



Gas Flaring in Nigeria: an Overview April 2010



What is Flaring?

Gas flaring refers to the burning of natural gas that is associated with crude oil when it is pumped up from the ground. In petroleum-producing areas where insufficient investment was made in infrastructure to utilize natural gas, flaring is employed to dispose of this associated gas. In Nigeria, when oil companies began production in the 1960's, the cheapest way to separate the identified product, crude oil, from the associated natural gas was to burn the gas.

Gas flaring not only wastes a potentially valuable source of energy (natural gas), it also **adds significant carbon emissions to the atmosphere**. Moreover, flaring combustion is typically incomplete, **releasing substantial amounts of soot and carbon monoxide**, which contribute to air pollution problems. An array of technologies to capture or use the associated natural gas exist as viable alternatives to flaring. It can be **reinjecte**d, which boosts oil production and contains the gas; **transported** via gas

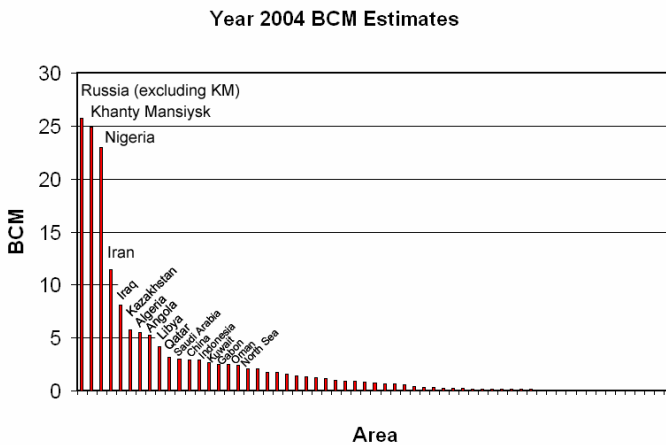
pipelines; **converted to liquids** that can be more readily transported; or **used on site**. Note that most Nigerian villages lack electricity and access to fuel for vehicles.

Gas flaring

- threatens **global health** by emitting significant volumes of greenhouse gases which contribute to climate change;
- threatens **local health** by emitting toxins that poison local villagers, their lands and rains.

Global impacts from flaring and how Nigeria stacks up

Nigeria is the second largest offending country, after Russia, in terms of the total volume of gas flared. In 2004 Nigeria's volume of gas flared was equivalent to one-sixth of total gas flared in world. Globally, the volume of gas flared between 1996-2006 (during which time awareness of the detrimental impact of flare emissions on the global climate grew) remained relatively constant, ranging between 150-170 billion cubic meters (BCM). Nigeria's share of the total volume is approximately 24.1 BCM of gas. (By comparison, the U.S. flared 2.8 BCM during the same time period.)



"A Twelve Year Record of National and Global Gas Flaring Volumes Estimated Using Satellite Data," Final Report to the World Bank, May 30, 2007, Figure 13, available at http://siteresources.worldbank.org/INTGGFR/Resources/DMSP_flares_20070530_b-sm.pdf

NPR's Ofabia Quist-Arcton has reported that according to some experts, eliminating global flaring alone would curb more CO₂ emissions than all projects currently registered under the Kyoto Protocol's Clean Development Mechanism.ⁱ

Local Health Impacts

Shamefully, oil companies in Nigeria engage in gas flaring, as a 24 hour-a-day, 365 day-a-year practice, burning the associated gas that comes out of the ground when oil is extracted. Some of these flares have burned without cessation for 40 years. People live literally next door to the roaring, ground-level flares that leap as high as a several-story building and belch black clouds of toxic smoke in the middle of, or next door to, their villages. These flares are large enough to be viewed on Google Earth. Gas flaring harms local health through emissions that have been linked to cancers, asthma, chronic bronchitis, blood disorders, and other diseases. These human health problems affect the people of the communities where oil companies operate, such as the Niger Delta, where 20 million people live with little to no health care access.

Gas flaring causes acid rain, which impacts soil fertility and is associated with reduced crop yields, causing hunger in the Niger Delta where fish populations already have declined due to pollution by oil companies. Acid rain eats through villagers' roofs that protect local residents from rain. Impoverished villagers have little means to replace their roofs more frequently.

It is clear that the local health impacts—causing illnesses, hunger and damage to property—of flaring are immoral.

Flaring Gas is Illegal in Nigeria

The first order by a Nigerian head of State related to flaring was in 1969 when President Yakubu Gowon ordered that within 5 years of set-up, a company must cease flaring. This order was ignored. Through the Associated Gas Re-Injection Act No. 99 of 1979, the Nigerian government required oil corporations operating in Nigeria to guarantee zero flares by January 1, 1984. Oil companies nonetheless have continued to flare gas, merely paying nominal fines for breaking this law.

The Act allowed some conditions for specific exemptions or the payment of a fee of US \$0.003 (0.3 cents) per million cubic feet, which increased in 1988 to US \$0.07 per million cubic feet, and in January 2008 to US \$3.50 for every 1000 standard cubic feet of gas flared. This is still considered meager and not a deterrent for companies, which find it easier to just pay the fine.ⁱⁱ

Subsequent federal Nigerian legislation repeatedly pushed back the deadline to end gas flaring absolutely—in other words, such that it would require companies to cease flaring and discontinue the policy of allowing them to pay a fine for continuing to flare—most recently to year-end 2007, then 2008, then 2010. As of January 2010, the Nigerian National Assembly was proposing a new deadline of 2012.

In 2005 the federal High Court of Nigeria ruled flaring by Shell and the NNPC, with which oil in Nigeria companies jointly operate, illegal and a violation of the rights to life and dignity.ⁱⁱⁱ

Chevron's Operations



With its headquarters in San Ramon, California, the Chevron corporation is a particular focus of JINN's corporate accountability work. In 2008 approximately 10% of Chevron's global crude oil operations were in Nigeria. In 2009 Chevron produced on average 225,000 barrels of crude oil and 48 million ft³ of natural gas a day in Nigeria.^{iv} In 2008 the Delta accounted for 83% of this crude oil and 85% of this natural gas.^v

Chevron Corporation flares gas most heavily in Kazakhstan, Angola, and Nigeria. Flare emissions in Nigeria are the highest or perhaps second-highest in the world.^{vi} Among all oil companies operating in Nigeria, **Chevron is among the worst offenders, flaring over 84% of its gas in 2008.**^{vii}

Although gas flaring has been illegal in Nigeria for decades, Chevron and other oil companies repeatedly flout Nigerian legislative deadlines, paying nominal fines for breaking the law. Chevron is resisting payment of the increased fine.^{viii}

Additional Resources:

Forthcoming Alternative Annual Report to the Chevron Shareholders to be published and available May 2010. See www.justiceinnigerianow.org.

Stakeholder Democracy Network, "Gas Flaring in Nigeria: Towards an Alternative Solution," <http://www.stakeholderdemocracy.org/index.php?page=123>

The Independent [UK] article, "Visible from Space, Deadly on Earth: The Gas Flares of Nigeria," Apr. 27, 2010, <http://www.independent.co.uk/news/world/africa/visible-from-space-deadly-on-earth-the-gas-flares-of-nigeria-1955108.html>

Benoit Faucon, "A Lack of Flare: Nigeria hopes that by stopping oil companies from burning off natural gas, it will also help quell domestic violence," *Wall Street Journal*, Oct. 19, 2009, <http://online.wsj.com/article/SB10001424052970204044204574360311862880796.html>

International Institute for Environment and Development (IIED), "Access to Sustainable Energy: What Role for International Oil and Gas Companies? Focus on Nigeria," June 2009, <http://www.iied.org/pubs/pdfs/16022IIED.pdf>.

Lars Johansson, "Poison Fire [video]," 2008, available at <http://www.poisonfire.org/poison-fire-movie>

National Public Radio (NPR), Gas Flaring Disrupts Life in Oil-Producing Niger Delta, Jul. 24, 2007, <http://www.npr.org/templates/transcript/transcript.php?storyId=12175714>

"A Twelve Year Record of National and Global Gas Flaring Volumes Estimated Using Satellite Data," Final Report to the World Bank, May 30, 2007, http://siteresources.worldbank.org/INTGGFR/Resources/DMSP_flares_20070530_b-sm.pdf

ⁱ National Public Radio (NPR), Gas Flaring Disrupts Life in Oil-Producing Niger Delta, Jul. 24, 2007, <http://www.npr.org/templates/transcript/transcript.php?storyId=12175714>.

ⁱⁱ Environmental Rights Action, Gas Flaring: Assaulting Communities, Jeopardizing the World, Dec. 10-11, 2008, at 6.

ⁱⁱⁱ *Gbemre v. Shell*, Federal High Court of Nigeria, FHC/B/CS/5305, Judgment of Nov. 5, 2005; *see also* Friends of the Earth, Court Orders Companies to Stop Gas Flaring in Nigeria, Nov. 14, 2005.

^{iv} Chevron 2009 Annual Report.

^v Chevron 2008 Annual Report supplement.

^{vi} World Bank Gas Flaring Reduction Partnership, "Regulation of Associated Gas Flaring and Venting: A Global Overview and Lessons from International Experience," World Bank, Report No. 3, Apr. 2004 (Nigeria as country with most gas flaring); Osuaka, Isaac Asume, Social Action Social Development Integrated Centre, "Flames of Hell: Gas Flaring in the Niger Delta," 2009 at 6 (Nigeria among the top two offenders).

^{vii} Nigerian National Petroleum Corporation, 2008 Annual Statistical Bulletin, Table 10.

^{viii} *Id.* (citing statements by Chevron official Charles Adeniyi at a public hearing on flaring at Nigeria's National Assembly).