

# KAZMUNAYGAS CONTRIBUTION TO THE LOW-CARBON DEVELOPMENT OF KAZAKHSTAN

Yelena Kuanbayeva,  
KazMunayGas HSE Deputy Director



>200 subsidiaries

2 subsidiaries have held an IPO

# KazMunayGas Group



## GROUP'S INDICATORS

### EMPLOYEES

**91,121** people

33.6 hours of education per person

65.9% employees are members of Labor

79%

21%

### NUMBER OF FATAL INCIDENTS

**Our target – 0 fatal incidents**

2016 7 people

2015 4 people

### ENVIRONMENTAL INDICATORS

**77.8** mln m<sup>3</sup> total water withdrawal

**203.3** thousand tons prevented CO<sub>2</sub> emissions

**1.5** 1.5 mln GJ energy resources saving

**6.5** mln tons CO<sub>2</sub> emissions

**108** mln GJ total energy consumption = 3% of energy resources of Kazakhstan

**86%** level of gas utilization

### PROFIT

**305.8** billion KZT \$894.9 mln

### PROCUREMENT

**1 871** billion KZT \$5,475.3 mln

**76%** local content proportion

### RESERVES

**785.8** mln tons of A, B and C<sub>1</sub> oil and gas condensate

**480.1** billion m<sup>3</sup> of natural gas



### OIL AND GAS EXPLORATION AND PRODUCTION

**29%** of oil and gas condensate in Kazakhstan

**16%** of natural and associated gas in Kazakhstan

**448** thousand barrels of oil per day

**20.2** million m<sup>3</sup> of gas per day

CO<sub>2</sub> emissions intensity **115** tons per 1000 tons of hydrocarbons

### REFINING AND MARKETING

**82%** of the Kazakhstan market

**16%** share of oil products retail market

**55** thousand vehicles a day

Refining of **236** thousand barrels of oil per day

CO<sub>2</sub> emissions intensity **219** tons per 1000 tons of refined oil

'Choice of the Year N<sup>o</sup>1 in Kazakhstan' 'KazMunayGas' brand

### OIL AND GAS TRANSPORTATION

Group's main oil pipelines transport **65%** of oil and **95%** of gas in Kazakhstan

**1,156** thousand barrels of oil per day

**240** billion m<sup>3</sup> of gas per day

Oil transportation by sea **7,082** thousand tons in 2016 or **77%**

### SERVICE

more than **10.5** thousand vehicles are used daily at our production facilities

- drilling services
- land and air transport
- support of offshore operations
- production of drilling fluids
- mechanical engineering
- construction of facilities

# MEMBERSHIP AND PARTICIPATION



**United Nations**  
Global Compact

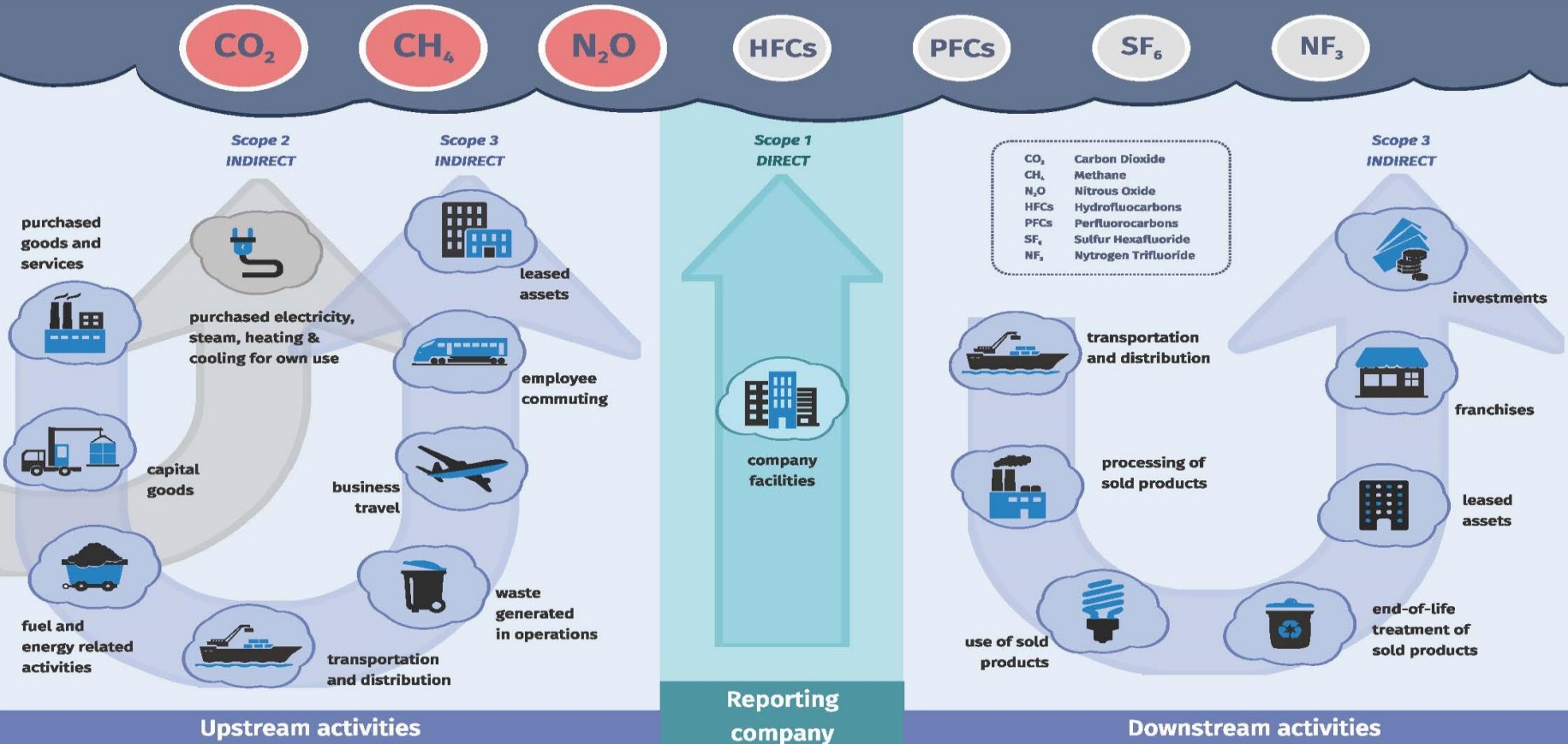


Environmental  
index of oil and  
gas companies




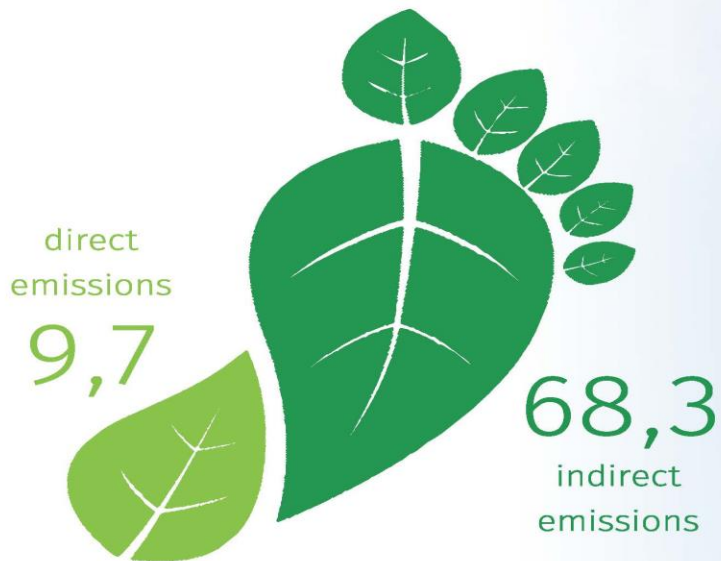
# WHAT IS A CARBON FOOTPRINT

Carbon footprint: cumulative greenhouse gas (GHG) emissions associated directly or indirectly with any particular activity.

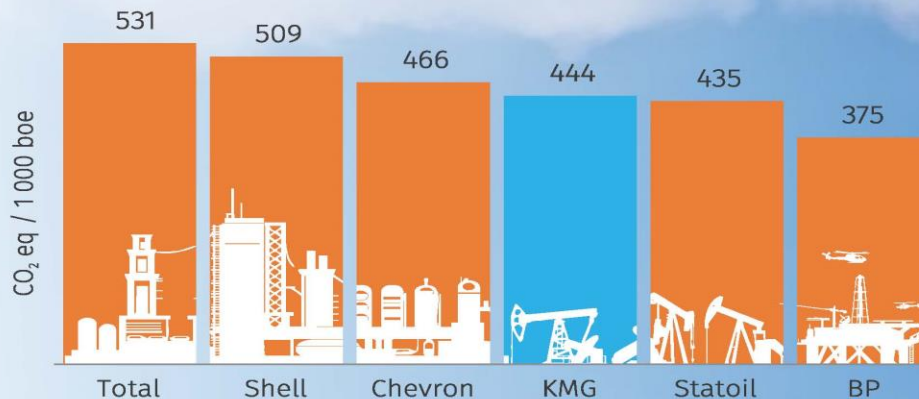


## 2016 KMG Carbon Footprint

78 million tons CO<sub>2</sub> eq. 



## Carbon Footprint Intensity



# KMG CARBON FOOTPRINT



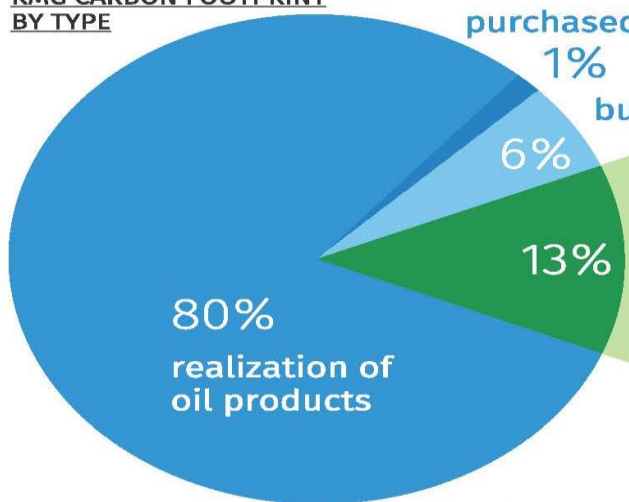
## Direct Emissions

emission from the inventory reports:

9,7 mln. tons CO<sub>2</sub> eq

- flaring
- combustion
- electricity generation
- steam production, etc.

### KMG CARBON FOOTPRINT BY TYPE



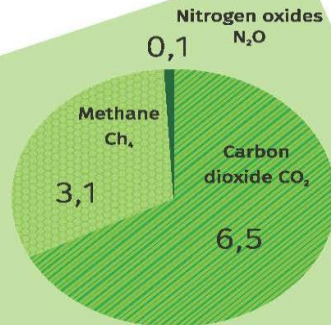
## Indirect Emissions

68,3 mln. tons CO<sub>2</sub> eq.

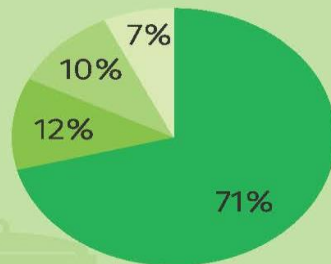
- realization of oil products
- business air travel
- purchased energy
- paper usage
- transportation
- service

## direct emissions

by GHG Gases  
(mln. tons CO<sub>2</sub> eq)



by Sources



- Combustion, others
- Flaring
- Steam production
- Electricity generation



Join the GMI  
KMG Joined in Q1 2017

World Bank Initiative  
“Zero Routing Flaring by 2030”

## Reduction of Methane Emissions

*not include into reporting  
(mostly from leaks and blowdown)*

Implementation of programs to detect and repair methane leaks in our operations.

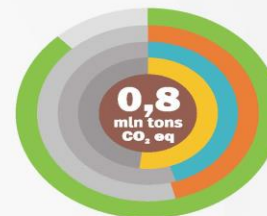
Implement energy-efficiency measures and flaring and venting reduction programs.

## Efficient Energy Management

## Usage of Green Technologies



% of CO<sub>2</sub> emissions from flaring:



## Reduction of Air Travel



Yelena Kuanbayeva,  
HSE Deputy Director  
[Ye.kuanbayeva@kmg.kz](mailto:Ye.kuanbayeva@kmg.kz)



Thank you!

