

BETWEEN THE DEVIL AND THE DEEP BLUE SEA: NIGER DELTA WOMEN AND THE BURDEN OF GAS FLARING

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Abstract

This paper examines the impact of gas flaring on Niger Delta Women. The findings of the study show that gas flaring impact men and women disproportionately, with women being more exposed and vulnerable due to a number of associated cultural and socio-economic factors. It was also observed that gas flaring ritual has continued endlessly in Niger Delta due to a number of factors which include: lack of political will, lack of sound and broad regulatory framework, high level of corruption and lack of patriotism among state actors and above all, insincerity and lack of environmental accountability among multi-national oil companies operating in the Niger delta. The authors therefore conclude that there is the urgent need to mainstream gender in oil and gas policies in Nigeria. There is also the need to put in place a sound and broad regulatory framework that will compel multi-national oil companies operating in the Niger delta to be environmentally accountable to the people.

Keywords:. Gas Flaring, Niger Delta, Women, Degradation, *Environment*.

Introduction

Oil and natural gas exploration in Nigeria which began in 1958 has been a mixed blessing. It has not only increased the nation's wealth, but has

also increased her woes. Oil production involves amongst others the burning of hydrocarbon and gases. Gas flaring refers to the burning of natural gas that is associated with crude oil when it is pumped up from the ground. Gas flaring in most developed countries occurs only as a safety measure to safely dispose gas during emergencies or during the breakdown of machineries (World Bank, 2003; Edino *et al.*, 2010). However, in petroleum producing areas like the Niger delta, where insufficient investment is made in infrastructure to utilize natural gas, flaring is employed to dispose this associated gas (JINN, 2010). It has been estimated that Nigeria flares as much as 70 per cent of the gas it produces. The remaining is used for energy purposes in production facilities, re-injected to enhance oil recovery, or sold to industries . Gas flaring in the Niger Delta area raises both environmental and resource management concern.

With regards to environment, gas flaring contributes to environmental problems, such as acid rain with its far-reaching effect on rural livelihood, gender relations, health and agriculture. Besides, gas flaring raises the temperature of the local environment to temperatures beyond normal of 13,00-14,000 degrees Celsius and causing both noise and light pollution around its vicinity. Gas Flaring also discharges carbon dioxide (CO₂) and methane (CH₄) into the atmosphere and the discharge of these gases increases the concentration of greenhouse gases (GHG) in the atmosphere, thereby contributing to global warming. Nigeria is one of the highest emitter of greenhouse gases in Africa and among the highest CO₂ emitters in the world (Awosika, 1995)

At the level of resource management, gas flaring represents colossal profligacy of nation's resources because of the substantial potential income Nigeria loses from gas which could have been sold. Nigeria wastes about US\$2 billion worth of associated gas per year. The World Bank estimated that daily volume of gas flared in Nigeria is equivalent of twelve times the daily energy requirement in the continent (Rufus, 2007). Gas Flaring also, reduces the prospect for using gas for energy purposes in a country like Nigeria with enormous and unmet energy needs (FNI Report, 2001).

Overview of the Niger Delta Region

The Niger Delta region is situated at the apex of the Gulf of Guinea on the west coast of Africa and is located in Southern Nigeria. The Niger Delta area comprises of nine states namely: Abia, Akwa Ibom, Bayelsa, Cross River, Delta, Edo, Imo, Ondo, and Rivers States. The region covers about 12% of the total surface area of the nation and is made up of 185 local government councils and over 800 ethnic groups. According to 2006 census figure, the area has a population of over 28 million, with women constituting 49 percent of the population (NPC, 2007).

The Niger Delta region is seen as one of the most fragile ecosystem in the world. It is Africa's largest delta and the third world largest mangrove forest. It is one of the largest wetlands in the world, consisting of rivers, islands, creeks, mangrove forest and estuaries; the stagnant swamps covers 8,600sq/km and the coastline spanning over 450km. The mangrove forest covers 54,000/km² of the region, while the landmass is over 70,006/kmsq. (Chinweze and Abiola-Oloke 2009).

This area is bountifully endowed with natural resources. These include oil and natural gas, sand and gravel and rich biological diversity among others. As fragile as this area is, it has become the nucleus of extractive activity in Nigeria. It is the source of over 90 per cent of crude oil which is the base of the Nigerian economy. The Niger delta is the home of significant ecological multiplicity which includes medicinal plants, fisheries, timber, tannins ,dyes, and abundant animal species (ANEEJ, 2004).

Women and the Niger Delta Economy

The primary economic activity in the Niger Delta area is agriculture. Subsistence crop farming and fishing activities account for about 90% of all forms of activities in the area (FOS, 2004). Women in the Mangrove Forest of the Niger Delta Region are engaged in mainly fishing, gathering of sea foods and subsistence farming, which depends on availability of land; while those in the freshwater swamp forest are also involved in fishing, gathering of sea foods, fuel woods, gin distillation from raffia palm trees, Ogbono (*Irvingia gabonensis*), snails, mat weaving, collection of edible leaves and herbs (Gabriel, 2004).

The tropical rainforest supports the plantation farming, especially oil palm, rubber, and Cocoa, apart from root crops, like Cassava and yams (NDRDMP, 2006). The major food crops usually cultivated by women in this region include yam, cocoa yam, maize, melon, groundnuts, potato, plantain, banana and pepper.

The farming system in the Niger Delta Region is traditional subsistence crop farming, characterized by small sized farms less than one hectare per household (NDRDMP, 2006)

The Level of Gas Flaring In Nigeria

Although, not all the Associated Gasses (AG) produced in Nigeria is flared, some are converted to Liquefied Natural Gas (LNG) and sold to third parties or re-injected to enhance oil recovery (NNPC, 1997; NNPC, 2009). Nevertheless, about 56.6 million m³ of AG is flared daily in Nigeria, thereby making the region one of the worst flare sites in the world (Gerth and Labaton, 2004). According to World Bank (2007) gas flared in Nigeria contributes about 70 million metric tons of carbon dioxide emissions a year

(10 percent of global CO₂). It also releases about 12 million tons of methane (CH₄), which is said to have higher warming capabilities than CO₂ (ICF, 2006; Malumfashi, 2007; World Bank 2002).

Rhetorics and Politics of Unending Gas Flaring in Nigeria

There have been several unsuccessful efforts by the Nigeria government to phase out gas flaring over the years. These attempts date back to 1969 with the enactment of The Petroleum Drilling and Production Regulations of 1969 which set 1974 as deadline to phase out gas flaring. This date was later shifted to 1979 due to lack of enforcement. In 1979, The Associated Gas Re- Injection Act Number 99 was enacted, this time the date was moved forward to January 1984. This Act besides mandated oil companies to submit, not later than April 1st 1980, an action plans for the workable utilization of all associated gas produced from any oil field, and projects to re-inject all non- utilized associated gas in an industrial project. It also made it illegal for any oil and gas company to flare gas after January 1st 1984, without the written permission of the Minister. It stipulated that the penalty for defaulting was forfeiture of concession. But by January, 1984 no reasonable progress was recorded.

The inability of oil companies to meet the 1984 deadline led to the enactment of yet another Act, the Associated Gas Re-Injection (Continued Flaring of Gas) Regulation. This regulation, which commenced on January 1st, 1985, gave more powers to the Minister under certain conditions to issue a certificate to oil companies for continued flaring of gas under section 3(2) of the Associated Gas Re-Injection Act. Predictably, the Act was flouted with impunity and oil companies in the country flare gas unremittingly. This prompted the government to amend the Act by initiating an economic enforcement regime. In 1985, The Associated Gas Re-Injection (Amendment) Act was passed. This new amendment established a paltry sum of two kobo as penalty per 1000 standard cubic feet of gas flared at any place permission to flare was not granted (Akaakar,1999). This amount was increased to fifty kobo per 1000 standard cubic feet of gas in 1990, and the amount was further increased in 1998 to ten Naira per 1000 standard cubic feet of gas. By 2008 the penalty amount was further increased to \$3.50 per 1000 standard cubic feet of gas flared. Yet, this amendment did little to curb the incidence of gas flaring in Nigeria. This is partly because the penalty was petty and the multinational oil companies are inclined to parting with the paltry penalty rather than make huge capital investment with regards to gas Re-Injection or utilization.

The most recent and crucial legislative effort by the Nigerian Government to combat the menace of gas flaring is the proviso incorporated into the Petroleum Industry Bill of 2012. This bill amongst others, seeks to

strengthen all the existing oil and gas laws in the country into one piece of legislation. The basic objectives of the bill include but are not limited to, the prudent management and allocation of petroleum resources and their derivatives in accordance with the principles of good governance, transparency and the sustainable development of Nigeria. The bill stipulates that natural gas shall not be flared or vented in any oil and gas production operation, block or field after the flare – out date to be prescribed by the Minister in regulations to be made pursuant to the Act. In addition, the bill also specified that any licensee or lessee who flares or vents gas without a permit from the Minister shall pay a fine, which shall not be less than the value of the gas flared. The bill prohibits the issuance of a license or lease for the production of oil and gas to any applicant without an acceptable comprehensive program for the utilization or reinjection of natural gas. It mandates all operators to install metering equipment within three months of the Act coming into force to measure the volume of gas flared. Under this bill gas flaring without a permit is not only a criminal offence and individuals, group of persons or community can lodge a documented report of gas flaring or venting with the nearest office of the Inspectorate. If a complaint is lodged an officer of the Inspectorate is required to inspect the facility within forty eight hours of receiving the report, and within seven days submit a verification report to the Inspectorate, which is required to make a determination on the matter, and if satisfied impose a fine or issue a shut down order. The Petroleum Industry Bill (PIB) amongst others, made provision for the establishment of two regulatory agencies, three funds, three companies and one support bureau.

It is vital to state here that over the years, the federal government of Nigeria has implemented a number of gas flaring reduction projects aimed at reducing and eliminating gas flaring. These include, The West African Gas Pipeline (WAGP), The Nigeria Liquefied Natural Gas (NLNG) Limited, West Niger Delta LNG, Brass River LNG, and Escravos gas-to-liquid Projects (EPG). There are other gas flaring reduction projects and development in Nigeria. These include, fourth LNG plant by Shell, Statoil, and NNPC, Compressed Natural Gas (CNG) sponsored by SPDC in Warri and Nigeria Gas Company (NGC) (Malumfashi, 2007; Sonibare and Akeredolu, 2006)

However, in spite of the numerous bills and several public pronouncements by governments which amount to sheer rhetorics on this issue, gas flaring ritual in Niger delta has not abated.

Many studies have identified a number of factors as being responsible for this horrible trend. (Edino *et al.*, 2010; ESMAP, 2004; ICF 2006; Omakaro, 2009). These factors include:

1. Lack of political leadership and drive to enforce existing gas flaring reduction policies.
2. High level corruption and lack of patriotism among state actors and public officials who interface with multi-national oil companies
3. Lack of sound and broad regulatory framework and institutions to deal with the issue.
4. Insincerity and lack of environmental accountability among multi-national oil companies operating in the Niger delta.
5. Weak institutional capacity owing to political instability.

Impact Of Gas Flaring on Women’s Livelihood In the Niger Delta

Generally, environmental change impacts men and women disproportionately, given their different roles and responsibilities at the household and community levels. Women are more exposed and vulnerable to environmental change because of a number of associated cultural and socio-economic factors. Culturally, there are numerous norms and belief system regarding gender roles in the Niger delta, holding women from effectively responding to environmental changes.

Furthermore, women are often poorer, uneducated, possess fewer livelihood assets and depend more on natural resources for their livelihoods (FAO, 2011). As such, they bear the heaviest burden of environmental change.

Nazneen (2010) states that livelihoods constitute a key area for understanding how gender operates in confining or expanding men’s and women’s access, options and choices regarding the use of resources and their material conditions. The multifarious linkage between gender, environmental change and livelihoods is very critical to understanding the impact of environmental change on women in the Niger Delta region.

Thus in this section we shall attempt to examine the various impacts of environmental change due to gas flaring on women’s livelihood in the Niger delta region.

Gas Flaring and the Loss of Cultivable Land

One of the principal impacts of environmental change attributable to gas flaring on the Niger-Delta women is the loss of agricultural land. The Niger delta before the discovery of oil leads in the production of timber, pineapple, local gin, banana, and yam. Other crops produced in the region are cocoa, cashew, rice, yam and oranges (Joab-Peterside, 2009).

However, oil exploration and gas flaring with its attendant pollution have rendered most of the lands uncultivable. Most agricultural lands in the area have been degraded while others have been outrightly seized for laying of pipelines. Oil infrastructure, such as flow stations and oil pipelines criss-

cross the entire Niger delta region. The existence of such infrastructure within rural setting causes difficulties for rural farmers especially women. Communities in Ohaji/Egbema local government area and Oguta local government area of Imo State, for example, bear the full brunt of this with three oil companies covering a great deal of farmland in the area, thus hampering farming activity. Gas flaring is a major source of concern to the people of this area because the extreme heat it emits causes both great destruction of the vegetation as well as discomfort to humans and livestock.

Furthermore, gas flaring gives rise to atmospheric contaminants. These include oxides of nitrogen, carbon and sulphur (NO₂, CO₂, CO, SO₂.) These contaminants acidify the soil, thus depleting soil nutrients. Studies have shown that the nutritional value of crops within such vicinity is reduced (Ubani and Onyejekwe, 2013). The destruction of mangrove forests and pollution of water bodies due to gas flaring affect fishing and farming activities, thereby leading to high level of poverty for women whose source of livelihood are directly tied to these activities. (Nduka, *et al.*, 2008; Omokaro, 2009). Again, the effects of the changes in temperature on crops included stunted growth, spoiled plants and withered young crops . Noise and light pollution associated with gas flaring not only drives animals and fishes away, it also affects their reproductive system thereby affecting local economy and women livelihood. (Orimoogunje *et al.*, 2010).

Deforestation and Impact on Women Livelihoods

Women in the Niger delta region have had long healthy relationship with their environment. Women's connection with environment in the Niger delta is demonstrated in their heavy reliance on the environment for their daily survival and the vital role they play in environmental management. The Niger delta women comb the rich mangrove/rain forest daily mining its diverse resources to meet the various needs. Many studies have shown that women are the primary users of the forest, and its associated resources through their input in food production for survival, herbs gathering or planting, for medicinal herbs, wood collection for fuel, and wood work or carving (Nduka, *et al.*, 2008; Omokaro, 2009). As such, they are, more directly affected by any disruption in biodiversity such as deforestation, flooding or erosion caused by oil exploration.

Gas flaring in the the Niger delta region causes the burning and defoliation of large acres of mangrove and rain forest. This act not only reduces women's source for fuel wood, it also destroys edible and medicinal leaves source for nutrition and medication used by women as household providers and traditional medical practitioners.

Ross (2008) has argued that oil producing economies in general have a poor record of incorporating women into the formal labour force. In spite

of the fact that women can lose livelihoods as a result of the execution of oil projects without necessarily being integrated into the formal sector, the concomitant environmental degradation exacerbate women's plight.

Again, UNDP (2007) states that the loss of forest increases women's vulnerability and marginalization. This is chiefly because, deforestation increases women's workload by elongating the time women spend in search of edible and medicinal leaves and wood for fuel thereby shortening the time they can invest in other productive activities.

Gas Flaring and Forced Resettlements

In the Niger delta region, many communities have been sacked, displaced and forced to leave their ancestral homes due to gas flaring and its associated nags. Forced resettlements not only jeopardise the livelihoods of women who are usually food crop farmers but also put undue strain on them and their families as they struggle to develop alternative livelihood practices. Women suffer most in the event of forced resettlements because they tend to be poorer, receive less education, possess fewer livelihood assets and depend more on natural resources for their livelihoods (FAO, 2011).

Gas Flaring and Its Impact on Women's Health

Gas flaring induced pollution have disproportionate adverse impact on women's health in the Niger delta region. This is due to the roles women play in agriculture and household survival which brings them in direct contact with pollutants. According to IPCC (2007) associated gas flared into the atmosphere contains green house gases, as well as other poisonous substances such as dioxins, benzene, toluene, nitrogen, and sulphur dioxide. These poisonous gases cause serious health problems to the people living near the gas flaring sites. These health problems include cancer, asthma, blood disorder, respiratory illness, reduced life expectancy and deformities in children with the risk higher among pregnant and lactating women (Ovuakporaye et al, 2012).

Gas Flaring, Poverty and HIV and AIDS Nexus

There is a strong correlation between environmental change, Poverty and HIV/AIDS. Environmental change induces poverty which increases vulnerability to deceases such as HIV/AIDS. It also thwarts the establishment of needed prevention, care, and treatment of the disease. Furthermore, poverty reduces access to information, education and services that could reduce the spread of the virus (UNFPA, 2002). For individuals, households, and women especially, poverty can act as a push factor to risky sexual situations (UNDP, 2006).

In the Niger delta region, gas flaring causes massive destruction to the biodiversity which is the mainstay of women's livelihood thereby worsening their poverty situation and increasing their vulnerability to HIV/AIDS (UNDP Report, 2006).

The Niger Delta Women and Climate Change

Gas flaring increases greenhouse gases thereby aiding global warming and climate change. Climate change favours proliferation of pests, spread of diseases, flooding, coastal erosion, irregular rainfall and crop failure which affect crop yield and exacerbate poverty among disadvantaged communities with the impact being higher among women (Uyigüe *et al* 2007).

Recommendations

The main aim of this paper was to examine the effects of gas flaring on the Niger delta women. Our study revealed that the Niger delta women suffer severe hardship due to gas flaring. What is more upsetting, is that existing regulations/laws in Nigeria have not sufficiently safeguarded host communities especially Niger delta women but have created loopholes for MNCs' to continue in their obnoxious environmental practices that pollute the environment and pauperize women.

Based on the findings of this study, we make the following recommendations:

There is the urgent need to mainstream gender in oil and gas policies in Nigeria. Government should put in place broad, gender sensitive regulatory framework that will compel Multi-national oil companies operating in Niger delta to be environmentally accountable to the people.

Oil companies must be compelled to set up funds for the compensation of victims of their unwholesome environmental practices.

Furthermore, oil companies should not site Flow stations and pipe lines close to people's homes and farmland.

Women in oil producing communities whose means of livelihood are more likely to be affected by oil exploration activities should be given vocational training to help mitigate the impact environmental change on women's livelihood.

Finally, government should invest more in renewable energy technologies which have less impact on the environment than the fossil fuel technology.

Conclusion

In this paper we have established that gas flaring in Niger delta region has led to severe environmental challenges which have had negative

impact on Niger delta women. The country has not been able to achieve its flare out deadline and the present commitment does not suggest an end to gas flaring in the near future. More needs to be done to turn down the flare stack in Nigeria. Continued gas flaring is an outright negation of efforts being made globally today to curb global warming.

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