



G L O B A L F O R U M

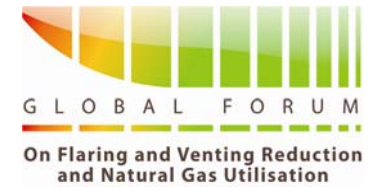
**On Flaring and Venting Reduction  
and Natural Gas Utilisation**

## **REGULATING FLARING AND UTILISATION OF OIL AND GAS: EXPERIENCE OF KAZAKHSTAN**

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# SUSTAINABLE DEVELOPMENT



## CONCEPT OF TRANSITION TO SUSTAINABLE DEVELOPMENT IN KAZAKHSTAN, 2007-2024

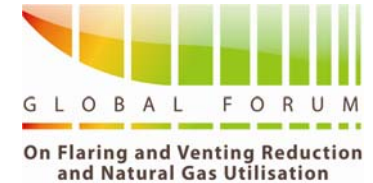
- To ensure highly effective use of resources

# HYDROCARBONS IN KAZAKHSTAN



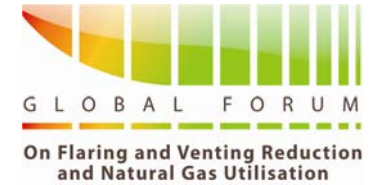
- Republic of Kazakhstan is becoming more prominent at world hydrocarbons market
- Kazakhstan is in the world's top 10 on discovered reserves
- 1,7 mln km<sup>2</sup> of high-potential oil and gas territories, which constitutes 62% of the country's territory
- Production of oil amounts to 2,2 bln tons, condensate – 690 mln tons, gas – about 2 trln m<sup>3</sup>, the Caspian Sea shelf results are not included
- Forcast oil reserves are about 13 billion tons

# OIL PRODUCTION IN KAZAKHSTAN



- Annual oil production is 469 mln barrels
- This amount is expected to go up to 850 mln barrels per year after the ambitious Kashagan project is implemented

# GAS UTILISATION AND FLARING

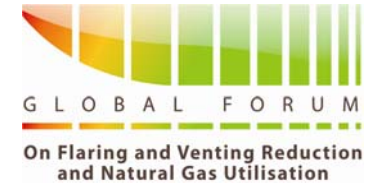


- Present level of gas utilisation is 11 bln m<sup>3</sup>
- Annually about 2,7 bln m<sup>3</sup> of associated or petroleum gas is flared

## MAIN NEGATIVE EFFECTS OF GAS FLARING

- Environmental pollution, particularly major air pollution
- Irrecoverable waste of natural gas as a mineral resource

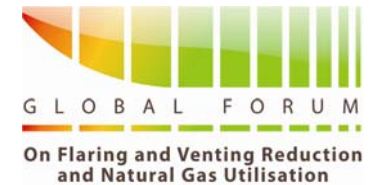
# REGULATORY FRAMEWORK



## MEASURES TAKEN TO IMPROVE LEGISLATION ON SUBSOIL MANAGEMENT, IN PARTICULAR ON HYDROCARBONS PRODUCTION AND GAS FLARING

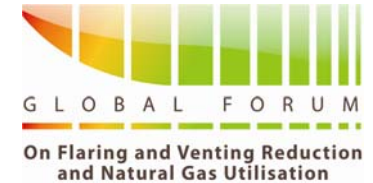
- Petroleum Law strictly prohibited flaring of associated or natural gas, except in emergencies and health- and environment-threatening situations
- Certain acceptable amendments on gas utilisation are made to the Petroleum Law
- Companies have developed and approved Programmes of associated gas utilisation during production of hydrocarbons. The Programmes provide for gradual reduction of gas flaring
- As stipulated by the Environmental Code of the Republic of Kazakhstan all projects, including those for gas utilisation, were subject to the environmental assessment by the Ministry of the Environment, to ensure their compliance with the environmental legislation

# GAS FLARING



- Presently 30 out of 46 oil companies in Kazakhstan flare gas, 25 of those in the west of the Republic and 5 in the south
- Analysis of approved Programmes demonstrates that by 2010 Kazakhstan will achieve almost 100% utilisation of associated gas

# PROBLEMS TO BE SOLVED

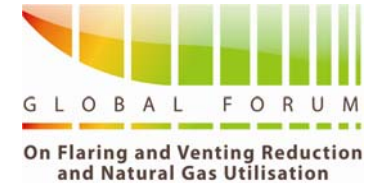


1. Figures on gas volumes provided by satellite monitoring of gas flaring are higher than the official data

## **Solution:**

Set up new information channels for monitoring and control purposes, also with international involvement

# PROBLEMS TO BE SOLVED

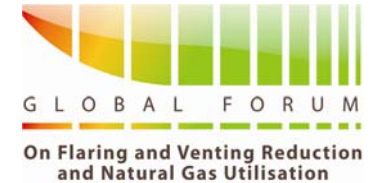


2. Some activities in oil and energy sectors require, in certain emergency situations, compulsory venting of excessive gas for flaring

## **Solution:**

Kazakhstan is interested in international experience on similar technological problems

# PROBLEMS TO BE SOLVED



3. Kazakhstan has entered the final stage of ratification of the Kyoto Protocol to the Convention on Climate Change

## **Solution:**

A draft of the relevant Law has been submitted to the Parliament. With Kazakhstan joining the Kyoto process, additional incentives will be created to reduce emissions from petrol gas flaring and to increase overall effectiveness of use of natural resources

**THANK YOU FOR YOUR ATTENTION!**