Flames Away: Why Corporate Social Responsibility Is Necessary to Stop Excess Natural Gas Flaring in Nigeria

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I. INTRODUCTION

Crude oil reservoirs often contain dissolved natural gas and when oil companies produce crude oil for sale, natural gas is often unintentionally produced as well.[1] Ideally, this natural gas is separated from the crude oil stream and piped to a market or re-injected into the oil reservoir. Perhaps the least desirable handling method is disposing of the natural gas by burning it, which is commonly referred to as "flaring."[2] Oil producers in Nigeria are notorious for flaring this natural gas instead of putting it to a productive use. As a result, the volume of natural gas flared in Nigeria is the second highest in the world.[3] Specifically, in 2010, Nigeria flared approximately 33 percent of the gross natural gas it produced.[4] In comparison, the United States flares approximately 0.4 percent of the natural gas it produces.[5] A simple comparison of these figures indicates that much of the flaring that occurs in Nigeria is not a necessary consequence of oil production; rather, a significant percentage can and should be eliminated.

There are a myriad of reasons to stop excess flaring. First, eliminating unnecessary flaring will improve the quality of human health and the environment. Flares in Nigeria have been burning continuously since the 1960s[6] and emit both particulate matter, which is harmful to human health; and acid rain precursors,[7] which pollute rivers and

1. ROBERT D. BOTT, FLARING: QUESTIONS & ANSWERS 1 (Michael Brown et al. eds., 2d. ed. 2007), *available at* http://siteresources.worldbank.org/EXTGGFR/Resources/578068-1258067586081/FlaringQA.pdf.

2. *Id.* at 4.

3. *Estimated Flared Volumes from Satellite Data, 2007-2011*, GLOBAL GAS FLARING REDUCTION: PUB.-PRIVATE P'SHIP, WORLD BANK, http://go.worldbank.org/PL1VXU9GR0 (last updated June 14, 2012) [hereinafter *Estimated Flared Volumes from Satellite Data*].

4. *Country Analysis Briefs: Nigeria*, U.S. ENERGY INFO. ADMIN., http://www.eia.gov/countries/analysisbriefs/Nigeria/nigeria.pdf (last updated Oct. 16, 2012).

5. U.S. GOV'T ACCOUNTABILITY OFFICE, GAO-04-809, NATURAL GAS FLARING AND VENTING: OPPORTUNITIES TO IMPROVE DATA AND REDUCE EMISSIONS 6 (2004) [hereinafter GAO-04-809].

6. Tineke Lambooy & Marie-Ève Rancourt, *Shell in Nigeria: From Human Rights Abuse to Corporate Social Responsibility*, 2 HUM. RTS. & INT'L LEGAL DISCOURSE 229, 235 (2008); *see also* ENVTL. RIGHTS ACTION/FRIENDS OF THE EARTH NIGERIA, FACT SHEET: HARMFUL GAS FLARING IN NIGERIA 1 (2008).

7. MICHAEL F. FARINA, GE ENERGY, GEA18592, FLARE GAS REDUCTION: RECENT GLOBAL TRENDS AND POLICY CONSIDERATIONS 22 (2010).

streams[8] and corrode the metal roofs on Nigerian homes.[9] In addition, flares also cause global environmental impacts because when natural gas is burned, carbon dioxide, which is a greenhouse gas, is produced.[10] Thus, eliminating unnecessary flaring would help to slow the effects of global warming. Granted, this is only true if the natural gas is never burned. But, if this natural gas is going to be burned, it should at least be burned for a productive use rather than just wasted, especially when half of Nigerians do not even have electricity.[11] Natural gas, if used as fuel to heat homes and cook food, could improve Nigerians' quality of life.

The amount of natural gas flared in Nigeria annually has decreased by twenty-eight percent since 2000.[12] There are several reasons for this decrease, including higher oil prices, increased government stability, and international pressure on the practices of the multi-national corporations ("MNCs") operating in Nigeria.[13] However, with the second-highest flaring rates in the world, Nigeria has a long way to go. Corporate social responsibility ("CSR") is necessary to help solve this problem because (1) there is currently an ineffective regulatory structure to control flaring; (2) the federal government is dependent on oil revenues and thus has little incentive to fix this ineffective regulatory structure; (3) Nigeria's court system shows signs of corruption and has yet to reign in natural gas flaring; and (4) the price of natural gas is unlikely to make it economical to capture all of the gas that is currently flared. And even if there are governmental, judicial, and economic improvements, CSR will likely still be necessary to decrease the amount of natural gas that is flared in Nigeria.

Given Nigeria's current flaring rates, CSR programs to date have admittedly been unsuccessful at controlling flaring in Nigeria. Yet, the inability of the MNCs operating in Nigeria to eliminate unnecessary flaring has directly impacted the profits of the MNCs operating there. Specifically, between 1998 and 2003, Nigerians committed an estimated 400 vandalizations at facilities owned by MNCs, which resulted in losses amounting to $1 billion annually.[14] The vandalizations are at least in part

8. *Id.*

9. *Nigeria: Another Deadline Goes Up in Flames*, ECONOMIST, Apr. 5, 2008, *available at* http://www.economist.com/node/10979890; ANDY ROWELL ET AL., THE NEXT GULF: LONDON, WASHINGTON AND OIL CONFLICT IN NIGERIA 68 (2005).

10. BOTT, *supra* note 1, at 4.

11. *Country Analysis Briefs: Nigeria*, *supra* note 4.

12. FARINA, *supra* note 7, at 27.

13. *Id.* Higher oil prices lead to reductions in flaring because it becomes more economically attractive to use the associated natural gas as oil prices rise. *Id.* at 24.

14. Michael J. Watts, *Righteous Oil? Human Rights, the Oil Complex and Corporate Social Responsibility*, 30 ANN. REV. ENV'T RES. 373, 400 (2005).

attributable to the MNCs' practices. In fact, the MNCs have admitted that their operations, which harm the environment and leave local citizens without any of the benefits of oil production, have contributed to these vandalizations.[15] If the MNCs' policies are preventing them from maximizing profits in Nigeria, they should be strongly motivated to adjust them. The huge profit loss resulting from vandalizations shows that it may be in the long-term interest of the MNCs to reduce the negative impacts of oil development in Nigeria, including by taking measures to control unnecessary flaring.

While MNCs cannot act as a government in Nigeria and solve the complex problems Nigeria faces, reducing unnecessary flaring may promote stability in the country, which would maximize the MNCs' profits. Thus, CSR programs that minimize unnecessary flaring should be incorporated into the MNCs' business models.

This Note examines why CSR is necessary to control flaring in Nigeria and why the MNCs operating in Nigeria need to adjust how they approach CSR for these programs to be successful. Part II is a thorough examination of flaring and its impacts, both in Nigeria and worldwide. Part III investigates why the current statutory framework in Nigeria is ineffective to solve this problem. Part III also discusses barriers to the Nigerian government passing new legislation to control flaring, which include government corruption and the government's dependence on oil revenues. Part IV discusses why the price of natural gas is unlikely to make it economical to capture all of the natural gas that is currently flared. Part V discusses the frustrated efforts to control flaring through the Nigerian legal system. Finally, Part VI explores the MNCs' current CSR programs in Nigeria, and why and how they should be reevaluated.

II. BACKGROUND ON FLARING AND ITS IMPACTS, BOTH WORLDWIDE AND IN NIGERIA

This Part provides background information on natural gas flaring and why it occurs. In addition, this Part discusses flaring in Nigeria specifically, and why unnecessary flaring should be eliminated: there are alternatives to flaring; flaring is a waste of a valuable, non-renewable resource; and flaring has negative environmental, health, social, and economic impacts.

15. *Id.*

A. The Nuts and Bolts of Flaring and Its Worldwide Energy and Environmental Impacts

Natural gas is often dissolved in crude oil reservoirs,[16] and in this context, it is called "associated gas."[17] In crude oil reservoirs, natural gas is dissolved in the oil because it is under pressure.[18] Similarly, if you look at an unopened champagne bottle, the bubbles are not visible because the bottle is under pressure and the bubbles are dissolved in the champagne. When crude oil is produced from the ground, the pressure exerted on the oil decreases to atmospheric pressure and the associated gas bubbles out of the crude oil, just like champagne starts to bubble when the bottle is opened.[19] In the case of champagne, the bubbles escape to the atmosphere. "Venting" is analogous to allowing champagne to bubble; when associated gas is vented, it is released to the atmosphere. "Flaring" occurs when producers, instead of venting the gas, ignite and burn it for disposal.[20]

Oil companies may flare associated gas instead of directly venting it to the atmosphere for several reasons. First, venting may present a health and safety hazard.[21] For example, hydrogen sulfide, which is present in some natural gases, is extremely toxic at low concentrations.[22] However, if the gas is flared, hydrogen sulfide is converted to sulfur dioxide, a gas which is not nearly as dangerous to humans.[23] Second, compared to flaring, venting releases more potent global warming gasses into the atmosphere.[24] Flaring is essentially combustion of natural gas, which does produce carbon dioxide, a greenhouse gas.[25] Thus, flaring does contribute to global warming.[26] But, if the associated gas is vented,

16. BOTT, *supra* note 1, at 1.

17. INDEP. EVALUATION GRP., WORLD BANK, CLIMATE CHANGE AND THE WORLD BANK GROUP: PHASE I: AN EVALUATION OF WORLD BANK WIN-WIN ENERGY POLICY REFORMS 81 (2009).

18. BOTT, *supra* note 1, at 1.

19. INT'L ENERGY AGENCY, OPTIMIZING RUSSIAN NATURAL GAS: REFORM AND CLIMATE POLICY 141 (2006) [hereinafter OPTIMIZING RUSSIAN NATURAL GAS].

20. BOTT, *supra* note 1, at 1.

21. JOHN KEARNS ET AL., INT'L ASS'N OF OIL & GAS PRODUCERS, REP. NO. 2.79/288, FLARING AND VENTING IN THE OIL AND GAS EXPLORATION AND PRODUCTION INDUSTRY: AN OVERVIEW OF PURPOSE, QUANTITIES, ISSUES, PRACTICES, AND TRENDS 3 (2000).

22. *Id.*

23. *Id.*

24. BOTT, *supra* note 1, at 4.

25. *Id.*

26. Greenhouse gases warm the earth's atmosphere, very likely causing the worldwide temperature increases observed over the past fifty years. GAO-04-809, *supra*

methane is directly released to the atmosphere.[27] Compared to carbon dioxide, methane is a twenty-three times more potent greenhouse gas,[28] so burning the associated gases has a smaller impact on global warming than directly releasing the gases into the atmosphere.

Because flaring is preferable to venting and there are situations where a release of natural gas is simply necessary, some flaring will always occur. For example, during production, it may be necessary to flare some of the gas to ensure safety or as part of the initial characterization of a new well.[29] In addition, well operators cannot always prevent malfunctions, which can cause unintended releases of natural gas.[30]

However, there are indications that associated gas is often unnecessarily flared. First, countries flare associated gas at wildly different rates. In fact, some countries flare most of the associated gas they produce.[31] Sixty percent of the estimated natural gas flared worldwide occurs in only six countries: Russia, Nigeria, Iran, Iraq, Algeria, and Angola.[32] Second, despite an increase in crude oil production, worldwide flaring levels have decreased by twenty-two percent since 2005.[33] Both the fact that countries flare gas at different rates and the fact that flaring has decreased worldwide despite increases in crude oil production indicates that flaring is unnecessary in many circumstances.

Unnecessary flaring should be eliminated because it is a waste of energy. It is unclear exactly how much energy flaring wastes because current estimates of the volume of associated gas flared rely on voluntary

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note 5, at 1; INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, CLIMATE CHANGE 2007: SYNTHESIS REPORT, SUMMARY FOR POLICY MAKERS 5 (2007) [hereinafter IPCC, 2007 CLIMATE CHANGE SYNTHESIS REPORT]. And continuing greenhouse gas emissions are likely to cause further warming and other environmental damage. IPCC, 2007 CLIMATE CHANGE SYNTHESIS REPORT, *supra* note 26, at 7.

27. GAO-04-809, *supra* note 5, at 3.

28. *Id.*

29. After a well is initially drilled, operators must determine flow rates and the composition of the gas, during which time it is necessary to flare the natural gas produced. BOTT, *supra* note 1, at 4.

30. *Id.*

31. GAO-04-809, *supra* note 5, at 6.

32. *Estimated Flared Volumes from Satellite Data*, *supra* note 3.

33. Press Release, Global Gas Flaring Reduction: Pub.-Private P'ship, World Bank, Gas Flaring Reductions Avoid 30 Million Tons of Carbon Dioxide Emissions in 2010, (Jun. 27, 2011), *available at* http://climatechange.worldbank.org/news/gas-flaring-reductions-avoid-30-million-tons-carbon-dioxide-emissions-2010.

reporting by countries and producers.[34] There is little independent data, and current voluntary reporting is likely a low estimate in many cases.[35] However, the National Oceanic and Atmospheric Administration has started monitoring flaring by satellite.[36] Based on satellite images, the World Bank estimates that sufficient natural gas is flared every year to satisfy the annual natural gas consumption of Germany and France combined.[37] This is equivalent to twenty-five percent of the United States' natural gas consumption and thirty percent of the European Union's natural gas consumption.[38]

Unnecessary flaring should also be eliminated because, as discussed above, the resultant carbon dioxide emissions cause global warming. The World Bank estimates that 400 million tons of carbon dioxide equivalents are produced annually because of flaring.[39] This is equal to the carbon dioxide equivalents produced from over 78,000 cars annually.[40] If this natural gas is going to be burned and contribute to global warming, it should be put to a productive use first.

B. Flaring in Nigeria and Alternatives

Oil production is extensive in Nigeria, which has resulted in a significant amount of flaring. Nigeria is the largest crude oil producer in Africa and is the eighth largest exporter of crude petroleum in the world.[41] In 2008, there were over 100 flares in Nigeria that burned the natural gas associated with this crude petroleum.[42] Many of these flares burn continuously; some have been burning since the early 1960s—over

34. *Global Gas Flaring Estimates*, NAT'L GEOPHYSICAL DATA CTR, NAT'L OCEANIC & ATMOSPHERIC ADMIN., http://www.ngdc.noaa.gov/dmsp/interest/gas_flares.html (last visited Feb. 24, 2013).

35. *Id.*

36. *Id.*

37. GAO-04-809, *supra* note 5, at 6.

38. *Learn the Facts*, GLOBAL GAS FLARING REDUCTION: PUB.-PRIVATE P'SHIP, WORLD BANK, http://go.worldbank.org/016TLXI7N0 (last visited Feb. 24, 2013).

39. *Id.*

40. The EPA estimates that American cars produce 5.1 metric tons of carbon dioxide equivalents each year. OFFICE OF TRANSP. & AIR QUALITY, ENVTL. PROT. AGENCY, EPA-420-F-11-041, QUESTIONS AND ANSWERS: GREENHOUSE GAS EMISSIONS FROM A TYPICAL PASSENGER VEHICLE 2 (2011), *available at* http://www.epa.gov/otaq/climate/documents/420f11041.pdf.

41. Olufemi O. Amao, *Corporate Social Responsibility, Multinational Corporations and the Law in Nigeria: Controlling Multinationals in Host States*, J. AFR. L. 89, 94 (2008).

42. ENVTL. RIGHTS ACTION/FRIENDS OF THE EARTH NIGERIA, *supra* note 6, at 1.

forty years straight.[43] While flaring has decreased in Nigeria by twenty-eight percent from 2000 levels,[44] approximately eleven percent of global flaring still occurs in Nigeria.[45] The volume of natural gas flared in Nigeria is second only to Russia.[46] Specifically, Nigeria flares over 15 billion cubic meters of gas each year,[47] equivalent to approximately one-third of the gross natural gas produced in Nigeria in 2010.[48]

The amount of natural gas flared in Nigeria should be reduced because there are alternatives. One option is to re-inject the associated gas into the ground.[49] A second option is to collect, process, and sell the gas in either domestic or international markets.[50] Unfortunately, the existence of these alternatives has not prevented unnecessary flaring from occurring. While re-injection does increase the pressure in the reservoir, which enhances oil recovery, re-injection is generally more expensive than flaring.[51] In Nigeria specifically, the geology of many of the oil reservoirs also prevents re-injection of associated gas.[52] Finally, while infrastructure could be built to pipe the associated gas to a market, in developing countries, including Nigeria, there is often no local or international market to purchase the gas at a cost economically sufficient to incentivize construction of the necessary infrastructure.[53] In addition to the economics, local violence and socio-political instability in Nigeria

43. Lambooy & Rancourt, *supra* note 6, at 235; *see also* ENVTL. RIGHTS ACTION/FRIENDS OF THE EARTH NIGERIA, *supra* note 6, at 1.

44. FARINA, *supra* note 7, at 27.

45. *Estimated Flared Volumes from Satellite Data*, *supra* note 3.

46. *Id.*

47. *Id.*

48. *Country Analysis Briefs: Nigeria*, *supra* note 4.

49. *Global Gas Flaring Reduction Initiative: Report on Consultations with Stakeholders* 8 (World Bank, Working Paper No. 27275, 2004) [hereinafter *Report on Consultations with Stakeholders*].

50. *Id.*

51. GAO-04-809, *supra* note 5, at 2 n.2; OPTIMIZING RUSSIAN NATURAL GAS, *supra* note 19, at 144.

52. INT'L ASS'N OF OIL & GAS PRODUCERS, REPORT NO. 2.79/288, FLARING & VENTING IN THE OIL & GAS EXPLORATION & PRODUCTION INDUSTRY: AN OVERVIEW OF PURPOSE, QUANTITIES, ISSUES, PRACTICES, AND TRENDS 8 (2000). *Cf.*, *id.* at 9 (In the eastern part of Venezuela, gas is injected into the oil-bearing formation to improve recovery); BOTT, *supra* note 1, at 5 (In Newfoundland and Labrador, the natural gas that cannot be used to meet onsite energy needs is re-injected into the oil-producing formations.).

53. GAO-04-809, *supra* note 5, at 2.

are often cited by MNCs as barriers to developing additional infrastructure, which is discussed later in this Part.[54]

C. Environmental Impacts of Flaring in Nigeria

Alternatives need to be utilized, despite the barriers, because in addition to the global environmental impacts discussed above, flaring also causes localized environmental and human health impacts. Many flares in Nigeria reach hundreds of feet into the air and burn associated gas twenty-four hours a day, resulting in places "where the sun never sets."[55] The environmental effects of these flares include noise and heat, which kills surrounding vegetation.[56] They also produce sulfur and nitrogen emissions, which cause acid rain.[57] Acid rain is damaging to the environment, in part because it pollutes creeks and streams and damages vegetation.[58] In addition, many Nigerian homes have metal roofs, and acid rain corrodes those roofs.[59] Flares also produce particulate matter (soot).[60] Finally, many Nigerians live near oil wells so children play near flares[61] and farmers farm near them.[62] As a result, numerous health effects are reported in communities located near flares including respiratory illnesses, asthma, blood disorders, cancer, painful breathing, and chronic bronchitis.[63]

54. Wendel Broere, *The Elusive Goal to Stop Flares*, SHELL WORLD, May 5, 2008, at 5.

55. FARINA, *supra* note 7, at 22.

56. Amy Sinden, *An Emerging Human Right to Security from Climate Change: The Case Against Gas Flaring in Nigeria*, *in* ADJUDICATING CLIMATE CHANGE 173, 176 (William C.G. Burns & Hari M. Osofsky eds., 2009); *see also Nigeria: Another Deadline Goes Up in Flames*, *supra* note 9.

57. FARINA, *supra* note 7, at 22.

58. *Id.*

59. *Nigeria: Another Deadline Goes Up in Flames*, *supra* note 9.

60. FARINA, *supra* note 7, at 22.

61. ROWELL ET AL., *supra* note 9, at 2.

62. *Nigeria: Another Deadline Goes Up in Flames*, *supra* note 9.

63. The World Bank is currently studying the human health effects of flaring. *Id.* In addition, Environmental Rights Action and the Climate Justice Programme estimated that in one Nigerian state alone, it is statistically likely that flares "cause 49 premature deaths, 5,000 respiratory illnesses among children and some 120,000 asthma attacks and 8 additional . . .cancers each year." ROWELL ET AL., *supra* note 9, at 68.

D. Flaring Wastes Energy That Nigeria Needs

As of January 2011, Nigeria had an estimated 37.2 billion barrels of proven oil reserves.[64] Nigeria also has the ninth-largest natural gas reserves in the world.[65] Despite this wealth of oil and natural gas, the vast majority of Nigerians (82% in 2010) use traditional biomass, including wood, charcoal, and waste, to serve their energy needs,[66] which is insufficient because Nigeria suffers from chronic energy shortages.[67] In both urban and rural locations, a significant portion of the population does not get the energy it needs.[68] Approximately 76 million people (approximately half the population) do not have electricity.[69] Insufficient access to energy disparately impacts poor communities, which cannot afford independent power generation.[70] In addition, intermittent or nonexistent energy supplies dampen economic growth.[71] Thus, natural gas is being burned right next door to homes and businesses that desperately need an energy source to improve the quality of life in Nigeria.

The irony is that Nigeria, despite having an energy source that is simply burned without being put to a productive use first, requires oil imports to meet its fossil-fuel demands. In 2010, Nigeria consumed approximately 280,000 billion barrels of oil per day.[72] However, the vast majority of this oil was not produced in Nigeria because Nigeria does not have operational refineries to process the crude oil it produces.[73] Rather, Nigeria's crude oil is exported and refined oil is imported.[74] Nigeria does have four refineries, but these refineries have never been fully operational because of "poor maintenance, theft, and fire."[75] The inability of Nigeria to refine its own crude oil underscores the difficulties that would arise from building the transmission and processing facilities necessary to utilize the natural gas that is currently flared. There is little

64. *Country Analysis Briefs: Nigeria*, *supra* note 4.

65. *Id.*

66. *Id.*

67. *Report on Consultations with Stakeholders*, *supra* note 49, at 32.

68. *Id.*

69. *Country Analysis Briefs: Nigeria*, *supra* note 4. Despite not having electricity, the irony is that because of flares, "[s]ome children have never known a dark night." ROWELL ET AL., *supra* note 9, at 67-68.

70. *Report on Consultations with Stakeholders*, *supra* note 49, at 32.

71. *Id.*

72. *Country Analysis Briefs: Nigeria*, *supra* note 4.

73. *Id.*

74. *Id.*

75. *Id.*

reason to believe that this infrastructure would be immune from the poor maintenance, theft, and fire that have hampered the refineries. However, Nigeria needs additional energy, and the natural gas that is currently flared can provide a portion of that energy. As discussed in Part III, CSR is necessary to ensure that associated gas is put to productive use in Nigeria.

E. Most Nigerians Do Not Benefit from Oil Production

Oil production does generate significant wealth in Nigeria.[76] However, this wealth is not distributed equitably. The federal government owns the mineral resources in Nigeria[77] and as a result, Nigerian landowners do not directly benefit from oil development. Rather, the federal government receives all oil revenues and then distributes a portion of those revenues to state and local governments.[78] To make matters worse, corruption within the federal government prevents state and local governments from getting their fair share.[79] According to a recent Nigerian government report, government corruption has cost Nigeria $35 billion over the past 10 years.[80] Lost oil revenues account for a significant portion of this deficit; because the Nigerian government did not sell oil at market value, Nigerians lost $29 billion over the past 10 years.[81] While the current administration is actively fighting corruption,[82] according to Transparency International,

76. Oil and gas exports account for approximately 95% of export earnings and one-fourth of the Gross Domestic Product. *Nigeria*, *World Factbook*, CENT. INTELLIGENCE AGENCY, https://www.cia.gov/library/publications/the-world-factbook/geos/ni.html (last updated Feb. 5, 2013); OKONTA & DOUGLAS, WHERE VULTURES FEAST: SHELL, HUMAN RIGHTS, AND OIL IN THE NIGER DELTA 18 (2001).

77. KENNETH OMEJE, HIGH STAKES AND STAKEHOLDERS: OIL CONFLICT AND SECURITY IN NIGERIA 40 (2006).

78. *Id.* at 39.

79. *See* Simon Allison, *Nigeria: how to lose $35 bn: Nuhi Ridabu's report into billions squandered by oil industry reads like a guide to how to mismanage public resources*, GUARDIAN (Nov. 13, 2012), http://www.guardian.co.uk/world/2012/nov/13/nigeria-oil-corruption-ridabu.

80. *Id.*

81. *Id.*

82. *See Nigeria's corruption busters*, UNITED NATIONS OFF. ON DRUGS & CRIME (Nov. 20, 2012), http://www.unodc.org/unodc/en/frontpage/nigerias-corruption-busters.html.

in 2012, Nigeria was still the thirty-fifth most corrupt country in the world.[83]

This corruption harms Nigerians. It ensures that Nigerians do not benefit from oil production.[84] In addition, government corruption is positively correlated with economic inequality[85] and Nigeria measures high on inequality indexes.[86] In 2001, the World Bank estimated that over seventy percent of Nigerians live on less than one dollar per day,[87] and according to the United Nations Development Program, the average quality of life has actually decreased since oil was discovered.[88]

F. All Negatives and Zero Positives Equate to Violence

The Nigerian government's failure to redress the economic disparity and environmental pollution caused by oil development has resulted in community uprisings for decades.[89] For example, a protest song from 1970 specifically focused on flaring:

> The flames of Shell are flames of hell
>
> We bask below their light
>
> Naught for us serve the blight
>
> Of cursed neglect and cursed Shell[90]

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83. *Transparency Int'l Ranks Nigeria 35th Most Corrupt Country . . . As FG Faults Report*, CITIZEN (Dec. 6, 2012), http://thecitizenng.com/financial-crime/transparency-intl-ranks-nigeria-35th-most-corrupt-country-as-fg-faults-report/.

84. "High levels of corruption and poor governance are pointed out as some of the factors 'explaining' that [sic] oil royalties have not been adequately distributed to the population." Lambooy & Rancourt, *supra* note 6, at 233. "Oil provides each Nigerian with an average of 53 cents . . . each year." ROWELL ET AL., *supra* note 9, at 94.

85. *See* Kwabena Gyimah-Brmpong, *Corruption, economic growth, and income inequality in Africa*, 3 ECON. GOV. 183-209 (2002); *see also* Eric Chang, *Political Transition, Corruption, and Income Inequality in Third-Wave Democracies* (Afrobarometer, Working Paper No. 79, 2007), *available at* http://pdf.usaid.gov/pdf_docs/PNADK733.pdf.

86. *See* BEN E. AIGBOKHAN, PREPARED FOR UNITED NATIONS ECONOMIC COMMISSION FOR AFRICA, GROWTH, INEQUALITY AND POVERTY IN NIGERIA 25 (2008), *available at* http://repository.uneca.org/bitstream/handle/10855/14927/bib-56869_I.pdf?sequence=1; *see also* A.S. Bakare, *Measuring the Income Inequality in Nigeria: The Lorenzo Curve and Gini Co-efficient Approach*, 2 AM. J. OF ECON. 47-52 (2012), *available at* http://article.sapub.org/10.5923.j.economics.20120201.06.html.

87. AIGBOKHAN, *supra* note 86, at 13.

88. ROWELL ET AL., *supra* note 9, at 94.

89. *See generally id.* at 76-90.

90. *Id.* at 65.

Further, in 1997, Nigerians started a movement demanding an "end to the ecological devastation . . . by [MNCs] and the Federal government."[91] The movement continued in 1998, when over 500 communities adopted a declaration asking oil companies to withdraw, stating "[w]e are tired of gas flaring, oil spillages, [and] blowouts."[92] When the oil companies did not leave, violence erupted and MNCs were forced to halt oil production in many places.[93] The violence continued[94] and since 2005, it has even escalated, with the Movement for the Emancipation of the Niger Delta and others vandalizing pipelines, kidnapping oil workers for ransom, and seizing oil facilities.[95]

The government has responded violently to these uprisings. In the process of several military operations, civilians have been killed, leading to allegations of human rights violations.[96] An amnesty was finally declared in 2009; the militants agreed with the government to hand over their weapons in exchange for cash and job training.[97] However, wealth redistribution and an increase in job opportunities have not occurred and criminal attacks against oil infrastructure returned.[98]

Flaring cannot be directly linked to all of the violence in Nigeria. Nigerians are upset for many reasons: oil spills are frequent;[99] oil production areas are densely populated leading to fights over land;[100] and the government,[101] rather than individuals, owns the oil, so individuals do not profit from oil development.[102] However, environmental pollution, including flaring, has and continues to[103] spur protests and community uprisings in Nigeria. Thus, if CSR programs are developed to limit excess flaring, there may be a decrease in violence in Nigeria.

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91. *Id.* at 18.

92. *Id*. at 22.

93. *Id.*

94. *Id.* at 22–34.

95. *Country Analysis Briefs: Nigeria*, *supra* note 4.

96. Paul Oghenero Okumagba, *Militancy & Human Rights Violations in the Niger Delta*, 3 INT'L REVIEW OF SOCIAL SCIENCES & HUMANITIES 28, 34 (2012).

97. *Country Analysis Briefs: Nigeria*, *supra* note 4; *Nigeria's new president: Stop-gap or long-term leader?*, ECONOMIST, May 15, 2010.

98. *Id.*

99. SOALA ARIWERIOKUMA, THE POLITICAL ECONOMY OF OIL AND GAS IN AFRICA 266 (2009).

100. ROWELL ET AL., *supra* note 9, at 8.

101. OMEJE, *supra* note 77, at 40.

102. "Oil provides each Nigerian with an average of 53 cents . . . each year." ROWELL ET AL., *supra* note 9, at 94.

103. OMEJE, *supra* note 77, at 45.

III. NIGERIA LACKS A REGULATORY AND POLITICAL FRAMEWORK TO ADEQUATELY CONTROL FLARING

Improving federal regulation and oversight is often recommended as a way to reduce flaring.[104] In fact, the World Bank recommends increased government oversight to adequately control flaring as part of its Global Gas Flaring Reduction public-private partnership ("GGFR"), which was started in 2002. Improving regulatory oversight has worked successfully for some countries, including Canada[105] and Norway.[106] However, as is discussed in this Part, Nigeria must overcome numerous hurdles, including a currently inadequate regulatory framework and ineffective enforcement, before federal oversight can be effective. In addition, there are numerous factors that decrease the likelihood that the federal government will develop a successful regulatory program, including government dependence on oil revenues and corruption. Because Nigeria does not have a regulatory program that can reduce unnecessary flaring and because there are barriers to the government successfully developing a new regulatory program, CSR is a necessary measure to reduce flaring rates.

This Part also discusses the World Bank's voluntary standard, which asks MNCs to develop programs to reduce flaring levels. However, the voluntary standard depends on federal government oversight. Thus, MNCs likely need to develop CSR programs independent of the voluntary standard to realize effective flaring reduction.

A. Nigeria Has a Long History of Legislative and Political Attempts to Control Flaring

The Nigerian legislature has passed several types of legislation over the past several decades, each of which was designed to eliminate

104. GAO-04-809, *supra* note 5, at 7; FRANZ GERNER ET AL., THE WORLD BANK GROUP, NOTE NO. 279, GAS FLARING AND VENTING: A REGULATORY FRAMEWORK AND INCENTIVES FOR GAS UTILIZATION (2004), *available at* http://rru.worldbank.org/Documents/PublicPolicyJournal/279-Gerner-Svensson-Djumena.pdf; Ibironke T. Odumosu, *Transferring Alberta's Gas Flaring Reduction Regulatory Framework to Nigeria: Potentials and Limitations*, 44 ALTA. L. REV. 863, 865 (2007).

105. GLOBAL GAS FLARING REDUCTION: A PUB.-PRIVATE P'SHIP, WORLD BANK GRP., NO. 29554, REGULATION OF ASSOCIATED GAS FLARING AND VENTING: A GLOBAL OVERVIEW AND LESSONS LEARNED FROM INTERNATIONAL EXPERIENCE 28-39 (2004).

106. *Id*. at 40–44.

unnecessary flaring. Unfortunately, these initiatives have simply been unsuccessful. In 1969, Nigeria passed the Petroleum Act, which stated that within five years of starting production, oil companies are to submit any programs that they voluntarily developed to utilize natural gas.[107] Perhaps unsurprisingly (because the requirement to actually develop a plan to reduce flaring was not mandatory), the oil companies did not develop plans to utilize the gas. A decade later, the legislature passed the Associated Gas Reinjection Act, which stated that oil companies "shall" have plans to eliminate flaring by 1984, the same year in which routine flaring would technically be illegal.[108] However, the Associated Gas Reinjection Act also allows MNCs to continue flaring if they receive an authorization certificate,[109] and the 1985 Amendments allow flaring to continue if the oil companies pay a minimal fine.[110] It was, and continues to be, more economical for the oil companies to pay the fines than to stop flaring, despite an increase in the amount of the fines.[111]

Over the past decade, the Nigerian government has continued to promote an end to natural gas flaring. However, because the Nigerian government has failed to provide either monetary support or an enforcement mechanism, the government's words and promises have led to few concrete results. For example, the Nigerian government set December 31, 2008 as a deadline by which to end flaring, but the deadline passed and flaring continues.[112] In 2009, the Nigerian government developed a Gas Master Plan that promotes gas-fired power plants to help reduce flaring and provide electricity generation, but progress is limited.[113] Most recently, the Nigerian legislature is debating another bill, the Petroleum Industry Bill, which is designed to reform the entire oil and natural gas sector,[114] and the deadline to eliminate unnecessary flaring was extended to December 2012.[115]

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107. The Petroleum Act states that the industry is to submit any plans it "may have" for utilizing associated natural gas within five years of starting production. Odumosu, *supra* note 104, at 888–89. The term "may have" is not interpreted as a mandatory requirement in Nigeria. *Id.* at 889 n.187.

108. *Id.* at 889.

109. OMEJE, *supra* note 77, at 45.

110. *Id.*

111. Odumosu, *supra* note 104, at 889–90.

112. Andrew Walker, *Nigeria's Gas Profits 'Up In Smoke*,' BBC NEWS (Jan. 13, 2009), http://news.bbc.co.uk/2/hi/africa/7820384.stm.

113. *Country Analysis Briefs: Nigeria*, *supra* note 4.

114. *Id.*; *see also* Juliet Alohan, *Nigeria: PIB Committee Gets 30 Days to Produce Draft*, ALLAFRICA (Jan. 20, 2012), http://allafrica.com/stories/201201200613.html.

115. *Country Analysis Briefs: Nigeria*, *supra* note 4.

B. The Nigerian Government Is Dependent on Oil Revenues and Shows Signs of Corruption

A successful regulatory framework to eliminate unnecessary flaring has not been developed,[116] likely because every level of the Nigerian government depends on oil revenues,[117] resulting in little incentive to actually regulate the MNCs operating in Nigeria. In fact, the Nigerian government is often referred to as a "petro state" because of its dependence on oil.[118] Figures differ as to the extent of the Nigerian government's dependence, but oil royalties provide somewhere between forty to over eighty percent of government revenues.[119] The royalties are fixed by a contract between the federal government, acting through the Nigerian National Petroleum Corporation, and the MNCs.[120] Despite this partnership, the Nigerian government does not exert any direct control over the actual production of the crude oil.[121] Rather, the MNCs retain managerial control.[122] The Nigerian government could theoretically still place conditions in the contract, such as limits on flaring levels, but unsurprisingly, given the Nigerian government's dependence on oil revenues, it simply contributes to the cost of production and receives a share of the profits (usually 55–60%),[123] instead of imposing conditions that could improve the quality of its citizens' lives. After it receives the rents, the federal government distributes a portion of those rents to the states. As a result, over time, all levels of government have become increasingly dependent on oil revenues and less dependent on other sources of revenue.[124] This dependence on oil revenues creates a situation where the "Nigerian government has no power" and the "[MNCs] actually dictate in which direction the country should go."[125]

In addition, as was discussed in Part II.E, corruption is endemic within the Nigerian government. Nigeria ranked 139 out of 174 countries

116. *See* Engobo Emeseh et al., *Corporations, CSR and Self-Regulation: What Lessons From the Global Financial Crisis?*, 11 GERMAN L. J. 230, 245-46 (2010).

117. *See* Watts, *supra* note 14, at 384.

118. The Nigerian Constitution vests oil ownership to the federal government. Odumosu, *supra* note 104, at 876.

119. Watts, *supra* note 14, at 384; Ngozi Okonjo-Iwela, *Nigeria's Shot At Redemption: Turning Nigeria's oil windfall into a blessing*, FINANCE & DEV., Dec. 2008, at 42, 44; *Country Analysis Briefs: Nigeria*, *supra* note 4.

120. Amao, *supra* note 41, at 94; Odumosu, *supra* note 104, at 876.

121. Amao, *supra* note 41, at 94.

122. *Id.*

123. *Id.* at 94–95.

124. Watts, *supra* note 14, at 384.

125. OMEJE, *supra* note 77, at 47.

on Transparency International's 2012 Corruption Perception Index, with a lower ranking indicating more transparency.[126] In this environment, oil revenues are often "misappropriate[ed]" and serve as "unearned income" for Nigeria's leaders.[127] If government officials benefit substantially from oil revenues, there is little incentive to develop a regulatory framework to control flaring. Instead of seeking to maximize the long-term benefits that controlling flaring can bring, government officials are interested in short-term economic production to maximize their profits while they are in office. As such, it is only the MNCs (which have operated in Nigeria for decades) that can look to the long-term and develop CSR programs to help control unnecessary flaring. As is discussed in Part VI, it may even be economical in the long-term for MNCs to develop such policies.

C. The World Bank's Voluntary Standard

In 2002, the World Bank started the GGFR.[128] Through this voluntary partnership, the World Bank hopes to promote effective flaring regulation and facilitate gas utilization by improving infrastructure and access to local and international markets, especially in developing countries.[129] In addition, the World Bank GGFR seeks to reduce poverty by enabling local communities to use the natural gas.[130] GGFR's partners include both the country of Nigeria and several of the oil companies that operate in Nigeria, such as Chevron, ConocoPhilips, ExxonMobil, Shell, Statoil, and Total.[131]

This partnership does not require that either the MNCs or the Nigerian government implement specific practices to reduce flaring.[132] Rather, the World Bank GGFR developed a voluntary standard that

126. TRANSPARENCY INT'L, CORRUPTION PERCEPTIONS INDEX 2012 (2012), *available at* http://www.transparency.org/cpi2012/results.

127. OKONTA & DOUGLAS, *supra* note 76, at 36.

128. *About GGFR*, GLOBAL GAS FLARING REDUCTION: PUB.-PRIVATE P'SHIP, WORLD BANK, http://go.worldbank.org/Q7E8SP9J90 (last updated Sept. 11, 2012).

129. *Id.*

130. *Id.*

131. *GGFR Partners Around the World*, GLOBAL GAS FLARING REDUCTION: PUB.-PRIVATE P'SHIP, WORLD BANK, http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTOGMC/EXTGGFR/0,,contentMDK:21025532~menuPK:2856862~pagePK:64168445~piPK:64168309~theSitePK:578069,00.html (last updated Aug. 30, 2012).

132. GLOBAL GAS FLARING REDUCTION: A PUB.-PRIVATE P'SHIP, WORLD BANK GRP., REP. NO. 4, A VOLUNTARY STANDARD FOR GLOBAL FLARING AND VENTING REDUCTION, 5 (2004).

MNCs can adopt to reduce flaring and venting,[133] which has an initial goal of eliminating the unnecessary flaring of associated gas.[134] The voluntary standard recommends that producers develop an Associated Gas Recovery Plan that identifies barriers to associated gas utilization and documents a plan for reducing flaring.[135]

While the voluntary standard identifies potential solutions to unnecessary natural gas flaring, successful implementation of these solutions is largely dependent on government involvement.[136] As the standard states, "[w]ithout such dedication on the part of the country governments to take actions that will encourage gas recovery and commercialization, it may be very difficult for operators to justify the investments that will be needed to achieve major flaring and venting reductions."[137] As was just discussed, it is unlikely that the Nigerian government will take action to encourage the voluntary standard's recommendations. Thus, the MNCs are left to implement measures that are not economical in the short-term, which is why CSR programs are necessary. And as is discussed in Part VI, if the MNCs shift their view from short-term economic gains to long-term stability, it may actually be economical for the MNCs operating in Nigeria to develop a gas flaring reduction program.

IV. MARKET FORCES WILL NOT SUBSTANTIALLY REDUCE EXCESS FLARING

If natural gas prices are sufficiently high, such that it is economical for producers to build the infrastructure to transport the associated gas to a market, the associated gas can be captured and sold, thus reducing flaring rates.[138] However, natural gas markets are subject to large price swings and as such, it cannot be assumed that the price of natural gas will rise high enough, and stay high enough, for it to be economical to

133. *Id.*

134. *Id.* at 9.

135. *Id.* at 19.

136. The voluntary standard recommends that governments develop a Country Implementation Plan, which is the framework in which the Associated Gas Recovery Plan can be implemented. The voluntary standard recommends that governments "identify and develop the domestic market," "identify barriers to international market access," "develop a legal framework," and "develop a fiscal framework," "implement gas and competitive fuel pricing," "support infrastructure development," and "implement the [voluntary] standard." *Id.* at 19-21.

137. *Id.* at 20.

138. GAO-04-809, *supra* note 5, at 2.

capture and sell associated gas. For example, between 1995 and 2003, on average, the price of natural gas increased over thirteen percent every year in the United States, to over $5.00 per million British thermal units ("Btu").[139] The price continued to rise, to over $14.00 per million Btu in 2005.[140] But since then, the price of natural gas has plummeted, to just $2.50 per million Btu in February 2012.[141] European natural gas markets have been subject to similar price swings.[142] As a result, non-associated gas,[143] which is cheaper to produce,[144] will comprise the majority of the natural gas production for sale in the near-term.[145]

In addition, non-associated gas is abundant in Nigeria so there is even less incentive to utilize the associated gas. Specifically, Nigeria is home to fifty-percent of the natural gas reserves in Africa,[146] or five percent of global gas reserves,[147] making it the ninth largest in the world.[148] Increased natural gas production is likely to first come from these non-associated gas reserves, which are cheaper to produce, rather than from associated gas reserves, which would decrease flaring. For example, the West African Gas Pipeline, which transports compressed natural gas from Nigeria to nearby African countries, does not use significant quantities of associated natural gas.[149] In addition, Nigeria's largest export facility for natural gas, the Bonny liquefied natural gas

139. *Id.* at 1.

140. ERIN MASTRANGELO, ENERGY INFO. ADMIN., AN ANALYSIS OF PRICE VOLATILITY IN NATURAL GAS MARKETS 1 (2007), *available at* ftp://ftp.eia.doe.gov/features/ngprivolatility.pdf.

141. U.S. ENERGY INFO. ADMIN., SHORT-TERM ENERGY OUTLOOK 8 (2012), *available at* http://205.254.135.7/forecasts/steo/pdf/steo_full.pdf.

142. AUSTIN F. WHITMAN, M.J. BRADLEY & ASSOCIATES LLC, NATURAL GAS PRICE VOLATILITY: LESSONS FROM OTHER MARKETS 14 (2011).

143. Non-associated gas is natural gas that is not dissolved in crude oil underground. *Glossary of Statistical Terms: Natural Gas-IEA*, OECD, http://stats.oecd.org/glossary/detail.asp?ID=1732 (last updated Jan. 4, 2006).

144. This non-associated gas is cheaper to develop: the cost to recover and pipe associated gas is as much as ten times higher than that for non-associated gas. SARAH AHMAD KHAN, NIGERIA: THE POLITICAL ECONOMY OF OIL 160 (1994).

145. Emeka Duruigbo, *The Global Energy Challenge and Nigeria's Emergence as a Major Gas Power: Promise, Peril, or Paradox of Plenty?*, 21 GEO. INT'L ENVTL. L. REV. 395, 436 (2009).

146. ARIWERIOKUMA, *supra* note 99, at 176.

147. *Id.*

148. *Country Analysis Briefs: Nigeria*, *supra* note 4.

149. *See* Environmental Rights Action Nigeria, *World Bank Acknowledges Serious Flaws in West African Gas Pipeline*, BANK INFO. CENTER (Aug. 5, 2008), http://www.bicusa.org/en/Article.3864.aspx ("[WAGP] was initially promoted as an instrument to reduce the gas flaring [in Nigeria]. . . . Actual reductions in gas flaring will be . . . substantially less than was implied before the project was begun.").

("LNG") plant, primarily liquefies non-associated natural gas.[150] Three additional LNG plants have been postponed beyond 2016.[151] Without CSR programs, because of short-term economic considerations, these LNG plants are also unlikely to liquefy associated gas.

Even if natural gas prices were sufficiently high world-wide to justify expenditure of capital to build the necessary infrastructure, there are geographical barriers to developing the infrastructure to integrate associated gas with non-associated gas reserves in much of Nigeria. For example, in many locations, the ground is too soft to anchor pipelines.[152] While barges can be used to ship the natural gas instead of piping it, the waterways in Nigeria are often too shallow for shipping.[153] These physical barriers prevent the associated gas from being sold in international markets, even if natural gas prices were sufficiently high to justify the cost of new infrastructure.

V. NIGERIA'S JUDICIAL BRANCH HAS BEEN UNABLE TO STOP UNNECESSARY FLARING

Private citizens' attempts to control flaring through Nigeria's court system have unfortunately been unsuccessful.[154] Recently, Nigerians living near flares filed a lawsuit, *Gbemre v. Shell Petroleum Development Co.*, alleging that flaring violates fundamental rights guaranteed by both the Nigerian Constitution and the African Charter on Human and People's Rights.[155] In response, Shell argued both that it did not flare gas in the community where the plaintiffs live and that it did not cause the environmental and human health effects alleged, which included acid rain, reduced crop production, premature death, respiratory illness, asthma, and cancer.[156] In 2005, the Federal High Court of

150. Duruigbo, *supra* note 145, at 436.

151. *Country Analysis Briefs: Nigeria*, *supra* note 4.

152. FARINA, *supra* note 7, at 27.

153. *Id.*

154. There have also been cases that have been brought under the Alien Torts Claim Act ("ACTA"), including *Wiwa v. Shell* and *Bowoto v. Chevron*. However, these cases alleged human rights abuses and did not specifically address the impacts of flaring. *See Wiwa et al. v. Royal Dutch Petroleum et al.*, CENTER FOR CONST. RTS., http://ccrjustice.org/ourcases/current-cases/wiwa-v.-royal-dutch-petroleum (last visited Nov. 18, 2011); *Bowoto v. Chevron*, CENTER FOR CONST. RTS., http://ccrjustice.org/ourcases/current-cases/bowoto-v.-chevron (last visited Nov. 18, 2011).

155. Sinden, *supra* note 56, at 179.

156. *Id.*

Nigeria, which is a trial court, held that the plaintiffs have a *constitutional right* to a clean and healthy environment and that *flaring* violates that right.[157] The court ordered both Shell and the Nigerian National Petroleum Corporation "to take immediate steps to stop the further flaring of gas."[158] Unfortunately, the ruling has had little practical effect because the appellate court dismissed contempt proceedings intended to actually get the MNCs to comply with the order, and the trial judge was removed from the case and transferred to a different district.[159]

While this was a landmark ruling stating that flaring actually violates fundamental human rights, because the ruling came from a trial court, it will likely have little precedential value. In addition, it does not appear that this order is going to be enforced in the near future. The lack of adequate enforcement and possible corruption in the legal system, evidenced by the removal and transfer of the trial judge, indicates that some other mechanism is required to reduce flaring levels. The inability of the court system to address this issue is an additional reason why CSR programs are a necessary part of the equation to help reduce flaring in Nigeria.

VI. CORPORATE SOCIAL RESPONSIBILITY IN NIGERIA AND WHY IT IS NECESSARY TO ADEQUATELY CONTROL FLARING

CSR programs originated from the idea that corporations do not operate in a "social vacuum,"[160] and, as a result, they have a duty to society, a "social responsibility," to engage in practices that are not required by law or the corporation's bottom line.[161] Because of social pressures or the corporate executive officer's desire "to do the right thing," corporations choose to donate money to causes or undertake projects that they believe will benefit the world in which they operate,

157. *Id.* at 180.

158. *Id.*

159. *Id.* at 180-81. There is conflicting information as to whether the order is currently being appealed or whether the court has not been able to enforce the order against Shell. *Compare id.* at 174, *with* Jonathon Kaufman, *Stop Oil Companies from Denying, Delaying, and Derailing Local Justice*, EARTHRIGHTS INT'L (July 13, 2010), www.earthrights.org/blog/stop-oil-companies-denying-delaying-and-derailing-local-justice.

160. David B. Spence, *Corporate Social Responsibility in the Oil and Gas Industry: The Importance of Reputational Risk*, 86 CHI.-KENT L. REV. 59, 60 (2011).

161. *Id.* at 62.

even if they are not made wealthier in the process.[162] This type of CSR is called "traditional corporate philanthropy"[163] and is outdated for many reasons. Transparency and globalization mean that consumers and non-governmental organizations know about a corporation's practices and can publicize them.[164] For example, Nike was widely publicized for using child labor, damaging its reputation.[165] Thus, it is actually beneficial for corporations to follow social and ethical norms in order to protect their reputation and increase their long-term profits.[166] Strategic CSR can be a smart business decision;[167] however, the MNCs operating in Nigeria have yet to realize this potential.

Several MNCs operate in Nigeria. Specifically, as of 2008, Anglo-Dutch Royal Shell ("Shell") controlled over forty percent of Nigeria's oil production. Two U.S. corporations, ExxonMobil and Chevron/Texaco, controlled approximately thirty-eight percent of Nigeria's oil production.[168] Additional U.S. corporations producing oil in Nigeria are Ashland, Sun Oil, and ConocoPhillips.[169] Finally, France's Total, Italy's Agip International, Norway's Statoil, and South Africa's Sasol also produce oil in Nigeria.[170]

Because of the inadequate legal and regulatory framework and the inability of the judiciary to make an impact, these MNCs have been left to control flaring voluntarily. Admittedly, to date, this has been unsuccessful.[171] CSR programs in Nigeria have historically focused on improving communities, mainly through cash payments, and not on improving the interactions between the MNCs and communities. Shell's former CSR programs are an example of how MNCs have approached CSR programs as mere handouts to communities. This "arm's-length" philanthropy[172] was perhaps inevitably unsuccessful because these programs "pit business against society" and "pressure companies to think of [CSR] in generic ways instead of in the way most appropriate to each

162. *Id.* at 60-61.

163. *Special Report: Corporate Social Responsibility: Just good business*, ECONOMIST, Jan. 17, 2008.

164. Spence, *supra* note 160, at 60.

165. *Special Report: Corporate Social Responsibility: Just good business*, *supra* note 163.

166. Spence, *supra* note 160, at 60.

167. *Id.* at 67.

168. Amao, *supra* note 41, at 94.

169. *Id.*

170. *Id.*

171. *See* Emeseh et al., *supra* note 116, at 234-35.

172. *Special Report: Corporate Social Responsibility: Just good business*, *supra* note 163.

firm's strategy."[173] As a result of its failure to understand each community's needs, Shell's CSR programs were not only unhelpful, they fueled violence in Nigeria.

This Part discusses the types of CSR that MNCs have engaged in, why they have been unsuccessful, and how CSR can be changed so that it is not only a smart business decision for the MNCs, but so that it will also result in benefits for Nigerians.

A. Shell's Corporate Social Responsibility Program

Shell has operated in Nigeria since at least 1956.[174] In the 1990s, Shell started a CSR program,[175] which provided assistance to communities impacted by oil development.[176] As part of its community assistance program, Shell sought to diversify its workforce by hiring and contracting indigenous workers.[177] Shell also offered fellowships to qualified Nigerians and tried to develop compensation schemes for oil spills and land acquisition.[178] Unfortunately, these programs were "limited and ineffective:"

> [Shell] had little understanding of community politics and simply interacted with local elites (or families within elite groups), lacked transparency in their determination of oil spill severity and compensation rates, failed to fully negotiate the contested and complex landholding arrangements as a precondition for rental payments, and used cash payments as a way of attempting to purchase consent. From the vantage point of the communities, the community programs were seen as political, corrupt, clouded in secrecy, and inadequate to the issues to be addressed.[179]

Protests and violent uprisings, as discussed in Part II.E, followed, and these events were publicly damaging for Shell, which was accused of violating human rights in response to the protests.[180] In order to rehabilitate its reputation, Shell rebranded its community assistance

173. Michael E. Porter & Mark R. Kramer, *Strategy & Society: The Link Between Competitive Advantage and Corporate Social Responsibility*, HARV. BUS. REV., Dec. 2006, at 1.

174. OKONTA & DOUGLAS, *supra* note 76, at 22.

175. Watts, *supra* note 14, at 398-99.

176. *Id.* at 399.

177. *Id.*

178. *Id.*

179. *Id.*

180. *Id.*

program as a community development program in 1997.[181] Shell shifted its focus from assisting communities to empowering them by working directly with communities instead of the elites, determining their needs, and trying to help.[182] Unfortunately, the community assistance programs were not successful because powerful communities were able to extract large sums of money while others were left suffering.[183] Even for those communities that did receive money, ordinary citizens did not benefit because the vast majority of the payments were not made to help the communities, but to community chiefs and politicians to secure the flow of oil, resulting in "endemic" corruption.[184] Thus, a community assistance program really did not exist.[185] Shell hired a consultant, which concluded that these programs failed because of three "corporate assumptions: community conflict is always external, communities only want money and gifts, and communities do not know what is best for them."[186] Shell viewed itself as external to the communities in which it operated and did not understand that it was actually causing conflict by making payments to elites and leaving citizens with all of the negatives of oil development and none of the positives.

Violence in Nigeria began to escalate again in 1998.[187] In 2003, oil production fell by forty percent and Shell launched a new initiative, a sustainable community development program.[188] Shell finally recognized that corporate corruption was present and that community development must be sustainable in the long-term.[189] Shell, and also Chevron, admitted that their aid policies fuelled violence and corruption.[190] Shell decided to stop cash payments and to work with organizations, development agencies, and local NGOs to develop community programs.[191] There is little data on these current "sustainability"

181. *Id.*

182. *Id.*

183. *Id.*

184. *Id.* at 400.

185. A consultant hired by Living Earth (a London-based non-governmental organization) traveled to Nigeria to investigate Shell's development programs and found that "Shell tries to establish self-help development projects in the communities, but according to our investigations it is really Shell-help." OKONTA & DOUGLAS, *supra* note 76, at 107-08.

186. Watts, *supra* note 14, at 400.

187. *Id.*

188. *Id.*

189. *Id.*

190. *Id.*

191. *Id.*

programs, but given that violence continues in Nigeria,[192] they cannot be considered completely successful.

B. MNCs Must Change How They Perceive Corporate Social Responsibility for These Programs to Be Successful

The CSR programs of Shell and other MNCs in Nigeria should be restructured. MNCs have traditionally considered CSR programs to be separate from their main goal, which is to maximize returns to their shareholders.[193] But CSR programs do not have to be separate from the main goal of maximizing profits. "Win-win" CSR incorporates the idea that CSR programs can be good for a company's bottom line.[194] To develop a successful CSR program, each MNC must restructure its view of the community in which it operates.[195]

Shell *is* dependent upon the communities in which it operates, and the communities, in turn, are dependent on Shell and the other MNCs because MNCs produce Nigeria's oil and gas. Oil and gas generate the primary source of export earnings in Nigeria.[196] However, oil development also results in environmental pollution, harming Nigerian communities. Thus, there is a social need for MNCs to reduce pollution. Reducing this pollution can contribute to the MNCs bottom line because MNCs need stable communities and a dependable work force to produce oil. Yet, MNCs have not recognized this, and, in part because of environmental pollution, MNCs do not operate in stable communities and do not have a dependable workforce. On the contrary, it is estimated that between 1998 and 2003 there were 400 vandalizations at MNC facilities, which resulted in oil losses amounting to $1 billion annually.[197] Thus, it will help the MNCs' bottom line if they can alleviate some of the causes of these vandalizations.

As was discussed above, many of the protests and vandalizations are directly related to the environmental pollution in Nigeria, the economic disparity present, and the inability of the government to address these issues. It is a "win-win" for MNCs, and the communities in which they operate, to reduce environmental pollution. While Shell

192. Shola O'Neil, *Is Violence Back in Niger Delta?*, NATION (Feb. 8, 2012), http://www.thenationonlineng.net/2011/index.php/news/36109-is-violence-back-in-niger-delta.html.

193. Emeseh et al., *supra* note 116, at 237.

194. Spence, *supra* note 160, at 68.

195. Porter & Kramer, *supra* note 173, at 2.

196. See *supra* note 76.

197. Watts, *supra* note 14, at 400.

cannot be expected to act as a government and stabilize the entire country of Nigeria, controlling flaring would be a significant step towards promoting stability and restoring Shell's credibility in Nigeria.

It is commonly suggested that the Nigerian government must eliminate unnecessary flaring.[198] However, the Nigerian government is not currently able to undertake this task. If MNCs work to reduce unnecessary flaring, they will have higher social capital and be in a better position to help develop future policy if a more stable and less corrupt government emerges in Nigeria.[199]

Shell may already be on the right track towards eliminating unnecessary flaring. Shell manages a gas-gathering project, which is a joint venture with the Nigerian government.[200] When complete, this project is expected to collect more than ninety percent of the associated gas produced in Nigeria.[201] So far, the joint venture has invested approximately $3 billion to eliminate flaring.[202] Shell estimates that the project will cost $6 billion in total.[203] Funding has historically been uncertain because the Nigerian government has not always committed its share.[204] While there is evidence that funding is currently available,[205] considering the $6 billion Shell lost between 1998 and 2003 due to vandalizations, if funding becomes an issue again it may be economical in the long run for Shell to contribute additional investment to help stabilize communities.

For the remaining ten percent of the associated gas that will not be captured by the gas-gathering project, Shell appears to be working with the World Bank to develop small-scale projects that will provide power to the communities living near flares.[206] This is likely a feasible project as local gas utilization has contributed to some of the drop in flaring levels observed in Nigeria.[207] But it also shows that CSR can drive the

198. *See, e.g.*, *Country Analysis Briefs: Nigeria*, *supra* note 4.

199. *See* Spence, *supra* note 160, at 68 ("By self-regulating in ways that relieve that pressure, industry can have more say in the design and implementation of the regulatory regime.").

200. This joint venture is 55% owned by the Nigerian government. Broere, *supra* note 54, at 5.

201. SHELL COS. IN NIGERIA, SHELL IN NIGERIA: GAS FLARING (2011), *available at* http://www-static.shell.com/static/nga/downloads/pdfs/briefing_notes/gas_flaring.pdf [hereinafter SHELL IN NIGERIA: GAS FLARING].

202. Broere, *supra* note 54, at 5.

203. SHELL IN NIGERIA: GAS FLARING, *supra* note 201.

204. Broere, *supra* note 54, at 5.

205. SHELL IN NIGERIA: GAS FLARING, *supra* note 201.

206. *Id*.

207. Omeje, *supra* note 77, at 58.

elimination of flaring in Nigeria because this program did not result from either the Nigerian legislature or a judicial order.

It remains to be seen whether all of these projects will come to fruition. It is difficult to forget that past CSR programs have been largely unsuccessful. However, if Shell considers itself a part of the communities in which it operates and recognizes that its success is dependent upon the stability of these communities, Shell's current efforts to reduce flaring could be successful.

There are additional economic incentives to reduce flaring that Shell can take advantage of to increase the economic attractiveness of reducing flaring, including using carbon credits for flaring reduction projects. Specifically, under the Clean Development Mechanism ("CDM"), countries or companies that are under an obligation to limit their greenhouse gas emissions can emit more greenhouse gases if they buy credits from projects that reduce greenhouse gas emissions in developing countries.[208] There are several opportunities for developing countries, including Nigeria, to develop CDM projects and sell those credits into carbon markets. For example, the Kyoto Protocol, an international treaty that limits the amount of greenhouse gases countries can emit,[209] allows countries to use CDM credits to meet their obligations.[210] In addition, the European Union Emissions Trading Scheme allows companies to use CDM credits to meet their obligations.[211] In 2006, the World Bank issued a guidebook for the development of carbon credits for flare reduction projects in Nigeria.[212] The World Bank GGFR considers the CDM "an effective financial incentive for projects that reduce flaring and venting of associated gas."[213]

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208. *Clean Development Mechanism*, UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE, http://unfccc.int/kyoto_protocol/mechanisms/clean_development_mechanism/items/2718.php (last visited Mar. 23, 2012).

209. *Id.*

210. Kyoto Protocol to the United Nations Framework Convention on Climate Change art. 12, Dec. 11, 1997, 37 I.L.M. 32. While the Kyoto Protocol expired in 2012, some countries have opted to continue their obligations until at least 2017. U.N. Framework Convention on Climate Change serving as a meeting of the Parties to the Kyoto Protocol, Nov. 28 - Dec. 9, 2011, Draft Decision-/CMP.7 (2011), *available at* http://unfccc.int/files/meetings/durban_nov_2011/decisions/application/pdf/awgkp_outcome.pdf.

211. Alexander Vasa, *Implementing CDM Limits in the EU ETS: A Law and Economics Approach* 1 (DIW Berlin Discussion Papers No. 1032, Jan. 2011).

212. ICF INT'L, NIGERIA: CARBON CREDIT DEVELOPMENT FOR FLARE REDUCTION PROJECTS GUIDEBOOK (2006).

213. *Id.* at 6.

CDM credits will contribute to the "win-win" aspect of the MNCs' CSR programs for two reasons. First, MNCs will earn money for implementing CDM projects.[214] Second, almost thirty percent of Nigerian exports go to Europe, where environmental awareness is relatively high.[215] Europe has a high demand for sustainable and environmentally friendly practices.[216] While consumers do not buy gas based on "brand name," Shell is a British company, and three-quarters of British consumers are interested in environmental sustainability in some way.[217] In addition, British consumers picked the environment as the most important issue for the next five years.[218] Because oil companies are not immune to reputational effects,[219] it is a long-term "win-win" for Shell to improve its environmental practices in Nigeria. Pressures to reduce the environmental impact of oil operations have already resulted in some of the decreases in flaring levels seen in Nigeria,[220] providing additional evidence that this is a strategy Shell should pursue. However, one-third of the gross natural gas produced in 2010 was flared, so this effort cannot yet be deemed successful.

It should be noted that the situation in Nigeria is so complex that it seems likely that increased violence, or a change in government leaders, could derail current projects. MNCs need to be committed, even in these situations, to completing the projects that are currently being developed. MNCs have been able to produce oil during times of violence and military rule.[221] Thus, if the MNCs are committed to these projects, they should be able to complete them, despite the local conditions in Nigeria.

VII. CONCLUSION

Unnecessary flaring needs to be eliminated in Nigeria for numerous reasons: flaring is a waste of energy, flaring contributes to global

214. *Id.*

215. *Country Analysis Briefs: Nigeria*, *supra* note 4.

216. 72% of Europeans are willing to pay more for products developed using environmentally friendly practices. EUROBAROMETER, SPECIAL EUROBAROMATER 365/WAVE EB 75.2, ATTITUDES OF EUROPEAN CITIZENS TOWARDS THE ENVIRONMENT 8 (2011), *available at* http://ec.europa.eu/environment/pdf/ebs_365_en.pdf.

217. *Id.*

218. *Id.*

219. *Id.* at 60.

220. ARIWERIOKUMA, *supra* note 99, at 174.

221. The only "domestic political factor" to impact oil production was the Biafran civil war, which occurred from 1967 to 1970. Even during this civil war, oil production did not fall to zero. AHMAD KHAN, *supra* note 144, at 9.

warming, flaring causes environmental damage, and flaring causes violence.

Flaring has decreased by twenty-eight percent in Nigeria from 2000 levels. There are several reasons for this decrease including increased oil prices, government stability, and international pressure on MNCs.[222] However, Nigeria still flares an enormous amount of natural gas annually—second only to Russia. While the effects of flaring are obvious, solutions are not.

Several entities, including the World Bank, have recommended that Nigeria restructure its regulatory framework to eliminate unnecessary flaring. However, there are numerous barriers to this occurring, such as government corruption fueled by the federal government's dependence on oil revenues. It seems intuitive that an increase in the price of natural gas should solve the problem. However, natural gas markets in both Europe and the United States have been subject to large price swings over the last decade. As a result, it cannot be assumed that the price of natural gas will rise high enough, and stay high enough, for it to be economical to capture the associated gas. In addition, citizens have not been able to successfully reduce flaring rates through Nigeria's court system.

While it is hoped that these factors will change, it is unlikely that they will change in such a way as to force the elimination of all unnecessary flaring in the short-term. The MNCs that operate in Nigeria must take affirmative steps to help eliminate unnecessary flaring. MNCs have admitted that their prior policies have contributed to violence in the country. That violence in turn has resulted in the MNCs losing billions of dollars. Thus, it seems to be in the best interest of the MNCs to develop a more long-term view of oil development in Nigeria. Under such a long-term view, it may actually be economical for these MNCs to take action now to reduce natural gas flaring. And while MNCs cannot be expected to perform the function of a government, they should take affirmative steps that are in their best interest. Eliminating unnecessary gas flaring is one example of an important affirmative step that will also help to stabilize Nigeria.

222. FARINA, *supra* note 7, at 27.