

# Perceptions and attitudes towards gas flaring in the Niger Delta, Nigeria

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**Abstract** Gas flaring is the burning of crude oil's associated gas. In Nigeria's Niger Delta, the flaring process is usually very close to communities and their farmlands and has been implicated in serious environmental degradation of the region. Studies have suggested links between gas flaring and health problems in the communities and others have established relationships between gas flaring and poor agricultural yields. This study explores how the people in the region perceive gas flaring and what their attitudes are toward it. Ubeji town, a community where gas flaring takes place, was selected as a case study. It was found that the residents perceive gas flaring as hazardous to health, environment, and general well-being of the community. Most residents seem to be resigned to the continued presence of gas flaring activities in the community. The study, however, raised several questions on modeling perception and attitudes toward environmental problems in areas where political tension and economic adversity are prevalent.

**Keywords** Gas flaring · Niger Delta · Perceptions · Attitudes · Environment

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## 1 Introduction

Crude oil and natural gas are mixed in every oil deposit. The natural gas (also called associated gas), however, needs to be separated from oil before refining (Ashton et al. 1999). There are three basic ways in which the natural gas is removed: harvesting for domestic and commercial uses, reinjection into the ground for future harvesting, and burning of the gas (also known as gas flaring). The first two options are common practices in many developed countries, e.g., Canada and in Western Europe where oil is extracted (Omorotionmwan 2005). Often, gas flaring is prohibited by law (Hyne 1991) except in inevitable circumstances such as breakdown of machinery and emergencies. In most oil-producing developing countries, gas flaring is the most common practice mainly because it is cheap (Worila 2002). The technology and necessity to harvest or reinject gas into the ground is largely unavailable in many of these countries, and large-scale corruption militates against proactive enforcement of standard practices as in developed countries.

Nigeria is the world's 6th largest producer of crude oil (NNPC 2009). More than 80% of the production is extracted from the Niger Delta region. Expectedly, most of the associated gas is flared and it is the second largest gas flaring operation in the world next to Russia (World Bank 2007).

Currently 56.6 million m<sup>3</sup> of associated gas is flared daily in Nigeria (Gerth and Labaton 2004), an amount that is equivalent to about 16% of the total world gas that is flared (World Bank 2002). The annual financial loss to Nigeria due to gas flaring is estimated at US \$2.5 billion (World Bank 2002). The environmental cost is yet to be fully estimated, but anecdotal evidence suggests it is equally colossal. In fact the existing social and political

tension in the Niger Delta is directly linked to the environmental consequences as much as the political and economic problems and questions raised by oil production in the area.

Gas flaring contributes to climate change, which has serious implications for both Nigeria and the rest of the world. The burning of fossil fuel, mainly coal, oil, and gas emit greenhouse gases, which has contributed to global warming and is projected to get worse during the course of the twenty-first century (IPCC 2001). Gas flaring may also have harmful effects on human health and ecosystems near flaring sites. Many of the by-products of gas flares are well-known carcinogens, which have led to many suggestions of possible serious health implications for residents of communities around gas flaring sites (Stroscher 1996; Leahey et al. 2001; USEPA 2003; Ishishone 2004). Dung et al. (2008) have also pointed out the effects of gas flaring on crops in the Niger Delta. They found that crops cultivated close to the gas flare stacks produce lower yields, and their nutrients statuses are lower.

On 20th July 2005, a suit was filed in the Federal High Court of Nigeria on behalf of communities from across the Niger Delta against the multinational oil companies (Shell, ExxonMobil, Chevron Texaco, TotalFinaElf and Agip), the Nigerian National Petroleum Corporation (NNPC), and the Nigerian government, praying the court to declare gas flaring as illegal. The suit further contended that the appalling waste of greenhouse gases in one of the world's poorest countries is a violation of the fundamental human rights and dignity of those subjected to the flaring; and that the flares contain a cocktail of toxins that immensely impact on the health and livelihood of communities residing in and around the areas of activities of the oil companies or refineries. On November 14, 2005, the judge agreed with the communities and ruled that gas flaring is a "gross violation" of the rights and dignity of the residents in these communities (Environmental Impact 2008). In response to some of the angst against gas flaring, the Nigeria government declared December 31, 2008 as the deadline for the final eradication of gas flaring activities in the country. Unfortunately, like similar deadlines before it, this date has been shifted forward again. On July 2, 2009, the Nigerian Senate passed the Gas Flaring (Prohibition and Punishment) Bill, which sets a new deadline of December 31, 2010 (ThisDay 2009).

Most of the previous research works on gas flaring in the Niger Delta region have focused on the consequences of gas flaring on the environment, its economic implications, and the magnitude and trends of the activity (e.g., Omorodion 2004; Ishishone 2004; Ehigie and Ideozu 2000; Akpokiniovo 1992). There is no doubt that these studies possess a lot of potentials to stimulate, modify, and

generate policies toward gas flaring in the area. However, much will be contributed to the present discourse and debate about policy directions and implementation if the perceptions and attitudes of the immediate communities (toward gas flaring) that are most affected by the activity are brought into the equation.

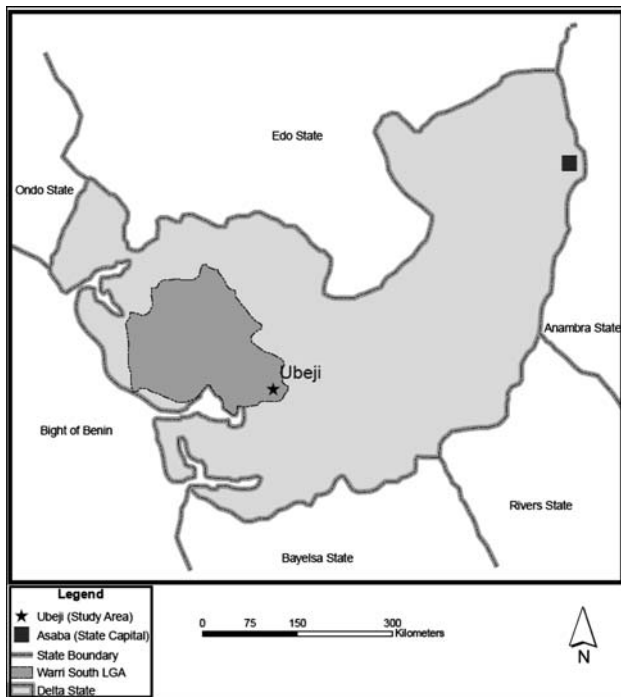
There is definitely a great deal of insight that can be gained from this. First, the perception of the people toward gas flaring may expose the urgency with which the problem needs to be addressed. The undercurrents of tension, if they exist, also can be gauged from their attitudes. Secondly, the types of policies to be emplaced and the potentials for their effective implementation can be glimpsed from the perception and attitude of the people toward the subject of the policy. Public support or opposition to a policy is significantly influenced by the perceptions of the problem and how the policy will affect the people (Leiserowitz 2006). Furthermore, it provides the residents of the gas flaring activity areas opportunity to be part and parcel of policy initiation and implementation. For too long, the views of the people on important subject matters that affect them have been neglected to the detriment of good governance.

Generally, perception may be influenced by the level of awareness of the problem and its magnitude, and attitude toward the problem is a function of the risks they believe they face from it. These will also include the perception of the public on how sensitive, vulnerable, and adaptable they and their environment are to gas flaring both in the short and long terms. These are some of the issues this study explores in the Niger Delta.

## 2 Study area

The Niger Delta region of Nigeria is the largest wetland in Africa (Yakubu 2008). It consists of four ecological zones: lowland rainforests, freshwater swamps, mangrove swamp forests, and coastal barrier islands, which are part of a naturally endowed ecosystem acclaimed as having one of the highest concentrations of biodiversity on earth. It is also the source of more than 80% of Nigeria's oil production. Nigeria produces approximately 2.5 million barrels of oil per day from a network of over 900 oil wells, over 1,500 km of trunk lines, 100 flow station/gas plants, as well as over 45,000 km of oil and gas flow lines (Osuji and Onojake 2004).

Gas flaring in the Niger Delta has been ongoing since oil production started in the area in the 1960s (Samson 2008). Many of the gas flares are at the ground level and within communities and farms and they burn continuously for several years at a time. According to Akpan (2005), many of these gas flares in the Niger Delta region "...are nothing



**Fig. 1** Map of Delta State, Nigeria showing Ubeji, the study area. Source digitized from Essoka et al. (2006)

short of bush-burning—the flare stacks (are) savagely close to the ground, and to people’s homes and farms”.

This study was undertaken in Ubeji community of Warri South LGA of Delta State (Fig. 1). Ubeji is located on the lower Niger Delta plain and is host to the Warri Refining and Petrochemical Company and the Nigeria Gas Company. These companies are important oil installations in Nigeria and sources of gas flaring activities in the community as well.

Ubeji has a population of about 10,000 inhabitants as reported by the 2006 Nigeria’s National Population Census. The people are predominantly engaged in small-scale agriculture and fishing and the main ethnic group is Itsekiri but Pidgin English is widely spoken. Crop yields are reportedly low due to gas flaring in the vicinity. Few facilities, which include electricity, a health clinic and schools, are available in the community.

The Ubeji community has been afflicted by several environmental mishaps resulting from oil exploitation activities. These range from oil spillages (Okonji 2006; Essoka et al. 2006) to a constant flare of gas on a 24 h basis (Wasik 2007). Several studies have therefore been conducted in Ubeji on oil spillage and farmland pollution (e.g., Essoka et al. 2006; Okonji 2006; Achudume 2007, 2009); however, little attention has been given to research on gas flaring.

### 3 Methodology

#### 3.1 Source and nature of data

Data was collected on the perception and attitude of residents of Ubeji community toward gas flaring through questionnaire administration, direct interviews, and focus group discussions.

#### 3.2 Procedure of data collection

The researchers used the three procedures outlined as follows:

##### 1. Questionnaire

The standardized questionnaire was one of the tools of data collection. Data was collected on socio-economic and demographic characteristics of respondents, and their perception of and attitude toward gas flaring. This involved data on the awareness (or not) of any risks or consequences of gas flaring; their attitudes toward the oil companies and the government, and what their responsibilities are, if any, to safeguarding their environment, among other questions.

Field assistants were recruited from among students of the Petroleum Training Institute (PTI) at Effurun. Several of these field assistants are natives of Ubeji and neighboring communities and are familiar with the subject matter. They also speak the native languages fluently but importantly their participation helped to allay the fears of many of the residents who have grown wary of researchers as agents of government or the oil companies. This therefore helped with the question of reliability of the answers given to the queries.

##### 2. Interview

During the questionnaire administration, respondents were asked to volunteer for both a direct interview and for a focus group discussion. The main aim of the interview was to probe further the responses already provided in the questionnaire and to also raise new questions as the interview progressed. A total of 36 respondents to the questionnaire volunteered and were interviewed. Deeper explanations were sought on answers they had given on perception and attitude toward gas flaring.

##### 3. Focus group discussion

The researchers engaged in three separate sessions of focus group discussion (FGD) with members of the community. Each session consisted of 40 persons on average and each participant was involved in one session only. The sessions were composed of community elders, political, youths, women groups, and religious leaders or their representatives

and employees/representatives of the oil companies. Other participants were volunteers from the community, both males and females, civil servants, entrepreneurs, farmers and fishermen, and students. The response to the focus group discussions was more impressive than the questionnaire response probably because it was open to all members of the community. Efforts were made to restrict the number of discussants to enable better management of the proceedings, avoid any serious confrontations between different groups in the community, to limit the time duration of the discussions and also to allow all those who had contributions to make them adequately. Each session was kept within 2-h duration to attract and maximize interest of participants.

Though efforts were made to have almost all sections of the community represented in each discussion session, little could be done for a statistical balance of such representations. For example, the community is predominantly Christian and therefore the religious leaders at the sessions were largely Christian clergy or church elders. There were also a disproportionate number of male participants compared to the females largely due to the patriarchal nature of the community culture, which place decision making in the community in the hands of adult male population.

The essence of the focus group discussions was to get the different views on perception and attitude of the residents toward gas flaring; and to examine the nature of relationships between different segments of the community on this important subject, and between the community and the government and oil companies. The discussions also sought the opinion of the community on why they think the flaring of gas has continued despite global calls for it to stop and what they think should be done to stop it. Like Omorodion (2004), the emphasis was not only on generating data but to provide knowledge to the local people as well as learn how they have sustained and nurtured their environment to guarantee their economic survival in the past and under the activities of oil multinationals.

### 3.3 Sampling technique

According to Obueh (2006), the average household size in Delta state is 5.94 persons. Ubeji has a population size of about 10,000 people, which translates to approximately 1,684 households. The target population for the questionnaire administration section of the study was the household heads who are generally saddled with the responsibility of decision making in the households. The researchers adopted 12% of this number as its sample size.

A stratified and systematic sampling technique was used to administer 200 questionnaires to household heads. The community was stratified into four zones to insure that every section of the town participated. Since the focus group discussion involved opinion leaders and community

elders from all over the town, it was important to project the sense of inclusiveness to all sections of the town for a more effective data collection. The four sections were demarcated to make for fairly equal population sizes. Each section was then administered 50 questionnaires based on a systematic sampling of household heads.

Unfortunately, many of the questionnaires were returned with some incomplete sections. Though respondents initially agreed to participate after a short briefing on the thrust of the study, many refused to answer sections they thought were sensitive especially those on the attitudes of the government and the multinational companies toward the environmental problems in the community. Many of them claimed they feared for their lives because in the past some residents had been harassed by government's security agencies after they had been candid in expressing their views. Apparently, there was an aversion to answering questionnaires, which many thought of as a document that can be used against them, even when no identification information was required. In the end, only 120 questionnaires (7% of household heads in the community) were returned fully completed and were analyzed.

It may be necessary to point out that the volatile political dispensation in the Niger Delta generally, and the tense relationship between the Ubeji community on the one hand and government agents and oil workers on the other (see *ids-Environment* 2007; *Vanguard* 2008, 2009), made it difficult to persuade those who were unwilling to fully participate. Nevertheless, the sample size of household heads for the study is within the average percentage range per community for studies conducted by other researchers in the Niger Delta (e.g., Ologunorisa and Adeyemo 2005; Agbamu and Orhorhoro 2007; Ipingbemi 2009).

### 3.4 Techniques of data analysis

The data was analyzed using both descriptive and inferential statistics. These include sums, means and percentages, while the  $\chi^2$  statistics was used to test for significance of the hypotheses on, (1) the community's perception of the risks posed by gas flaring to human health, and (2) who should bear responsibility toward stopping gas flaring in the community.

## 4 Results and discussion

### 4.1 Socio-economic and demographic characteristics of respondents

Most of the respondents were males (76.67%). This aptly reflects the culture where males are, generally, the heads of households irrespective of the gender status of the bread

**Table 1** The socio-economic and demographic characteristics of respondents

Socio-economic and demographic characteristics	Freq (n = 120)	%
<b>Age</b>		
15–39	61	51.67
40–59	55	45.83
60+	3	2.50
<b>Gender (household heads)</b>		
Male	92	76.67
Female	28	23.33
<b>Highest educational qualification</b>		
First school leaving certificate	19	15.83
Secondary school leaving certificate	49	40.83
Ordinary diploma/national certificate of education	28	23.30
Higher national diploma/bachelor’s degree	21	17.50
Post-graduate degree	3	2.50
<b>Occupation</b>		
Farming/fishing	52	43.33
Self-employed/private sector	16	13.33
Government-employed/public sector	12	10.00
Unemployed	40	33.33

winner. This is supported by data from the Development Policy Centre (2001), which indicate that males constitute 88.1% of heads of households in the Niger Delta.

A majority of respondents are yet to attain the age of 40 (51.67%) and 84.17% possess at least a secondary school certificate or higher. In spite of this high literacy rate, the most common occupations are farming and fishing (43.33%). This is also corroborated by the UN–Nigeria partnership-sponsored Delta Population Programme (2003), which claimed that “the main occupation of the indigenes are fishing, farming, and trading.” This fits well with the occupational distribution of respondents in Table 1.

The unemployment level is equally high (33.33%). Official statistics from the Nigerian Federal Office of Statistics (FOS) (2001) show that Niger Delta states have some of the worst unemployment records in the country. Delta state, where the study was conducted, has an average

unemployment rate of 23.5%. This rate is much worse for the 15–24 age group and those with only the secondary school leaving certificate as the highest educational qualification (ANEEJ 2004). The unemployment problem may even be much worse than the official statistics indicate. For example, WAC (2003) reported that youth unemployment in the riverine areas of Delta state may be as high as 90% in some communities. A survey conducted by Development Policy Centre (2001) revealed that 73% of households in the Niger Delta have five or more dependants without a job. These principal characteristics of the unemployed in the Niger Delta are reflected in Ubeji. Table 1 indicate that the community has a large young population (61% of the respondents were less than 40 years old) and about 68% of respondents had a secondary school certificate (or lower) as the highest education qualification, which may probably account for the high rate of unemployment in the community. These statistics underscore the serious economic and social problems prevalent in the area.

4.2 Environmental perception

Table 2 presents results on the perception of respondents toward gas flaring and the risks and consequences of gas flaring in the community. The perception that gas flaring is hazardous to both health and social well-being of the residents was found to be statistically significant at the 0.01 confidence level (Table 3).

The link between gas flaring and human health have been suggested by several researchers (e.g., Kindziarski 2000; Leahey et al. 2001; Strosher 1996; Ezzati and Kammen 2002; Ishishone 2004, etc.) and so do the residents of Ubeji. A majority of the respondents (65%) claimed they disliked the activities and attitude of oil companies toward flaring of gas in the community. These indicate that the community has a negative perception of gas flaring and the activities of the oil companies as harmful to a well-lived life in the community.

However, the interview session opened up new perspectives on respondents’ perception of the extent of the harmful effects of gas flaring. Though most respondents (61%) hold gas flaring responsible for corrosion of iron-roofs, there is substantial minority (39%) that hesitates to

**Table 2** Perceptions on gas flaring and activities of oil companies (% responses)

Scale	Harmful to human health	Harmful to plants (crops)	Cause of roof corrosion	Oil production activities more harmful than beneficial	Dislike activities of companies
Strongly agree	23	18	23	15	15
Agree	43	44	38	40	50
Strongly disagree	23	28	26	30	27
Disagree	10	10	13	15	8
Total (%)	100	100	100	100	100



**Table 3**  $\chi^2$  test results for hypotheses

$\chi^2$ values ( $df = n - 1 = 3$ )	Hypotheses (Ho)	
	Gas flaring not harmful to humans	Stopping gas flaring not community's responsibility
Calculated	36.59	56.31
Critical	11.35 ( $P = 0.001$ )	11.35 ( $P = 0.001$ )

extrapolate the chemistry of gas flaring to its full potentials. For example, some respondents who volunteered for the direct interview did not agree that a link existed between gas flaring and rapid corrosion of their tin-roofs and instead identified the poor quality of corrugated iron roofs “of these days” (meaning that current quality standards for corrugated iron roof materials are much lower than they were in the past) as the culprit. Heat and heat waves, acid rain and other effects of gas flares are somehow separated from secondary effects such as corrugated iron roofs.

In her study, Omorodion (2004) found that the residents of Gelegele perceive gas flaring as the sole cause of the rapid corrosion of iron-roof sheets in the community. The perception of residents of Gelegele is in tandem with the prevailing perception in Ubeji regarding the relationship between gas flaring and corrosion of iron roofs. The oil companies, however, challenge the accuracy of such perceptions. They argue that the Nigerian crude has low-sulfur content, the quantity of which is too insignificant to precipitate the corrosion of iron-roofs with the rapidity in which they occur (Okonta and Douglas 2001). Ishishone (2004) felt this is sufficient ground for a comprehensive empirical study to examine the link, if any, between gas flaring and iron-roof corrosion. This may be important because of the health, social and economic implications of this phenomenon in the community. For example, the inconstancy of water supply in the community has led to a reliance on rainfall as important source of domestic water. The corrugated iron-roofs are the conduits of rain water collection for a large population in the community. With corroded surfaces, the heavy metal components are easily washed into the harvested water and used, without any further processing, for food, drinking and other domestic chores. Efe (2006) reported a high turbidity value (18.3 NTU) for rain water harvested from corrugated iron roofs in Ubeji community, which is 240% higher than the 5 NTU acceptable limit of the World Health Organization (WHO). The health implications are obvious. Also, over relatively short periods of time, the corroded roofs leak badly and need to be replaced, which place additional economic burden in a community living on subsistence agriculture, and with a very high unemployment rate.

### 4.3 Environmental attitude toward gas flaring

Table 1 indicates that a large number of respondents (45%) claim the community has benefitted more from the oil companies than it has been adversely affected by it. This position was strongly advocated by some members of the community during the focus group discussions. How much this view affected the community's seeming laid-back attitude toward gas flaring was not clearly discerned. Table 4, however, indicates that most respondents hold the view that the government should bear sole responsibility for stopping gas flaring activities in their community.

As indicated in Table 2, the number of respondents that placed the burden of action against gas flaring placed solely on the government and the multinational oil companies operating in the area is statistically significant at the 0.01 confidence level (Table 3). Despite this, half of the community hesitates to be more environmentally proactive. This is evidenced from the equal split (50–50%) among respondents regarding the need to step up action in the community against gas flaring activities. Yet the other half that supports community action is reluctant to be vocal about it or act against it for fear of government reprisals through betrayal from “government agents among them.”

There are hardly any issues that commanded an overwhelming majority either in its favor or against it. The minority view almost always had strong feelings about their views as well. This suggests a rift in the community, especially regarding the course of action. Consequently, there is a general sense of helplessness that borders on apathy that permeates the community. During the focus group discussions, this helplessness was underscored by common reference among respondents to “God as the only help on the matter” and the expressed perception of many discussants of an anticipated oppressive push-back by the government in the event that the community becomes more proactive against gas flaring. This has resulted into a “siddon-look” (literally translated as “sit down and look,” a Nigerian parlance for nonchalance or inaction) attitude. This attitude apparently aligns with the skepticism expressed by many of the earlier respondents who had refused to complete the questionnaires beyond the introductory sections.

**Table 4** Attitude toward gas flaring (% responses)

Scale	Stopping gas flaring sole responsibility of government and oil companies	Need community to be more proactive to stop gas flaring
Strongly agree/agree	61	50
Strongly disagree/disagree	39	50
Total (%)	100	100

The direct interview and focus group discussion, however, brought out an important dimension to the activities of oil companies in the community that is not easily captured in traditional questionnaire administration. There is an undercurrent of tension that simmers between those opposed to the oil companies on a range of issues including environmental degradation, economic deprivation and social/moral destitution, and those who have gained and hope to continue to reap economic and political benefits from the continued presence of the oil companies. The heated discussions especially suggested the division in the community as probably deep-seated as opposing camps pitched tents against each other. This scenario is apparently prevalent in the Niger Delta region and not unique to the Ubeji community. Omorodion (2004) suggested that a deliberate policy of divide-and-rule, on the part of the government and oil companies, was in place to drive a wedge in communities where oil production takes place. She asserted that “stand-by” is a common practice, which corrupts community leadership and encourages inaction. “Stand-by” refers to the oil companies’ financial inducements given to a select few, including opinion leaders and community elders to win their support and favor.

Since this study was completed, the Ubeji community has been in the Nigerian national news for reasons of schism between community elders and youths. A group, the Ubeji Council of Elders, had joined issues with a neighboring community, Ekpan, which had threatened to forcefully shut down the Warri Refinery and Petrochemicals Company that they cohost with Ubeji, on the grounds that the company had neglected to patronize local contractors. In a swift and ironic reaction, another group representing youths in Ubeji publicly lent their support to the Ekpan community and accused the members of the Ubeji Elders’ Council of self-serving intentions, and declared that they did not recognize the elders as representatives of the interests of the Ubeji community (Vanguard 2008). This underscores the division in the community that was in display during the interviews and focus group discussion.

Generally, the several political party leaders in Ubeji were aligned with the oil companies and the government. While several discussants accused them and community leaders of corruption and selling out to the government and oil companies, others countered that the community had benefited from employment and facilities provided through oil production in the community. A discussant in the latter mold reasoned that in spite of the accompanying problems of oil production, the community had benefited more than it had lost, and countered contrary views with a rhetorical question: “Is it not better to have oil and gas flaring taking place than not to have oil at all?” He further enjoined the community to “count its blessings”. The statement is a pointer to the supposed benefits that had accrued to the

community as a result of oil production activities. The resort to God and religion was a common feature of many discussants. Even those who thought they had no blessings to count placed their faith in “God as the final dispenser of environmental justice.”

These positions raise many questions regarding modeling perception and attitudes, especially in deprived communities. Very often, in the course of the focus group discussions, religion, economics, and politics are substituted for education, awareness, and experience. For example, a Christian clergy summed up his (and his supporters’) perception and attitude toward gas flaring in the community with a succinct, even if unfortunate, statement that:

“To everything that happens under heaven, there is a time and season. The burning of Sodom and Gomorrah many centuries ago could have emitted greenhouse gases into the atmosphere, but it did not because that was the time appointed for it. In like manner, this is the appointed time to get rid of substance not needed by the oil company. At the appointed time, it will stop”.

The statement is by no means extreme in the heated debates. To what extent have the perceptions and attitudes of people been modified or substituted in the community by economic benefits, political allegiance and religious views that may have been shaped in large measures by economic adversity? How can these sentiments be factored into modeling perceptions and attitudes in such environments as to devise effective policy measures?

## 5 Conclusion

Most residents of Ubeji are aware of the environmental consequences of gas flaring in the community and perceive it as harmful to their health and environment. They are of the opinion that the multinational oil companies and the government are solely responsible for the environmental problems and should bear all the burden of rectifying them. There is an apparent resignation to the continued presence of gas flaring in the community. There also appears to be a rift in the community concerning the way forward. A down-the-line division seemingly exists regarding whether the community should be proactive in demanding an end to gas flaring and related activities in the community. Meanwhile, the community exhibits an attitude of “cool disposition” toward gas flaring despite misgivings about it and about the activities of government and oil companies.

Focus group discussions reveal that economic benefits, political allegiance and religious views all compete with education, awareness, and experience of gas flaring in the

community. This calls to question the extant models of perception and attitudes that focus on education, awareness, and experience without accounting for economic constraints that appear to distort the picture regarding perception and attitudes toward environmental problems especially in communities where political tension and economic adversity are prevalent.

The lamentation of a discussant during the focus group discussion seems to aptly summarize the environmental plight of the Niger Delta and the helplessness of its people, “I left my town, Ughelli, because oil spills destroyed my farmland. I am now here in Ubeji, and the heat and toxins from gas flares are ‘cooking’ me up.”

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