



GLOBAL METHANE INITIATIVE MIDDLE EAST MEETING

Scaling Up Global Gas Flaring Reduction

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GGFR



- Created in 2002 at the World Summit on Sustainable Development in Johannesburg
 - 10 years anniversary in 2012 (Global Forum in London on Oct 24-25th)
- Main Objectives:
 - Reduce carbon emissions and environmental impact of flaring
 - Improve energy efficiency and access to energy
- <u>Means:</u>
 - World Bank led Public Private Partnership to facilitate gas flaring reduction
 - Phase 4 just approved by partners (2013-2015)

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

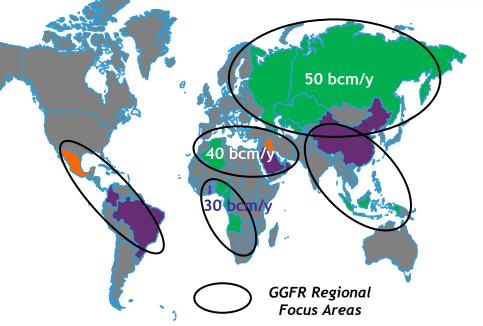


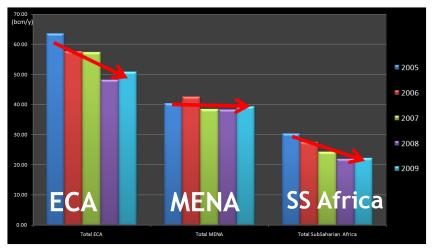
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Global Flaring

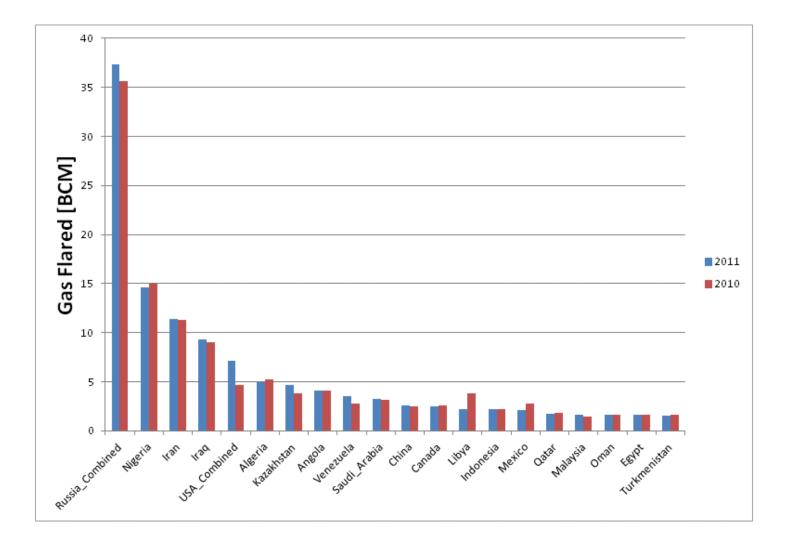
GCGER Global Gas Flaring Reduction A Public Private Partnership

- 140 bcm of gas flared globally
 - Annual gas use of Italy and France combined
 - $\circ~$ 5% of world gas production
- **360 million tons of carbon** dioxide into the atmosphere
 - o 2/3 of CERs issued by the existing registered projects under the Kyoto mechanisms
 - Emissions of 77 million cars
- Risk of upcoming increase in gas
 flaring
 - Oil production increases (Iraq)
 - New producing countries
 - o Oil Shale and gas shale production





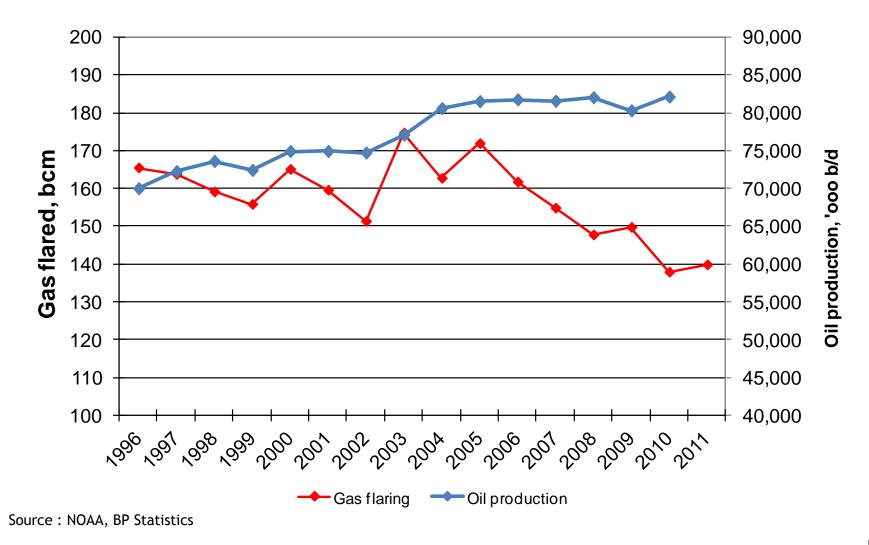
20 top flaring countries





Global flaring - satellites figures





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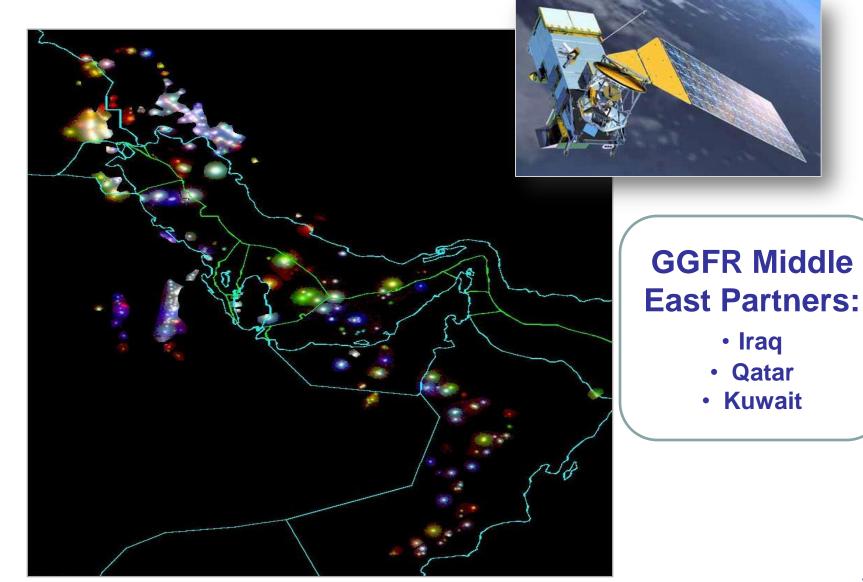
GGFR - Main Activities



- Phase 1 to 3:
 - Raise Global Awareness
 - Develop monitoring and measurement tools
 - Develop Regulations
 - Develop Gas Flaring Reduction Plans (AGRP/CIP)
 - Identify and Develop Gas Utilization Projects
 - Improve understanding of CDM, Carbon Finance Mechanisms and financing tools
- Phase 4 (2013-15):
 - Scaling up above activities
 - Increased focus on the gas value chain (including infrastructures and markets)

Middle East

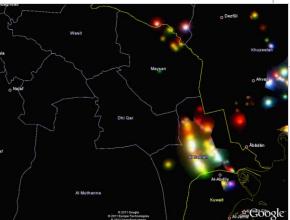


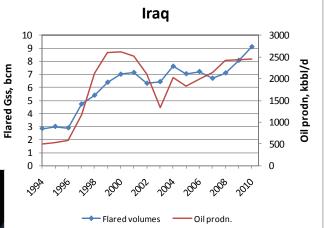


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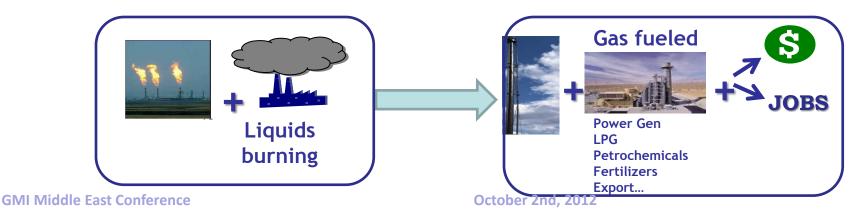
Associated Gas: The fuel for Iraq development

- Iraq burns more than half its gas production (9bcm/y)
- Rapid increase with the oil production ramp up
- This gas could
 - fuel all the missing power generation in the country
 - feed job creating industries
 - provide LPG
 - generate export revenues





A Public Private Partnership





Attract investors

- Large investments needed to separate, treat, compress the gas
- Ex BGC

Develop mid stream (infrastructure) and downstream (markets)

- Gas lines network
- Power generation, LPG market, Industry, Export

• Set up/reinforce gas institutions, and regulations

- National Gas Company(ies)
- Setting up strategy, priorities, objectives, planning
- Regulation (Gas Pricing, Transportation, Standards, Safety,...)
- Contracts management, relationship with investors

World Bank and GGFR proposed support areas

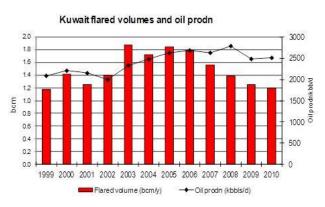
Kuwait



- Kuwait joined GGFR in summer 2011
 - Signature ceremony in March 2012, with press coverage
- Technical mission in March 2012 to
 - Review KOC facilities
 - Identify opportunities to reduce flaring below 1% of inlet gas
 - Define the "Technical Limit" to Gas flaring reduction

Remaining Work Program

- Build up on the results of the technical mission
- Regulation
- KGOC in Divided Zone



KOC Gas Flaring Over The Years



Qatar

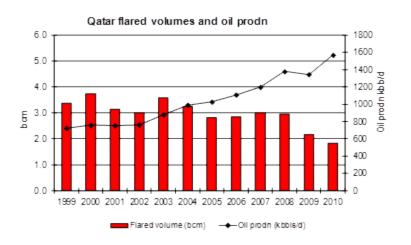


Qatar's commitment to flare reduction

- National Strategy for 2016 sets out clear objectives to halve flaring intensity compared to 2008 and develop monitoring tool
- Several major Gas flaring reduction projects: Al Shaheen, Jetty Boil off gas, Qatargas, Rasgas...

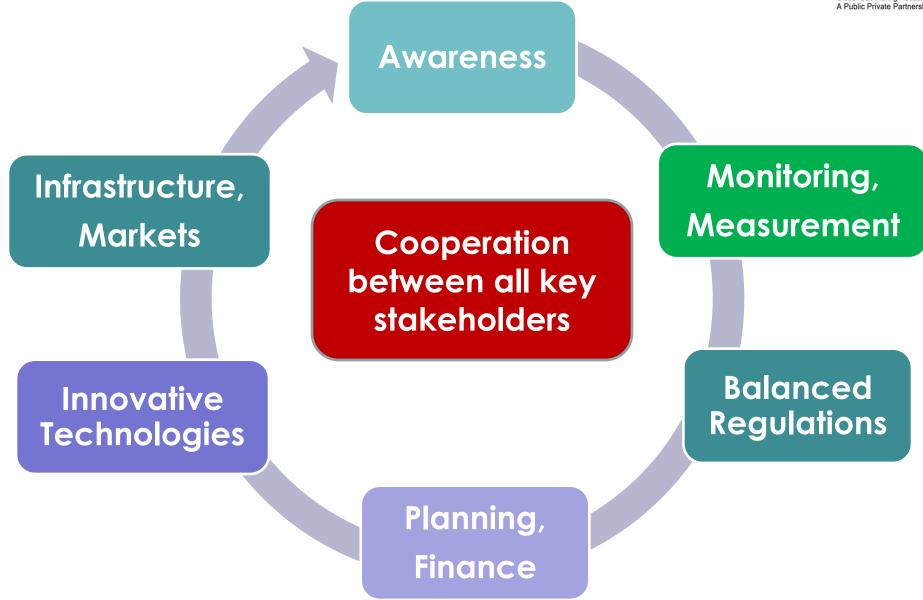
Work Program

- Review Operators Flare Reduction Plans
- Identify and prepare Flare Reduction Pilot
- Complete gas flaring regulation
- Develop Flaring Database



Gas Flaring Reduction - Key success factors

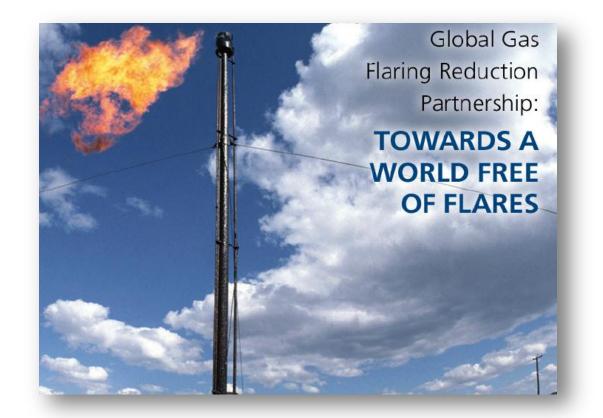




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GGFR's Vision is...







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