the project team, which consists of more than 50 employees of LLK International, including the CEO, top managers, and even young interns. The competition is very popular, and the rivalry among contenders is quite intense: out of more than 5 thousand candidates, about 150 graduates have joined LLK-International over the past ten years. The competition consists of three qualifying rounds:

- I round: testing and interviews with candidates in chemistry, economics, and finance;
- II round: completion of individual assignments;
- III round: in-person interviews with the CEO, managers, and employees of structural subdivisions in the LLK International office in Moscow.

Winners receive a recommendation for a one-year internship as a management trainee at LLK-International companies with an individual mentor assigned. Each project participant receives modular training to develop their soft skills and works with a mentor to expand their professional knowledge. This approach enables young specialists to develop the necessary competencies in just one-two years in their area of responsibility and enables them to be included in the management reserve.

Over the ten years of the Prospects project, two of its participants became managers in the Group's foreign entities; two are department heads, and six are heads of Moscow office divisions; 13 people have been promoted to senior management positions[1]. Thus, LLK-International has created a talent pool which is gaining unique knowledge through mentorship. Also, the Prospects alumni participate in scientific and commercial projects and contribute to LUKOIL Group's overall business results, which was recognized during their performance evaluation: 15 employees won the corporate competition and were awarded the title "Best Young Specialist."

1. Data is as of 2020.

SOCIAL POLICY

We strive to maintain an effective employee remuneration system to facilitate social stability and to enhance the quality of life of our employees and their families. Company obligations which supplement those of the laws of the Russian Federation and international standards are set out in the Social Code of PJSC LUKOIL and the agreement between the employer and the trade union. Services under employee social programs are provided in both Russian and foreign entities and employees can participate in these programs irrespective of their employment terms (whether they are employed full or part-time).

LUKOIL Group staff costs, RUB million

	2018	2019	2020
Total	**145,706**	**147,284**	**151,528**
including:			
• payroll	136,475	138,180	142,809
• social benefits and payments, social support for employees	8,403	8,125	7,977
• training	828	979	742
including in Russian entities			
• payroll	97,386	98,883	101,446
• social benefits and payments, social support for employees	5,876	5,670	5,403
• training	641	714	583

Notes.
1. Details of the scope of social services for employees are provided in Appendix 7.
2. Expenses on social benefits and payments and social support of employees include payments under collective bargaining agreements and do not include social payments from the wage fund.

Cooperation with trade unions and employees

LUKOIL enters into voluntary collective agreements and agreements between the administration and trade unions in Russia and abroad governing mainly additional norms to the requirements of labor legislation, such as employment, observance of working and rest hours, occupational safety and health measures, the level of wages and the provision of agreed social benefits and guarantees. The Company does not prevent the activities of trade union organizations and maintains an ongoing constructive dialogue with trade union representatives.

Each new agreement on the level of commitments is a next step to improving the social benefits package and the level of social protection for employees increases as compared to the mandatory legislation.

In 2020, PJSC LUKOIL and the International Association of Trade Union Organizations of PJSC LUKOIL (IATUO) signed the 10th agreement between the employer and the trade union for 2021–2023. The supplements and amendments covered 84[1] points of the document. New social support obligations were included, such as:

- The lump sum payment as compensation for health damage in the event of an accident at work has been increased.
- The estimated average salary for determining additional sick leave benefit was increased.
- A lump sum payment is stipulated on the termination of an employee due to retirement.
- Unified amounts of financial aid to employees with disabled children and financial aid on the birth of a child were established.
- The monthly wage rate of social benefits for employees and non-working pensioners was increased.

The Agreements form the basis for concluding collective bargaining agreements in the Group's organizations. All rights and guarantees set forth in the collective bargaining agreements shall apply equally to all employees of LUKOIL Group entities, regardless of their trade union membership.

For detailed information on the trade unions social partnership system see the website

Awards of 2020

- The winners of the contest "Best Collective Agreement in the Oil and Gas Complex" of the Russian Oil, Gas and Construction Workers Union were collective agreements of the oil refinery in Nizhny Novgorod, "LUKOIL-West Siberia" and "LUKOIL-Integrated Oil Terminal".
- The winners and awardees of the Contest of the Ministry of Energy of Russia for the best socially-oriented company in the oil and gas industry in 2020 were the oil refineries in Volgograd and Perm, the Stavrolen plant, as well as LUKOIL-AERO, LUKOIL-Tsentrnefteprodukt and the LUKOIL Sport Club.

Motivation and wages

In Russia, the minimum subsistence level is regulated by law, as is the minimum wage[2] and how often it is paid. In 2020 the minimum rate of pay of LUKOIL entities in significant regions of operation in Russia was in line with or exceeded the regional minimum wage. The minimum rate of pay is the same for men and women and is determined based on duties performed, the complexity of work tasks and level of responsibility, and is established for each employee considering their education and practical experience. The initial salary at LUKOIL Group foreign entities is also at least equal to the minimum wage rate established by the labor laws of the country where LUKOIL Group operates, collective agreements, and/or local regulations.

The compensation strategy is constantly being improved in accordance with best practices. The Company is introducing a grade-based incentive system[3], which will make it possible to ensure the unity of payroll systems in different Group entities. In 2020, special attention was paid to building an incentive system for project staff: the possibility of awarding bonuses to employees at each stage of project implementation and based on project results was introduced. Measures were also taken to improve the incentive system for oil product supply employees.

At the end of 2020, average wages in significant operating regions in Russia, where large production, refining and energy entities operate, doubled the average wages in almost all these regions. In addition, the growth rate of wages in LUKOIL exceeded the growth rate of average wages in the regions.

Information about the ratio of average wages to average salaries in significant regions of operation is provided in Appendix 7.

1. Including working and rest hours, occupational safety, employment of women in rural areas, support of non-working pensioners, etc.
2. According to the Labor Code of the Russian Federation, the minimum wage must not be lower than the subsistence level established for each constituent entity of the Russian Federation.
3. The grading system is the ranking of positions according to their value for the entity

Social support

The employee incentive system includes benefits and compensation established by the agreement and collective bargaining agreements between the employer and the trade union, collective bargaining agreements and other local regulatory acts. A significant part of benefits and compensations is geared towards enhancing the quality of life of our employees through maintaining their health, providing support to them and their families, offering them housing assistance, etc. Social benefits are also provided to retired employees.

Voluntary health insurance

According to the Unified Rules for Voluntary Health Insurance (VHI) for Employees of LUKOIL Group[1] entities, all the employees working in LUKOIL Group's entities (as a primary job) are entitled to VHI insurance. In 2020, amendments were made to the document, according to which newly hired employees (new hires) are subject to VHI from the end of the trial period stipulated by the employment contract, i.e. within one calendar month from the date of hiring. Employees can at their own expense widen the coverage of health insurance programs to meet their specific needs.

Housing program

As part of the corporate Basic Housing Policy of LUKOIL Group, invited and young professionals may receive assistance from the Company in acquiring housing in the form of partial payment of interest on bank loans. In 2020, 853 employees participated in the program (2019: 1.4 thousand people participated).

Pension benefits

Russian entities finance a corporate-defined pension plan that covers most employees. One type of plan is based on the number of years of service to the Company, the salary level as of the end of 2003, and any awards received during the entire period of employment in LUKOIL. The other type of the pension plan is calculated in proportion to the salary level. These plans are financed solely by LUKOIL Group entities. Also, employees have an opportunity to contribute to pension savings with the Company's participation (up to 4 percent of employees' annual salary).

44.1 thousand employees from the Group's entities participate in the joint pension program (2019: 43.6 thousand). Employees of foreign entities are provided pension benefits in line with the laws of the country of operation as well as the local regulations of entities. Some pension plans are financed solely by employers, while others are based on contributions from both employees and employers.

Non-state pension coverage

	2018	2019	2020
Pension liabilities, LUKOIL Group, RUB million	8,910	12,544	13,794
Number of former employees receiving a corporate pension, in Russia, people	49,441	52,854	53,519
Average non-state pension level in Russia, RUB	2,272	2,134	2,241

1. The document establishes the requirements for the implementation of VHI for the employees in Russian entities of the Group. In foreign entities of the Group the Unified Rules are not binding, the employees are subject to VHI in accordance with the local regulations and employees' labor contracts.

30 YEARS of Sustainable Development. "LUKOIL Is One Family"

Thirty years ago, LUKOIL united three Siberian fields in Langepas, Urai and Kogalym (Western Siberia), which were joined by two oil refineries in Volgograd and Perm. It was then that the slogan "LUKOIL Is One Family" appeared, which in many ways defines the Company's social policy towards its employees.

In a fundamentally changed economic environment, it was important not only to ensure the stability of the entities' operation, but also to preserve the unique nature of our Company's communities while learning to work together in a new way. Thanks to a forward-looking business strategy and constant interaction between the Company's management and employees during collective bargaining negotiations, jobs at key production facilities were retained, as were many social forms of support. The corporate principles on wages and social benefits ensured a decent standard of living for the employees' families even in times of crisis.

The collective bargaining agreements of many LUKOIL Group entities have been repeatedly recognized as the best in the industry at the regional and federal level in Russia. This confirms LUKOIL's responsible position in implementing the human resources management policy.

1990s	2020
The level of wages and the scope of social benefits varied significantly among entities in different industries	A unified approach to social policy implementation was used, which was set forth in collective bargaining agreements, the Social Code, and the Human Capital Management Policy
In 1994, a corporate non-state pension coverage program was launched	Corporate social programs help employees to solve the most important issues for any family (difficult life situations, housing, health care, children's education, etc.)
Five entities in 1993	Over 180 companies[1] within LUKOIL Group
1993: approximately 80 thousand employees	Over 100 thousand people
1993: three regions of Russia	More than 30 countries and 65 regions of Russia

1. As per IFRS, the list is provided in Appendix 1.

TRAINING AND DEVELOPMENT

Corporate training is a long-term priority area of our HR management policy. Our investments in employee training and development not only secure the Company's strategic needs for staff with the right qualifications and expertise but also keep employees' professional skills up to date, keeping them in high demand in the labor market. This approach prevents unemployment in the regions where we operate and strengthens the well-being of families.

Our actions

The Human Capital Management Policy sets out the principle of advanced development of employees' competencies and their continuous improvement.

Job descriptions, employee performance evaluations, and individual training plans determine the need for professional development. A supervisor may recommend or assign an employee to complete a specific training program depending on the need for skills that need to be improved to fulfill the tasks at hand. Employees are encouraged to be proactive and submit a training request to their supervisor. After approval under established procedures, the request is incorporated into the Personnel Training Plan. The effectiveness of every completed training is evaluated during the year-end employee performance assessment.

Training programs

In Russia, employee training sessions are held at least once every three years for all target groups and personnel categories, considering their specialization, work experience, and role in the Company's development.

The following types of training are used:

- **Mandatory training** (additional professional education) is provided for the purpose of vocational training or advanced training. It is the employer's responsibility to organize this type of training. Employees are sent for training to various educational organizations. Mandatory programs also include training and certification of employees in occupational health and safety and are conducted both remotely and in person.
- **Corporate training** is conducted as necessary in specialized educational organizations of higher education or in the Corporate Training Center (Astrakhan). The main purposes of this type of training are to improve employees' qualifications or professional retraining, and to expand specialization in related areas. Training is conducted in different formats: seminars, practical courses, lectures, round tables, business games and others.
- **Trades.** The vocational education of workers is provided on a permanent basis throughout an employee's entire working life. Employees may be seconded to educational institutions, undergo training directly at the workplace, as well as through self-education. The purpose of professional training of employees at the workplace is to constantly keep their skill level up to date with changing industrial and social conditions.
- **Program for project teams** Basic and specialized courses are held for project teams as part of the Integrated Project Management System. In 2020, 400 employees received an opportunity to complete this type of training.
- **Internal trainers and mentors.** The Institute of Corporate Trainers and the Institute of Mentoring are also elements of the overall training system. Internal business trainers actively work with filling station line personnel (operators and managers of filling stations) in Russia, based on the programs of the Corporate Competency Center.

Training is available for all target groups and personnel categories in Russia: managers, specialists, office clerks, workers, corporate employee pool, Group entities' employee pool, "Mobile personnel", young employees.

Employee training at LUKOIL Group entities

	2018	2019	2020
Number of trained employees, people	74,684	78,026	80,119
Share of trained employees by position, %			
• managers	n/a	n/a	15%
• specialists	n/a	n/a	27%
• workers and other employees	n/a	n/a	58%
Amount of training, person-courses,	243,467	258,728	584,621
including share of employee category, %			
• managers	n/a	n/a	14%
• specialists	n/a	n/a	14%
• workers and other employees	n/a	n/a	72%
Average number of training hours per one trained employee, hours	n/a	84	141
Average annual training costs per one trained employee, RUB	n/a	12,548	9,266

Note.
Average number of training hours per one trained employee = Total number of hours of training events held at Russian and foreign entities divided by Total number of employees that received training in the reporting year. Average annual training costs per one trained employee = Total costs to train employees that received training in the reporting year divided by Total number of employees that received training in the reporting year.

Distance learning

The largest part of training, including courses and programs on mastering new areas of knowledge and types of activity, as well as on acquiring modern competencies, is held in the Distance Learning System (DLS).

The main goal of the DLS is to ensure that employees have the level of knowledge required by the Company. This goal is achieved through training and communication, assessment, and testing. The DLS helps to effectively achieve large-scale training objectives, to test employee knowledge for compliance with corporate and statutory requirements, and to develop professional and managerial competencies, as well as to enhance the personal effectiveness skills of employees.

In 2020, the total number of training hours using distance learning programs was about 7 million hours (in 2019: 2 million hours).

Employee training at LUKOIL Group entities in distance learning

	2020
Scope of training, hours	6,963,587
Russian entities	6,886,936
Foreign entities	76,651
Scope of training, person-courses	470,355
Russian entities	461,644
Foreign entities	8,711
By employee category	
managers	53,242
specialists	60,231
workers and other employees	356,882

The Company also has a talent pool program and qualification centers; Detailed information is available on the website:

Social INVESTOR

Our external social policy is formed in accordance with the principles of constructive cooperation and responsible partnership. We recognize the importance of regular interaction with residents of Russian regions and foreign countries where LUKOIL organizations operate.

KEY CHANGES AND RESULTS IN THE REPORTING YEAR

LARGER SALES OF PRODUCTS WITH IMPROVED ENVIRONMENTAL CHARACTERISTICS

LUKOIL GAS STATIONS' MOBILE APPLICATION INTEGRATED WITH CUSTOMER INTERACTION LOYALTY PROGRAM HAS BEEN SUCCESSFULLY IMPLEMENTED. THE NUMBER OF APPLICATION USERS EXCEEDED 4.2 MILLION PEOPLE BY THE END OF 2020 (YOY GROWTH OF MORE THAN 1.4 MILLION PEOPLE)

A SHARED SERVICES CENTER FOR MONITORING THE QUALITY AND QUANTITY OF PETROLEUM PRODUCTS AT ALL GAS STATIONS IN RUSSIA WAS OPENED, ALLOWING AN ANALYSIS OF THE OPERATIONS OF THE GAS STATION NETWORK DOWN TO EVERY FUEL TANK TRUCK, STORAGE TANK, AND OPERATOR

TOTAL EXTERNAL SOCIAL SUPPORT EXPENSES WERE RUB 8.4 BILLION

CONTRIBUTION TO IMPLEMENTATION OF SDG

3 GOOD HEALTH AND WELL-BEING

Total COVID Relief support (external social support) amounted to about

RUB **1** billion

PLANS FOR 2021 AND THE MIDTERM

Development of an ecosystem for gas station customers as part of the partnership program service; continued digitalization.

Technology research for the further development of energy efficient hydraulic oils.

Continued implementation of social projects in the regions and countries of operation.

CONTEXT

The World Economic Forum (WEF) predicts[1] that a drop in household income is one of the most probable and significant long-term risks for local communities in the post-crisis period, particularly in less developed countries. This will be driven by a spike in unemployment during the pandemic, when not even those able to work will regain a stable income, should the economy begin to recover. The crisis has had a particularly detrimental global effect on the demographics most exposed to the adverse dynamics of the labor market, such as young workers. Therefore, supporting jobs for young people, small and family-owned businesses, and social entrepreneurs is critical to rebuilding communities.

Another equally pressing social issue is the long-term implications of the pandemic for public health, the effects of which remain as yet largely unknown. Such factors as COVID-19 side effects and delayed treatment will maintain pressure on local health care systems and affect the ability of the population to resume regular work schedules.

The crisis has also revealed gaps in the public education system, such as the lack of developed distance learning methods. This needs to be addressed by improving the infrastructure and the education of the teaching staff.

Productive and ongoing social dialogue and coordination among all parties involved will be crucial in developing effective countermeasures at the regional level. LUKOIL is ready to play an active role in effecting these changes

1. Source: The Global Risks Report 2020. World Economic Forum, 2021.

PRODUCT QUALITY AND CUSTOMER RELATIONS

LUKOIL Group entities produce a wide range of products for various industries and vehicle owners in Russia, Europe, Asia, and the Americas. Our priorities are focused on meeting customer expectations, developing and launching new products with enhanced operational and environmental properties, and continually improving quality management approaches[1]. We make great efforts to get feedback from our clients on the quality of our products and related services. LUKOIL filling stations have a loyalty program for customers, which has grown in popularity each year.

Sales of fuel products and lubricants

Type of product	2018	2019	2020
ECTO brand fuel, thousand tonnes	9,603	9,022	8,299
Bunker fuel, thousand tonnes	4,742	4,269	2,732
Aviation bunker fuel, thousand tonnes	3,198	3,357	2,539
Branded oils (premium group), thousand tonnes	594	574	611
Biofuel blends[2], million liters	6,515	7,093	6,733

Note.
A temporary decrease in sales of branded oils in 2019 versus 2018 is the result of the MARPOL convention which came into effect on January 1, 2020.

Manufacturing and selling products with enhanced properties

LUKOIL branded products have enhanced properties that enable lower fuel consumption and reduce the content of hazardous substances in exhaust gases. The use of new and innovative products fosters improvements in safety and reduces negative environmental impacts.

LUKOIL's strategic focus is on continuously seeking opportunities to enhance the quality of its motor fuels and lubricants and adopting an approach of anticipatory compliance with the requirements of the markets where our products are sold.

The composition of our motor fuels was 100 percent compliant with environmental standard Euro-5 (environmental class 5) as early as 2012.

The combustion products of these new types of fuel contain less sulfur, soot, carcinogens, and other hazardous substances. The Company also produces innovative products for marine shipping, aviation, and industrial companies.

Share of products with enhanced properties, %

	2018	2019	2020
Share of ECTO branded fuels (motor gasoline and diesel) in total retail sales of petroleum products in Russia and abroad	63	64	61
Share of environmentally safe marine fuel in total sales of bunker fuel	23	23	16
Share of energy efficient lubricants in total production of lubricants (PVL + CVL)[3]	8	10	16

1. Additional information published on the website: https://lukoil.ru/Products.
2. Biofuel blends are blends of motor gasolines and ethanol (up to 10%) or diesel fuel and fatty acid methyl esters (allowing for a motor gasoline density of 0.755 kg/L and a diesel fuel density of 0.845 kg/L). These products are sold in European countries (the largest volumes are sold in Belgium, Romania, Bulgaria, and Turkey).
3. The method of calculating the indicator "Share of energy efficient lubricants" was revised in 2019. Energy efficient lubricants are oils with low rates of high temperature viscosity (less than or equal to XXW-30) for light-duty and cargo product lines. 2018 data was updated.

LUKOIL is one of the largest suppliers of bunker fuel in Russia and for ports in Bulgaria and Romania. Environmentally safe marine fuel (RMD-80/TSE) with 0.1 percent sulfur content meets MARPOL[1] requirements related to the content of air pollutants in exhaust gas in SECAs[2] and aquatic areas of the European Union. This product has been sold in the Baltic Sea aquatic area since 2014.

Production of energy efficient and environmentally friendly oils and lubricants

Our priority in developing production of oils and lubricants is to create innovative products for promising new types of equipment and machinery, as well as highly effective specialized products for various industry sectors.

- LLK-International develops and supplies low-viscosity Genesis FE (Fuel Economy) oils to consumers in various countries. These oils help reduce fuel consumption by internal combustion engines and boost energy efficiency. In 2020, we successfully developed a low-viscosity engine oil for hybrid engines, approved under the new Daimler specification[3], and a low-viscosity engine oil for MAN trucks[4].

We also produce environmentally friendly oils. Biodegradable products under the BIO brand (BIOLUBE, BIOCHAIN, and BIOFLUIDE) are supplied to the European market[5]. Over time these oils degrade into components that, unlike synthetic oils, do not harm the environment.

- We continue to develop fully biodegradable hydraulic fluids and coolants.
- Special hydraulic oils that can be degraded in Arctic conditions are being developed.

A monitoring system for lubricants, vehicles, and permanent facilities was implemented in 2020. The monitoring system represents a software and hardware complex powered by industrial internet technologies, which makes it possible to remotely monitor the condition of lubricants, as well as mobile and fixed facilities to preserve their quality.

In the reporting year, LLK-International continued to develop collaboration with several leading world manufacturers of equipment and machinery. For example, we expanded our relations with Volkswagen, a major car manufacturer in Russia and Europe. LUKOIL became the principal supplier of lubricants for MAN engine plant in Nuremberg, Germany.

LLK-International had been a member of the Waste Recycling Association since 2018 until 2020.

Average satisfaction level of consumers[6]

Improving the quality of services at filling stations

The four-year program for the reconstruction of filling stations along the federal highways of Russia and in regional centers was completed in 2020. 236 filling stations underwent renovations during this period. This program made it possible to improve the quality of service and expand the range of services provided.

Three liquefied petroleum gas (LPG) sales facilities with a total volume of about 3 tonnes per year were commissioned in 2020 to expand the fuel product line and promote more environmentally friendly fuels. In 2021, we plan to open additional LPG facilities with a total sales volume of over 28 thousand tonnes per year and to launch a pilot project for the installation of a compressed natural gas module (with a capacity of over 9 thousand tonnes per year) at a filling station in Nizhny Novgorod.

Transition to the Guaranteed Oil Product Delivery system from tank farms to end user remains on track. For instance, the LUKOIL-Tsentrnefteprodukt filling stations have completely switched to this system; so have the LUKOIL-Severo-Zapadnefteprodukt filling stations in six regions, and LUKOIL-Uralnefteprodukt in four regions of operation — a total of about 67 percent of filling stations have been enrolled in the system to date. The guaranteed delivery system ensures the quality and quantity of transported fuel and reduces the number of technological operations that expose filling station personnel to hazards.

1. The 1973 International Convention for the Prevention of Pollution from Ships, as modified in 1978, MARPOL 73/78.
2. Sulfur emission control areas (SECA) are aquatic areas in the North and Baltic Seas and part of the US coast.
3. LUKOIL GENESIS MCB 225.33 0W-20 engine oil.
4. LUKOIL AVANTGRADE PROFESSIONAL XLE 5W-30 engine oil, compliant with M3777 specification.
5. LUKOIL's 2020 lubes portfolio includes five lines of biodegradable oils: hydraulic (LUKOIL GEYSER BIO), gear oils (LUKOIL STEELO BIO), chain oils (LUKOIL BIOCHAIN, LUKOIL BIOSEGAROL), and spacer oils (LUKOIL LAYER BIO).
6. The approach for calculating the indicator was changed in October 2020. The survey is conducted among retail and wholesale clients — oil and lubricant consumers. Percentage of responses attributed to clients satisfied with product quality is indicated. Corporate customer satisfaction in 2020 reached 100%.

A Corporate Competence Center and Organizational Development Unit were established on the basis of LICARD[1]. This helped centralize the standardization and unification of the activities of NGOs and quality scaling of business processes required to support core activities. The implemented "Business idea" feature enables the Company's personnel to offer suggestions for improving the business segment.

Thanks to the extensive efforts of the Corporate Competence Center, we diversified our training courses for area managers and filling station employees. Constant training guarantees improved quality of customer relations. In addition, in 2020 all filling station employees in Russia were equipped with new uniforms which were designed in response to their comments and requests.

Plans for further improvement of the quality of services involve training and motivational events as part of the Year of Service (2021), the introduction of innovative customer-oriented service scenarios, development of interactive customer channels, and digital services for corporate clients on the mobile application and in personal account. The new concept of catering at filling stations is based on strict quality control of food from the preparer to the customer.

In 2020, LUKOIL Group filling stations ranked number one in the Retailer of the Year award in the "Filling Stations" category.

Relations with filling station customers

We maintain constant contact with the retail customers of our filling stations and analyze feedback from them in order to improve the quality of services as well as the level of satisfaction with our products and services. The main methods of customer interaction are surveys and analyses of client requests and proposals received via the Unified Hotline directly at filling stations and through social networks. LICARD LLC's Big Data analytics tools facilitate customer segmentation, which in turn facilitates more accurate feedback.

Feedback is used to improve the work of regional managers at filling stations: every month their performance is benchmarked against criteria that take into account requests and complaints received via the Unified Hotline as well as the rating received in the mobile application.

By the end of 2020, the number of LUKOIL GAS STATIONS mobile application users surpassed 4.2 million customers (YoY increase – over 1.4 million people).

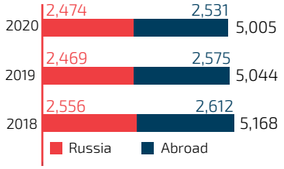
A large-scale information campaign was launched during the pandemic for the customers of LUKOIL filling stations. It was designed to:

- Reduce the amount of human interaction. This was achieved by actively promoting contactless payments using the LUKOIL mobile app.
- Ensure compliance with disease control measures while at the same time preventing negative reactions to them. To achieve this, filling stations were supplied with informational materials on the need to use personal protective equipment.
- Encourage customers to use online stores via the "For Those Who Are Home" campaign designed to promote LUKOIL's partnership program.

The customer relations system we have developed helps us boost overall operational efficiency and create a welcoming environment at filling stations.

Customer service unit answers clients' questions via any convenient communication channel:

Distribution of LUKOIL Group filling stations among countries[2], as of December 31 each year



1. LICARD LLC is a Russian company of the LUKOIL Group; information on its operations is available at https://licard.ru/en/
2. Data includes LUKOIL Group's owned, leased, and franchised filling stations, as well as suspended and leased filling stations (as of December 31, 2020). In 2020, the Group continued to optimize its filling station network by cutting down the number of unprofitable leased and franchised stations.

30 YEARS of Sustainable Development. Oil for people

Following extensive upgrades, LUKOIL's oil refineries began to produce world-class motor fuels, including high-octane automobile gasoline, low-sulfur diesel fuel, and universal motor oils as early as the mid-1990s. The social result of these changes was evident as people in the areas of operations gained access to affordable and safer fuel, and the air in the cities became cleaner.

Apart from the goal of improving product quality, since its founding the Company has been building partnerships in the Russian regions. We recognize the social significance of offering charitable support not only to those who need help but also to people who have valuable ideas and the energy to bring them to fruition. This philosophy was behind the work of the LUKOIL Charity Fund and defined the main priorities of external social policy, which have been maintained and developed over the past 30 years.

"I believe in the future of our Company. There can be no progress without continuous development."

V. Alekperov, President of PJSC LUKOIL, 2020

1990s		2020
The formerly most mass-produced domestic A-76 and AI-93 gasolines contained lead, sulfur, and benzene, substances that cause severe health problems	>>	LUKOIL fuels no longer contain lead compounds; sulfur content is reduced to 0.03 percent, tar not more than 5 mg per 100 cubic cm, and benzene content is reduces to 0.8 percent
In 1992, emissions for gasoline (Euro 1) and diesel use contained 2.72 g of carbon monoxide per km traveled	>>	0.5 g/km (diesel) and 0.1 (gasoline) reflect the emission levels for LUKOIL products as early as 2002
Permanent population in Kogalym in 1992 — about 48 thousand people	>>	About 68 thousand people
In 1994, four cooperation agreements with constituent entities of the Russian Federation were signed	>>	29 cooperation agreements with constituent entities of the Russian Federation in effect
37 grants were awarded as part of the first Social and Cultural Projects Competition[1]	>>	The winners of the contest received 769 grants

1. The first Social and Cultural Projects Competition was held in 2002.

EXTERNAL SOCIAL POLICY PRIORITIES

External social program management system

ELEMENTS OF THE MANAGEMENT SYSTEM	CORPORATE DOCUMENTS
PRINCIPLES	
The Company's social responsibility principles are defined as follows: continuity of business; economic feasibility; control over the performance of obligations and public reporting. The Company's charity and sponsorship priorities and the mechanisms for their implementation and assessment have also been established	The Social Code of PJSC LUKOIL, approved by the PJSC LUKOIL Board of Directors, Minutes No.16 dated October 24, 2017
PRIORITIES	
Environmental protection, the development of science and education, the preservation of national and cultural identities, and sponsoring culture and sports and supporting socially vulnerable groups	
INTERACTION WITH THE REGIONS WHERE WE OPERATE AND WITH LOCAL COMMUNITIES	
PJSC LUKOIL's external social policy is executed using the following mechanisms: • social and economic cooperation agreements with constituent entities of the Russian Federation • Social and Cultural Projects Competition • charity projects and programs • support for the indigenous minorities of the North • corporate volunteering • sponsorship	PJSC LUKOIL's Policy on Interactions with Subsidiaries on Key Lines of Activities of the Public Relations Department approved by the Minutes of the Management Committee of PJSC LUKOIL dated December 23, 2019
ASSESSMENT OF PROJECTS	
The main criterion for selecting projects we will support is their potential contribution to resolving local issues. Our methods of assessing the efficacy of implemented projects include: • meetings with stakeholders to discuss the effective implementation of cooperation agreements • regular monitoring of the social and economic situation in Russian regions • meetings with residents of Russian regions (roundtables, dialogue sessions, conferences)	

Our actions

We recognize the importance of regularly interacting with the residents of the Russian regions where LUKOIL entities operate. Our external social policy focuses on the interests of territories and local communities, and is based on the principles of constructive cooperation and responsible partnership.

Thanks to its state-of-the-art production facilities and stable employment, the Company is a big employer and taxpayer and contributes to maintaining a stable social and economic situation in most Russian regions where the Group's entities operate.

The Company's tax payments to budgets of all levels in 2020 amounted to RUB 782.7 billion, including about RUB 71 billion to the consolidated budgets of the constituent entities of the Russian Federation[1].

Even amid challenging conditions caused by the pandemic and economic downturn, the Company succeeded in implementing its production plans and investment program, ensured steady operation of its industrial facilities, the output of petroleum products, and timely payment of taxes and other payments to all levels of the budget. There were no staff layoffs despite volume drop-offs under the OPEC+ agreement and severe restrictions as part of the anti-COVID-19 measures.

Natalia Komarova

Governor of the Khanty-Mansi Autonomous Area — Yugra

"There is an oriental wisdom: friendship doubles joy and halves grief. Fortunately, Yugra has a friend who operates according to this rule, — and this is LUKOIL Company. Our collaboration is not a game, predictable mechanisms are in place. We highly value this kind of collaboration."

Our charity programs are focused on improving the social climate and quality of life of the population, our employees and their family members and embody the Company's response to pressing social issues. Our social priorities have remained unchanged for over a quarter of a century, and are the same for all the regions and countries where LUKOIL Group entities operate. Many programs and regional projects are long-term and are financed by the LUKOIL Charity Fund (the LUKOIL CF or the Fund) and directly by LUKOIL Group entities.

LUKOIL's base towns in Western Siberia — Langepas, Urai, and Kogalym — celebrated anniversaries in 2020.They are now among the most well-equipped and comfortable places on the map of Russia.

The Social Code of PJSC LUKOIL:

The LUKOIL Charity Fund Non-Profit Organization:

The Social and Cultural Projects Competition:

Our partner in the "More than Just a Purchase" program is the "Our Future" foundation of regional social programs:

1. Excluding excise taxes on petroleum products (motor and straight-run gasoline, diesel fuel, motor oils), which are distributed among the budgets of the constituent entities of the Russian Federation at the Treasury level.

Social projects make it possible to build and renovate kindergartens, schools, sports facilities, medical centers, hospitals, cultural institutions, and other socially significant facilities. In 2020, due to the COVID-19 pandemic, we had to cancel mass events that were supposed to take place as part of several projects and adjust other plans: some events were rescheduled and some were held using other formats.

Dmitry Makhonin

Governor of the Perm Territory

"Together we have conducted numerous projects: we have built new schools and kindergartens, build and repaired health centers, improved gardens and parks. Having signed the agreement, we are confident our collaboration will continue. This is important for us: we have 300th anniversary of Perm ahead with many large events planned, and we will continue conducting projects in territories, for instance, on the development of rural culture centers."

In 2020, LUKOIL Group external social support expenses amounted to RUB 8.4 billion, including charity social projects and events under 29 cooperation agreements with constituent entities of the Russian Federation. Concurrently, significant funds were allocated to protect people from the COVID-19 pandemic.

Regional support in the fight against COVID-19

Since the outbreak of the coronavirus pandemic, LUKOIL has been providing support both in Russian regions and abroad to treat patients and fight the spread of the disease. The Company donated about RUB 1 billion to 25 Russian regions and 14 foreign countries.

The primary areas of assistance are:

- procurement of essential equipment for medical institutions (artificial lungs ventilation machines, oxygen tanks, and compressors for intensive and resuscitation medical care for patients with severe cases of infection, CT scanners, X-ray machines, ECG recorders, and others);
- construction, repair, and re-outfitting of medical facilities (the hospital for infectious diseases in the Saratov region, the multifunctional laboratory in Kogalym, among others);
- procurement of personal protective equipment (masks, protective clothing for medical workers, sanitizers, etc.);
- supplying fuel to medical institutions and volunteers;
- purchasing food packages for elder citizens and e-learning tablets for students from low-income families.

LUKOIL volunteers assisted the elderly across different regions and handed out medical masks to the local population.

LUKOIL made a major contribution to the fight against the pandemic through its in-house production of antiseptics and disinfectants. The Kogalym Chemical Reagent Plant produced and delivered more than 820 tonnes of disinfectants to Yugra entities. LLK-International also launched the production of modern antiseptics for individual and industrial use, effectively preventing the spread of a wide range of viruses, including COVID-19.

In Iraq, we supplied equipment, sanitizers, and supplies to medical facilities and hospitals in the districts of Ezzeddine Salim, Qurna, and Madeina.

Regular areas of support

SUPPORT FOR ORPHANED CHILDREN, DISABLED PERSONS

Areas of external social policy

We support public institutions that look after orphaned and abandoned children, as well as the children themselves. Our programs promote children's personal development, improve their health, and help them prepare for adult life.
By supporting disabled people, we not only provide them with financial assistance, but also help them master new life skills.

The Company provides special concern and caring to World War II veterans working in the oil industry. Every year, on the eve of Victory Day, they receive monetary aid and gifts. The Company also supports the families of military servicemen who died in local conflicts.

Selected social policy initiatives

We partner with public agencies and foundations that provide support to children, including those with disabilities. For example, the Children with Cerebral Palsy Support Foundation received custom-made wheelchairs for children in Kogalym, Langepas, Urai, Pokachi, Novgorod, Pskov, Budennovsk, in the Komi republic, and in the republic of Udmurtia. The Yamine Charity Foundation (the Khanty-Mansi Autonomous Area — Yugra), with the Company's support, organized diagnostics, and medical treatment for 140 children with disabilities as well as rehabilitation and correctional therapy in specialized centers nationwide.
The "Museum without Borders" project (Pokachi, Khanty-Mansi Autonomous Area — Yugra) helped to create a barrier-free environment for children and adults with disabilities: a ramp with a call button and a sensory information booth with development and educational games were built. Information on the Yugra wildlife and culture of indigenous people and the art of Yugra artists have been included in special education programs.
Cognitive aids were purchased, and sensory maps were prepared to facilitate the museum experience for visitors with disabilities.
In Uzbekistan, families with disabled children from the Dekhkanabad district of Kashkadarya province, low-income families, and people with disabilities received charitable assistance during the lockdown following the request from the Khokimiyat of Alat district of Bukhara province.
We also provided support to charitable foundations that addressed the spread of the coronavirus infection (Mehr va Shavkat, Kashkadarya and Syrdarya branches of the Soglom Avlod Uchun charitable foundation).

Irina Chelysheva

Director of "Alyi Parus" social shelter (Nizhny Novgorod Region)

"We are grateful to LUKOIL Company and LUKOIL Charity Foundation for sensitive and careful attitude towards our establishment and the children. Annually, they provide substantial support, and never refuse to help solve our problems. For example, this year the Company assisted us in carrying out full repair of girls' bedroom. Many thanks for your contribution!"

EDUCATIONAL PROGRAMS

Areas of external social policy

We believe that our programs for the younger generation and young oil industry specialists will make a valuable contribution to the future well-being of society. The Company is working with oil industry higher and secondary educational institutions to ensure that the educational process is organized in accordance with the highest standards. The institutions use financial support from the Company to create research centers, laboratories, and academic departments; purchase equipment; and publish new textbooks and collections of articles about the oil and gas industry.

Selected social policy initiatives

In 2020, we also continued to support traditional education programs. Since 2000 we have been sponsoring high-potential students, young teachers, and job training instructors by providing individual scholarships and grants.

In 2020, the scholarship program covered 14 higher education institutions and three colleges, and the grant program covered one high school, eight higher education institutions, and four colleges. LUKOIL Group entities also support educational initiatives in regions where they operate and implement programs that have wide coverage.
In 2020, LUKOIL became the key partner of the "I am a Rescuer!" educational event for schoolchildren to mark the 30th anniversary of the EMERCOM of Russia. According to the preliminary reports on the competition, 12 children spent a day with an emergency

response worker and received letters of recommendation for admission to the Academy of State Fire-Fighting Service of EMERCOM of Russia.
The Company also completed a large-scale project for the construction of "Neftegrad" interactive playgrounds for children. These playgrounds help educate children about the oil and gas industry in the form of interactive games.
The "Universe and Us" project (Urai, Khanty-Mansi Autonomous Area-Yugra, Youth and Supplementary Education Center) organized field trips to schools using a mobile planetarium and astronomy equipment.
In 2020, robotics classes were opened in Bukhara and Karshi (Uzbekistan). The project was implemented by the Innovation, Technology and Strategy Center under the Ministry of Education of the Republic of Uzbekistan with the support of the LUKOIL Uzbekistan Operating Company. Two pilot robotics classes were opened at secondary schools and fitted with the latest equipment. Children will learn programming, mathematics, physics, and algorithmic fundamentals, which will later help them decide on their future education and career.

More details can be found on our corporate website:

Sponsorship programs for students and teachers of higher and secondary education organizations in Russia

	2018	2019	2020
Student scholarships			
Number of scholarship holders, people	190	195	196
Level of financing, RUB million	5.9	6.2	6.4
Grants to teachers			
Number of teachers, people	79	79	86
Financing amount, RUB million	9.0	9.2	10.2

Natalia Ageldina

young mother, resident of the village of Ust-Tzilma (the Komi Republic)

"My four-years old son Sasha is enrolling in the new kindergarten; we live in this district on Lugovaya street. We have been waiting for the place watching the construction works. In our village children have long been waiting for their turn, a kindergarten was essential! For now kindergarten placement issue has been solved for many parents".

Evgeniy Vershinin

Head of Taimyr Dolgano-Nenets Municipal District of the Krasnoyarsk Territory

"We are grateful to LUKOIL Company for their assistance in the construction of a school building; no doubts it will become a point of attraction for many boys and girls from the village of Khatanga. The new site is really necessary for the villagers, 173 people have already applied for extra-curricular workshops".

SUPPORTING HEALTHCARE INSTITUTIONS

Areas of external social policy

The Company has for many years supported a number of large specialized medical centers and regional hospitals, out-patient clinics, and first aid stations, as well as improving medical services in the regions of operation. Most of the spending in 2020 has been directed at protecting the population during the coronavirus pandemic.

Selected social policy initiatives

Our main efforts in 2020 were focused on providing support to healthcare institutions across Russia and abroad (see above for details).
Most of the funding was used to purchase medical equipment, including artificial lung-ventilation machines, drugs, protective clothing for medical personnel, sanitizers, and other PPE, as well as to re-equip medical institutions.
A total of over 70 hospitals and medical centers received support, and over 281 million rubles were spent on equipment.
At the same time, we continued to support projects of social organizations.
MERCY SHIPS CARGO DAY Project LITASCO SA / EIGER SHIPPING SA have participated in the fund raising for this sustainable Swiss non-profit Association project. For the first time ever, the global shipping and trading community has worked together during Mercy Ships Cargo Day to raise support for Mercy Ships, an NGO operating the world's largest private hospital ship, serving in the poorest countries in the world as ranked by the United Nations Human Development Index.
In Uzbekistan, LUKOIL has funded an insurance program covering accidents and infectious diseases for about 1 thousand children from six boarding schools and orphanages.

ENVIRONMENTAL PROJECTS

Areas of external social policy

Environmental campaigns have been held at LUKOIL Group entities throughout the Company's existence. They are a part of our corporate culture deeply cherished by our employees. Traditionally, as part of these campaigns, our employees and partners plant trees and flowers, clean up natural areas and remove litter from riverbanks and rivers.

Selected social policy initiatives

The Wings of the Arctic Federation of General and Ultra-Light Aviation (Salekhard, Yamal-Nenets Autonomous Area) received support for the upkeep of aircraft used to patrol the forest land to locate hot spots and flood areas. Supported by LUKOIL Group entities, a Trail to Yegoshihya, a loop eco-trail in the historical center of Perm, was completed in 2020 in the Perm Territory. The route is used for adventure games, educational tours for schoolchildren, and birdwatching.

SOCIAL AND CULTURAL PROJECTS COMPETITION

Areas of external social policy

The Social and Cultural Projects Competition has been organized by LUKOIL CF in partnership with LUKOIL Group entities since 2002 and is the most well-known corporate program. Its main goal is to support initiatives from local citizens and entities to help resolve issues that impact local areas, and to facilitate conditions that will increase the number of active citizens capable of implementing worthwhile social ideas. The Competition considers entries in three main categories: "Environment", "Spirituality and Culture", and "Sports". One more category was introduced in 2020 in addition to the traditional ones — "The Great Deed", commemorating the 75th anniversary of the victory in World War II.

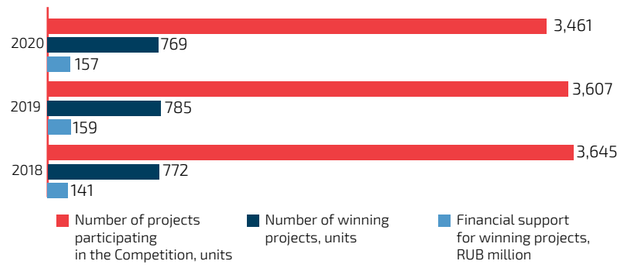
Selected projects that were financed in 2020

Improving the social climate in Russian regions
The Happiness Factory project made it possible to complete the construction and furnishing of the blacksmith shop recreated using the old designs in the Krasnoye Estate in Chernushinsky District of the Perm Territory. Improvements were also made to the adjoining territory. The blacksmith shop integrated perfectly into the tourist route that takes pilgrims to St. Nicholas Nunnery. The shop is open to everyone, and excursions and masterclasses are held for social groups.

Environmental improvement
During the implementation of The Kindness Journey project (organized by the District Community Center in the village of Ust-Tsilma and Ust-Tsilma Administration district in the Komi Republic), the funding was used to improve and landscape the territory of the Ust-Tsilma Cultural Center, including the sidewalks. The area is designed to host environmental activities, which will pave the way for the ecological education of the public.
The Romanian project to establish a Cultural Center for Human Impact on Nature and Environmental Education in Cheia, Prahova County, received support as part of the Social and Cultural Projects Competition. The center was opened at the Museum of Rocks in Cheia, a branch of the Prahova Regional Museum of Natural History. Practical fieldwork was carried out during the pandemic to study the habitat and biodiversity of the Cheia-Menechu area jointly

More information about social projects LUKOIL supports can be found on the Facebook page.

Social and Cultural Projects Competition Results



with the Menechu Forestry Service in compliance with all the prescribed precautions. The research identified valuable areas and elements of natural heritage less known to the public, such as the spruce nursery, the Caucasian spruce, the Centennial Spruce Reserve, and areas of virgin and quasi-virgin forests. This work will help the Prahova County Museum of Natural Sciences and the Menechu Forestry to map out forests of high natural value as well as essential elements of flora and fauna in the region.

Elmira Zaripova

Minister of Labor, Employment and Social Policy of the Republic of Tatarstan

"Company's support covers many issues relevant to families raising many children, and also the ones with disabled children, for instance. The projects contest facilitates the restoration of historic and cultural heritage, strengthening volunteer movements. 100 social welfare institutions have become grant holders. There have been 493 projects implemented in this area. A number of project practices have been rolled-out across the whole republic."

CULTURAL HERITAGE PRESERVATION PROGRAMS

Areas of external social policy

The Company is committed to fostering conditions that preserve national and cultural traditions and crafts in regions of operation, and supports various types of art, especially classical, as well as the territories where cultural monuments are located, including those representing valuable or particularly vulnerable cultural heritage sites. Numerous projects to preserve cultural heritage have been implemented.
This program is aimed at developing Russian culture, promoting spirituality, and preserving national values. For many years we have supported museums, theaters, performance groups, and festivals. We take part in organizing exhibitions and concert tours, restoring cultural heritage sites, and repairing cultural and art centers in Russian regions.

Selected social policy initiatives

The Company has traditionally supported numerous cultural events: in the Moscow Kremlin Museums — the exhibitions "Carl Fabergé and Feodor Rückert. Masterpieces of Russian enamel," "Alexander Benois. On the 150th Anniversary of the Artist's Birth," "Collection of V. Kokorev"; at the State Historical Museum — "Fyodor Rokotov. Collection of the Historical Museum" exhibition; at the Tretyakov Gallery — "Maria Yakunchikova. On the 150th Anniversary of the Artist's Birth"; at the Vyatka Art Museum. V.M. Vasnetsov and A.M. Vasnetsov — the "Magic Bolshoi" exhibition; at the P.M. Dogadin Astrakhan State Art Gallery — "Outstanding artists in the collection of the Nizhny Novgorod State Art Museum."
The cultural and exhibition center of the Russian Museum was opened with the Company's support. Its first exposition was a collection of paintings by Vasily Kokorev, a prominent patron and businessman of the 19th century, which included about 50 works by Karl Bryullov, Alexey Venetsianov, Vasily Tropinin, and others. There are plans to open a Museum and Exhibition Center in Kogalym — a branch of the Russian Museum, similar to the previously opened branch of the Maly Theater. Kogalym is becoming the true cultural center of Ugra.
The Tchaikovsky Symphony Orchestra, The Moscow State Tchaikovsky Conservatory, and other companies also received support. A project was also organized with the Novaya Opera soloists V. Ladyuk and A. Tatarintsev to give "Our Favorite Melodies" benefit concerts in Volgograd and Kotovo.
In addition to the above-mentioned projects, the Company also supported cultural centers and performance groups in various towns and villages across Russia.
Since 2000, LITASCO has been proud to partner with the Geneva Chamber Orchestra, renowned for its unique sound, based on a historical interpretation of works in classical and baroque styles. Together with the Geneva Chamber Orchestra LITASCO is participating in extraordinary musical events such as the now traditional Geneva Christmas Concerts.

SUPPORTING SPORTS TEAMS AND EVENTS

Areas of external social policy

LUKOIL's sports program is geared towards promoting healthy lifestyles and sports. We help both professional and amateur teams, support the Olympic movement, and organize corporate wellness programs. Special emphasis is placed on the development of children's sports. All sports projects are operated by the LUKOIL Sports Club. We continuously support the following sports: soccer, racing, basketball, competitive skiing, water polo, handball. The Company also assists in organizing various competitions and city sports festivals.

Selected social policy initiatives

Thanks to the Company's support, Russian car racers (Lukoil Racing Team), FC Spartak, the national skiing team, United Basketball League athletes, and numerous regional teams have recorded impressive victories in various sports. All professional clubs supported by LUKOIL develop children sports.
In addition, the Company supports the development of youth soccer at the international level (Children's Champions Cup, Lukoil Cup; Children's Soccer league). Attention is also paid to sports veterans — LUKOIL is a founder of the Russian Olympians Foundation. The initiatives of the LUKOIL Sport Club are intended for young athletes, amateur and professional athletes, and disabled people.
Children's tournaments were held with LUKOIL's support in 2020, including: handball tournament among schoolchildren (Astrakhan Region), traditional ballroom dancing tournament Dancing Metelitsa (Nizhny Novgorod Region), Usinsk Football League (Komi Republic), first city tournament in adaptive equestrian sports for athletes with disabilities (Nizhny Novgorod), district and city competitions and figure skating championships in the Yamal-Nenets Autonomous Area.
"Refueling through Sport" grant. This nationwide charity project is aimed at sponsoring athletes between six and fourteen years of age. In addition to monetary prizes, winners receive sportswear and train under the guidance of Olympic champions. Every year from 10 to 15 winners are selected.
Since 2018, the Company has been building a running community. The corporate LUKOIL TRIATHLON TEAM, as well as the LUKOIL RUNNING CLUB, established in 2020, bring together running enthusiasts among the Company's employees in Russia and abroad.
In 2020, the Urai Arena sports complex was opened in the Khanty-Mansi Autonomous Area-Yugra with an area of about 2 thousand square meters, built entirely with the Company's charitable donations. The complex was designed in accordance with international standards and features a hockey field, a gym, and other facilities. The sports complex "OLYMP" was reconstructed in Kogalym; it will accommodate students of the wrestling and sambo clubs.
The Key to Start project (Urai, Khanty-Mansi Autonomous Area—Yugra) equipped a training facility for rocket and aeromodelling classes, which helped encourage more children to participate in technical sports. Ten club trainees have won first and second places in the open city and regional competitions.
In Perm, a tourist trail around Yugovskoye Pond was equipped for hiking, biking, nordic walking, and school physical education classes.
The project of the Kogalym Municipal Paralympic Sports Federation encouraged children and adults with disabilities to take regular table tennis lessons.

More details on the activities of LUKOIL Sports Club can be found on the Company website

and in social networks

Children's Champions Cup, Lukoil Cup

Children's Soccer league

Corporate volunteering

The practice of volunteering in campaigns and events for the benefit of the residents of cities and villages has long been part of LUKOIL's corporate culture. Our young employees organize their own volunteer projects and participate in local initiatives. Despite the large variety of campaigns, our volunteers from all regions where LUKOIL operates have shared priorities. These include the following types of support and social participation:

- Support for war and oil industry veterans: visiting the elderly, helping them around the house, and giving them gifts.
- Care for children — visits to orphanages and patronage of child welfare institutions, organizing related events and campaigns.
- Environmental campaigns — cleaning up natural sites, planting trees in cities.
- Sporting events — bicycle rides, races, relays, rafting, hiking, etc.
- Charity fairs and city festivals to encourage residents of cities and villages to provide charitable aid to their neighbors.

Social entrepreneurship

The "More Than Just a Purchase" project[1] is a unique joint initiative between LUKOIL Group Russian entities supplying oil products and the "Our Future" Foundation of Regional Social Programs[2]. Its purpose is to support social entrepreneurs[3] who get the opportunity to sell their products at the Company's filling stations. Buying project-branded goods help provide jobs for people with disabilities, retirees, and other socially vulnerable groups. The project remained active during the pandemic. In 2020, 15 new social entrepreneurs started offering their products at LUKOIL's filling stations.

As of December 31, 2020, 122 suppliers were participating in the project (107 in 2019). This is the largest network of operating social entrepreneurs in Russia who are also represented online.

In light of the challenging economic situation faced by many businesses, including social entrepreneurs, due to the spread of the coronavirus infection, the Our Future Foundation allocated RUB 11.6 million to support social entrepreneurs during the pandemic.

More details about the project can be found on the website:

1. LUKOIL cooperates with the "Our Future" Foundation only as part of the "More Than Just a Purchase" project. PJSC LUKOIL has no involvement in the design and implementation of the Foundation's programs.
2. Our Future Foundation was created on the initiative and using private funds of the President of PJSC LUKOIL, V. Alekperov (http://www.nb-fund.ru/).
3. Social entrepreneurship refers to a special type of activity aimed at resolving or mitigating social issues using income from economic activities. Both small businesses and social non-profit organizations can be social entrepreneurs.

SUPPORTING INDIGENOUS MINORITIES OF THE NORTH

The first three organisations that joined LUKOIL in 1991 operated in the Khanty-Mansi Autonomous Area — Yugra, home to the indigenous peoples of Siberia — the Khanty and Mansi. That is why relations with the Indigenous Minorities of the North (IMN) have been a focus of development since the Company started its operations. In the 2000s, LUKOIL's areas of operation were expanded to include new northern regions (the Nenets Autonomous Area and the Yamal-Nenets Autonomous Area).

We share the principles enshrined in the UN Declaration on the Rights of Indigenous Peoples, the UN Global Compact, and the Resolution of the World Conference on Indigenous Peoples, and are committed to ensuring a harmonious balance between the economic activities of LUKOIL Group entities in the territories of indigenous minorities of the North and the latter's interests in preserving their traditional lifestyle and economic activity.

The Company has a history of signing economic agreements with the heads of traditional resource use areas in the Khanty-Mansi Autonomous Area — Yugra and agreements on the social and economic development of deer farms in the Yamal-Nenets Autonomous Area. Compensation includes cash payments, goods, transportation, and services.

For almost 20 years, we have been implementing the Red Chum project to preserve the health of nomadic indigenous people of the Arctic in the Nenets Autonomous Area. In 2020, due to the pandemic, health check-ups for reindeer herders and their families by mobile medical teams had to be cancelled. However, LUKOIL still donated funds to purchase an ECG unit for use in the future once the quarantine is over.

The Company has established and successfully operates mechanisms that allow indigenous minorities of the North and their organizations to contact the Company and request assistance or protection of their rights.

In 2020, the Group's entities operating in Khanty-Mansi Autonomous Area-Yugra and NAO received no requests from the IMN regarding COVID-19 or assistance to prevent the spread of infection. At the same time, personal protective gear and medical equipment were sent to the administrations of both areas to provide on-site treatment.

There were no cases of involuntary resettlement of indigenous people during the LUKOIL Group's operations in the traditional settlement areas and/or areas of economic activities of the indigenous minorities of the North in the reporting year. Also, no inquiries were received regarding violations of the rights of indigenous people of the North.

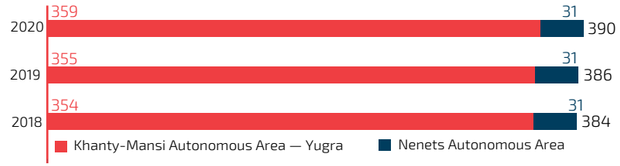
Further details on the system of relations with the IMN can be found on our website

Dmitry Artyukhov

Governor of the Yamal-Nenets Autonomous Area

"We see Company's careful and professional attitude towards our region. The document we have signed today — the agreement on collaboration — continues good traditions that have been established between LUKOIL Company and Yamal, founded on mutual benefit and positive ground. It considers key issues of Yamal people. Special thanks for assistance in the development of children's sports and children's medicine; by providing financial support for many social projects we are capable of solving the hardest challenges."

Supporting indigenous minorities of the North in Russia as part of licensing obligations, RUB million



CONCLUSION

In this Report we have covered how LUKOIL tackled new challenges that our Company and the whole world faced in 2020. Every Sustainability Report demonstrates changes made by LUKOIL, innovations in our work and our investments, all of which support our commitment to sustainable development principles and acknowledge our responsibility to reduce the climate impact of our Company.

We continue to develop our priority projects, thus helping to reduce GHG emissions and improve the sustainability of the Company over the long run. We also invest in energy conservation and renewable energy programs. We have demonstrated our commitment by using a responsible approach to activities in the Arctic zone, including ongoing efforts to enhance pipeline reliability.

The Report reflects the major changes LUKOIL has introduced to production processes in response to the pandemic to facilitate the safety of our employees while ensuring stable operations of our Company. The support for regions where we operate remains high, and so is the involvement of LUKOIL entities in solving the most urgent issues related to protecting the health and well-being of local populations.

For many years LUKOIL has been a pioneer in supporting the sustainable development goals and responding to climate change risks facing the Company, Russia and the whole world. We will keep upholding these views and we will be presenting our contribution in future reports. The responsibility we have demonstrated for the past 30 years gives us every confidence as we look towards the future!

APPENDICES

Appendix 1.
LUKOIL Group's structure as per IFRS (PJSC LUKOIL share of more than 50%)

Russia

Exploration and production

Oil and Gas Production in Russia business sector

LLC LUKOIL-AIK
SP Neftestroy
LLC LUKOIL-West Siberia
LLC ChumpassNefteDobycha
LLC LUKOIL EPU Service
LLC LUKOIL-Kaliningradmorneft
LLC UTTiST
LLC LUKOIL-Komi
LLC LUKOIL-Nizhnevolzhskneft
LLC LUKOIL-Nizhnevolzhskneft-Kalmykiya
LLC LUKOIL-Perm
LLC UralOil
LLC Perm-Invest
LLC RITEK
LLC NK Yugranefteprom
LLC TURSUNT
LLC LUKOIL-Engineering
JSC Lychakgeologiya
JSC Nizhnechirskgeologiya
LLC Sports and Cultural Complex
LLC Talinskoye

Refining, Marketing and Distribution

Oil Refining in Russia business sector

LLC LUKOIL-Volgogradneftepererabotka
LLC LUKOIL-Nizhegorodnefteorgsintez
LLC LUKOIL-Permnefteorgsintez
LLC LUKOIL-Ukhtaneftepererabotka

Petrochemicals business sector

LLC Saratovorgsintez
LLC Stavrolen

Transportation business sector

LLC LUKOIL-Trans
LLC Varandey Terminal
LLC LUKOIL-Varandey-AVIA
LLC RPK-Vysotsk LUKOIL-II
LLC LUKOIL-KNT
JSC LUKOIL-Chernomorye

Oil Product Supply in Russia business sector

LLC LUKOIL-Rostovnefteprodukt
LLC LUKOIL-Severo-Zapadnefteprodukt
LLC LUKOIL-Uralnefteprodukt
LLC LUKOIL-Tsentrnefteprodukt
LLC LUKOIL-Yugnefteprodukt
LLC LICARD (LUKOIL-Inter-Card)

Other entities related to Refining, Marketing and Distribution business segment

LLC INTESMO
LLC LUKOIL-KGPZ
LLC LUKOIL MarinBunker
JSC Morskoye Agentstvo Novotorik
LLC Donbunker
LLC LUKOIL-AVIA
LLC LLK-International
LLC LLK Marin Rus
LLC LUKOIL-AERO
LLC LUKOIL-AERO-Domodedovo
LLC LUKOIL-AERO-Zapad
LLC LUKOIL-AERO-Vostok
LLC TZK-Arkhangelsk
LLC LUKOIL-Nizhegorodniinefteproekt
LLC LUKOIL-Rezervnefteprodukt
LLC LUKOIL-RNP-Trading
LLC LUKOIL-Aero
LLC AERO-NEFTO

Power Generation business sector

LLC LUKOIL-Volgogradenergo
LLC Volzhsk Heat Supply Networks
LLC KamyshinTeploEnergo
LLC Kamyshin CHPP
LLC Teplovaya Generation G. Volzhskogo
LLC LUKOIL-Astrakhanenergo
LLC Astrakhan Heat Supply Networks
LLC LUKOIL-Kubanenergo
LLC LUKOIL-Stavropolenergo
LLC LUKOIL-Rostovenergo
LLC Volgodonsk Heat Supply Networks
LLC Rostov Heat Supply Networks
LLC Volgodonskaya Teplovaya Generation
LLC LUKOIL-Ekoenergo
LLC LUKOIL-ENERGOSERVIS
LLC LUKOIL-ENERGOSETI
LLC LUKOIL-TsUR
LLC LUKOIL-Energoengineering

Corporate center and other activities

PJSC LUKOIL
LLC LUKOIL-Technologii
LLC LUKOIL-Multifunctional business support center
LLC LUKOIL-Business support center
LLC LUKOIL PERSONNEL
LLC Arkhangelskgeolrazvedka
LLC K.N. Holding

Abroad

Europe

Exploration and Production

Oil and Gas Production Abroad business sector

LUKOIL Overseas Atash B.V.
LUKOIL Overseas North Shelf AS
LUKOIL Overseas Supply and Trading Ltd.
LUKOIL Upstream Senegal B.V.
LUKOIL Upstream Abu Dhabi GmbH

Business sector "Entities Related to Exploration and Production Business Segment"

LUKOIL International Holding GmbH
Lumex Amatitlan B.V.
Lumex Holding B.V.

Refining, Marketing and Distribution

Oil Refining Abroad business sector

LUKOIL Neftohim Burgas AD
ISAB S.r.l.
Petrotel-LUKOIL S.A.

Oil Product Supply Abroad business sector

LUKOIL-Bulgaria EOOD
LUKOIL Belgium
LUKOIL Italia S.r.l.
LUKOIL Macedonia LTD Skopje
LUKOIL Netherlands B.V.
LUKOIL Romania S.R.L.
LUKOIL Serbia PLC Belgrade
Oy Teboil Ab
Kiinteisto Oy Nurmijarven Liikennepalvelukeskus
LUKOIL Croatia Ltd.
LUKOIL Montenegro DOO
IOOO LUKOIL Belorussia
LUKOIL-Moldova S.R.L.

Power Generation business sector

Land Power S.A.

Transportation business sector

SIA Vars

Other entities related to Refining, Marketing and Distribution business segment

LUKOIL Aviation Bulgaria EOOD
LUKOIL-Bulgaria Bunker EOOD
LUKOIL Lubricants East Europe S.R.L.
LUKOIL Lubricants Europe GmbH
LUKOIL Lubricants Ukraine, TOV
LUKOIL Marine Lubricants Germany GmbH
Litasco SA
LUKOIL Benelux B.V.
Eiger Shipping SA
LUKOIL Lubricants International Holding GmbH
LICARD Euro Services GmbH
Verolma Mineralol GmbH
AC Management Company Limited
ENERGIKO TRADING BULGARIA OOD

Corporate center and other activities

LUKOIL Accounting and Finance Europe s.r.o.
LUKOIL Technology Services GmbH
LUKOIL Securities B.V.
Lukarco Finance B.V.
Lukinter Finance B.V.
LUKOIL International Finance B.V.
LUKOIL International Upstream Holding B.V.
LUKOIL International Secondment B.V.
LUKOIL Securities Limited
LUKOIL Capital Markets Ltd
LUKOIL International GmbH
ARJ LTD

Asia, Middle East, Africa

Exploration and Production

Oil and Gas Production Abroad business sector

LUKOIL Overseas Shah Deniz Midstream
LUKOIL Overseas Shah Deniz Ltd.
LUKOIL Uzbekistan Operating Company LLC
Soyuzneftegaz Vostok Limited
LUKOIL Overseas Uzbekistan Ltd.
LLP LUKOIL Kazakhstan Upstream
Lukarco B.V.
LUKOIL Overseas Karachaganak B.V.
LUKOIL Overseas Kumkol B.V.
LUKOIL Mid-East Limited
LUKOIL Overseas Iraq Exploration B.V.
LUKOIL Saudi Arabia Energy Limited
LUKOIL Overseas Egypt Limited
LUKOIL Overseas Etinde Cameroon Sarl
LUKOIL Overseas Ghana Tano Limited
LUKOIL Overseas Nigeria Limited
LUKOIL Upstream Production Nigeria LTD
LUKOIL Upstream Congo Anonymous Company Unipersonel
LUKOIL Overseas Riyadh Ltd

Refining, Marketing and Distribution

Oil Product Supply Abroad business sector

LUKOIL Eurasia Petrol Anonim Sirketi
LUKOIL-Azerbaidjan, ZAO
LUKOIL-Georgia Ltd.
OOO LUKOIL Uznefteprodukt

Other entities related to Refining, Marketing and Distribution business segment

LUKOIL Lubricants Middle East Madeni Yag Sanayi ve Ticaret Limited Sirketi
LUKOIL Lubricants Central Asia LLP
LUKOIL Lubricants (China) Co., Ltd.
LUKOIL Lubricants Africa, S.A.R.L.
Akpet Gaz A.S.
Lukoil Istasyon Isletmeciligi Limited Şirketi
Akpet Akaryakit Dag. A.S.
Akdeniz Boru Natlari Nakliyat ve Isletmecilik Ic ve Dis Tic. Ltd Sti
Istasyon Yonetimi Ve Petrol Urunleri Ticareti Anonim Sirketi
LLP LITASCO Central Asia
Litasco Middle East DMCC
IRAQ Petroleum Traiding DMCC
LUKOIL Asia Pacific PTE LTD.
LUKOIL Marine Lubricants DMCC

Americas

LUKOIL Marine Lubricants USA INC.
LUKOIL Lubricants Mexico, S.de R.L.de C.V.
LUKOIL North America LLC
LUKOIL Pan Americas, LLC
Lukoil Americas Corporation
LUKOIL International Upstream West Inc
Integrated Exploration And Production Services, S. de R.L. de C.V.
LUKOIL Upstream Mexico, S. de R.L. de C.V.
Lumex Amatitlan Holding, S. de R.L. de C.V.
Lumex Operacion, S. de R.L. de C.V.
Petrolera de Amatitlan, S.A.P.I. de C.V.

Appendix 2. Identification of material topics of the Report

The procedure for determining the material topics of the Report is performed in accordance with the Global Reporting Initiative (GRI) standards, with a focus on SASB standards and SDGs.

Methodology

For the reporting purposes, a material topic is a topic that reflects the Company's significant long-term economic, environmental and social impact (positive or negative) on the countries/regions of operations and local communities, and/or affects the interests of / may affect stakeholders. Each material topic includes a number of issues that may be rather specific to a particular territory or a time period, and, accordingly, those may vary from report to report.

Our goal is to continuously improve the quality of corporate sustainability reporting and its informative value to stakeholders. To attain this goal, we use the following procedures and tools:

- stakeholder engagement during a reporting year in various formats (roundtables, responses to inquiries, surveys of customers and employees, working groups, participation in external initiatives, etc.); analysis of the results of an audit and external assurance of the report for the previous reporting period;
- participation in ratings (ESG and sustainability);
- analysis of sustainability reports of oil and gas companies;
- analysis of media publications;
- analysis of legislative requirements for non-financial information disclosures, requirements of financial platforms, monitoring of non-financial reporting systems and major initiatives in this area;
- surveys of PJSC LUKOIL unit heads, heads of LUKOIL Group entities, members of the Board of Directors and the Management Committee (once every two years), ranking of material topics and issues based on the results (scoring is applied).

The findings of the analyses are presented as a list of relevant issues. Based on qualitative analysis (repeatability, scale, rating issued by managers of PJSC LUKOIL, etc.), material issues are identified and grouped into material topics. The Sustainability Task Force approves the list of material topics. The Non-Financial Reporting Regulations are being developed by LUKOIL Group. Material topics and issues identified for 2020 can be found in the opening section of the Report.

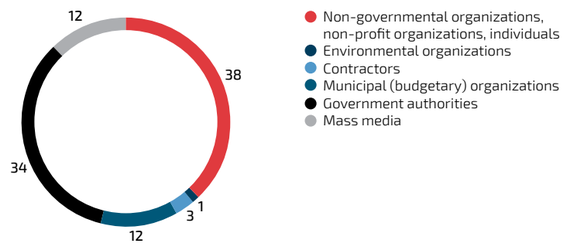
Stakeholder survey

A stakeholder survey was conducted in 2020 in six regions of operation of LUKOIL Group entities in Russia (the Komi Republic, the Nenets Autonomous Area, the Kaliningrad Region, the Khanty-Mansi Autonomous Area — Yugra, the Volgograd Region, the Stavropol Territory).

Purpose and content of the survey. The purpose of the survey was to analyse opinions on topics that are relevant to the regions and which should/can be reflected in the 2020 Sustainability Report. A sociological study of regional residents' opinions on current socio-economic and environmental territorial problems, as well as on the Company's activities in those regions, was not the objective of the survey. The general request was worded as follows: "Please select and mark the topics that you consider important in connection with LUKOIL's activities for you/your region/country to be reflected in the report".

Survey participants. A total of 154 completed questionnaires were returned by respondents (see the chart). The largest number of responses was received from public and non-profit organizations and representatives of local authorities (the "Society" stakeholder group).

Survey participants, %



Methodology of results processing

The questionnaire included material topics and issues reflected in the LUKOIL Group Sustainability Report 2019. The participants were given an opportunity to evaluate the degree of importance of each issue in terms of how it should be reflected in the LUKOIL Group Sustainability Report 2020: "Most important topics (mandatory reflection)", "Medium importance (desirable reflection)", and "Low importance (brief reflection)". Each answer was given a score (3 being the highest and 1 — the lowest in terms of importance). Respondents were also given the opportunity to add important topics missing from the list and to indicate their materiality. When summarizing the results, the generic topic "Charity" was not estimated in scores. Instead, respondents were asked to indicate projects that were relevant to the region.

According to the response analysis, the most important issues for the residents of the regions were issues of the quality of life or those that help to gain confidence in the future (the availability of jobs, environmental well-being, and prospects for the younger generation).

- The highest score was awarded to eight topics (see table below, line "Most important topics"). The fact that environmental issues are among the most important reflects certain changes in the mood of the residents of the regions. Five years ago, environmental issues were not even included in the first half of the material issues list in similar studies.
- Of the questions in the second group (see table below, line "Medium importance"), it is noteworthy that topics "Recycling of plastic waste" as well as "Biodiversity conservation" and "Forest restoration" are highly rated. Previously (including in the surveys conducted by the Company for Sustainability Report) these topics received single-digit votes.
- The third group included issues on which most respondents probably have not yet formed a position due to limited information or lack of personal experience (climate, COVID, Renewable Energy Sources, the Arctic). The issue of engagement with the Indigenous minorities of the North was in this group because the topic is relevant to only two of the six regions where the survey was conducted.

Survey results in six regions of Russia

Level of Importance	1	2	3	4	5
Most important topics (mandatory reflection)	Regional expansion (422 points)	Statutory compliance	Water bodies. Emissions GHG emissions	Spills Accidents	Products and customers Opportunities for young professionals
Medium importance (desirable reflection)	Plastic waste recycling	Occupational safety	Work with contractors	Employment	Forest restoration
	Payroll		Education for young people	Biodiversity	
Low importance (brief reflection)	Safety in the Arctic Produced water spills	RES development COVID-19	Support of Indigenous Minorities of the North	Climate (282 points)	Charity (no rating in points)

Economy
Ecology
Safety
Social sector

Consideration of the recommendations on sustainability reporting from the Russian Union of Industrialists and Entrepreneurs (RSPP)

The Report reflects wherever possible the recommendations received after the public assurance of the Sustainability Report for 2019.

- It is recommended that the results obtained be linked to the implementation of LUKOIL's strategic goals, including measurable targets on the key areas of sustainable development and priority SDGs in the reports. It is recommended that the Company's contribution to the national projects be included, as well as how the contents and objectives of these programs correspond to the corporate programs and the specific results obtained by them. (**Partially done** in accordance with the Company's practice of setting measurable targets. In

particular, targets for GHG emission reduction were disclosed and the achievement of targets for key environmental impacts was shown.)
- It is recommended that more details be provided on measurable results of biodiversity conservation measures (as part of updating information on sustainable development, information on areas covered by environmental monitoring is published on the Company's website.)
- It is recommended that reporting on contaminated land remediation be supplemented with information on the total area of land in need of remediation to provide a better understanding of the Company's objectives and results. (**Done**.)
- It is recommended that information be disclosed on the volumes of waste buried on land, considering the importance of these issues for the current environmental agenda. (The indicator is being prepared for disclosure in Sustainability Report 2021).

The positive practice of pipeline reliability disclosure should continue. (**Done**.)
- It is recommended that the following reports include evidence of feedback from program participants, provide examples of their assessment in relation to the development and implementation of social programs. (**Done** — quotations of diverse stakeholder groups representatives of the regions of presence are included.)

Appendix 3. Incidents and financial sanctions

Oil spills

During the preparation of the Report, in May 2021, there was a significant spill of oil (oil-containing liquid) in the Komi Republic.

Oshskoe field (Nenets Autonomous Area)

On the May 11, 2021 during the overflight of the territory by employees of LUKOIL-Komi, a leakage of oil-containing liquid was identified. The leakage was caused by the depressurization of the pipeline from the multiphase pumping station of the Oshskoe field to booster pump station No. 5 of the Kharyaginskoe field on the territory of the Nenets Autonomous Area. The spill occurred at a distance of about 300 meters from the coastline of the Kolva River, and part of the liquid ran into the river. Information about the identified leak was promptly communicated to the regional bodies of the Federal Service for Environmental, Technological and Nuclear Supervision (Rostekhnadzor) and the Federal Service for Supervision of Natural Resources (Rosprirodnadzor), as well as to the unified duty and dispatch service for the Nenets Autonomous Area.

According to the classification system of Rostekhnadzor, this situation is an emergency. Thus an emergency regime at the municipal level was introduced in the region. LUKOIL delivered all necessary equipment to eliminate the consequences of the leakage to the emergency site. At the time of preparation of the Report, work was being performed to localize the spill and collect oil-containing liquid from the coastal territory and the water surface of the Kolva river.

More detailed information will be provided in the Report for 2021.

In 2020, there were four significant oil spills at the Russian entities of LUKOIL Group.

Vostochno-Lambeyshorskoye field (the Komi Republic)

On September 25, 2020, while conducting a routine flight over the pipeline route using a UAV, an iridescent oil film was detected near the bank of the Laya River. The route runs through a swampy and hard-to-reach area, so prompt detection of the incident without a UAV would have been impossible. The LUKOIL-Komi employees immediately communicated the news to PJSC LUKOIL and government authorities.

Within four hours of the spill detection, rescue teams installed temporary oil traps along the route of the rainbow film, set the first three lines of booms, washed the rainbow film off the river banks, and sprayed and collected the used sorbent. In addition, two more lines of booms were deployed to prevent the oil slick from moving towards the villages of Shchelyabozh and Zakharvan.

On September 26, a local emergency state was imposed, which was lifted on October 7 after full completion of work on mitigating the consequences of the spill. On October 14, the Investigative Committee and the Federal Service for Supervision of Natural Resources (Rosprirodnadzor) with the participation of LUKOIL-Komi employees assessed the environmental conditions and water samples were taken from the Laya River in seven locations. The analysis results showed that the maximum permissible concentration of oil products in the water was not exceeded at any of the collection points.

The reason for the depressurization of the oil collection reservoir was due to violations made during its construction. Depressurization resulted from high internal stress.

Kharyaginskoye field (the Komi Republic)

On October 17, 2020, employees of LUKOIL-Komi discovered a spill at a section of an inactive oil pipeline 25 meters from the Kolva River's bank. Within three hours, the task force flew over the territory, identified hazardous zones, established factors complicating operations to mitigate the consequences (high speed of the river flow, difficult terrain, adverse weather conditions).

Rescuers from the emergency rescue team installed the first line of barrier and sorbent booms at the point of pipeline depressurization. The water in the river was treated with sorbent, which was then collected and disposed of. To prevent the spread of the oil spot and keep the oil from entering the Pechora River, the operational headquarters decided to install five additional lines of booms (with a total length of 4 thousand meters) downstream of the Kolva River. Taking into account the difficult conditions at the site, the best methods of mitigating the consequences were applied.
- Uninterrupted real-time transmission of data from the scene of the accident to LUKOIL's operational headquarters and government agencies was organized. For this purpose, a small satellite communications station was delivered to the spill site, video cameras were installed at the work sites, and teams were organized to ensure uninterrupted operation of communications facilities.
- UAVs were used to transmit real-time images that enabled experts to forecast the speed and direction of the oil film spreading on the river surface.

On October 18, 2020, a municipal state of emergency was introduced in the municipalities of Usinsk (the Komi Republic) and Zapolyarny District (the Nenets Autonomous Area). The emergency state was lifted after completion of all work on October 23.

Representatives of LUKOIL-Komi, the Investigative Committee and the Federal Service for Supervision of Natural Resources took water samples from the Kolva River at 10 locations on a daily basis. By the time the work was completed, the maximum permissible concentration of oil products in water was no longer exceeded. The results of mitigating the consequences of the incident were reviewed by the State Commission and environmental organizations. The head of the Federal Service for Supervision of Natural Resources noted the prompt response to the situation by LUKOIL-Komi.

The main reason for the pipeline depressurization was recognized to be uncoordinated actions of the personnel during the performance of work. The investigation of the incident has not yet been completed. In 2021, monitoring of the natural environment for pipeline depressurization site and on the Kolva River is scheduled. Additionally, reclamation of land disturbed during the mitigation of consequences from the oil spill is to be carried out.

Klyuchevoye field (the Khanty-Mansi Autonomous Area — Yugra)

On 13 April, an incident involving the entry of an oil-contaminated liquid into the Nong-Egan River was discovered during patrols along the routes of the pressure oil pipeline. Employees of the territorial production enterprise Pokachevneftegaz sent an operative report and information about the incident to government authorities.

Within two hours of the incident, Pokachevneftegaz employees installed four lines of booms to prevent the movement of oil products down the river, treated water with sorbent, and collected used sorbent. Machinery and mobile units were used to localize the consequences of the spill (skimmers, motor pumps, tanks, sorbent, etc.). After clearing the incident site, the contamination was eliminated, and the territory was cleaned in accordance with the plan of measures in place in advance for localization and mitigation of consequences of accidents at Pokachevneftegaz. Based on the investigation results, corrosion was recognized to be the cause of the depressurization of oil pipeline. Reclamation of this area began in 2021.

Investigated occupational injuries of 2019

The investigation of the car accident that occurred on 3 December 2019 at UralOil was completed in 2020. The following measures were taken based on its results:
- The information was communicated to the regular employees of UralOil and to the employees of the contractor transport organization[1].
- Unscheduled training on transportation safety was held for the contractor personnel.

In order to prevent similar incidents in the future, circumstances and causes of the accident were communicated to employees of all the Company's entities and it was proposed to use the investigation results when identifying future hazards and risks.

[1] Description of the accident is presented in the Sustainability Report 2019.

Significant environmental fines in 2020

In 2020, LUKOIL-Komi was subject to five decisions imposing significant[1] administrative fines totalling RUB 105 million. All the fines were related to damaged soil rehabilitation in forest areas in order to eliminate the consequences of accidental oil (oil-containing liquid) and formation water spills. The speed of work by LUKOIL-Komi was significantly limited by weather conditions and the territorial remoteness of the sites. These circumstances hindered completion of all the work within the established timeframe, which resulted in the imposition of administrative sanctions. The sanctions imposed for these violations were the maximum amount due to their repeated nature.

After the court ruling entered into force, LUKOIL-Komi transferred funds to the budget of the Usinsk urban district municipality. LUKOIL-Komi developed and implemented a land reclamation plan to accelerate forest area rehabilitation. At the time of preparation of this report, measures to restore forest plots had been completed, and it is planned that this plot of land will be accepted by the Republican Commission for Acceptance of Oil-Contaminated and Recultivated Lands in autumn 2021.

Appendix 4. GRI content index

This report has been prepared and published in accordance with the GRI Standards (Core option)

102-55 GRI Standards and Indicators Table

Index	Indicator	Section and page of the Report	Boundaries of topics and indicators
GRI 101. Reporting Principles		Appendix 5. Individual GRI Standards and Indicators, p.172	
GRI 102. General information.(General Disclosures 2016)			
1. Organizational profile			
102-1	Name of the organization	About the Company: highlights of the year	
102-2	Activities, brands, products, and services	About the Company: highlights of the year, p. 18. Two-page openings: Business Model, Geography	LUKOIL Group
102-3	Location of headquarters	About the Company: highlights of the year Conclusion	LUKOIL Group
	Other sources: https://www.lukoil.com/Company/contacts		
102-4	Geography of operations	Two-page opening Geography	LUKOIL Group
	https://www.lukoil.com/Company/BusinessOperation/GeographicReach		
102-5	Ownership and legal form	Annual Report	
	Information about the share capital and securities of PJSC LUKOIL is available on the corporate website: https://www.lukoil.com/InvestorAndShareholderCenter/Securities/sharecapital		
102-6	Markets served	Two-page opening Geography	LUKOIL Group

[1] In accordance with the Company's definition of significant fines, see Appendix 6.

Index	Indicator	Section and page of the Report	Boundaries of topics and indicators
102-7	Scale of the organization	About the Company: highlights of the year, p. 18	LUKOIL Group
102-8	Information on employees and other workers	Our employees	LUKOIL Group
	The information on employment agreements is consolidated by the Company without a breakdown by permanent and temporary employees. Workers who are legally recognized as being self-employed, or individuals other than permanent and temporary employees of LUKOIL Group entities are not significantly engaged in operations		
102-9	Supply chain	Stakeholder Engagement, p. 37 Supply chain, p. 42	LUKOIL Group
102-10	Significant changes to the organization and its supply chain		
	Data on the supply chain are not consolidated		
102-11	Precautionary principle	"Safety", p. 69 and "Environmental protection", p. 97	LUKOIL Group
102-12	External initiatives	Two-page opening Material topics of the Report	LUKOIL Group
102-13	Membership of associations	Appendix 5. Individual GRI Standards and Indicators	LUKOIL Group
2. Strategy			
102-14	Statement from senior decision-maker	Message from the President of PJSC LUKOIL, p. 2	LUKOIL Group
102-15	Key impacts, risks and opportunities	Risk management, p. 29	LUKOIL Group
3. Ethics and integrity			
102-16	Values, principles, standards and norms of behavior	https://www.lukoil.com/Company/CorporateProfile Ethics and human rights, p. 33	LUKOIL Group
102-17	Mechanisms for advice and concerns about ethics	Ethics and human rights, p. 33	LUKOIL Group
4. Governance			
102-18, 102-19	The corporate governance system is detailed in the Annual Report for 2020, page 27, as well as on the corporate website: https://www.lukoil.com/Company/CorporateGovernance		
102-20	Executive-level responsibility for economic, environmental, and social topics	Governance system, p. 27 Carbon management system, p. 50	LUKOIL Group
102-21	Consulting stakeholders on economic, environmental, and social topics	Stakeholder engagement, p. 37	LUKOIL Group
102-22–102-28	The corporate governance system is detailed in the Annual Report for 2020, page 27, as well as on the corporate website: https://www.lukoil.com/Company/CorporateGovernance		
102-29	Identifying and managing economic, environmental, and social impacts	Two-page opening LUKOIL Group's strategic goals in sustainable development	LUKOIL Group
102-31	Review of economic, environmental, and social topics	Stakeholder engagement, p. 37	LUKOIL Group
102-32	Highest governance body's role in sustainability reporting	Governance system, p. 27 Carbon management system, p. 50	LUKOIL Group

Index	Indicator	Section and page of the Report	Boundaries of topics and indicators
102-33	Communicating critical concerns	Governance system, p. 27 Carbon management system, p. 50	LUKOIL Group
102-35–102-37	The corporate governance system is detailed in the Annual Report for 2020, page 88, as well as on the corporate website: https://www.lukoil.com/Company/CorporateGovernance		
102-38	Highest-paid employees' compensation to average pay of the other employees of the Company (excluding the highest-paid staff) ratio	Annual report 2020, p. 116	LUKOIL Group
	The indicator is disclosed partially, as concerns compensation of the Board of Directors and Management Committee members		
5. Stakeholder engagement			
102-40	List of stakeholder groups	Stakeholder engagement, p. 37	LUKOIL Group
102-41	Collective bargaining agreements	Website https://www.lukoil.com/Sustainability/Ouremployees/Socialpartnership Ethics and human rights, p. 33	LUKOIL Group
102-42	Identifying and selecting stakeholders	Stakeholder engagement, p. 37 Two-page opening Material topics of the Report, p. 12	LUKOIL Group
102-43	Approach to stakeholder engagement		
102-44	Key topics and concerns raised		
6. Reporting practice			
102-45	Entities included in the financial statements	Appendix 1. LUKOIL Group's structure as per IFRS	LUKOIL Group
102-46	Defining report content and topic boundaries	About the Report, p. 16 Appendix 2. Identification of material topics of the Report	LUKOIL Group
102-47	List of material topics	Appendix 2. Identification of material topics of the Report	LUKOIL Group
102-48	Restatements of information		
	GHG emissions and energy consumption for production purposes indicators were recalculated for 2020 and previous periods in accordance with the Company's approved boundaries and approaches to accounting for and reporting on greenhouse gas emissions		
102-49	Changes in the list of material topics and material topic boundaries	Appendix 2. Identification of material topics of the Report	LUKOIL Group
	The list of material topics remained the same as in the Sustainability Report for 2019. The boundaries of material topics are specified in the respective Report sections. The indicator boundaries are specified in the relevant sections of the Report as well as in Appendix 7 and Appendix 8 (published in the web-version of the Report)		
102-50	Reporting period	About the Report, p. 16	LUKOIL Group
102-51	Date of most recent report		
102-52	Reporting cycle		
102-53	Contact point for questions regarding the report	p. 156	
102-54	Statement of compliance with the GRI Standards	Appendix 4. GRI Content Index	
102-55	GRI Standards and Indicators Table	Appendix 4. GRI Content Index	
102-56	External assurance	About the Report, p. 16 Appendices 157	

Index	Indicator	Section and page of the Report	Boundaries of topics and indicators
GRI 103. Management Approach 2016			
103-1	Explanation of the material topic and its boundary	Appendix 2. Identification of material topics of the Report	
	The boundaries of material topics are specified in the respective Report sections. The indicator boundaries are specified in the relevant sections of the Report as well as in Appendix 7 and Appendix 8 (published in the web-version of the Report)		
103-2	The management approach and its components		
	The management approach is disclosed in the Report before each material topic or issue.		
103-3	Evaluation of the management approach		
	Management approaches are evaluated within the framework of certification and supervisory audits of relevant management systems, and as part of corporate inspections. Information on those activities is contained in the Report.		
GRI 201. Economic Performance 2016			
201-1	Direct economic value generated and distributed economic value	Appendix 7	LUKOIL Group
201-3	Defined benefit plan obligations and other retirement plans	Social Policy, p. 132	LUKOIL Group
GRI 202. Market Presence 2016			
202-1	Standard entry level wage by gender in significant areas of operations	Social Policy, p. 132	LUKOIL Group
202-2	Proportion of senior management hired from the local community (foreign operations)	Labor relations, p. 126	LUKOIL Group
GRI 203. Indirect Economic Impact 2016			
203-1	Infrastructure investments and services supported	External social policy priorities, p. 146	LUKOIL Group
	The indicator is disclosed partially.		
GRI 204. Procurement Practices 2016			
204-1	Proportion of spending on local suppliers in significant areas of operations	Supply chain, p. 42	Russian entities of LUKOIL Group
GRI 206. Anti-competitive Behavior 2016			
206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	Ethics and human rights, p. 33	LUKOIL Group
GRI 207. Tax 2019			
207-1, 207-2, 207-3	Management approaches	Ethics and human rights, p. 33	LUKOIL Group
	State Payments Reports have been published on the corporate website since 2015: https://www.lukoil.com/InvestorAndShareholderCenter/RegulatoryDisclosure/reportonpaymentstogovernments		

Index	Indicator	Section and page of the Report	Boundaries of topics and indicators
GRI 302. Energy 2016			
103-1, 103-2, 103-3	Management approaches	Energy conservation, p. 61	Russian entities of LUKOIL Group
	Department responsible – Department of Energy Efficiency and Energy Supply of PJSC LUKOIL		
302-1	Energy consumption within the organization	Energy conservation, p. 61	LUKOIL Group
302-3	Energy intensity	Energy conservation, p. 61	LUKOIL Group
302-4	Reduction of energy consumption	Energy conservation, p. 61	LUKOIL Group
GRI 303. Water and Effluents 2018			
303-1, 303-2	Interactions with water as a shared resource. Management of water discharge-related impacts	Water resources, p. 103	LUKOIL Group
	Department responsible – Environmental Safety and Decarbonization Department of PJSC LUKOIL		
303-3	Water withdrawal	Water resources, p. 103 Appendix 7	LUKOIL Group
303-4	Water discharge	Water resources, p. 103 Appendix 7	LUKOIL Group
GRI 304. Biodiversity 2016			
304-1, 304-2, 304-3	Protected or rehabilitated areas	Biodiversity conservation, p. 114	
GRI 305. Emissions 2016			
103-1, 103-2, 103-3	Management approaches	Emissions, p. 108 Appendix 7	LUKOIL Group
	Department responsible – Environmental Safety and Decarbonization Department of PJSC LUKOIL		
305-1	Direct GHG emissions (Scope 1)	Reporting, p. 53 Appendix 7	LUKOIL Group
305-4	GHG emissions intensity (Scope 1)	Reporting, p. 53 Appendix 7	LUKOIL Group
305-5	Reduction of GHG emissions	Reporting, p. 53 Appendix 7	LUKOIL Group
305-6	Emissions of ozone-depleting substances (ODS)		LUKOIL Group
	The Company does not use ozone-depleting substances (ODS) on an industrial scale.		
305-7	Nitrogen oxides (NO_x), sulfur oxides (SO_x), and other significant air emissions	Emissions, p. 108 Appendix 7	LUKOIL Group
GRI 306. Affluents and Waste 2016			
103-1, 103-2, 103-3	Management approaches	Water resources, p. 103 Waste, p. 109	LUKOIL Group
	Department responsible – Environmental Safety and Decarbonization Department of PJSC LUKOIL		
306-1	Water discharge by quality and destination	Water resources, p. 103 Appendix 7	LUKOIL Group

Index	Indicator	Section and page of the Report	Boundaries of topics and indicators
306-2	Waste by type and disposal method	Waste, p. 109 Appendix 7	LUKOIL Group
306-3	Significant spills	Pipeline transport reliability in Russia, p. 79	Russian entities of LUKOIL Group
306-4	Transport of hazardous waste		LUKOIL Group
	LUKOIL Group entities do not transport hazardous waste. See details on waste disposal in the Waste section.		
GRI 307. Environmental Compliance 2016			
307-1	Non-compliance with environmental laws and regulations	Statutory compliance, p. 35 Appendix 3	LUKOIL Group
GRI 308. Supplier Environmental Assessment 2016			
103-1, 103-2, 103-3	Management approaches	Supply chain, p. 42	LUKOIL Group
	Regulations: Regulations on Holding Tenders to Select Suppliers and Contractors of LUKOIL Group Entities; HSE Policy of PJSC LUKOIL in the 21st Century; PJSC LUKOIL Standard Health, Safety and Environment Management System: Contractors Requirements.		
308-1	New suppliers that were screened using environmental criteria	Supply chain, p. 42	LUKOIL Group
GRI 401. Employment 2016			
103-1, 103-2, 103-3	Management approaches	Employment, p. 126	LUKOIL Group
	Department responsible — HR Policy Department of PJSC LUKOIL		
401-1	New employee hires and employee turnover	Employment, p. 126	LUKOIL Group
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	Appendix 7	LUKOIL Group
	Social benefits are granted to all employees, regardless of the type of employment.		
GRI 402. Labor/Management Relations 2016			
402-1	Minimum notice periods regarding operational changes	Appendix 5. Individual GRI Indicators	LUKOIL Group
GRI 403. Occupational Health and Safety 2018			
403-1	Occupational health and safety management system	Integrated management system, p. 73 Occupational health and safety, p. 85	LUKOIL Group
	Department responsible – Environmental Safety and Decarbonization Department of PJSC LUKOIL		
403-2	Hazard identification, risk assessment, and incident investigation	Industrial safety, p. 76	LUKOIL Group
	Additional information published on the website xxx		
403-3	Occupational health services	Occupational health and safety, p. 85	
	Additional information published on the website xxx		
403-4	Worker participation, consultation, and communication on occupational health and safety	Information published on Website https://www.lukoil.com/Sustainability/Safety	LUKOIL Group
403-5	Worker training on occupational health and safety	Appendix 7	LUKOIL Group

Index	Indicator	Section and page of the Report	Boundaries of topics and indicators
403-6	Employee health	Occupational health and safety, p. 85	LUKOIL Group
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	Occupational health and safety, p. 85 Worker protection during the pandemic, p. 124	LUKOIL Group
	Additional information published on the website https://www.lukoil.com/Sustainability/Safety		
403-8	Workers covered by an occupational health and safety management system	Integrated HSE management system, p. 73	LUKOIL Group
	Since the Company has in place an integrated HSE management system certified under ISO 14001 and ISO 45001 standards, the proportion of employees covered by this management system is the same in terms of environmental protection management and labor protection management.		
403-9	Work-related injuries	Occupational health and safety, p. 85	LUKOIL Group
GRI 404. Training and Education 2016			
103-1, 103-2, 103-3	Management approaches	Training and development p. 136	LUKOIL Group
	Department responsible – Department of Personnel Assessment and Development of PJSC LUKOIL		
404-1	Average hours of training per year per employee	Training and development p. 136	LUKOIL Group
404-2	Programs for upgrading employee skills and transition assistance programs	Appendix 5	LUKOIL Group
404-3	Percentage of employees receiving regular performance and career development reviews	Appendix 7	PJSC LUKOIL
	Information is provided without breakdown by gender and categories of employees, as this information is not consolidated and is not used to manage this issue in the Company.		
GRI 405. Diversity and Equal Opportunity 2016			
405-1	Diversity of governance bodies and employees	Appendix 7	LUKOIL Group
405-2	Ratio of basic salary and remuneration of women to men	Social Policy, p. 132	
	Additional information published on the website https://www.lukoil.com/Sustainability/Ouremployees		
GRI 406. Non-Discrimination 2016			
406-1	Incidents of discrimination and corrective actions taken	Ethics and human rights, p. 33	LUKOIL Group
GRI 407. Freedom of Association and Collective Bargaining 2016			
	The management approach	Human rights, p. 33	LUKOIL Group
	Information published on the website https://www.lukoil.com/Sustainability/Ouremployees		
GRI 408. Child Labor 2016			
	The management approach	Human rights, p. 33	LUKOIL Group
	Additional information published on the website https://www.lukoil.com/Sustainability/Humanrights		

Index	Indicator	Section and page of the Report	Boundaries of topics and indicators
GRI 409. Forced or Compulsory Labor 2016			
	The management approach	Human rights, p. 33	LUKOIL Group
	Additional information published on the website https://www.lukoil.com/Sustainability/Ouremployees		
GRI 411. Rights of Indigenous Peoples 2016			
103-1, 103-2, 103-3	Management approaches		LUKOIL Group
	Information published on the website https://www.lukoil.com/Sustainability/Humanrights. Unit responsible — Regional Communications Department of PJSC LUKOIL		
411-1	Incidents of violations involving rights of indigenous peoples	Support of Indigenous Minorities of the North, p. 155	LUKOIL Group
GRI 412. Human Rights Assessment 2016			
103-1, 103-2, 103-3	Management approaches		LUKOIL Group
	Additional information published on the website https://www.lukoil.com/Sustainability/Humanrights		
412-1	Operations that have been subject to human rights reviews or impact assessments	Human rights	LUKOIL Group
GRI 413. Local Communities 2016			
103-1, 103-2, 103-3	Management approaches	External social policy priorities, p. 146	LUKOIL Group
	Department responsible – Public Relations Department of PJSC LUKOIL		
413-1	Operations with local community engagement, impact assessments, and development programs	External social policy priorities, p. 146	LUKOIL Group
	All the Company's subsidiaries of the business segments "Exploration and Production" and "Refining, Marketing and Distribution", as well as major entities of the "Corporate and Other" business segment have programs in place related to local community engagement		
GRI 415. Public Policy 2016			
GRI 415-1	Political contributions	Anti-corruption policy, p. 34	LUKOIL Group
	According to the Anti-corruption policy of PJSC LUKOIL, the Group is not involved in any political activity either in Russia or abroad, does not exert, either directly or indirectly, any influence on any decisions of public officials or any other persons that affect the preservation or expansion of the Group's operations or may be treated as such. The Group provides no financing for political parties and movements or any other activity benefiting political parties and their representatives (either in Russia or abroad). In 2020, political contributions — none; incentive payments to representatives of state authorities — none.		

Index	Indicator	Section and page of the Report	Boundaries of topics and indicators
GRI 419. Socioeconomic Compliance 2016			
103-1, 103-2, 103-3	Management approaches	Ethics and human rights, p. 33	LUKOIL Group
	Regulations: Anti-monopoly Policy. Department responsible: Legal Support Department of PJSC LUKOIL		
419-1	Significant fines and non-financial sanctions for non-compliance with laws and regulations in the social and economic area	Statutory compliance, p. 35 Appendix 3	LUKOIL Group

Appendix 5. Individual GRI indicators

GRI 102 General information

***102-13* Membership of associations**

PJSC LUKOIL and LUKOIL Group entities participate in a number of national trade and professional associations.

Russia

The National Council for Professional Qualifications under the President of the Russian Federation: PJSC LUKOIL is a member of the Council

The Council for Professional Qualifications in the Oil and Gas Industry of Russia: PJSC LUKOIL is a member of the Council

Russian Union of Industrialists and Entrepreneurs (RSPP): PJSC LUKOIL is a member of the Union

The Airport Civil Aviation Association: LUKOIL-AERO is a member

Europe

Belgium. The Belgian Petroleum Federation and BUSINESSEUROPE: LUKOIL Belgium N.V. is a member of these organizations

Bulgaria. The Bulgarian Oil and Gas Association and the BULGARIAN ECONOMIC FORUM: LUKOIL-BULGARIA EOOD seats on the governing bodies of these organizations and is also a member of the Donor Assembly of the Energy Efficiency And Renewable Sources Fund

Croatia. Croatian Energy Regulatory Agency (Hrvatska energetska regulatorna agencija) and Croatian National Tourism Board (Hrvatska turistička zajednica): LUKOIL Croatia Ltd. is a member of these organizations (membership is mandatory), as well as a member of the Croatian Chamber of Commerce and Industry (Hrvatska gospodarska komora)

Italy. UNEM Unione Energie per la Mobilità: LUKOIL Italia Srl is a member

Macedonia. The Macedonian-Russian Chamber of Commerce and Industry: LUKOIL MACEDONIA LTD Skopje is a member

Montenegro. The Association of Oil and Petroleum Product Distributors of Montenegro and the Chamber of Commerce of Montenegro: LUKOIL MONTENEGRO DOO is a member of these organizations, while a representative of LUKOIL MONTENEGRO DOO is also a member of the Management Board of the Union of Energy and Extractive Industry of Montenegro

Netherlands. Netherlands Organisation for the Energy sector: LUKOIL Netherlands B.V. is a member

Republic of Moldova. The Chamber of Commerce and Industry of the Republic of Moldova: LUKOIL-Moldova SRL is a member and participates in its projects

Serbia. The National Petroleum Committee of Serbia (a member of WPC, the World Petroleum Council) and the Association of Oil Companies of Serbia (Udruženje Naftnih Kompanija Srbije): LUKOIL SERBIA PLC Belgrade sits on the governing bodies of these organizations and takes an active part in their initiatives

Asia

Georgia. Georgian Business Associations: LUKOIL-Georgia Ltd. is a member

Turkey. The Turkish LPG Association (Türkiye LPG Derneği), LNG and CNG Companies Association (Sıvılaştırılmış ve Sıkıştırılmış Doğalgazcılar Derneği) and the Union of Chambers and Commodity Exchanges of Turkey (TOBB): Akpet GAZ A.S seats on the governing bodies and actively participates in discussions of practical issues related to the development of the Turkish gas market

The Association of Fuel Distribution Companies of Turkey (ADER): Akpet Akaryakit Dagitim A.S. seats on the governing bodies

402-1 Minimum notice periods regarding operational changes

Region	Minimum notice period
Belgium	3 months
Russia, Azerbaijan, Bulgaria, Moldova, Serbia, and Uzbekistan	2 months
Austria	6 weeks
Germany, Switzerland, Italy, Macedonia, Norway	1 months
Romania	For specialists 20 days; for executives 45 days.
Finland, Turkey	14 days
Kazakhstan	15 business days or 1 month
Belarus	7 days (2 months in the event of staff reductions or the liquidation of the enterprise)
Egypt	1 week
Georgia	3 days
Iraq, Montenegro, Mexico	No notice period is established for employees
The USA	No universal period has been established for substantial changes to working conditions. Under certain circumstances, state or federal law may prescribe certain recommendations or procedures.

404-2 Programs for upgrading employee skills and transition assistance programs

Programs for upgrading employee skills

Type of training	Training programs and courses
In-house training courses	DLS: over 300 educational courses on the following topics: Quality Management and Lean Manufacturing, Organizational Change Management, Project Management, Management, Personal Effectiveness, Foreign Languages, Corporate Spirit, IT Courses (Outlook, Excel, PowerPoint), Public Speaking and Presentations, People Management, Human Resources Management, Effective Negotiations, Production Orientation, Oil Product Supply, Risk Management, IT Security, Civil Defense and Emergency Protection, Industrial Safety, Occupational Safety, Fire Safety.
External training or education	Professional retraining, education in MBA, EMBA, DBA programs. The Company pays 50 percent of the cost of employee education.
	If the employee receives an additional professional education, including a postgraduate degree, where the employer is not the initiator, then educational leave is granted, and the respective employee receives a guarantee that they will not lose their positions while studying.

Appendix 6.
References: acronyms and abbreviations, definitions and calculation formulas

Names of LUKOIL Group entities

Nizhny Novgorod oil refinery — LLC LUKOIL-Nizhegorodnefteorgsintez

Ploesti oil refinery, oil refinery in Romania — PETROTEL-LUKOIL S.A.

Ukhta oil refinery — LLC Ukhtaneftepererabotka

Oil refinery in Bulgaria — LUKOIL Neftochim Burgas AD

Perm oil refinery — LLC LUKOIL-Permnefteorgsintez

Oil refinery in Italy, ISAB — ISAB S.r.l.

Abbreviations

AMS — automated management systems

APG — associated petroleum gas

BEPS — base erosion and profit shifting

CF — charity fund

CHPP — combined heat and power plant

DLS — distance learning system

EBITDA — earnings before interest, taxation, depreciation & amortization

EE — emergency event

EIA — environmental impact assessment

ERU — emergency rescue divisions and units

ESG — environmental, social and governance

ESP — Environmental Safety Program

FEC — fuel and energy complex

FFS — fuel filling station

FPM — formation pressure maintenance

FS — feasibility study

GHG — greenhouse gases

GIS — geographic information system

HF — hydraulic fracturing

HSE — health, safety, and environment

IFRS — International Financial Reporting Standards

IMN — indigenous minorities of the North

IMS — The Integrated System of Management of Industrial, Fire, Radiation Safety, Emergency Prevention and Liquidation, the Protection of Civilians, Occupational Safety and Environmental Protection

IPEC — in-production environmental control

ISP — Industrial Safety Program

KPI — key performance indicator

LLC — limited liability company

Media — all types of mass media

MMW — minimum monthly wage

MTR — material and technical resources

OR — oil refinery

ORC — oil refining complex

PPE — personal protection equipment

RES — renewable energy sources

SPP — solar power plant

SPRP — Spill Prevention and Response Plans

SR — LUKOIL Group Sustainability Report

STF — Sustainability Task Force

STO — standard of an entity

UAV — unmanned aerial vehicle

VMI — voluntary medical insurance

WECM — wholesale electricity and capacity market

Names of entities and initiatives, geographical names

CDP — Carbon Disclosure Project

Climate Action 100+ — Global Initiative Climate Action 100+ (http://www.climateaction100.org/)

EU — European Union

EU ETS — European Union Emissions Trading System

GRI — Global Reporting Initiative

IATUO — International Association of Trade-Union Organizations of PJSC LUKOIL

ILO — International Labour Organization

KhMAO-Yugra — Khanty-Mansi Autonomous District — Yugra

MARPOL — International Convention for the Prevention of Pollution from Ships

MES — Ministry of Emergency Situations

NAD — Nenets Autonomous District of the Russian Federation

OECD — Organization of Economic Cooperation and Development

OPEC — Organization of the Petroleum Exporting Countries

PJSC LUKOIL — Public Joint-Stock Company "Oil Company 'LUKOIL'"

RSPP — Russian Union of Industrialists and Entrepreneurs

SDGs — UN Sustainable Development Goals (the UN 2030 Agenda for Sustainable Development)

TCFD — Task Force on Climate Related Financial Disclosures, https://www.fsb-tcfd.org/

UN — United Nations

UNCTAD — United Nations Conference on Trade and Development

WWF — World Wildlife Fund

Unit of measurement

boe — barrel of oil equivalent

p. p. — percentage point

toe, kg of oil equivalent — tonne (kilogram) of oil equivalent

CO_2e — CO_2 equivalent

Indicators, calculation formulas

Refinery yield is calculated by the following formula:

$$\text{Refinery yield} = \frac{Q - (FFO+L)}{Q} * 100\%,$$

where:

Q is the actual volume of oil feed processed in crude distillation units (Atmospheric and Vacuum Distillation Units and Atmospheric Distillation Units), as well as received feed from the secondary refining processes (catalytic cracking, delayed coking, etc.);

FFO is the gross amount of furnace fuel oil (fuel oil for sale + liquid fuel for technological (own) needs);

L is the amount of irretrievable losses of oil refining, excluding the losses at crude oil electric desalting and dehydration plants.

When calculating the aggregated "Oil refinery yield" indicator, the actual volume of oil feed (Q) comprises the feedstock (oil, gas condensate) processed in crude distillation units (Atmospheric and Vacuum Distillation Units and Atmospheric Distillation Units), excluding other types of feed processed in secondary refining processes (in the framework of the intragroup supplies).

Lost Time Accident Frequency Rate, LTAFR = number of accidents / employee headcount for a reporting period × 1,000 employees.

Lost Time Injury Frequency Rate, LTIFR = number of lost time injuries / number of man-hours worked × 1,000,000 man-hours.

Rate of Fatalities as a Result of Work-Related Injury = number of fatalities as a result of work-related injury / number of hours worked × 1,000,000 man-hours.

Rate of High-Consequence[1] Work-Related Injuries = number of high-consequence work-related injuries (excluding fatalities) / number of hours worked × 1,000,000 man-hours.

The turnover rate is defined as the ratio of the number of employees dismissed due to turnover to the average headcount for a reporting period. The number of employees dismissed due to turnover includes employees dismissed for absenteeism and other violations of labor discipline, as well as due to the employee's unsuitability for their position because of lack of skill; those who left on their own without serious cause (due to relocation, retirement, care for a child under 14 years of age, etc.) or by agreement between the parties (except for employees who were re-employed on the next day).

1. High-Consequence Work-Related Injury is an injury having the following consequences: the employee died or was injured, and within six months of being injured the employee is unable to recover, has not recovered his health, or is not expected to recover his health.

Definitions

Circulating water means water that is consistently and many times used in processes based on the principle of closed systems without discharging into surface water bodies or sewage systems.

Claim relating to the breach of law means an administrative or criminal claim filed against PJSC LUKOIL, LUKOIL Group entities, an employee of PJSC LUKOIL or an employee of LUKOIL Group entity. For the public reporting purposes, only completed cases in which a final decision has been rendered and which are not subject to further appeal are taken into account. Cases in which the entity was found not guilty are not taken into account for the disclosure of indicators.

Key performance indicators are a set of indicators characterizing the key success factors of LUKOIL Group, taking into account industry specifics and determining the level of achievement of strategic goals.

Material claim relating to the breach of anti-monopoly law means a claim meeting the following criteria (any one or several):

- criminal prosecution of officials of PJSC LUKOIL or LUKOIL Group entities in accordance with the sentence passed and entered into legal force;
- administrative action in the form of disqualification of officials of PJSC LUKOIL or LUKOIL Group entities in accordance with the sentence passed and entered into legal force;
- entry into force of any resolution to impose an administrative fine against PJSC LUKOIL or LUKOIL Group entities calculated based on the amount of revenue of the relevant entity or the amount of the offender's expenses for the purchase of goods (work, service).

Material claim relating to the breach of environmental law means a claim meeting one of the following criteria:

1. a resolution has become effective within a calendar year calling PJSC LUKOIL, LUKOIL Group entities and/or their officials for administrative responsibility for the offense provided for in Chapter 8 of the Code of Administrative Offenses of the Russian Federation, with the imposition of the maximum possible fine provided for in the relevant article and/ or a sanction in the form of administrative suspension of operations for up to 90 days;
2. a court decision has become effective to collect from PJSC LUKOIL, LUKOIL Group entities damages caused to the environment in accordance with the requirements of the Russian Federal Law "On Environmental Protection", in the amount not less than the one determined in accordance with the Regulations on Collecting and Processing Data on Material Contingent Liabilities and Uncertainties with Regard to Income Taxes for the purposes of the consolidated financial statements of PJSC LUKOIL for a respective year.

Material digression/weakness means a violation of mandatory requirements, as well as shortcomings in the activities of LUKOIL Group entities that have resulted or could have resulted in incurred financial losses and risks that are assessed at least as significant in accordance with the provisions of the Group's internal documents.

Payroll means the indicator calculated in accordance with the instructions for filling out forms of federal statistical monitoring, approved by Order of Rosstat of October 12, 2008 No. 278 with amendments and additions approved by Order of Rosstat of November 3, 2009 No. 240. Payroll includes labor pay to employees in monetary and non-monetary forms accrued by an entity (including personal income tax and other withholdings) for worked and non-worked time, compensation payments related to the work schedule and working conditions, additional payments and increments, bonuses, one-time incentive payments, as well as regular allowances for food and accommodation in accordance with the methodology for filling in the payroll field in form No. P-4 "Information on Headcount and Labor Pay".

Reused water supply is the use of water that has retained its quality indicators after being used in a technological process and is supplied without treatment for reuse or returned to natural bodies. The water produced along with oil that is sent to the needs of formation pressure maintenance (FPM) is considered reused.

Seconded employees — employees with the necessary competence and meeting the job requirements of the accepting entity, temporarily assigned to an accepting entity from the region of permanent residence to perform certain job functions with the following return to the seconding entity or termination of the labor relations with the seconding entity.

Significant incident with environmental impact means an emergency with environmental impact. An environmental impact can include destruction of facilities and/or technical devices used at the facilities of LUKOIL Group entities, or any other event resulting in one or a combination of the following environmental impacts:

1. pollution of surface and underground water bodies, which resulted in exceeding the established standards for permissible impact.
2. uncontrolled release of hazardous substances, i.e. a release of a hazardous substance into the environment not provided for by technical regulations and/or project documentation without restricting or containing it by emergency protection systems and/or other systems and means of accident prevention and containment provided for by technical regulations and/ or project documentation, or release in the absence of sufficient containment capability in such systems and means in the amount exceeding the threshold values for accidents presented in Tables 1 and 2 of Annex 4 to the Safety Manual "Methodological Recommendations for the Classification of Man-made Events in the Field of Industrial Safety at Hazardous Production Facilities of the Oil and Gas Complex" dated January 24, 2018 No. 29, approved by Order of Rostechnadzor of January 24, 2018 No. 29.

All spills into water bodies are significant, regardless of the volume of the spilled oil. The minimum size of a significant spill on land with environmental consequences is 10 tonnes.

Significant regions of LUKOIL Group's operation mean countries or constituent entities of the Russian Federation where LUKOIL Group entities operate, including affiliates and territorial departments compliant with the following criteria:
1. In Russia — constituent entities where headcount of one LUKOIL Group entity is 500 or more;
2. Outside Russia — countries where at least one organization with a headcount of 500 employees or more operates; respective indicators are calculated including all other organizations (with the headcount less than 500 employees) operating in the country or significant region.

Substantial violation of human rights means a violation of national human rights legislation.

Young employees – employees of PJSC LUKOIL and LUKOIL Group entities aged under 35, including young specialists.

Young specialists — employees under 30 years old, who have obtained higher or professional education, that started their job duty in the Company corresponding to their degree, including working occupations, within six months after graduation from higher education institution or within three months after service in the Military Forces of the Russian Federation.

Rounding values

The total values of the indicators given in the Report may differ from the sum of the indicators as a result of rounding.

Appendix 7. Main ESG indicators

Corporate governance

GRI 102–18; 102–20; 102–22; 102–23; 102–27; 102–32; 102–35. GRI 405–1

Corporate governance: Independence of Board members, Gender equality, Competence

	2019	2020
Independence of Board members and Board involvement in sustainability matters		
Chairman of the Board of Directors	1	1
Independence of the Chairman of the Board of Directors at appointment	NO	NO
Independent directors	6	6
Non-executive directors	2	3
Executive directors[1]	3	2
Total number of Board members	11	11
Share of independent directors	55%	55%
Number of sustainability and climate-related issues addressed at Board of Directors meetings	20	13
Attendance at in-person meetings	93%	N/A
Share of independent members of the Board of Directors committees		
Strategy, Investment, Sustainability and Climate Adaptation Committee	100%	50%
Audit Committee	100%	100%
Human Resources and Compensation Committee	100%	100%
Health, Safety and Environmental Committee of PJSC LUKOIL		
Number of members	11	15
Number of meetings	2	2
Number of addressed sustainability and climate-related issues	7	8
Share of women	0%	0%
Strategy, Investment, Sustainability and Climate Adaptation Committee of the Board of Directors of PJSC LUKOIL		
Number of members	4	4
Number of meetings	7	7
Number of addressed sustainability and climate-related issues	20	10
Share of women	25%	25%

	2019	2020
Gender composition of the Board of Directors		
Men	9	9
Women	2	2
Share of women	18%	18%
Average age of Board members	65	67
Gender composition of the Management Committee		
Men	14	14
Women	0	0
Share of women	0%	0%
Membership in the Board of Directors		
Up to 5 years	4	7
Up to 10 years	2	1
Over 10 years	3	3
Qualification balance of the Board of Directors members		
Share of members of the Board of Directors of PJSC LUKOIL competent in sustainability and climate-related issues	73%	73%
Persons responsible		
Number of vice-presidents responsible for the Company's climate change-related activities	0	1
Number of vice-presidents responsible for sustainability matters	1	1
Task Forces		
• Decarbonization and Climate Change Adaptation Task Force		
Number of members		15
Number of meetings		1
Number of issues addressed		9
• Sustainability Task Force		
Number of members	13	13
Number of meetings	4	7
Number of addressed sustainability and climate-related issues	7	20

1. According to the recommendations of the Corporate Governance Code, executive directors are defined not only as members of the Management Committee of PJSC LUKOIL but also as persons employed by the Company.

Climate

Based on the results of the inventory, the boundaries of climate reporting were clarified taking into account the following materiality threshold criterion developed: GHG emissions that amount to at least 99% of the total emissions for each scope in accordance with the full inventory of emission sources shall be accounted for, while an entity can be excluded from reporting for the respective scope provided that its GHG emissions are less than 0.1% of total LUKOIL Group emissions for the given scope.

The materiality criterion was approved by the Decarbonization and Climate Change Adaptation Task Force.

Based on this criterion, direct GHG emissions from oil product supply entities in Russia and abroad, LLC LUKOIL-KNT (the Transportation business sector), as well as from entities of the Other Entities of the Refining, Marketing and Distribution Business Segment (except for the Korobkovsky Gas Processing Plant (KGPP) and LLK-International) were excluded from the reporting for Scope 1.

Organizational reporting boundaries (Scope 1 + Scope 2) for Russian entities include all production assets, oil refining, petrochemical and electric power entities, oil product supply entities , as well as KGPZ and LLK International. For foreign entities, the reporting boundaries include a hydrocarbon production project in Uzbekistan and three refineries in Europe (in Romania, Bulgaria and Italy), as well as 13 oil product supply entities. Thus, the data presented in this Report cover more than 99% of GHG emissions (Scope 1) and 100% of GHG emissions (Scope 2) of LUKOIL Group.

GRI 302–4 *Energy savings from implementation of the Energy Conservation Program of LUKOIL Group entities in Russia, million GJ*

	For 2017-2019	For 2018-2020
Energy	1.2	1.4
Heat	1.6	1.5
Boiler and furnace fuels	12.7	9
Total	15.5	11.9

Note.
The following coefficients under GOST R 51750-2001 were used when converting the data to Joules:
1 thousand kWh = 3.6 GJ, 1 Gcal = 4.19 GJ, 1 tonne of oil equivalent = 29.3 GJ

GRI 305–1, 305–2 *GHG emissions*

Indicators	2016	2017	2018	2019	2020
Flaring emissions (Scope 1), million tonnes of CO_2E	3.415	2.721	1.637	1.490	1.512
Emissions avoided by using self-generated energy from renewable energy sources (emissions reduction), million tonnes of CO_2E					5,573

Indicators	2016	2017	2018	2019	2020
1. GHG emissions by Russian and foreign entities, million tonnes of CO_2E					
1.1. Russian entities					
Scope 1	34.723	35.025	34.415	33.925	31.732
Scope 2	8.642	8.089	7.603	7.532	6.246
Scope 1 + 2	43,365	43,114	42,018	41,457	37,978
1.2. Foreign entities					
Scope 1	6.259	6.343	6.0283	6.612	5.596
Scope 2	0.927	0.934	1.005	0.928	0.924
Scope 1 + 2	7,186	7,277	7,0333	7,54	6,52
2. Emissions by Russian entities by types of activity, million tonnes of CO_2E					
2.1. Exploration and production, million tonnes of CO_2E					
Scope 1	11.797	10.994	10.824	11.124	10.003
Scope 2	7.056	6.543	6.109	6.009	4.712
Scope 1 + 2	18,853	17,537	16,933	17,133	14,715
2.2. Oil refining and petrochemicals (including LLK-International, KGPZ), million tonnes of CO_2E					
Scope 1	10.219	11.491	11.299	11.237	10.612
Scope 2	1.346	1.296	1.193	1.215	1.099
Scope 1 + 2	11,565	12,787	12,492	12,452	11,711
2.3. Power Generation, million tonnes of CO_2E					
Scope 1	12.62	12.462	12.206	11.473	11.023
Scope 2	0.13	0.138	0.132	0.125	0.267
Scope 1 + 2	12,75	12,6	12,338	11,598	11,29
2.4. Transportation, million tonnes of CO_2E					
Scope 1	0.087	0.078	0.086	0.091	0.094
Scope 2	0.031	0.03	0.034	0.037	0.033
Scope 1 + 2	0,118	0,108	0,12	0,128	0,127
2.5. Oil product supply, million tonnes of CO_2E					
Scope 2	0.079	0.082	0.135	0.146	0.135
3. Emissions by foreign entities by types of activity, million tonnes of CO_2E					
3.1. Exploration and production (Central Asia), million tonnes of CO_2E					
Scope 1	0.046	0.25	0.424	0.383	0.297
Scope 2	0.065	0.105	0.19	0.203	0.125
Scope 1 + 2	0,111	0,355	0,614	0,586	0,422
3.2. Oil refining and petrochemicals (the EU), million tonnes of CO_2E					
Scope 1	6.213	6.093	5.6043	6.229	5.299
Scope 2	0.809	0.775	0.761	0.671	0.742
Scope 1 + 2	7,022	6,868	6,3653	6,9	6,041
3.3. Oil product supply entities, million tonnes of CO_2E					
Scope 2	0.053	0.054	0.054	0.054	0.057

Water

The 2018 foreign entity reporting boundaries include: LUKOIL Neftohim Burgas, PETROTEL-LUKOIL SA, LUKOIL Uzbekistan Operating Company. The 2019 boundaries include: the above entities plus ISAB, IOOO LUKOIL Belorussia, and LUKOIL-BULGARIA EOOD.

GRI 303–1 Water withdrawal and use, million cubic meters

	2016	2017	2018	2019	2020
1. Water withdrawal across LUKOIL Group			**449.8**	**694.0**	**611.0**
Within the boundaries for 2018			449.8	464.0	416.5
Within the boundaries for 2019, including:				694.0	611.0
Russian entities	522.2	511.1	428.5	441.0	394.8
including electric power entities	345.1	331.9	297.7	303.6	252.7
Foreign entities			21.3	253.0	216.2
2. Water consumption for own needs (household, industrial, other) across LUKOIL Group			**374.4**	**609.0**	**543.2**
Within the boundaries for 2018			374.4	379.0	348.7
Within the boundaries for 2019, including:				609.0	543.2
Russian entities	415.9	376.4	354.9	358.0	328.7
Foreign entities			19.5	251.0	214.5
3. Other transactions			34.5	28.9	0.0
LUKOIL Group, including:			**34.5**	**28.9**	**0.0**
Within the boundaries for 2018			34.5	28.9	0.0
Within the boundaries for 2019				28.9	0.0
Russian entities		24.2	34.5	28.1	0.0
Foreign entities			0.0	0.8	0.0
4. Unused water transferred to third-party consumers			40.9	56.1	63.1
LUKOIL Group, including:			**40.9**	**56.1**	**63.1**
Within the boundaries for 2018			40.9	56.1	63.1
Within the boundaries for 2019				56.1	63.1
Russian entities			39.1	54.9	62.0
Foreign entities			1.8	1.2	1.1

Notes.

1. Data excludes water produced as a by-product with hydrocarbons and subsequently used for formation pressure maintenance (FPM).
2. The approach to accounting for "Other operations" was revised: before 2020, this category included volumes of water pumped into subsurface formations and residential waste water received from third parties and used in the Group's production processes. Since 2020, these water volumes are accounted for in the «Water for own needs» and «Unused water transferred to third-party consumers» categories.
3. The difference between water withdrawal and water use (water for own needs + unused water of LUKOIL Group transferred to third-party consumers) is due to the specifics of water usage in power generation entities: at energy generating units water is used for equipment cooling, this results in water wastage due to evaporation.
4. In 2018, the water use accounting methodology in the Russian entities was refined - it excluded the duplicate accounting for water used in intra-group transfers (between the LUKOIL Group entities).

GRI 303–3 Water withdrawal by LUKOIL Group entities by water withdrawal sources, million cubic meters

	2016	2017	2018	2019	2020
1. Water withdrawal, total across LUKOIL Group (1 = 1.1 + 1.2 + 1.3)			**449.8**	**694.0**	611.0
Within the boundaries for 2018			449.8	464.0	416.5
Within the boundaries for 2019				694.0	611.0
Water withdrawn by water withdrawal sources, including:					
1.1. From surface sources			**287.0**	**340.5**	**285.5**
Within the boundaries for 2018			287.0	290.0	244.4
Within the boundaries for 2019, including:				340.5	285.5
sea water					57.8
from other surface sources					227.7
Russian entities	297.4	279.7	267.6	269.7	227.5
Sea water			11.4	11.0	16.7
Water from other surface sources			256.2	258.7	210.8
Foreign entities			19.4	70.8	58.0
Sea water			0.0	50.5	41.1
Water from other surface sources			19.4	20.3	16.9
1.2. From underground sources			**99.0**	**104.8**	**114.0**
Within the boundaries for 2018			99.0	102.3	111.3
Within the boundaries for 2019				104.8	114.0
Russian entities, including:	77.1	76.1	97.1	99.7	108.3
Fresh water			64.7	61.2	60.1
Other water			32.4	38.5	48.2
Foreign entities, including:			1.9	5.1	5.7
Fresh water			0.04	2.5	2.7
Other water			1.9	2.6	3.0
1.3. From other sources, including:			**63.8**	**248.7**	**211.5**
Within the boundaries for 2018			63.8	71.7	60.8
Within the boundaries for 2019				248.7	211.5
Russian entities	147.6	155.3	63.8	71.6	59.0
Foreign entities			0.0	177.1	152.5

Notes.

1. Data excludes water produced as a by-product with hydrocarbons and subsequently used for FPM purposes.
2. Data on the volume of water withdrawal from underground sources includes water produced as a by-product with hydrocarbons and subsequently pumped into underground formations.
3. Water withdrawal from other sources includes withdrawals from centralized water supply sources, and also residential waste water received and transferred to treatment facilities without being used by the Group's entities.
4. The increase in the volume of water withdrawal from underground sources in 2020 by the Group's Russian entities was due to industrial needs (facilitation of the technological processes and well drilling).

Specific water consumption for own needs by the LUKOIL Group's Russian entities by type of activity

	2016	2017	2018	2019	2020
Oil and gas production, cubic meters/tonne of oil equivalent in hydrocarbon resources	1	1	1	1	1
Oil refining, cubic meters/tonne of processed oil	0.6	0.5	0.5	0.5	0.5
Petrochemicals, cubic meters/tonne of processed raw materials	6.2	7.3	6.4	6.9	6.8
Oil Product Supply, cubic meters/tonne of oil products sold	0.06	0.07	0.1	0.07	0.07
Transportation, cubic meters/tonne of oil, oil products transported	0.04	0.02	0.02	0.01	0.02
Power Generation, cubic meters/tonne of oil equivalent in consumed fuel	40.1	34.4	34	35.3	32.9

Notes.

1. Specific indicators are calculated based on the volumes of water consumed by LUKOIL Group entities for their own needs.
2. Fluctuations in the indicators of petrochemical companies are mainly caused by changes in the production volume.
3. Changes in the indicator in the Power Generation business sector are attributable to the fact that in 2019, together with a decrease in production due to the warm winter, LLC LUKOIL-Kubanenergo and LLC LUKOIL-Astrakhanenergo conducted several technological maintenance activities.
4. Indicators for specific water consumption in The Power Generation business sector are calculated using the formula: volume of withdrawn water /fuel consumed for production (electricity). LLK LUKOIL-Ekoenergo (due to the lack of fuel consumption) and LLK LUKOIL-Energoseti (due to the fact that the organization does not carry out electricity production activity) are excluded from the calculation. Data on organizations that transfer heat is included in data on generating organizations, which is explained by the specifics of technological processes.

GRI 303–4

Water discharges by LUKOIL Group entities, million cubic meters

	2016	2017	2018	2019	2020
1. Total water discharges across LUKOIL Group (1 = 1.1+ 1.2 + 1.3 + 1.4 + 1.5)			**352.5**	**568.0**	**485.3**
Within the boundaries for 2018			352.5	357.6	308.1
Within the boundaries for 2019, including:				568.0	485.3
Russian entities	244.0	236.4	337.6	344.3	297.5
Foreign entities			14.9	223.7	187.8
Water discharge by destination					
1.1. Water discharge into surface water bodies for LUKOIL Group (excl. water discharge into the sea)			**218.1**	**216.6**	**161.7**
Within the boundaries for 2018			218.1	216.5	161.7
Within the boundaries for 2019, including:				216.6	161.7
Russian entities			203.4	203.4	151.3
Foreign entities			14.7	13.2	10.4
1.2. Water discharge into the sea			**11.3**	**221.2**	**188.4**
Within the boundaries for 2018			11.3	10.9	12.7
Within the boundaries for 2019, including:				221.2	188.4
Russian entities			11.3	10.9	12.7
Foreign entities			0.0	210.3	175.7
1.3. Water discharge into underground formations			**104.2**	**106.7**	**109.7**
Within the boundaries for 2018			104.2	106.7	109.7
Within the boundaries for 2019, including:				106.7	109.7
Russian entities			104.0	106.5	109.5
Foreign entities			0.2	0.2	0.2
1.4. Water transferred after use to a third party (excluding intra-group exchanges)			**18.4**	**23.4**	**25.5**
Within the boundaries for 2018			18.4	23.4	24.0
Within the boundaries for 2019, including:				23.4	25.5
Russian entities			18.4	23.4	24.0
Foreign entities			0.0	0.0	1.5
1.5. Other water discharge					
LUKOIL Group, including:			**0.5**	**0.1**	**0.0**
Russian entities			0.5	0.1	0.0
Foreign entities			0.0	0.0	0.0

Notes

1. Data excludes water produced as a by-product with hydrocarbons and subsequently used for FPM.
2. Water discharges into underground formations include water produced as a by-product with hydrocarbons and subsequently pumped into underground formations.
3. In 2018, the water use accounting methodology in the Russian entities was refined — it excluded the possibility of duplicate accounting for water used in intra-group transfers (between the LUKOIL Group entities).
4. The increase in the volume of water discharge into underground formations (1.3) in 2020 was due to geological specifics of licensed blocks.
5. The increase in the volume of water transferred to a third party (1.4) in 2020 was due to the increased water consumption of third parties.

GRI 306–1 Water discharge into surface water bodies by wastewater quality across LUKOIL Group, million cubic meters

	2016	2017	2018	2019	2020
1. Total water discharged into surface water bodies across LUKOIL Group (1 = 1.1 + 1.2 + 1.3)				**216.6**	**161.7**
Russian entities	244.0	236.4	214.7	203.4	151.3
Foreign entities				13.2	10.4
Water discharge into surface water bodies by wastewater quality, including:					
1.1. clean standard-quality wastewater				**185.0**	**126.4**
Russian entities	223.7	206.2	186.3	176.1	126.4
Foreign entities				8.9	0.00
1.2. wastewater treated to standard quality				**20.2**	**26.7**
Russian entities	19.5	29.1	27.5	16.8	16.3
Foreign entities				3.4	10.4
1.3. polluted wastewater				**11.4**	**8.6**
Russian entities	0.7	1.1	0.9	10.5	8.6
Foreign entities				0.9	0.0
2. Water discharges into the sea across Lukoil Group (2 = 2.1 + 2.2 + 2.3)				**221.2**	**188.4**
Russian entities				10.9	12.7
Foreign entities				210.3	175.7
Water discharge into surface sea water bodies by wastewater quality, including:					
2.1. clean standard-quality wastewater				**220.6**	**188.0**
Russian entities				10.7	12.5
Foreign entities				209.9	175.5
2.2. wastewater treated to standard quality				**0.4**	**0.2**
Russian entities				0.001	0.000
Foreign entities				0.40	0.2
2.3. Polluted wastewater				**0.2**	**0.2**
Russian entities				0.18	0.2
Foreign entities				0.0	0

Notes.

1. Data excludes water produced as a by-product with hydrocarbons and subsequently used for FPM.
2. The difference in water withdrawal and discharge volumes is explained by the fact that some of the water is transferred to third parties without being used by LUKOIL Group entities and some is used in circulating water supply systems or reused-sequentially used (to be deleted).
3. The increase in discharges of clean standard-quality wastewater into surface sea water bodies in Russian entities in 2020 was due to the increase of the volume of water withdrawal for the purposes of well drilling at LLC LUKOIL-Nizhnevolzhskneft and further discharge of the water into the sea.
4. Polluted wastewater includes insufficiently treated wastewater and wastewater that is not treated.

Specific discharges of insufficiently treated wastewater into water bodies by Russian entities of LUKOIL Group

	2016	2017	2018	2019	2020
Oil and gas production, cubic meters/tonne of oil equivalent in hydrocarbon resource		0.008	0.004	0.004	0.0005
Oil refining, cubic meters/tonne of refined oil		0	0	0.037	0.2
Oil Product Supply, cubic meters/tonne of oil products sold		0.004	0.003	0.002	0.002
Transportation, cubic meters/tonne of oil, oil products transported		0.008	0.009	0.008	0.008

Notes.

1. No insufficiently treated water is discharged into water bodies by the petrochemical and power generating entities (excluded from the table).
2. The specific discharges of insufficiently treated wastewater by the oil refining entities are calculated based on the volume of production wastewater from LUKOIL-Ukhtaneftepererabotka, excluding any utility wastewater received from MUE Ukhtavodokanal.

Volumes of circulating water supply and reused water across LUKOIL Group entities, million cubic meters

	2016	2017	2018	2019	2020
Russian entities	**3,302.5**	**3,128.6**	**3,180.7**	**3,106.0**	**2,967.6**
Volume of circulating water supply	2,371.9	2,253.1	2,284.2	2,240.9	2,160.9
Volume of reused-sequentially used water	930.6	875.5	896.5	865.1	806.7
Foreign entities			**200.0**	**216.2**	**210.6**
Volume of circulating water supply			198.9	214.0	207.8
Volume of reused-sequentially used water			1.1	2.2	2.8

Water produced as a by-product with hydrocarbons and subsequently used for FPM

	2016	2017	2018	2019	2020
Volume of water for LUKOIL Group					350.057
Russian entities					350.038
Foreign entities					0.019

Emissions

The 2018 foreign entity reporting boundaries include: LUKOIL Neftohim Burgas, PETROTEL-LUKOIL SA, LUKOIL Uzbekistan Operating Company. The 2019 boundaries include: the abovementioned entities and ISAB, IOOO LUKOIL Belorussia, and LUKOIL-BULGARIA EOOD.

Specific emissions of pollutants into the atmosphere by Russian entities of LUKOIL Group by types of activity

	2016	2017	2018	2019	2020
Oil and gas extraction, kg/tonne of oil equivalent in extracted hydrocarbon resources		4.1	3.4	3.2	3.3
Oil refining, kg/tonne of refined oil		0.9	0.8	0.9	0.8
Petrochemicals, kg/tonne of processed raw materials		1.3	1.1	1.4	1.6
Oil product supply, kg/tonne of oil products sold		0.8	0.8	0.7	0.7
Transportation, kg/tonne of oil, oil products transported		0.1	0.2	0.2	0.2
Power generation, kg/tonne of oil equivalent in consumed fuel		2.6	2.9	2.9	3.5

Notes.

1. The increase in the indicator in the Power Generation business sector was due to the combustion of reserve fuel (fuel oil) at several CHPPs. Change in the indicator in the Petrochemicals business sector was caused by an increase in production output.
2. Specific emissions of pollutants in The Power Generation business sector are calculated using the formula: mass air pollutant emissions /consumed fuel for the production of products (electricity). LLK LUKOIL-Ekoenergo (due to the lack of fuel consumption) and LLK LUKOIL-Energoseti (due to the fact that the organization does not carry out electricity production activity) are excluded from the calculation. Data on organizations that transfer heat is included in data on generating organizations, which is explained by the specifics of technological processes. At the same time, emissions from organizations that transmit thermal energy are 0.

GRI 305–7 Gross emissions of pollutants into the atmosphere (net of CO_2) by LUKOIL Group entities, thousand tonnes

	2016	2017	2018	2019	2020
Total pollutant emissions			**451.3**	**428.8**	**394.3**
Within the boundaries for 2018			451.3	420.4	387.7
Within the boundaries for 2019, including:				428.8	394.3
Russian entities	627.5	502.5	433.3	402.3	375.7
Foreign entities			18.0	26.5	18.6
including by pollutant type:					
NO_x emissions			**49.4**	**49.9**	**44.7**
Within the boundaries for 2018			49.4	47.5	42.9
Within the boundaries for 2019, including:				49.9	44.7
Russian entities	44.0	49.6	47.1	46.2	41.7
Foreign entities			2.3	3.7	3.0
SO_2 emissions			**37.5**	**40.8**	**31.3**
Within the boundaries for 2018			37.5	35.7	27.1
Within the boundaries for 2019, including:				40.8	31.3
Russian entities	59.7	23.0	25.1	22.0	19.2
Foreign entities			12.4	18.8	12.1
solid particle emissions			**14.9**	**15.1**	**13.9**
Within the boundaries for 2018			14.9	15.0	13.9
Within the boundaries for 2019, including:				15.1	13.9
Russian entities	26.9	24.3	14.7	14.9	13.8
Foreign entities			0.2	0.2	0.1
CO emissions			**155.9**	**154.7**	**142.8**
Within the boundaries for 2018			155.9	154.0	142.3
Within the boundaries for 2019, including:				154.7	142.8
Russian entities	295.9	216.6	153.9	152.2	141.0
Foreign entities			2.0	2.5	1.8
hydrocarbon emissions			**73.9**	**61.0**	**48.8**
Within the boundaries for 2018			73.9	61.0	48.8
Within the boundaries for 2019, including:				61.0	48.9
Russian entities	199.2	187.8	72.8	59.8	47.3
Foreign entities			1.1	1.2	1.6
volatile organic compounds (VOC)			**115.5**	**105.9**	**111.0**
Within the boundaries for 2018			115.5	105.9	111.0
Within the boundaries for 2019, including:				105.9	111.0
Russian entities			115.5	105.9	111.0
Foreign entities			0.0	0.048	0.0
emissions of other pollutants			**4.2**	**1.3**	**1.7**
Within the boundaries for 2018			4.2	1.3	1.7
Within the boundaries for 2019, including:				1.3	1.7
Russian entities	1.8	1.2	4.2	1.3	1.7
Foreign entities			0	0.01	0.02

Notes.

1. Hydrocarbon emissions for 2016-2017 include VOCs.
2. Emissions of other pollutants include specific substances, except for those listed in the table, according to the state statistical forms, and the share of which is less than 1% of total emissions.
3. In 2020, the methodology for accounting other pollutants category for foreign organizations was refined: substances belonging to emissions pollutants indicated in the table were identified and taken into account in the corresponding categories (lines of the table). Data for 2019 has been recalculated.

Waste

The 2018 foreign entity reporting boundaries include: LUKOIL Neftohim Burgas, PETROTEL-LUKOIL SA, LUKOIL Uzbekistan Operating Company. The 2019 boundaries include: the abovementioned entities and ISAB, IOOO LUKOIL Belorussia, and LUKOIL-BULGARIA EOOD.

GRI 306–2 **Waste movement at LUKOIL Group, thousand tonnes**

	2016	2017	2018	2019	2020
Waste at the beginning of the reporting year			**956.0**	**910.0**	**946.8**
Within the boundaries for 2018			956.0	904.8	943.1
Within the boundaries for 2019				910.0	946.8
Russian entities	912.0	765.0	933.0	885.4	919.7
Foreign entities			23.0	24.6	27.1
Waste generated during the reporting year			**1,556.0**	**1,783.1**	**2,178.4**
Within the boundaries for 2018			1,556.0	1,747.2	2,138.7
Within the boundaries for 2019				1,783.1	2,178.4
Russian entities	1,033.0	1,434.0	1,529.0	1,671.8	1,960.4
Foreign entities			27.0	111.3	218.0
Received from third parties			**6.0**	**4.6**	**4.3**
Russian entities			6.0	4.5	4.2
Foreign entities			0.0	0.1	0.1
Amount of waste used, neutralized, and transferred to specialized entities, as well as landfill waste			**1,609.0**	**1,750.9**	**2,217.1**
Within the boundaries for 2018			1,609.0	1,713.6	2 177.7
Within the boundaries for 2019				1,750.9	2,217.1
Russian entities	1,115.0	1,396.0	1,582.0	1,642.1	2,000.2
Foreign entities			27.0	108.8	216.9
Waste at the end of the reporting year			**905.0**	**946.8**	**912.4**
Within the boundaries for 2018			905.0	943.1	908.4
Within the boundaries for 2019				946.8	912.4
Russian entities	765.0	933.0	886.0	919.7	884.1
Foreign entities			19.0	27.1	28.3

Notes.

1. The amount of waste at the beginning and end of the reporting year (waste remaining in accumulation) depends on the organization of the production process and the schedules for recycling/neutralizing the generated waste. Drilling waste comprises the main share of waste remaining in the accumulation. Drilling waste generated as a result of construction of cluster sites, the drilling of which began at the end of the year, is disposed of during the following reporting year, after finalization of drilling at the entire site. Thus, the volume of «transition» waste depends on the scope of drilling operations.
2. The rise in waste generation in 2020 across Russian entities is caused by an increased amount of sewage sludge and construction waste, that was generated during the dismantling of buildings and structures for the construction of technological facilities at the Nizhny Novgorod and Volgograd refineries. In addition, the amount of oil-contaminated waste at LLC LUKOIL-Komi increased due to the significant formation of oil-contaminated soil as a result of pipeline depressurization.
3. The dynamics of the amount of waste used, neutralized and transferred to specialized organizations depends on the dynamics of the amount of waste generated. Generated waste is fully disposed of, neutralized, transferred to specialized organizations.
4. Data on waste across Russian entities are given without taking into account rock formed as a result of mine oil production at LLC LUKOIL-Komi.

GRI 306–2 **Waste by hazard class across LUKOIL Group, thousand tonnes**

	2019			2020		
	Waste at the beginning of the year	**Waste generated during the year**	**Waste at the end of the year**	**Waste at the beginning of the year**	**Waste generated during the year**	**Waste at the end of the year**
LUKOIL Group				**946.8**	**2178.4**	**912.4**
Hazardous				45.5	447.1	45.7
Non-hazardous and low-hazard waste				901.3	1731.3	866.7
1–5 hazard class waste at Russian entities of LUKOIL Group	**885.4**	**1671.8**	**919.7**	**919.7**	**1960.3**	**884.1**
including:						
oil-containing	22.2	294.1	19.9	19.9	401.0	20.1
drilling waste	108.4	1131.4	148.2	148.2	1200.2	109.2
Hazard Class 1	0.0008	0.033	0.002	0.002	0.0392	0.0016
Hazard Class 2	0.0014	0.0937	0.0043	0.0045	0.1277	0.0089
Share of waste of Hazard Classes 1 and 2	**0.0002%**	**0.01%**	**0.0007%**	**0.0007%**	**0.0085%**	**0.0012%**
Hazard Class 3 (incl. oil-containing)	22.8	253.2	20.6	20.6	303.8	20.9
Share of waste of Hazard Classes 1, 2, and 3	**2.6%**	**15.2%**	**2.2%**	**2.2%**	**15.5%**	**2.4%**
Share of waste of Hazard Classes 1, 2, and 3	22.8	253.3	20.6	20.6	304.0	20.9
Hazard Class 4	830.7	1287.2	868.0	868.0	1396.1	828.8
Hazard Class 5	31.9	131.3	31.1	31.1	260.2	34.4
TOTAL non-hazardous and low-hazard waste (Classes 4 and 5)	862.6	1418.5	899.1	899.1	1656.3	863.2
Waste at Foreign entities of LUKOIL Group				**27.1**	**218.1**	**28.3**
Hazardous				24.9	143.1	24.8
Non-hazardous				2.2	75.0	3.5

Note.

The discrepancy between the amount of waste at the end of 2019 and the start of 2020 was due to the inclusion of LLC KamyshinTeploEnergo indicators into LLC LUKOIL-Volgogradenergo reporting in 2020 (LLC KamyshinTeploEnergo was added to LLC LUKOIL-Volgogradenergo structure in 2019)

Safety

GRI 403–9 Number of occupational accidents and employees injured in workplace accidents at LUKOIL Group entities

Indicator	2016	2017	2018	2019	2020
Total number of occupational accidents, including:	**19**	**20**	**21**	**19**	**28**
fatal	4	4	1	2	2
high-consequence work-related injuries			5	8	7
number of minor injuries			15	9	19
number of microtraumas			3	7	4
Number of employees injured in workplace accidents (total number of injuries), including:	**28**	**22**	**23**	**25**	**28**
number of fatalities (FA)	4	4	1	2	2
number of lost time injuries (traumas) (LTI)	24	18	22	23	26

Note.
If during the reporting period an employee suffered more than one injury, each case is counted as a separate injury. The term "microtrauma" is used according to the GRI definition.

GRI 403–9 Indicators related to occupational injuries at contractor organizations in Russia and abroad

	2016	2017	2018	2019	2020
Total number of occupational accidents, including:	**26**	**20**	**9**	**13**	**10**
fatal	8	7	1	6	3
high-consequence work-related injuries		4	3	1	1
Number of employees injured in workplace accidents (total number of injuries), including:	**32**	**25**	**9**	**16**	**11**
number of fatalities (FA)	8	10	1	7	4
number of lost time injuries (LTI)	24	15	8	9	7

LUKOIL Group HSE training indicators

	2016	2017	2018	2019	2020
Scope of training, person-courses	**47,560**	**56,481**	**60,106**	**59,314**	**65,220**
Russian entities	33,898	42,114	46,485	1,894	52,685
Foreign entities	13,662	14,367	13,621	2,330	12,535
By employee category (Russian and foreign entities)					
Managers				14,385	16,334
Specialists				11,194	12,257
Workers and other personnel				33,735	36,629
Training costs ("Employee training and advanced vocational training" category), RUB million	**329.8**	**327.9**	**323.2**	**263.8**	**339.8**

Note.
Data on the amount of training refer to mandatory HSE employee training and certification programs and include both in-person and remote employee training.

Indicators of LUKOIL Group Russian entities preparedness for emergencies

	2016	2017	2018	2019	2020
Number of trainings conducted, including:		**193**	**178**	**200**	**163**
training on the elimination of a potential oil/oil product spill		109	91	117	94
Number of staff involved in trainings, people		**6,640**	**5,810**	**6,692**	**4,631**
Number of site drills		10,566	11,996	10,739	12,812
Number of staff involved in the drills, people		75,649	88,300	97,852	83,859

Note.
The dynamics of the indicators depend on training frequency and topics. For example, federal and regional training sessions under the Spill Prevention and Response Plans are conducted once every two years, with staff drills between breaks. Emergency commissions of the Russian Federation constituents determine the procedure and frequency of preparedness checks of personnel and equipment involved in local, regional, and territorial SPRPs training. Because of the pandemic, training schedules changed.

GRI 403–8 Percentage of employees covered by the management systems certified to be compliant with the ISO 14001 and OHSAS 18001 international standards

	2016	2017	2018	2019	2020
LUKOIL Group, %		90	84	83	95

Employees

GRI 102–8 Personnel characteristics by type of employment, employment contract, and gender, people (headcount)

	2018		2019		2020	
Headcount	**105,991**	%	**105,624**	%	**104,264**	%
Employee breakdown by gender						
Men	62,205	59%	62,007	59%	61,183	59%
Women	43,786	41%	43,617	41%	43,081	41%
Employee breakdown by type of employment						
Full-time	86,319	99.5%	105,168	99.6%	103,972	99.7%
Part-time	406	0.5%	456	0.4%	292	0.3%
Employee breakdown by type of employment contract						
Permanent	**79,542**	**92%**	**98,020**	**93%**	**96,659**	**93%**
men (% of total men headcount)			58,808	94.8%	57,854	95%
women (% of total women headcount)			39,212	89.9%	38,805	90%
Temporary	**7,167**	**8%**	**7,604**	**7%**	**7,605**	**7%**
men (% of total men headcount)			3,202	5.2%	3,329	5.4%
women (% of total women headcount)			4,402	10.1%	4,276	9.9%

Note.

Breakdown by type of employment and by type of employment contract for 2018 is accounted for a limited number of Group entities in Russia.

GRI 102–8 Personnel characteristics by category and age as at December 31 of each reporting year

	2016	2017	2018	2019	2020
Total for LUKOIL Group	**110,101**	**107,405**	**105,991**	**105,624**	**104,264**
Breakdown by category					
Managers	13,322	13,323	12,840	12,806	12,694
Specialists	30,106	28,829	28,091	28,691	28,319
Workers and other personnel	66,673	65,253	65,060	64,127	63,251
Including:					
Russian entities of LUKOIL Group	**90,112**	**89,323**	**88,019**	**88,434**	**87,858**
Managers	11,535	11,365	10,873	10,853	10,845
Specialists	24,824	24,557	23,950	24,538	24,141
Workers and other personnel	53,753	53,401	53,196	53,043	52,872
Foreign entities of LUKOIL Group	**19,989**	**18,082**	**17,972**	**17,190**	**16,406**
Managers	1,786,	1,958	1,967	1,953	1,849
Specialists	5,279,	4,272	4,141	4,153	4,178
Workers and other personnel	12,924,	11,852	11,864	11,084	10,379
Breakdown by gender					
Across LUKOIL Group	**110,101**	**107,405**	**105,991**	**105,624**	**104,264**
Under 35	43,787	42,772	41,174	39,179	36,955
36 to 40 years	17,807	17,253	17,346	17,670	17,962
41 to 50 years	28,727	28,564	29,069	29,793	30,266
51 and above	19,780	18,816	18,402	18,982	19,081
Russian entities of LUKOIL Group	**90,112**	**89,323**	**88,019**	**88,434**	**87,858**
Under 35	36,361	35,931	34,700	33,310	31,615
36 to 40 years	14,039	14,007	14,142	14,624	15,085
41 to 50 years	22,944	23,274	23,725	24,545	25,136
51 and above	16,768	16,111	15,452	15,955	16,022
Foreign entities of LUKOIL Group	**19,989**	**18,082**	**17,972**	**17,190**	**16,406**
Under 35	7,426	6,841	6,474	5,869	5,340
36 to 40 years	3,768	3,246	3,204	3,046	2,877
41 to 50 years	5,792	5,290	5,344	5,248	5,130
51 and above	3,003	2,705	2,950	3,027	3,059

Percentage of female managers of total number of managers of the respective level at LUKOIL Group entities (headcount), %

Employee category	2016	2017	2018	2019	2020
CEO of a LUKOIL Group entity				1	2
Deputy Heads, Chief Engineer, Chief Accountant				18	18
Head of a branch, TPU, or another standalone business unit				4	7
Heads of departments				26	27

GRI 401–2 *Scope of services provided under social programs at LUKOIL Group*

Indicator	2016	2017	2018	2019	2020
LUKOIL Group, total		**468,150**	**430,323**	**456,495**	**456,750**
including:					
Health protection, services		325,711	286,746	322,795	321,215
Social support for families with children, services		65,311	62,241	59,480	60,267
Non-state pension coverage, people		12,453	12,263	12,115	13,361
Support for pensioners, people		43,281	44,990	42,825	43,468
Other, services		21,394	24,083	19,280	18,439
Specifically for Russian entities, total,		**402,709**	**357,277**	**387,154**	**386,541**
including:					
Health protection, services		276,063	229,781	267,830	265,984
Social support for families with children, services		61,461	58,664	55,308	56,650
Non-state pension coverage, people		5,795	6,363	6,345	7,308
Support for pensioners, people		43,116	44,884	42,689	43,265
Other, services		16,274	17,585	14,982	13,334

Note.

A service provided to an employee under social programs constitutes the provision of various types of social assistance and support at the employee's request in kind (e.g. vaccinations) or in cash, to pay for the service or to compensate for its cost.

GRI 404–3 *Percentage of employees receiving regular performance and career development reviews at PJSC LUKOIL*

Indicator	2016	2017	2018	2019	2020
PJSC LUKOIL headcount, people		2,331	2,351	2,406	2,204
Total PJSC LUKOIL employees who received an official performance review, people		2,109	2,121	2,210	2,012
Percentage of the total number of PJSC LUKOIL employees		90%	90%	92%	91%

Financial indicators

201–1 (2016) *Direct economic value generated and distributed, RUB mln*

	2016	2017	2018	2019	2020
Direct economic value generated	**5,256,250**	**6,010,089**	**8,058,338**	**7,876,876**	**5,655,070**
Revenue	5,227,045	5,936,705	8,035,889	7,841,246	5,639,401
Income from financial investments	14,756	15,151	19,530	25,134	13,051
Income from disposal of tangible assets	14,449	58,233	2,919	10,496	2,618
Distributed economic value	**-4,746,967**	**-5,394,491**	**-7,267,222**	**-6,985,273**	**-5,472,090**
Operating expenses	-3,413,258	-3,908,114	-5,297,908	-5,076,133	-3,753,470
Wages and salary	-136,035	-127,851	-135,671	-143,602	-154,093
Other employee payments and benefits	-20,370	-1,135	-31,300	-31,366	-31,366
Payments to capital providers, including:	-180,423	-180,371	-200,286	-226,376	-449,998
dividends paid	-130,728	-141,499	-160,365	-184,787	-410,898
interest paid to creditors	-49,695	-38,872	-39,921	-41,589	-39,100
Budget contributions	-984,821	-1,168,011	-1,593,272	-1,498,568	-1,074,740
Societal investment	-12,060	-9,009	-8,785	-9,228	-8,423
Undistributed economic value	**509,283**	**615,598**	**791,116**	**891,603**	**182,980**

Notes.

The calculation of the following indicators has been clarified:

- Income from disposal of tangible assets (2019): other types of income are excluded, except for income from the disposal or retirement of assets;
- Interest paid to creditors (2016–2018): interest expenses are recalculated on a cash basis;
- Budget contributions (2018–2019): deferred taxes are excluded.The data is presented on the accruals basis, except for the «Payments to capital providers» indicator, for which the cash basis approach was used.

Income from financial investments = Income from interest on deposits + Income from interest on loans issued + Other financial income.

Income from disposal of tangible assets = Income from sale and disposal of assets.

Operating expenses = Operating expenses + Cost of purchased oil, gas and refined products + Transportation expenses + Selling, general and administrative expenses – Wages and salaries – Other employee payments and benefits + Exploration expenses.

Wages and salaries = Labor pay (including labor pay, estimated liabilities, compensation and incentive payments, pension insurance, voluntary health insurance, voluntary accident insurance).

Other employee payments and benefits = Employee reward program payments.

Dividends paid = Dividends paid on Company shares + Dividends paid to non-controlling interest holders.

Interest paid to creditors = Interest expense

Budget contributions = Taxes (other than income tax) + Excise taxes and export duties + Current income tax.

Societal investment = Charity expenses.

Average salaries at Russian LUKOIL Group entities

Existing regions of operation	2018 Average salary (LUKOIL)	2018 Average salary in the region (January–December 2018)	2019 Average salary (LUKOIL)	2019 Average salary in the region (January–December 2019)	2020 Average salary (LUKOIL)	2020 Average salary in the region (January–December 2020)
Regions where production facilities are located						
Astrakhan Region	88,215	33,748	92,620	35,792	95,488	39,037
Volgograd Region	62,445	30,350	65,277	32,737	66,904	35,599
Kaliningrad Region	89,637	32,634	89,645	34,357	87,477	37,497
Nenets Autonomous Area	124,451	82,754	128,702	86,815	138,227	91,677
Nizhny Novgorod Region	73,081	32,909	71,593	35,692	73,828	37,449
Perm Territory	75,455	35,577	79,152	38,562	79,877	41,203
Komi Republic	97,993	50,186	103,113	53,162	106,758	56,780
Samara Region	56,702	33,620	60,156	36,362	57,384	38,747
Saratov Region	51,443	26,821	57,996	28,503	64,010	33,365
Stavropol Territory	58,071	28,651	54,736	31,867	56,880	33,708
Khanty-Mansi Autonomous Area — Yugra	104,709	71,000	109,058	74,525	112,514	79,057
Yamal-Nenets Autonomous Area	124,257	96,846	131,225	100,456	136,883	110,759
Regions where only oil product supply entities operate, as well as LUKOIL Technologies and LUKOIL-Engineering						
Moscow (excluding PJSC LUKOIL)	104,845	83,678	137,143	94,011	111,262	100,506
Republic of Bashkortostan	67,986	33,017	73,090	36,495	73,561	38,706
Vologda Region	Less than 500 people	35,545	45,144	39,132	45,549	42,779
Krasnodar Territory	50,214	33,583	52,249	36,155	51,517	37,666
Moscow Region	60,779	50,723	56,660	55,270	58,533	57,087
Rostov Region	36,232	30,653	38,443	33,490	39,109	35,563
Saint-Petersburg	71,004	60,123	73,440	63,157	73,101	68,383
Sverdlovsk Region	Less than 500 people	37,593	47,567	40,900	48,866	43,154
Tyumen Region	154,102	68,671	165,436	72,221	164,825	77,795
Chelyabinsk Region	40,004	34,980	44,437	37,308	46,664	38,693

Note.
Given the large number of countries in which LUKOIL Group entities operate, certain indicators (such as «Share of local employees,» «Average salary») are disclosed for significant regions. The definition of significant regions is given in Appendix 6. Average salary in the regions where one Group entity operates = Average salary in this particular organization. In the regions where several Group entities operate, the average salary (weighted average) for these organizations is indicated.
Changes in the list of regions are due to fluctuations in the headcount of the Group's entities.

Economic effect of the implementation of the Energy Conservation Program, RUB million

	2016	2017	2018	2019	2020
Total across Russian LUKOIL Group entities		1,185	1,165	1,445	1,261

Financing of APG use activities, RUB billion

	2016	2017	2018	2019	2020
Total across Russian LUKOIL Group entities	24	15	8	10	5

Note.
The indicator covers the expenses on the construction and reconstruction of APG preparation, transportation, and processing facilities, as well as heat and electric power generation facilities in Russia.
The change in the indicator is attributed to the schedule of activities under the effective APG use program.

SASB indicators

Code	Definition	Segment: E — Extraction, R — Refining, Marketing, and Distribution, S — Services (drilling, others), T — Transportation	Response / reference to indicators in Sustainability Report for 2020	Documents
Management				
EM-EP 110a3) EM-RM 110a3) EM-MD 110a3)	Long- and mid-term strategy to reduce direct GHG emissions. Reduction targets. Analysis of activities related to these targets	E, R	In 2020, the development of a climate strategy and GHG reduction targets continued	Annual Report
EM-EP 160 a1)	Description of the environmental management system	E, T	A unified environmental management system — part of the Integrated Health, Safety, and Environment Management System — is in place for all business segments	

Code	Definition	Segment: E — Extraction, R — Refining, Marketing, and Distribution, S — Services (drilling, others), T — Transportation	Response / reference to indicators in Sustainability Report for 2020	Documents
Greenhouse gases				
EM-EP 110a1) EM-RM 110a1) EM-MD 110a1)	Total gross GHG emissions, including the share of methane, the share of emissions by countries with legal regulation of GHG emissions	E, T, R	P. 54-55, 181	Annual Report Analyst's Handbook
Emissions				
EM-EP 120 a1) EM-RM 120 a1) EM-MD 120 a1)	Volume of NO_x, SO_x, and other pollutant emissions to the atmosphere, VOCs, and PM10 dust	E, T, R	P. 189	
Water				
EM-EP 140 a1 EM-RM 140 a1	Amount of freshwater withdrawn, share of total consumption, share in regions with severe water scarcity	E, R	P. 104, 183	
Occupational safety				
EM-RM 320 a2)	Description of the management system to improve safety culture	E, R	Improving safety culture is one of the mechanisms of the Integrated Health, Safety, and Environment Management System, p. 73-75	
EM-EP 320 a1) EM-RM 320 a1 EM-SV 320 a1	Total Recordable Injury Rate (TRIR), Fatality Rate, Near-Miss Frequency Rate (NMFR), Average Duration of OHS Training for a) Staff, b) Contractors, c) Short-Term Employees	E, R, S	P. 88, 89, 192, 193	

Code	Definition	Segment: E — Extraction, R — Refining, Marketing, and Distribution, S — Services (drilling, others), T — Transportation	Response / reference to indicators in Sustainability Report for 2020	Documents
Extraction				
EM-ER-160a2)	Total number and volume of hydrocarbon spills, including a) in the Arctic, b) impacting coastlines in categories 8-10 of the Environmental Sensitivity Index (ESI) (mangroves, marshes, rocky shores, and others), percentage of recovered sites	E	Partially, p. 82	
EM-EP 210 a3)	Engagement with stakeholders and risk assessment with respect to human rights, rights of Indigenous Minorities of the North, and activities in the conflict zone	E	P. 33, 37-39, 155	
EM-EP 420 a1)	Sensitivity of hydrocarbon reserves to future price projection scenarios that take into account carbon price or emissions	E		
EM-EP 420 a3)	Investments in RES, share of income received from RES		P. 67	
EM-EP 420 a4)	Assessment of price and demand for hydrocarbons and / or climate regulation affecting capital investment strategy for exploration, acquisition, and development of assets	E		

Code	Definition	Segment: E — Extraction, R — Refining, Marketing, and Distribution, S — Services (drilling, others), T — Transportation	Response / reference to indicators in Sustainability Report for 2020	Documents
EM-EP 510a1)	Percentage of 1) proved and 2) prospective reserves in countries that rank in the bottom 20 of Transparency International's Corruption Index	E	The share of reserves located in Iraq and the Republic of Congo (according to PJSC LUKOIL share) of LUKOIL Group's proved reserves abroad was 9.6% in 2018, and 15.4% in 2019	Analyst's Handbook
EM-EP-510a2)	Management system for the prevention of corruption in the company and supply chain	E	Partially, p. 34, 43	Anti-Corruption Policy of PJSC LUKOIL
EM-ER-540 a2)	Describe the risk management system for catastrophic events and accidents	E, S	P. 76, 77	
Refining and distribution				
EM-RM-110 a2)	Long- and mid-term strategy to reduce GHG emissions (Scope 1), established targets and analysis of the achieved results	T, R	P. 56, 57	
EM-RM 120 a2)	Number of plants located in or in the vicinity of heavily populated cities	R	LUKOIL's refineries are located in cities with a population of 10,000 or more. The largest population is in Volgograd (about 1 million people), Perm (about 1 million people), Nizhny Novgorod (1.3 million people) and Saratov (842 thousand people). (all cities are located in Russia).	
EM-RM 150 a1)	Amount of hazardous waste generated, share of recycled waste	R	P. 109, 191	
EM-RM 520 a2)	Number of court-ordered penalties for price-gouging and price-fixing	R	P. 35	

Code	Definition	Segment: E — Extraction, R — Refining, Marketing, and Distribution, S — Services (drilling, others), T — Transportation	Response / reference to indicators in Sustainability Report for 2020	Documents
Transport				
EM-MD 520 a1)	Total losses from lawsuits related to pipelines and storage facilities	T	P. 35	
EM-MD 540 a1)	Number of pipeline-related incidents reported, share of significant incidents	T	P. 82	
EM-MD 540 a2)	Share of inspected gas pipelines (natural gas) and pipelines for transportation of hazardous materials	T	P. 59	
EM-MD 540 a3)	Number of emergency and non-emergency spills during railway transportation	T	All railway transportation operations are performed by contractors. Contractors are liable for transportation safety	
Services (contractors)				
EM-SV 510a1)	Share of income in countries that rank in the bottom 20 of Transparency International's Corruption Index	S	The Company does not generate significant revenues in these countries. The share of reserves located in Iraq and the Republic of Congo (according to PJSC LUKOIL share) of LUKOIL Group's proved reserves abroad was 9.6% in 2018, and 15.4% in 2019. The share of reserves located in Iraq and the Republic of Congo (according to PJSC «LUKOIL» share) of total reserves of LUKOIL Group was 1% in 2018, and 1.5% in 2019	
EM-SV 150 a2)	Strategy and plans to mitigate risks associated with the use of chemicals	S	Partially p. 107, 109	
EM-SV 160 a2)	Strategy and plans to mitigate risks associated with environmental impacts in services	S	Partially, p. 107, 109	

Appendix 8. Indicator boundaries

Appendix 8 is published in the interactive version of the Sustainability report on the website.

Appendix 9. Independent assurance statement

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Independent Practitioner's Limited Assurance Report on Sustainability Report of LUKOIL Group for 2020

To the Shareholders of PJSC LUKOIL

Introduction

We were engaged by the Management of PJSC LUKOIL ("the Management") to report on Sustainability Report of LUKOIL Group ("the Group") for 2020 ("the Report") in the form of a limited assurance conclusion that, based on our work performed, nothing has come to our attention that causes us to believe that Management's Statement that the Report is prepared based on the "core" version of the Global Reporting Initiative Sustainability Reporting Standards ("the GRI Standards") and is free from material misstatement, is not, in all material respects, fairly stated.

Management's Responsibilities

Management is responsible for the preparation and presentation of the Report that is free from material misstatement in accordance with the GRI Standards, and for the information contained therein.

This responsibility includes designing, implementing and maintaining internal control system relevant to the preparation of the Report that is free from material misstatement, whether due to fraud or error. It also includes: determining the Group's objectives in respect of sustainable development performance and reporting, including the identification of key stakeholders groups and their material issues; selecting applicable requirements of the GRI Standards; preventing and detecting fraud; identifying and ensuring that the Group complies with the laws and regulations applicable to its activities; selecting and applying appropriate policies; making judgments and estimates that are reasonable in the circumstances; maintaining adequate records in relation to the information included in the Report; ensuring that staff involved in the preparation of the Report are properly trained; information systems are properly updated and that any changes in the reporting system encompass all key business units.

Engaging entity: PJSC LUKOIL

Registration number in the Unified State Register of Legal Entities: No. 1027700035769.

Moscow, Russia

Auditing organisation (practitioner): JSC "KPMG", a company incorporated under the Laws of the Russian Federation.

Registration number in the Unified State Register of Legal Entities: No. 1027700125628.

Member of the Self-regulatory Organization of Auditors Association "Sodruzhestvo" (SRO AAS). Principal registration number of the entry in the Register of Auditors and Audit Organizations: No. 12006020351.

Our Responsibilities

Our responsibility is to perform procedures to obtain evidence in respect of the Report prepared by Management and to report thereon in the form of a limited assurance conclusion regarding Management's Statement in respect of the Report based on the evidence obtained.

We conducted our engagement in accordance with International Standard on Assurance Engagements 3000 (Revised) *Assurance Engagements Other Than Audits or Reviews of Historical Financial Information* (ISAE 3000) issued by the International Auditing and Assurance Standards Board.

ISAE 3000 requires that we plan and perform our procedures to obtain a meaningful level of assurance in respect of the Management's Statement that the Report is prepared based on the "core" version of the GRI Standards and is free from material misstatement.

Our Independence and Quality Control

We have complied with the independence and ethical requirements established by the *Rules on Independence of Auditors and Audit Firms* and the *Code of Professional Ethics for Auditors* approved by the Audit Council of the Ministry of Finance of the Russian Federation and by the *International Code of Ethics for Professional Accountants (including International Independence Standards)* issued by the International Ethics Standards Board for Accountants, which are based on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behavior.

We apply the *International Standard on Quality Control* 1, and accordingly maintain a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Procedures Performed

The procedures selected, and our determination of the nature, timing and extent of these procedures, depend on our judgment, including the assessment of risk of material misstatement during the preparation of the Report, whether due to fraud or error, our understanding of the Group's activities, as well as other engagement circumstances.

In making these risk assessments, we considered internal control system relevant to the Group's preparation of the Report in order to design procedures that are appropriate in the circumstances, but not for the purposes of expressing a conclusion as to the effectiveness of the Group's internal control.

Our engagement also included: assessing the appropriateness of the information included in the Report, the suitability of the GRI Standards used by Management in preparation of the Report in the circumstances of the engagement; evaluating the appropriateness of the methods, policies and procedures, used in the preparation of the Report and the reasonableness of estimates made by Management.

The procedures we developed based on the performed risk assessment are a combination of inspections, confirmations, recalculations, analytical procedures and inquiries.

Our procedures included, but were not limited to, the following:

- inspection of the processes used by PJSC LUKOIL to identify topics and issues material to the Group's key stakeholder groups, with the purpose of understanding such processes in the Group, as well as analysis of information from open sources on topics and issues material to key stakeholder groups of other organizations in the industry, with the purpose of determining the level of completeness of disclosure of such topics and issues in the Report;
- interviews with Management representatives and officers at the corporate center and subsidiaries regarding the sustainable development strategy and policies regulating material issues in areas of importance for the Group, stage of implementation of such policies, and procedures for collecting information on sustainable development;
- interviews with employees of the corporate center and subsidiaries responsible for providing the information for the Report;
- conducting procedures at the level of the following subsidiaries:
  - LLC LUKOIL-West Siberia, Kogalym;
  - LLC LUKOIL-Komi, Usinsk;
  - LLC LUKOIL-Kubanenergo, Krasnodar,
  - LLC LUKOIL BULGARIA, Sofia,

  which were selected based on risk analysis using qualitative and quantitative criteria;
- comparing the information presented in the Report with data from other sources to determine its completeness, accuracy and consistency;
- assessing the completeness of qualitative and quantitative information on sustainable development against the GRI Standards;
- reading and analyzing information on sustainable development included in the Report to determine whether it is in line with our understanding and knowledge of the Group's sustainable development activity;
- recalculation of quantitative data and inspection of underlying documentation.

The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.

Criteria Used

To evaluate the Report, GRI Standards were used which are available at the link: https://www.globalreporting.org/standards/

Management's Statement

Management states that the Report is prepared based on the "core" version of the GRI Standards and is free from material misstatement.

Inherent Limitations

Due to the limitations inherent in any internal control structure, it is possible that errors or irregularities in the information presented in the Report may occur and not be detected. Our engagement is not designed to detect all weaknesses in the internal control system over the preparation and presentation of the Report, as the engagement has not been performed continuously throughout the reporting period, and the procedures were performed on a test basis.

Conclusion

Our conclusion has been formed on the basis of, and is subject to, the matters outlined in this report. We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our conclusion.

Based on the procedures performed and described in this report, nothing has come to our attention that causes us to believe that Management's Statement that the Report is prepared based on the "core" version of the GRI Standards and is free from material misstatement, is not, in all material respects, fairly stated.

Klimanova L.V.

JSC "KPMG"
Moscow, Russia
09 July 2021

Appendix 10.

Conclusion of the Board of Non-Financial Reporting of the Russian Union of Industrialists and Entrepreneurs on the Public Assurance Review Results of the Sustainability Report of LUKOIL Group for 2020

At the initiative of PJSC "LUKOIL", the Board of Non-Financial Reporting of the Russian Union of Industrialists and Entrepreneurs (RSPP) (hereinafter, the Board) formed in accordance with the decision of the Administrative Office (Resolution of 28 June 2007) have reviewed the Sustainability Report for 2020 (hereinafter, the Report) of LUKOIL Group (hereinafter, the Company, the Group, LUKOIL).

The Company requested RSPP that the Board arranges a public assurance review of the Report. The Board has formed an opinion on the relevance and completeness of the information disclosed in the Report in relation to the Company's performance in accordance with the principles of responsible business practice which are set out in the Social Charter of Russian Business and comply with the provisions of the UN Global Compact and Russian and international social responsibility standards.

From 16 June to 5 July 2021, members of the Board studied the contents of the Report submitted by the Company and prepared this Conclusion in accordance with the Regulations for the Public Assurance Review of Corporate Non-Financial Reporting approved by the Board. Members of the Board have the necessary expertise in corporate social responsibility, sustainability, and non-financial reporting, comply with ethical requirements pertaining to independence and objectivity, and express their personal opinions as experts, and not the opinions of the organizations they represent.

The Report was assessed based on the following criteria on the completeness and relevance of the information contained therein:

Information is considered relevant to the extent it presents the Company's activities in implementing the principles of responsible business practices disclosed in the Social Charter of Russian Business (www.rspp.ru).

The completeness implies that the Company has comprehensively presented its activities in the Report – its underlying values and strategic benchmarks, governance system and structure, achievements, and key performance indicators, as well as its system of interacting with stakeholders.

The application by the Company of the international reporting system is considered during the public assurance review of the Report. However, confirming the Report's level of compliance with international reporting systems is outside the scope of this Conclusion.

The Company is responsible for the information and statements contained in the Report. The reliability of the data contained in the Report is not the subject matter of this public assurance review.

This Conclusion has been prepared for the Company which may use it for internal corporate purposes and for communications with stakeholders, publishing it without any changes.

CONCLUSIONS

On the basis of the analysis of the Report, as well as public information on the official corporate website of the Company, and a collective discussion of the results of the independent assessment of the Board of Non-Financial Reporting of the Russian Union of Industrialists and Entrepreneurs, the Board confirms the following:

The Sustainability Report of the LUKOIL Group for 2020 contains significant information on key areas of responsible business practice in accordance with the principles of the Social Charter of Russian Business, and adequately discloses information on the Company's operations in these areas.

The recommendations of the RSPP Board based on the results of public assurance of the previous report for 2019 are reflected in the Report for 2020. It includes information on the Company's contribution to the achievement of the UN SDGs, which is also measured against national projects; data on land reclamation is presented, information is disclosed, and explanations are given regarding the dynamics of greenhouse gas emissions; a detailed description of the procedure for identifying material topics with the participation of various groups of stakeholders is provided.

The Company's report for 2020 contains relevant information on the following aspects of responsible business practices:

Economic freedom and responsibility: The Report covers the main areas and geography of operations, the structure of the Company, and presents strategic goals and long-term target indicators. The global trends of the industry development are reflected, growth opportunities in the context of the transition to a low-carbon economy are considered. The main financial and production results for business segments for the reporting year are disclosed. Plans to adapt to climate change and decarbonization are reported as part of the work to update the Group's Strategic Development Program. Information on the implementation of digitalization programs and key growth projects is presented. The Company's production model from production to sales of products and services is described. The system of quality management is reported, a description of the corporate integrated management system is given. Certification of the HSE management system for compliance with international standards ISO 14001 and ISO 45001 at the Group's production entities was noted. It is reported that amendments have been made to the HSE Policy in connection with the Company's transition to the new standard ISO 45001 and plans for climate adaptation. The organizational structure of the sustainability management system is shown. The Report contains information characterizing the involvement of the Board of Directors in sustainable development issues, including on the climate agenda, and the results of the work of the committees of the Board of Directors. Four of the Group's strategic sustainable development goals are reported, which are related to the 12 UN SDGs, and the Company's contribution to national projects is shown. The activity of the Business Ethics Commission is described. The Company's participation in the fight against the COVID-19 pandemic in Group entities, regions of presence in the Russian Federation and foreign countries is shown. The report contains information on the approval of the corporate Anticorruption Policy and the Antimonopoly Policy. It also reports on sustainability awards and LUKOIL's participation in international ratings.

Business Partnership: The Report covers stakeholder engagement issues, communication channels and tools, and key events in the reporting period. It covers interaction with government bodies and business partners in Russia at the federal, regional, and local levels, as well as participation in the international dialogue on issues of industry development and the climate agenda. It is noted in the Report that representatives of the LUKOIL Group participate in the discussion of legislative initiatives, in the work of advisory groups and expert platforms, including on crisis measures in pandemic conditions. The key principles of the Company's human resources and social policy are given. The system of social partnership is highlighted; it is reported that an agreement was concluded between the Company and trade unions for 2021–2023, which stipulates an increase in a number of guarantees, and the coverage of employees by collective agreements is indicated. The experience of organizing work in the conditions of the COVID-19 pandemic is shown. It is reported that there are requirements on contractors and suppliers to comply with industrial and occupational safety standards, as well as to comply with anti-corruption standards, and the

Company's control system is shown. The report informs about the preparation of ratings of contractors to involve them in improving the safety culture. The mechanisms of interaction with clients are described, feedback channels and results of monitoring of their satisfaction are presented. The Company's membership in international and Russian industry and professional associations and unions is highlighted. The Report highlights the cooperation with the International Labor Organization.

Human Rights: The report declares the Company's commitment to respect for human rights in accordance with the principles reflected in UN documents and the legislation of the countries in which it operates. The Company states that it does not allow discrimination against employees on any grounds. Corporate documents setting forth the principles of observing human rights are described. Information is provided on social partnership, respect for labor rights, including measures for training and development, improving working conditions and protection of labor, and ensuring the rights of indigenous minorities of the North. Human rights monitoring mechanisms, including feedback channels, and activities to manage human rights risks in the supply chain are reported. Information on the participation of representatives of the indigenous minorities of the North in decision-making on projects that affect their rights, on the implementation of projects in their support, and expenses for these purposes is included.

Environmental preservation: The Report informs about the strategic goal of reducing the human impact on the environment through the implementation of the best available technologies. The implementation of the Environmental Safety Program for 2020–2022, its results and goals for 2021 are shown. The establishment of the Working Group on Decarbonization and Adaptation to Climate Change, the performance of an expanded inventory of emission sources, and the publication of climate reporting in the international Carbon Disclosure Project (CDP) are reported. Information on emergency situations is disclosed, measures to improve the reliability of the pipeline system and to prevent oil spills are reflected. The main results in energy consumption and energy efficiency, including the implementation of the Energy-Saving Program of the Group's entities for 2019–2021, are highlighted, and information on the management system in this area is presented. Approaches to solving the problem of sustainable water use, including in low-water regions, are described. Data on reducing the use of water for own needs, on measures to optimize water consumption is given. The Report shows the Company's biodiversity conservation activities, including in the Arctic zone. Environmental monitoring is reported to improve the safety of marine ecosystems. The main goals and areas of implementation of the Company's renewable energy projects are presented. Projects aimed at reducing the negative impact on the environment and reducing waste are highlighted. Gross and specific environmental impact indicators are disclosed. Data on costs on environmental protection measures for Russia and foreign assets are given. The implementation of projects under the World Bank initiative Zero Routine Flaring by 2030 is reported.

Participation in the development of the local community: the Report informs about the areas of the Group's external social policy in the regions, the mechanisms used, including cooperation agreements with the administrations of 29 regions, and agreements with the heads of territories of traditional resource use. The priority areas of social activity common to all regions and countries in which Group organizations operate are shown, and the long-term nature of several regional programs and projects is reported. The volume of the Company's social investments in the regions of presence is reflected, including expenses on assistance in connection with the COVID-19 pandemic. Information on the results of the contest of social and cultural projects held by the Charity Fund together with the Russian enterprises of the Group is presented. Criteria for assessing the effectiveness of implemented projects are shown. Information on annual environmental campaigns is included. The development of volunteering practice is reported. The implementation of the "More Than Just a Purchase" social entrepreneurship support project implemented jointly with the "Our Future" Foundation of Regional Social Programs. Information is provided on the main measures aimed at supporting orphans, the disabled, veterans of war and labor and other groups of the population in need of assistance, as well as medical organizations and sports groups.

Final provisions

The Sustainability Report of the LUKOIL Group for 2020 reflects the scope and strategy of the Company's operations, its contribution to the development of the oil and gas sector and the economy of the country, priorities and management system in the field of sustainable development. A comprehensive approach to disclosure of information on key areas is implemented, and a significant number of performance indicators on economic, environmental, and social aspects is contained. The Report shows the balance of performance with the UN Sustainable Development Goals and their implementation objectives, which meet the Company's strategic benchmarks. The Reports consistently expand information on sustainability factors in the Company's foreign assets.

In preparing the Report, Global Reporting Initiative sustainability reporting standards (GRI Standards), SASB, UNCTAD were used, as well as other Russian and international documents, including the UN Global Compact, the Social Charter of Russian Business and the Basic Performance Indicators of the Russian Union of Industrialists and Entrepreneurs, the Sustainability Reporting Guidance for the Oil and Gas Industry (IPIECA), which ensures continuity of information in various reporting cycles, as well as comparability with the reports of other companies.

The report for 2020 is the Company's eleventh non-financial report, which attests to the consistent development of the non-financial reporting process. The Company uses various forms of independent evaluation and confirmation of reporting information (professional audit and public assurance), thereby confirming a responsible attitude to the quality of information disclosed.

RECOMMENDATIONS

While noting the merits of the Report, the Board draws the Company's attention to several aspects that are important for stakeholders and relate to the relevance and completeness of the information disclosed and recommends taking them into account in future reporting.

The Board notes that the recommendations based on the analysis of the Company's previous reports will prove useful in the future reporting practices of the Group.

The Report contains the analysis of the implemented strategic goals and the assessment of the Company's contribution to the achievement of the priority UN Sustainable Development Goals – 2030, including those from the climate agenda. It also outlines plans for further implementation of these goals. The Board recommends developing this practice in subsequent reporting cycles and highlighting measurable targets for priority SDGs, specifying estimated deadlines to achieve them.

Taking into account that LUKOIL is an operator of or participant to a number of foreign projects of prospecting and producing of hydrocarbons in various countries worldwide, it seems advisable to provide more information in subsequent reporting cycles on the activities conducted under these projects for the purposes of sustainable development.

Furthermore, it is advisable to consider presenting not only consolidated figures of foreign companies in the subsequent reporting cycles but also figures with a breakdown by segment (production, refining, sales) or by entities.

Noting the disclosure in the Report of changes in figures over three years as its positive feature, it should be emphasized that clarifications on the changes in the indicators need to be provided. It is advisable to provide comments on the reported accounting indicators, especially when significant changes have occurred.

The Report comprises information on implementing operational excellence programs and digitalization of the Group's operations. The Board recommends paying more attention in future to sustainable development opportunities and risks of the Group, which arise out of the developing digital technologies and implementation thereof in the Company's business processes.

The Report contains information on the Company's external social policy aspects, specific programs and activities in the regions of its presence. For a less biased assessment of the Group's social impact in future, it is advisable to disclose the cost structure of key aspects of the external social policy and present the efficiency of specific projects.

The Report covers the interaction with stakeholders on a wide range of issues. It seems reasonable to develop in future the practice of stakeholder engagement in the preparation of reports, e.g. by arranging events such as dialogues, hearings of reports, obtaining of feedback from representatives of basic stakeholder groups on the social, economic, and environmental impact of the Company's enterprises, and giving coverage to the outcomes of these events.

It appears from the Report that the climate agenda has been integrated in the strategies and activities of the Company. In view of the relevance of this topic, it deserves continued focus and coverage in reports including the information on the Company's response to challenges in this area, financial appraisal of climate risks, and description of approaches to their mitigation.

We recommend that in future the information on the interaction of PJSC "LUKOIL" with subsidiaries on the Company's strategic sustainable development goals and the system of control of applying of corporate policies and internal regulatory documents should be included in reports.

Having issued a positive assessment of the Report, having supported the Company's commitment to the principles of responsible business practices, and having noted the consistency in the development of its reporting, the RSPP Board of Non-Financial Reporting does hereby confirm that the LUKOIL Group Sustainability Report for 2020 has passed the public assurance procedure.

The Board of Non-Financial Reporting of the Russian Union of Industrialists and Entrepreneurs

CERTIFICATE

of Public Endorsement
of a Corporate Non-Financial Report

Sustainability report of
LUKOIL GROUP for 2020

has received public endorsement
by the RSPP Council on Non-Financial Reporting

A detailed opinion of the RSPP Council regarding public endorsement of the Sustainability report of LUKOIL GROUP for 2020 has been sent to the Company, which may publish it without amendment and use it both for corporate purposes and for the purposes of stakeholder engagement.

Registration number 182.01.014.01.20

RSPP President A.Shokhin

Moscow 2021

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The data on future production and investment plans contained in the Report are based on forward-looking information. Such words as "believe", "anticipate", "expect", "estimate", "intend", "plan" and similar expressions indicate the forward-looking nature of the statement. Actual results may differ from expected results, estimates and intentions contained in forward-looking statements. PJSC LUKOIL does not guarantee that the anticipated operating results contained in the forward-looking statements will in fact be achieved. In each case, such statements represent only one of many possible outcomes, and thus they should not be considered as the most likely outcome.