



Global Gas Flaring Reduction
A Public Private Partnership

Top News Flared in This Issue:

- ✓ **Gulf Countries, GGFR Discuss Potential Areas for Collaboration**
- ✓ **Ecuador Endorses Gas Flaring Standard**
- ✓ **GGFR Calls on Latam to Join Gas Flaring Reduction Efforts**
- ✓ **BBC's Earth Report Features Documentary on Gas Flaring**
- ✓ **G8 Supports GGFR to Reduce Flaring to Minimum Levels**
- ✓ **In the Pipeline: Russia, GGFR to Host Gas Forum**
- ✓ **Briefly Vented**

The News Flare

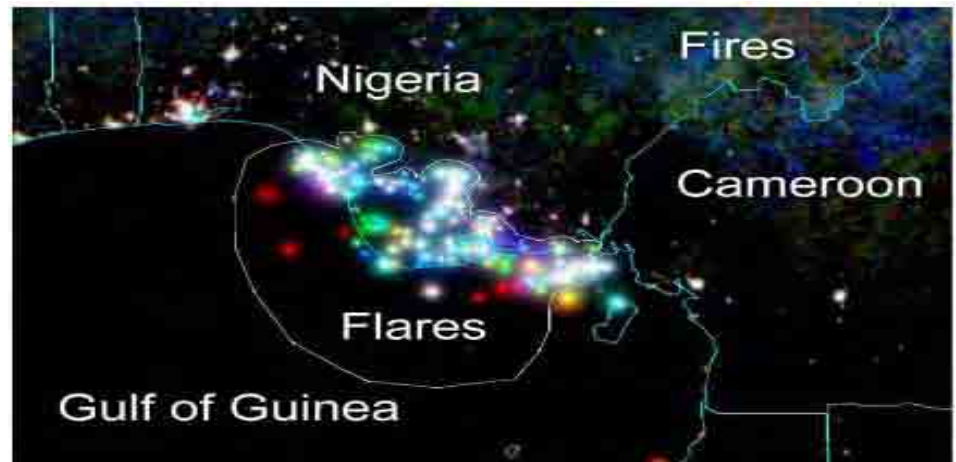
Issue No. 4, January-May 2007

GGFR Reaches Out to Other Countries

Re-energized by a successful Global Forum on Gas Flaring Reduction held last December in Paris, where about 300 representatives from the public and private sectors met to discuss ways of reducing gas flaring across the globe, the World Bank-led Global Gas

reduce gas flaring, starting in 2007. While France has already officialised its donor status, the EU has yet to formally complete the process.

Second, GGFR has visited the Gulf countries to explore different ways in which these countries and GGFR partners could collaborate and



Satellite photo of flares

Flaring Reduction partnership is moving forward with its plans to enlist more support from various countries and companies as a way of rolling out its work program for the period 2007-2009.

First, GGFR partners extend a warm welcome to France and the European Union which have decided to join and support GGFR's efforts to

make further progress in gas flaring reduction. GGFR representatives met with counterparts in Oman, Qatar, UAE, Saudi Arabia, and Kuwait. The conversations were fruitful, and it is expected that some of these countries will join the GGFR initiative sometime this year. Further, some of the Gulf countries' representatives will be participating

This newsletter is prepared by the GGFR core team in Washington, DC. Any comments, suggestions or contributions from any of the GGFR partners are very welcome and should be sent to Mauricio Rios at: mrrios@worldbank.org

For more information, visit our website at www.worldbank.org/ggfr

at a pre-steering committee workshop to be held in Rome during the third week of June.

Third, Russia has sent positive signals regarding its stance on gas flaring. In his address to the Nation, President Vladimir Putin said that gas flaring was “unacceptable” and acknowledged that Russia was burning more than 20 billion cubic meters of natural gas, which is more than the reported official figures. As another sign that Russia is taking this matter seriously, the State parliament (the Duma) and the federal Ministry of Industry and Energy have decided to co-organize with GGFR a forum on

gas flaring reduction focusing on the Russian situation. This progress is certainly welcomed.

Fourth, GGFR was also active on the Latin American front. The partnership participated at the regional Gas Summit 2007 last May in Sao Paulo, where it made a presentation on global gas flaring and aimed to raise the visibility of this issue and the partnership. The GGFR team also met with representatives from Petrobras, the Ministries of Energy, Environment, Science and Technology, and the regulatory agency.

And last, but not least, NOAA National Geophysical Data Center, answering a request by GGFR, has produced a series of national and global estimates of gas flaring volumes spanning a twelve year time period (1994 through 2006). While further work is necessary to reduce the uncertainty in the satellite estimates, they will certainly help to provide more clarity on the data front, so that governments and companies can better assess and understand the magnitude of gas flaring around the world. The report is being finalized and will be presented in the coming weeks.

Country Updates

GGFR, Gulf Countries Discuss Potential Areas for Collaboration

GGFR’s work program for 2007-2009 will focus on high impact regions. The Middle East is one of those regions, and GGFR has been



Dubai

promoting the Partnership through two visits to the region over the past six months. The main objectives of these visits included: to assess whether or not gas flaring was still an important issue in the Gulf Cooperation Council countries (GCC); to improve flaring numbers’ collection in different countries; to invite other GCC countries to join the gas flaring reduction efforts led by GGFR; to explore if World Bank/GGFR could facilitate any regional gas utilization discussions and potential projects; and

to facilitate a roundtable discussion with the GGFR partners based in the region. The GGFR delegation met with representatives from Oman, Qatar, UAE, Saudi Arabia, and Kuwait.

In UAE, the GGFR team met with Abu Dhabi Future Energy Company representatives. This company is executing the “Masdar” initiative, part of the Abu Dhabi “Mubadalah” (Offset program) which is a \$200 million fund focusing on the promotion of clean, renewable, and new sources of energy and CO₂ management. Masdar has established a specialized Carbon Management Unit which focuses on developing CO₂ emission reduction projects. There seems to be a strong possibility for collaboration between Masdar and GGFR on CDM-related projects.

Oman, which emerged as a regional example because of the progress made in flaring reduction, proposed to host a regional gas flaring conference later in 2008.

In Saudi Arabia, GGFR met with high-level representatives of the Ministry of Petroleum and Mineral Resources, which showed a lot of interest in GGFR’s mission and work program. It is likely that the Ministry will advise Saudi Aramco to join the Partnership.

From all the conversations it became clear that gas flaring still is a major issue in the region, especially in



GCC & GGFR Representatives

countries like Kuwait, where authorities are concerned about the health implications, particularly from the usage of heavy fuel oil to produce electricity which contributes to local pollution and related diseases.

GGFR Calls on Latin America to Join Global Efforts

In May GGFR met with various Brazilian stakeholders to advance gas flaring reduction efforts in that country and the Latin American region. The objectives of the visit were: to promote gas flaring reduction during the 4th annual Gas Summit Latin America in Sao Paulo; and to reengage relevant Brazilian stakeholders and discuss their potential participation in GGFR’s global efforts to reduce gas flaring.

As part of the activities in Sao Paulo, GGFR held a press briefing at the Gas Summit in Sao Paulo where it

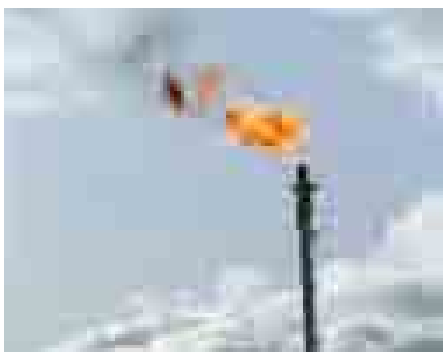
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called on Brazil, Venezuela, and Mexico to join the gas flaring reduction efforts. It also hosted a booth to disseminate information about the GGFR partnership, gave a presentation at the plenary session, and participated in a panel discussion on gas-related issues. The GGFR team then met with representatives from Petrobras, the Ministry of Science and Technology, the Ministry of Mines & Energy, the National Energy Regulator-ANP, Olade, and some of GGFR partners based in Brazil.

Ecuador Endorses GGFR's Flaring Standard

Ecuador's national oil company along with the Ministries of Environment and Energy officially endorsed GGFR's Standard for Flaring and Venting Reduction, last January in Quito, during a Clean Development Mechanism (CDM) technical assistance workshop organized by PetroEcuador and supported by both GGFR and Methane to Markets (M2M).

PetroEcuador has indicated that they would like to implement the data tool and develop national associated gas recovery plans, also known as Country Implementation Plans, under the voluntary Standard. GGFR is



also helping PetroEcuador to prepare three flaring reduction Project Idea Notes (PINs) that would motivate further investments for recovering and utilizing associated gas.

BBC's Earth Report Features Documentary on Gas Flaring

BBC World ran a documentary on gas flaring featuring interviews with several GGFR partners and other stakeholders. The documentary, produced by Television for the Environment for BBC's Earth Report, attempts to describe some of the main issues around gas flaring reduction and looks into potential solutions in countries like Nigeria and Russia, two of the biggest flaring countries in the world. The documentary also shows that gas flaring reduction is not only relevant in today's climate change debate, but it is also viable given the progress made by some of the GGFR partners, and it is certainly desirable as a concrete contribution to reducing greenhouse gases and mitigating the impact of global warming and climate change.

"Billion Dollar Bonfire" was broadcast on BBC World on Saturday May 12 and Sunday May 13. The potential audience reached was 282 million households across 142 countries. To order a copy of the gas flaring documentary, please visit: www.tve.org

G8 Supports GGFR to Reduce Flaring to Minimum Levels

The Group of most industrialized countries (G8) has expressed explicit support for GGFR's mission and flaring reduction programs in its final communiqué released in Heiligendamm, Germany, last June 8. GGFR is mentioned under the broader section titled Climate Change, Energy Efficiency and Energy Security. The G8 communiqué says that: "We reaffirm our support of the efforts of the Global Gas Flaring Reduction Partnership (GGFR) and we commit ourselves to reduce to minimal levels natural gas flaring, and to encourage all oil producing states and private sector stakeholders to do likewise." GGFR partners certainly welcome

this support and commitment, and look forward to work more closely with all G8 countries to achieve the goal of reducing gas flaring to minimal levels.

Canada, Chevron Make Progress with Gas Flaring Plans

Essential elements of the GGFR "Standard", a stakeholder engagement process promoted by the GGFR partners to assist countries and companies in reducing gas flaring, are the Associated Gas Recovery Plans (AGRPs) and Country Implementation Plans (CIPs). The AGRPs, developed by each company, contain detailed plans for reducing gas flaring and utilizing the associated gas. The CIPs are national plans, typically created through integration of individual company AGRPs combined with policy initiatives to reduce gas flaring.

GGFR is pleased to record that the first AGRP has been delivered by Chevron, and the first CIP has been delivered by the Provinces of Canada. GGFR welcomes this progress, and encourages all its partner companies and countries to keep working on producing these gas flaring reduction plans.

Afam Gas to Power Methodology Submitted

Shell Nigeria recently submitted a proposed New Methodology to the CDM Meth Panel regarding the Afam Gas to Power project, one of GGFR's demonstration projects. The proposed new methodology will help claim emission reductions in electricity grids with a capacity deficit met by off-grid generation, which is the prevailing and main characteristic of the power system in Nigeria.

No emission reduction credits are being claimed for the upstream under this methodology since it is very difficult to measure the quantities of associated flared gas that would go into the power plant. However,

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projects that use this new methodology will help to reduce gas flaring by absorbing some associated gas, which would have been otherwise flared.

Indonesia: Tambun LPG Submitted for Validation

The Tambun LPG Associated Gas Recovery and Utilization project was recently submitted for its validation under the UN's Clean Development Mechanism (CDM). This project aims to construct the processing and transport infrastructure to take gas, otherwise flared, into a new mini LPG facility. The project applies methodology AM0009. The GGFR Indonesia Associated Gas Survey, finalized in 2006, helped strengthen the baseline case for this LPG project.

The expected CO₂ emission reductions are 357,000 tones per year. Another noteworthy aspect of

this project is that, unlike most other flaring reduction Project Design Documents, this one attempts to demonstrate additionality by presenting the investment leverage from CDM revenues on financial robustness rather than from a barrier analysis. According to the project document, revenues from the sale of Certified Emission Reductions moved the IRR from a very marginal 10% to 28%.

Russian Inks Kyoto Rules for Carbon Credits

Russian Prime Minister Mikhail Fradkov on May 28 signed the governmental decree that opens the door for Russia to host projects that generate carbon credits, establishing rules that govern the use of these credits under the Kyoto Protocol.

Russia is tipped as the world's largest provider of carbon credits

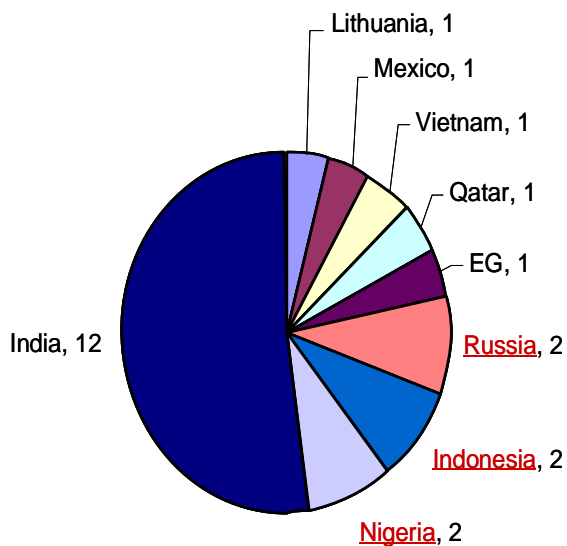
under the Kyoto Protocol's joint implementation (JI) mechanism, but project development has been halted until now by the lack of a domestic framework for approving projects.

So far, there are 33 Russia-based Joint Implementation (JI) projects in the pipeline of the UNFCCC. According to project design documents, these have the capacity to generate a total of 73.8 million tons of carbon credits. Russian developers of JI projects have been awaiting the decree as it is an essential step in the regulatory process for JI projects in Russia.

Carbon-emissions trading, established in the 1997 Kyoto Protocol's mechanisms, allows parties to earn credits for cutting down on pollution in developing countries and economies in transition. According to World Bank figures, trading in emission credits almost tripled last year to \$30.1 billion.

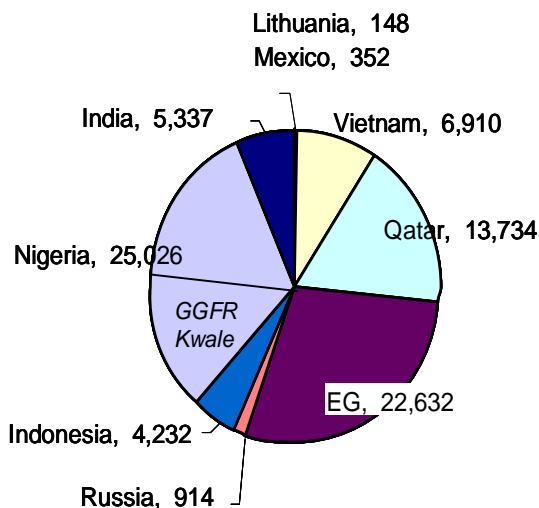
CDM/JI Flaring Reduction Projects Worldwide

Projects by country registered or in validation



Out of a total of 23 projects, 3 were sponsored by GGFR (as of June, 2007)

Expected emissions reduced from 23 projects by country (tMCO₂e < 2012)



Only 3 projects registered (Vietnam, Nigeria and Qatar)

In the Pipeline

Russia, GGFR to Host Gas Forum

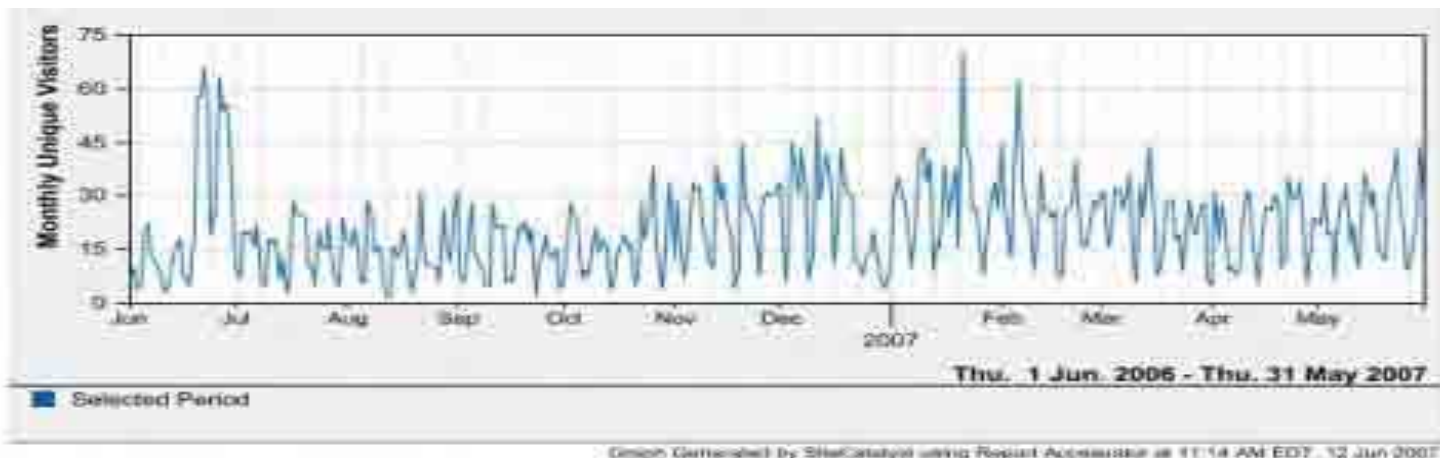
The World Bank's GGFR partnership has agreed to co-host a Forum on "Associated Gas Utilization in Russia" in joint cooperation with the State Duma Committee on Energy, Transport and Communications, the Ministry of Industry and Energy, and the Union of Russian Oil and Gas Producers. The goal of the Forum is to provide an opportunity for all the relevant stakeholders to discuss and agree on conditions and related regulatory measures necessary to increase associated gas utilization in Russia. GGFR and its Russian co-hosts are currently working on the Forum's agenda. The Forum will be held in Moscow on October 9-11th this year, and it will be co-financed by the GGFR and the Union of Russian Oil and Gas Producers.

Satellite Data: A 12-Year Record of Estimated Flaring Volumes

NOAA National Geophysical Data Center, in collaboration with GGFR, has produced a series of national and global estimates of gas flaring volumes spanning a twelve year time period (1994 through 2006) and using low light imaging data acquired by the Defense Meteorological Satellite Program (DMSP). The report is in the final stages of being finalized, and will be released in the coming weeks. The production of this report also included the participation of NOAA's Earth Observation Group, the Cooperative Institute for Research in the Environmental Sciences at the University of Colorado, the Aerospace Corporation, and the Foundation of California State University.

GGFR Web Site Statistics

The peak in visits in February coincides with the release of information for the GGFR Global Forum, indicating a high degree of interest in the materials generated by the Forum.



Briefly Vented

Petrobras and GGFR: Petrobras has agreed to jointly organize with GGFR a flaring reduction workshop to be held in the coming months. The workshop will help raise awareness and support for this issue, and will foster the exchange of ideas and potential solutions to reducing flaring in Brazil, particularly for offshore and early production operations.

Angola Ratifies Kyoto: As a result of GGFR support to Angola, the National Assembly on March 2 authorized the Angolan Government to adhere to the Kyoto Protocol of the United Nations Framework Convention on Climate Change (UNFCCC) in order to join in the fight against global warming.

Black & Veatch: Black & Veatch Corporation (B&V) invited GGFR to its headquarters in Kansas City last April to participate in a meeting regarding a potential cooperation project between Jamaica, Trinidad and Tobago, and Venezuela to utilize associated gas that is currently being flared, and use it as LNG in Jamaica. GGFR participated at the meeting because of its experience in facilitating regional cooperation in gas utilization, and its knowledge in flaring reduction and associated gas commercialization.

GGFR Partners include: Algeria (Sonatrach), Angola, Cameroon, Canada (CIDA), Chad, Ecuador, Equatorial Guinea, France, Indonesia, Kazakhstan, Khanty-Mansiysk (Russia), Nigeria, Norway, U.K. Foreign Commonwealth Office, United States; BP, Chevron, Eni, ExxonMobil, Marathon, NorskHydro, Shell, Statoil, Total; OPEC Secretariat, World Bank.