



GGFR



IGU Joint Meeting of WOC 1 and PGC A Rio de Janeiro February 18-21, 2013

GGFR Initiative



- ▶ Created in 2002 at the World Summit on Sustainable Development in Johannesburg
 - Just celebrated 10 year anniversary
- ▶ Objective:
 - Reduce carbon emissions and environmental impact of flaring
 - Monetization of a wasted resource
 - Improve energy efficiency and access to energy
- ▶ Means:
 - Public – Private Partnership to facilitate gas flaring reduction
- ▶ Phase 4:
 - ▶ 2013 – 2015 Scale Up

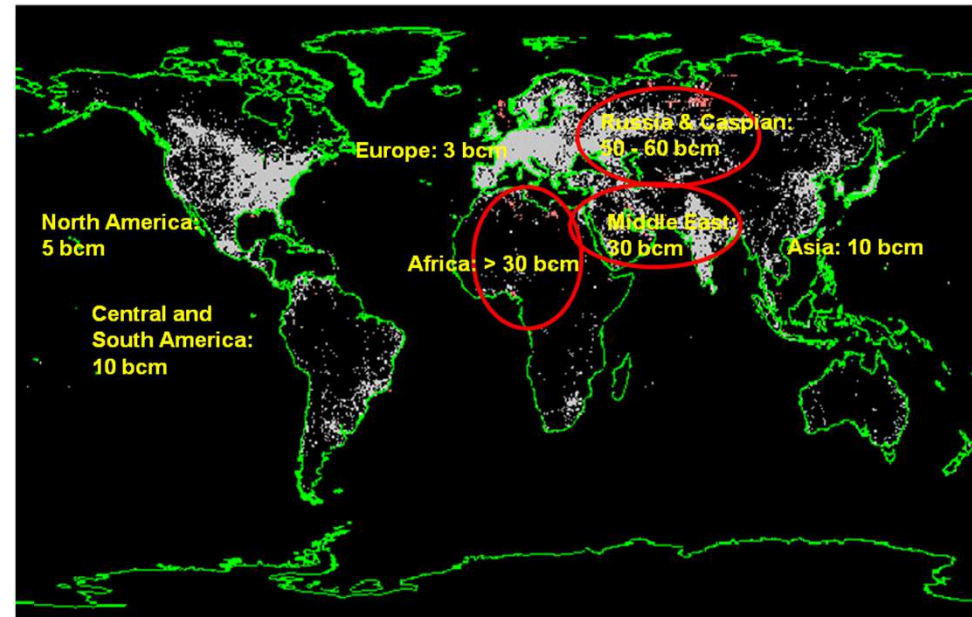
Mission Statement

GGFR is a catalyst for reducing wasteful and undesirable practices of gas flaring and venting through policy change, stakeholder facilitation and project implementation

Gas Flaring – Magnitude of the Issue



- ▶ An estimated 140 billion cm of gas is being flared globally each year
 - Approx. 20% of US gas consumption
 - \$30 – 35 Billion per year loss value
- ▶ Approx. 360 million tons of carbon dioxide into the atmosphere each year
 - Annual emission from 77 million cars
 - Output from 125 medium sized coal power generation plants
- ▶ Potential risk of increased gas flaring
 - Oil production increases (Iraq)
 - New producing countries
 - Oil Shale and gas shale production



GGFR Partners



Countries/(NOCs)

Algeria (Sonatrach)
 Angola (Sonangol)
 Azerbaijan (SOCAR)
 Cameroon (SNH)
 France
 Gabon
 Indonesia
 Iraq
 Kazakhstan
 Khanty Mansiysk
 (Russia)
 Kuwait KOC
 Norway
 Mexico /Pemex
 Nigeria
 Qatar (QP)
 Rep. of Congo
 Uzbekistan
 Yamal Nenets (Russia)
 USA

Oil companies

BP
 Chevron
 ConocoPhillips
 Eni
 ExxonMobil
 Shell
 Statoil
 TOTAL

Associated Partner

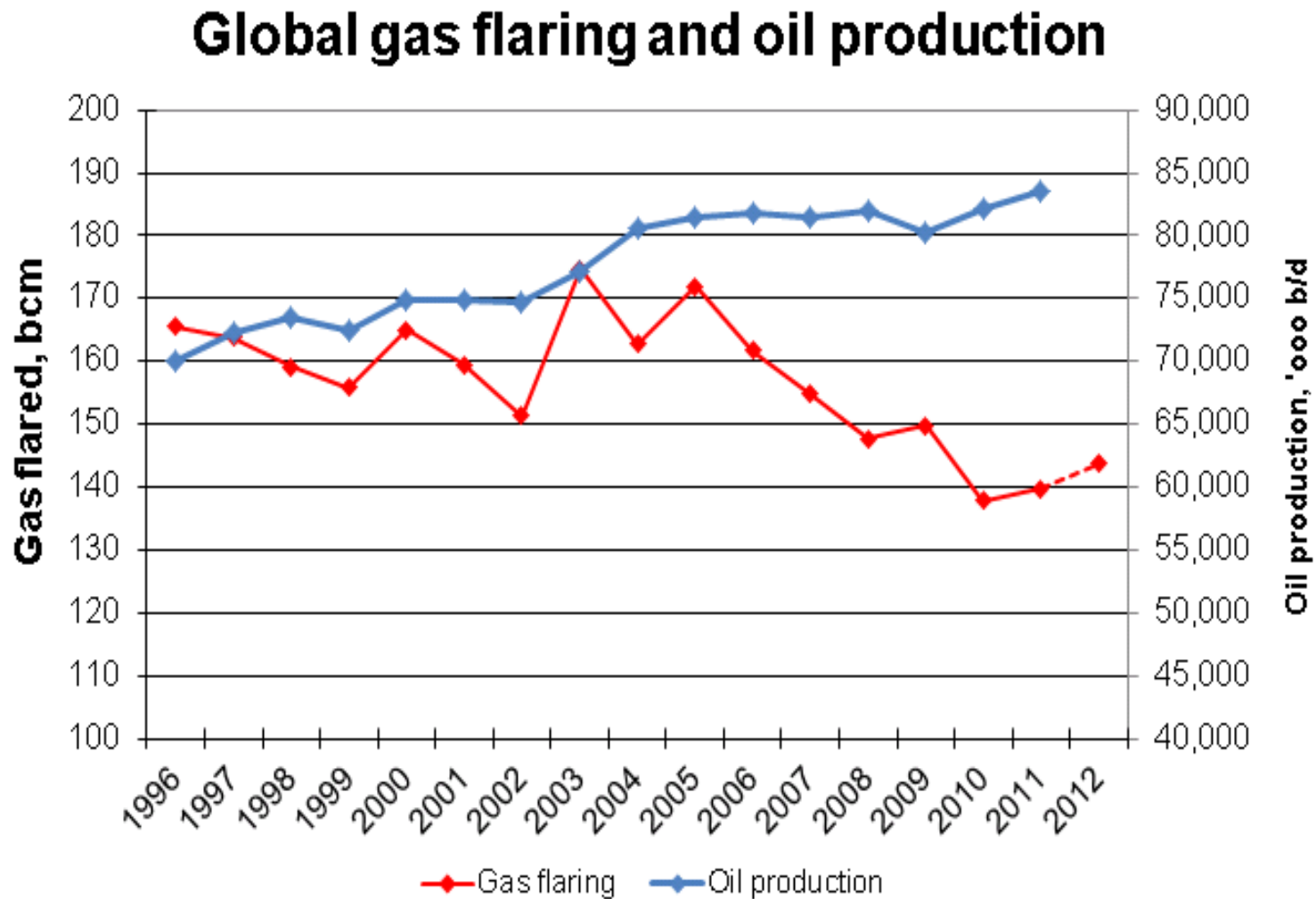
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Organizations

The World Bank
 EBRD
 EC



Global estimates based on satellite imaging



Source : NOAA, BP Statistics

GGFR - Key Achievements - Global



- **20% decrease in global gas flaring the past seven years**
- **Increased Global awareness and understanding of the gas flaring and venting issues**
 - 4 Regional conferences
 - 4 Global Forums, latest in London 2012
- **New Regulations on Gas Flaring in many countries**
 - “No flaring” laws in Russia, Angola, Kazakhstan, Gabon, Cameroon
 - New laws being progressed in Indonesia, Nigeria, Gabon, Qatar, Iraq
- **Global Standard for gas flaring reduction**
 - Endorsed by GGFR Partners
 - No venting
 - No Flaring in New projects
 - Eliminate continuous flaring from existing production
 - Gas Flaring Reduction Plans (AGRP/CIP)

Subject to economic test

GGFR - Key Achievements – Projects



- **Identification and Development of Gas Utilization Projects**
 - Angola, Nigeria, Kazakhstan, Qatar, Uzbekistan, Azerbaijan, Gabon, Cameroon
- **Development of tools to monitor and measure the flaring**
 - Satellite images in partnership with NOAA
 - Improvement of metering and estimating tools and methodologies (Qatar, Russia, Kazakhstan, Mexico...)
- **Improvement of understanding of CDM and Carbon Credit Mechanisms**
 - Russia (Rosneft Gas Flaring Reduction Project)
 - Nigeria (Kwale)
 - Uzbekistan
- **Improvement of small scale gas utilization technologies**
 - Review on existing and new technologies
 - GTL study

GGFR Scale up efforts 2013-2015



- ▶ **The work program launches a more holistic approach along the whole gas value chain**
- ▶ **Deepen GGFR's work in partner countries - more focus on:**
 - Both upstream and downstream
 - Champion the identification of, and help to advance gas utilization projects
 - Assist governments in drafting fair, balanced and efficient regulations
 - Work with governments and companies to develop gas markets and infrastructure to provide outlets for gas currently being flared
 - Increased energy access - SEFA
- ▶ **Global activities and Networks:**
 - ▶ Technical, Communication and Carbon Finance Networks
- ▶ **Work with the Climate and Clean Air Coalition on methane and black carbon from gas flaring, Microgaz on cook stoves**

EXAMPLES OF COUNTRY PROGRAMS

Nigeria: Satellite image 2010 flaring



Significant volumes of gas are still being flared

Source: NOAA

Nigeria

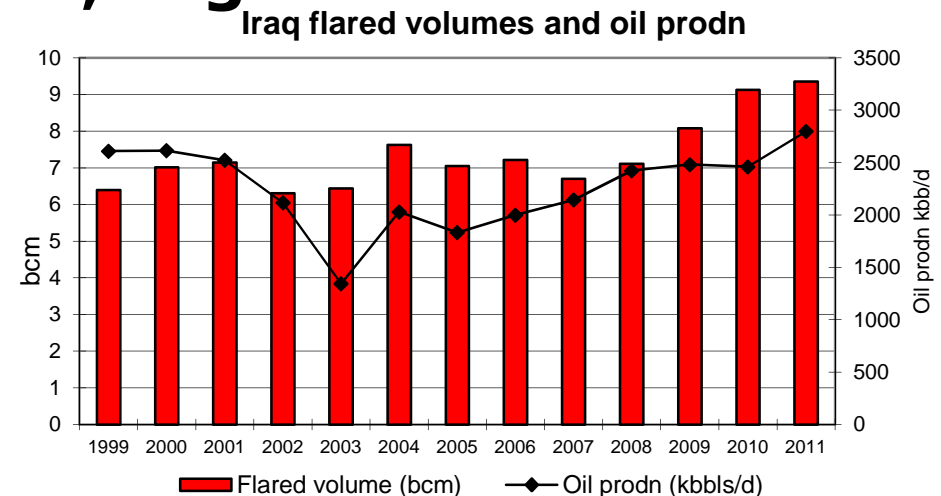


- **Support for World Bank “Nigeria Electricity & Gas Improvement Project”**
 - Provide technical support, using synergies with Bank operations
 - Develop database of gas supply plans for power and other gas utilization projects
 - Identify and pursue opportunities for GGFR facilitation to increase gas supply and maximize use of associated gas
- **Small-scale gas utilization**
 - Investigate multiple potential projects using multiple gas sources, continuing into detailed design (technical and commercial)
- **Nigeria Flare Reduction Committee**
 - Continue to support the activities of the NFRC

Iraq



- **Counterpart: Ministry of Oil**
- **National Energy Strategy (INES) study being completed**
- **Gas Pricing Study**
- **Gas commercialization, regulation and institution study**
- **Further scope:**
 - Gas Master System
 - Capacity building
 - Institution reinforcement



Russia



- Working with the Government of Khanty-Mansiysk Autonomous Okrug (KMAO) and the Government of Yamal-Nenets (YNAO)
- Activities are focused on further reduction of associated petroleum gas flaring and venting, and on economic assessment of flared gas utilization options and technologies
- Within the framework of the signed agreements assist to:
 - improve quality of flaring data
 - strengthen procedures for measurements
 - identify flaring reduction projects
- GGFR team continues its dialogue with subnational governments of oil and gas producing regions on potential cooperation on flared gas reduction.

Technical Network



The GGFR Technical Network meets virtually, delivering a number of reports:

- Small-scale Gas-to-Liquids study
- Small-scale power generation using associated gas

In 2013, it is proposed that the Network will address:

- Reporting of flare gas volumes
- Flare efficiency/black carbon emissions
- Flaring definition and flaring/venting standards
- Further options for utilization of small-scale associated gas (including an update on GTL technologies)

GGFR vision



Thank you for your attention
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