



oil & gas

GREENHOUSE GASES

DISASTERS

BIODIVERSITY

SEVERE ENVIRONMENTAL IMPACTS

GLOBAL

OIL & GAS

MDG

**extractive industries:
blessing or curse?**

Gas flaring in Nigeria: wasting environment, wasting development, wasting life

Enormous amounts of natural gas are often released into the atmosphere during the production of oil. In Nigeria, oil companies, such as Shell, ExxonMobil and Chevron, burn off this gas as a way of 'reducing' costs – this is known as gas flaring. The CO₂ emissions released through flaring are equivalent to that produced by two million northern European households. Gas flaring wastes energy that Nigerians could harness for their development and instead damages the local environment and the health of the local communities.



Shell gas flare, Nigeria.
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Shell gas flare, Rumuekpe, Nigeria.
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Due to gas flaring, Nigeria will fail to achieve Millennium Development Goal (MDG) 7, which aims to 'ensure environmental sustainability' and MDG 8, 'to develop a global partnership for development'.

history of oil in nigeria

Oil production has been taking place in Nigeria since the late 1950s. Oil companies state that gas flaring is practical as it is cheaper than piping gas to areas where it could be utilised by other industries, in power plants or for exportation. The gas could be used locally to produce electricity and purify drinking water, thereby contributing to Nigeria reaching MDG 1, 'the eradication of extreme poverty'.

In Nigeria, gas flaring doubles the amount of CO₂ released in oil production, these flares need to be culled³. In the 1990s oil companies made a commitment to stop flaring gas in Nigeria. Despite repeating this promise in 2005, 2008 and 2009, the flares have not been put out. Half of the reduction of flaring by Shell in the last ten years was only achieved as a result of closure of some of the company's oil wells due to the pressure from the Ogoni, a Nigerian indigenous group.

the data

As the table below shows, gas flaring in Nigeria is still responsible for substantial greenhouse gas emissions (in tonnes of CO₂-equivalent).

The total CO₂ emissions from gas flaring in Nigeria are equal to 10% of the CO₂ emissions of Sub-Saharan Africa⁴. The World Bank has stated that gas flared by oil companies in Africa in 2000 would have been sufficient to supply half of Africa's power usage in that year⁵.

table 1 Climate impact of flared gas and the percentage of gas which is flared

Year	CO ₂ eq (ton)	% gas
1999	60	60
2000	65	52
2001	65	51
2002	51	54
2003	60	45
2004	55	38
2005	51	36
2006	46	
2007	40	

Source: NOAA² NEITI³

table 2 Percentage of flaring, per concern

Shell Joint Venture	28%
Mobil Joint Venture	18%
Chevron Joint Venture	18%
Agip Joint Venture	19%
Elf Joint Venture	4%

Source: NEITI⁴

SCALE

BACKGROUND - DATA

	EXTRACTION	DISASTERS	BIODIVERSITY	
SEVERE ENVIRONMENTAL IMPACTS		GLOBAL	OIL & GAS	MDG

SCALE

IMPACTS

FINANCE

DEMANDS

RESOURCES

CONTACT

consequences for people and the environment

In addition to greenhouse gases, the noxious substances resulting from gas flaring include sulphur dioxide, nitrogen dioxide and carcinogenic substances such as benz[a]pyrene, dioxin, benzene and toluene. Gas flaring in Nigeria takes place low to the ground, and thus it directly affects the health of the community⁶. The emitted substances: *volatile organic compounds (VOC), polycyclic aromatic hydrocarbons (PAHS)* and soot, cause asthma and other respiratory illnesses.

Life in the shadow of the gas flares is not without major health risks; working in the vicinity of the flares eventually leads to blindness⁷, and members of local communities that live near gas flaring sites show blood abnormalities⁸. It is estimated that in one region alone in the Niger Delta, flaring is statistically likely to cause 49 premature deaths, 5,000 respiratory illnesses among children and some 120,000 asthma attacks and 8 additional causes of cancer, each year.

Complaints have been made about damage to crops due to air pollution and acid rain linked to flaring. The roaring flames which light up the nights are also a public nuisance. Gas flaring hinders good relations between the oil sector and local residents. The resistance to the oil companies, which has long crippled the Niger Delta, is partly fuelled by anger over gas flaring.

major political interests

The Nigerian government is dependent on the oil industry; more than 80% of its income comes from taxes and revenues paid by oil companies active in the country⁹. Nigeria National Petroleum Corporation (NNPC), the state-owned oil company is a majority shareholder in the joint ventures producing gas and oil in Nigeria, but allows partner companies, such as Shell to carry out the majority of business operations.

wasted energy, wasted money

The monetary value of gas flared in Nigeria is USD 2.5 billion annually¹⁰. It is estimated that USD 27 billion worth of gas has been wasted over the years. The Nigerian government has developed a gas 'master plan', to build gas-powered electrical power plants, which will help to limit the flaring and can offer a badly needed supplement to the Nigerian power supply¹¹.

Some power plants recently came online others are under development. But energy shortages are still a major problem and without continuous access to safe energy, the development of Nigeria is in jeopardy.

our demands:

- All oil companies in Nigeria must stop the routine flaring of gas and phase this practice out by 2012.
- Oil companies must publish a planned time and financial schedule to end gas flaring.
- Oil companies must also stop flaring gas elsewhere in the world.



Shell gas flaring, Nigeria.
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end notes:

- 1 IHS-CERA 2009 Growth in the Canadian Oil Sands, Cambridge Energy Research Associates
- 2 World Bank 2004, Report No.3 Global Gas-flaring Initiative: Regulation of Associated Gas Flaring and Venting – A global overview and lessons learned.
- 3 NEITI 2006, Nigeria Extractive Industries Transparency Initiative, Report on the Physical Audit 1999 – 2004
- 4 World Resources Institute <http://earthtrends.wri.org/>
- 5 ICF Consulting Ltd. and Triple E Systems Associates Ltd. 2006, Nigeria Carbon Credit Development for Flare Reduction Projects, Guidebook
- 6 Environmental Rights Action/Friends of the Earth Nigeria. 2005. Gas Flaring in Nigeria <http://www.foei.org/en/resources/publications/pdfs/2000-2007/gasnigeria.pdf>
- 7 ERA community education project
- 8 ADIENBO, O.M., NWAFOR, A. Effect of Prolonged Exposure to Gas Flaring on some Haematological Parameters of Humans in the Niger Delta Region of Nigeria. J. Appl. Sci. Environ. Manage. March, 2010, Vol. 14(1) 13 - 1
- 9 Amnesty 2009, Nigeria: Petroleum, Pollution and Poverty in the Niger Delta
- 10 Nigerian Compass. 2nd August 2010. Nigeria loses \$2.5b annually to gas flaring http://www.compassnewspaper.com/NG/index.php?option=com_content&view=article&id=64599:nigeria-loses-25b-annually-to-gas-flaring-&catid=111:energy&Itemid=712
- 11 EIA 2005 country analysis brief Nigeria, www.eia.doe.gov/emeu/cabs/nigeria.html



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