Gas expansion and the energy transition in Nigeria and the Niger Delta

SDN
Policy Brief

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Key points

1. African gas resources, including Nigeria's, are widely touted as a potential replacement to Russia's, as the European Union and others are looking for immediate alternatives since the war in Ukraine started.

2. Partial increases to Nigeria's gas capacity are expected over the next few years. But further expansion will require billions of dollars of investment, and could take decades to come online, by which point global demand will be in decline, as it is predicted to peak by 2040, and possibly earlier.

3. Expansion could still benefit Nigeria, as it is seeking to increase domestic gas consumption as part of development targets and as a transition fuel. But it risks redirecting resources away from more sustainable infrastructure, delaying the clean energy transition, and deepening dependence on fossil fuels, which could result in stranded assets and debt that will be difficult to repay as demand and prices fluctuate.

4. At the local level, there are significant risks if oil companies continue to operate without due care, under the current system of weak enforcement of Federal regulations for pollution and host community development. Our research contains reports of negative health and economic impacts for communities living near gas infrastructure, and with expansion, communities near gas facilities are likely to experience more negative impacts due to exposure to gas and other hazardous wastes, compounding decades of oil pollution.

We recommend

1. The Federal Government of Nigeria (FGN) proceeds with caution in the scramble for gas, conducts a thorough risk assessment of gas expansion, and updates long-term energy transition strategies to minimise the impacts, phase out oil and gas assets, and start investing for a post-oil and gas future.

2. European countries investing in increased gas production and/or exports from Nigeria also invest into renewable energy access in Nigeria, especially in communities that host oil and gas facilities.

3. The FGN improves the enforcement of regulations for construction, operation, maintenance, decommissioning, emergency response, and divestment of facilities, and host community development.

4. The FGN commissions a study into the impacts of gas production on host communities, design interventions to reduce and remediate these impacts, and hold poorly performing companies accountable.

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Acronyms

bpd	Barrels per day
COP	Conference of the Parties to the United Nations Framework Convention on Climate Change
CSR	Corporate Social Responsibility
DOC	Domestic Oil Company
ESG	Environmental, Social and Governance
EU	European Union
FGN	Federal Government of Nigeria
IOC	International Oil Company
JIV	Joint Investigation Visit
LNG	Liquified Natural Gas
LPG	Liquified Petroleum Gas
NAOC	Nigerian Agip Oil Company
NGN	Nigerian Naira
NLNG	Nigeria Liquified Natural Gas company limited
NOSDRA	National Oil Spill Detection and Response Agency
NRGI	Natural Resource Governance Institute
OGC	Oil and gas companies
SDN	Stakeholder Democracy Network
US$	United States Dollar

Current situation with global gas

A shift in global demand for gas resources

The shift away from Russia - the largest exporter of fossil gas in the world - is having a profound impact on the global energy sector. Many countries have already sharply reduced reliance, including the European Union which sourced more than 40% of gas supplies from Russia.[1] This rapid shift is having immediate negative impacts in consuming countries, for example, European gas prices more than tripled between 2021-22, increasing electricity prices across the continent.[2] Therefore, countries are on an urgent mission to establish links to alternative international gas suppliers to stabilise prices. Yet global demand will only be short-term, and could peak by 2040, according to McKinsey's 'current trajectory' energy transition scenario.[3] If countries achieve net-zero commitments, the transition could be even faster, and demand could peak around 2030.[4]

The scramble for alternative African supplies

African fossil gas resources are widely touted as a potential replacement for Russia's, creating hype that there will be huge market opportunities for countries with substantial reserves. Yet the current combined exports of Africa's three biggest exporters – Algeria, Egypt and Nigeria – amounts to less than half of what Russia supplied to Europe, so they are unlikely to immediately compensate for any losses in supplies.[5] Therefore, to meet increased demand, countries will not only need to increase current operations to full capacity, but also increase production.[6] But further accelerating expansion presents a dilemma. Many projects are likely to take years before they come online, by which point global demand could be peaking and nearing an end. Furthermore, billions of dollars' worth of investments may become stranded assets, as they become commercially and politically unviable to extract remaining reserves.

With this in mind, the Natural Resource Governance Institute (NRGI) recommends that *"responsible EU-Africa engagement would require European officials to clarify their intentions and needs, and relevant African policymakers to ensure that related expectations in their countries are realistic given likely scenarios"*.[7]

Nigeria's position and options

International exports

Nigeria only has the capacity to honour its existing contracts with buyers, and while some additional capacity will come online in the coming years, it will need to substantially increase production to supply more. [8] However, Nigeria is also currently producing well below capacity, due to shut-ins from damage to infrastructure from widespread oil theft – and thus has an opportunity in the short-term by closing this production gap. In 2021, Nigeria was the fourth-largest source of liquified natural gas to the EU and United Kingdom (14% of total supplies)[9]; with at least 40% of Liquified Natural Gas (LNG) produced in Nigeria currently exported to Europe[10], and discussions ongoing to increase investments and exports.[11] There are several existing or proposed projects to increase gas exports (see *Text box 1* below), yet they are expensive and take time to complete. For example, the Trans-Saharan pipeline is expected to cost US$25 billion and take at least 25 years to construct, so will miss the window of peak demand from European markets. Moreover, financing typically comes in the form of debt, and focusing on exports is unlikely to generate significant domestic economic growth, since gas will not be utilised for economic activity in Nigeria. The country may be forced to sacrifice crucial infrastructure and social spending, or take out more loans, locking itself into a debt spiral.

Domestic consumption

The current trajectory of investments creates the impression that international exports will come at the expense of domestic energy plans. Domestic Liquified Petroleum Gas (LPG) demand is projected to triple by 2026, according to FGN estimates.[12] Under the National Gas Expansion Programme, the government aims to switch 60 million households to LPG by 2030, increasing use for cooking from 5 to 90%.[13] But Nigeria currently imports 60% of LPG consumed, and only sources 40% from domestic supplies.[14] This imbalance makes it harder to achieve these targets, as imports are more vulnerable to price fluctuations. This is illustrated by reports that household use fell between 2021-22 by 38% following a 100% increase in price, and that by 2021 only 5,000 vehicles were converted to run on gas out of a target of 1 million.[15]

To support price stabilisation and the achievement of national gas consumption targets, NLNG started to reduce exports and increase domestic supplies in 2021, after it pledged to help the government achieve its national gas supply policies,[16] and recently restated its commitment to dedicate 100% of its LPG production to the domestic market.[17] NLNG is by far the biggest exporter of gas from Nigeria, so these commitments will push pressure for increased production onto other companies.[18] On the current trajectory, McKinsey analysis warns that Nigeria could find itself in a situation in which gas demand outstrips supply by 2030 by at least three billion cubic feet per day. That is equivalent to one-third of current production, or nearly double current consumption levels[19]. It is worth noting that in 2021, according to the Nigeria Gas Flare Tracker, an average of nearly 700 million cubic feet per day was flared – although not all of this would be recoverable for energy production[20]. The country could head into a trap where it has invested in gas consumption, but depends on imports to meet the demand, similar to the inefficient and expensive situation it faces with crude oil and refined products.

Text box 1: Nigeria's gas expansion projects

Nigeria LNG Limited (NLNG) plans to resolve utilisation issues at the Bonny plant by the end of 2022, which is reportedly only 72% mobilised due to challenges sourcing gas.[21] Expansion is also underway, with the construction of Train 7 expected to boost total national production by about 35%. US$3 billion of debt has been raised to fund the work.[22] While estimated completion is not until 2026, it is the first additional train since 2007, and feasibility studies for Train 8 are underway.[23] Other processing facilities include the $700 million plant under construction by Seplat and Nigeria Gas Company joint venture, which is expected to come online in 2023. Another notable project is the proposed $20 billion Brass LNG plant, which is awaiting a final investment decision, and is projected to add an additional 30% capacity on top of NLNG Train 7.[24] But this project has been delayed for many years, and it is uncertain if it will be approved and start soon.

In terms of exports, two Liquified Petroleum Gas (LPG) vessels have been procured, with another three expected in the next few years.[25] This is in line with the NNPC's aim to deliver 10 vessels over the next 10 years. In addition, a major pipeline from Ajaokuta-Kaduna-Kano is set for completion in 2023. The $2.8 billion project has been funded by a $2.5 billion loan from China's Belt and Road Initiative. It will connect the country's gas supply in the south, to power stations in the north, and also to other trans-regional and intercontinental pipelines. This could include the proposed Trans-Saharan natural gas pipeline, which would run 4,400km from Nigeria to Algeria, where it would connect to existing infrastructure feeding Europe.[26] This project has stalled since the 1970s, but talks are reviving following increased interest, and Nigeria claims it is starting construction of its portion. [27]

Emissions

The plans to expand gas production and use challenge Nigeria's commitment to achieve net-zero by 2060. At COP26, President Buhari claimed Nigeria will achieve targets while expanding into gas as a transition fuel.[28] Admittedly, utilisation will help partially achieve targets, particularly via on-grid electrification, which can offset 26% of Nigeria's total emissions that come from household off-grid alternatives.[29] But it will be important to remain focused on utilising revenues to expand renewables, or risk a 'carbon lock-in', whereby the country installs *"fossil fuel intensive systems [that] perpetuate, delay or prevent the transition to low-carbon alternatives – a situation that can seriously imperil climate action."*[30]

Nigeria can leverage in deals to encourage countries to follow through on promises of financing and technology for renewable energy growth in developing countries as part of a just energy transition.[31] For example, Sub-Saharan African countries were pledged financing at COP26 for 'loss and damage';[32] the European Union promised US$100 billion of climate finance by 2020 in 2009, which has not been delivered;and recently pledged US$2.4 billion in grants *"to support renewable energy, energy efficiency, the just transition and the greening of local value chains"*, under the Global Gateway Initiative.[33]

Moreover, there must be a significant decarbonisation of extraction, processing, and use. As an indication, African oil and gas assets are on average 70-80% more carbon intensive than global oil and gas assets.[34] This is not going to be palatable for investors facing environmental, social, and governance (ESG) restraints, nor should it be acceptable to the Nigerian government, if it is serious about its net zero targets. Failure to decarbonise will further deprioritise further investments, and accelerate the inevitability of stranded assets.[35] Technologies for decarbonisation exist and are economically viable. Options in Nigeria include utilising flared gas for electricity generation, and minimising fugitive methane emissions.[36]

Barriers to production

The state of the Nigerian oil industry indicates it will be challenging to increase gas production. Oil production has struggled to stay above 50% of targeted levels in 2022. Pipeline closures and maintenance at major fields reduced output to below 1 million barrels per day (bpd) in August - the kind of lows not seen in recent decades, outside of bombing campaigns by militant groups.[37] Declining oil production directly reduces gas output, because the two are closely linked in Nigeria, as associated gas (which is released during oil extraction) accounts for two-thirds of total gas produced[38].

The gas expansion plans will face the same issues that are hampering oil output. This includes a decline in investments into production by international oil companies (IOCs), ahead of the planned sale of onshore assets. Domestic oil companies (DOCs) are taking over, and already contribute up to 50% of the country's gas production.[39] Yet they have comparatively lower access to capital and expertise to develop fields.
This is worrying, as the infrastructure they are inheriting requires widespread upgrades and maintenance, on top of expansion costs. They may therefore struggle to sustain high production levels, be inefficient at driving gas expansion plans, and cause greater environmental damage in the process. Another barrier is oil theft and artisanal refining, which has grown in scale over the past two decades, currently estimated to be syphoning up to 20% of oil produced, and shutting in even more output due to pipeline maintenance requirements. Oil theft is set to continue, alongside acts of sabotage to express grievances with company conduct, which will also shut-in gas due to pipeline maintenance requirements.

Niger Delta Case Study

This case study is an example of the current state of the gas industry's infrastructure, and impacts on host communities, which highlights the risks of further expansion. This is based on a rapid research assignment in communities surrounding a large gas processing facility, the Obiafu-Obrikom Gas Plant, which has been operated in Rivers State since 1985, by Nigerian Agip Oil Company (NAOC), the subsidiary of Italian oil major Eni.

We spoke to local residents, traditional leaders, and oil company staff, and made observations at facilities in the vicinity of the communities and gas plant. We also shared the claims with NAOC, and included their responses, and the reaction of community representatives, throughout this section. The claims made in responses are anecdotal, and this light-touch research has not been able to independently verify all claims and counter-claims made by the community and NAOC. For health claims, we have cross checked them against several scientific studies on the links between gas flare pollution, health, and environment. The below case study clearly illustrates the potential risks of gas production expansion for communities, and we believe that at a minimum the claims merit further investigation by NAOC, the National Oil Spill Detection and Response Agency (NOSDRA), the Ministry of Environment, and the Ministry of Health, for any remedial action to be identified and taken urgently.

Standard of Facilities

Observations identified visible gas leaks at several points on pipelines that are generally poorly installed, run overground, alongside and under roads, and are not sufficiently maintained. NAOC claimed that this is *"an inaccurate description of our facilities"*, and *"the pipelines are protected by use of various anti-corrosion methods and systems are buried several meters in the ground".*

However, the photos from site visits show that gas pipelines are exposed and the anti-corrosion paint is peeling. In addition, NAOC claimed that community members built houses around their infrastructure, *"giving the misleading impression that [the] company developed the facilities near people's settlements"*. Yet the communities dispute this, claiming that NAOC 'begged' them to relocate years ago, without offering compensation or support for relocation. The local King stated that as a result of the proximity of facilities to settlements, there have been several explosions that cost lives, and that "*many of the roads in the hinterlands are unpassable. You are afraid that you may be passing and the gas may catch fire, because it will be leaking"*.[40] These fears were realised on 17th October 2022, when there was an explosion at NAOC's gas recycling plant in the community.

Photos: Gas pipelines running close to buildings; Overgrown pipelines with peeling surface layer (Source: SDN)

The explosion forced community members to flee in panic, during the five hours it reportedly took to control the situation. Community representatives reported that two overhead tanks bearing gas exploded, allegedly as a result of poor maintenance, which were in use for over 30 years.

NAOC stated that they have a *"Health Safety and Environment Integrated Management System and complementary tools that provides the frame work for implementing projects and to monitor our foot prints in our operational areas to ensure that required regulatory standards are observed".* But commenting on the overall situation, in our interviews, a NAOC staff member stated that "*there is no quality in what they (NAOC) do. Sometimes the materials they use for this job, starting from the electrode (welding materials)"* are sub-standard. They claimed that "*there is [also] no proper inspection on those pipes",* reporting that *"if you go to those lines now, you will see spillages everywhere"*.[41] Community members report that even basic measures are absent, such as having a muster point for residents to go to in the case of an emergency. This led the NAOC staff member to conclude that "*there is no safety in Agip (NAOC)*".[42]

The local accounts we have received would suggest a failure to implement safety standards and emergency response mechanisms by NAOC. These are reportedly made worse by their procurement process for services. The NAOC staff member claimed that *"there is an insider who is giving these contracts"* to local companies who they have a relationship with, so *"they don't do proper inspections on those lines",* to ensure the quality of work.[43]

A local resident explained how "*the so-called big men do take these contracts and some of these contracts are not implemented or accomplished",* claiming that, "*they liaise or connive with the company people".*[44] As a result, *"most of them (pipelines) are obsolete",* prone to corrosion, and dangerous.[45]

We have been told there is a pipeline surveillance contract covering the area, but this is reportedly poorly implemented, staffare employed on an ad hoc basis, and very little 'surveillance' work is conducted, like in other parts of the region.[46] Therefore, threats or leaks are not detected or responded to in a timely manner.

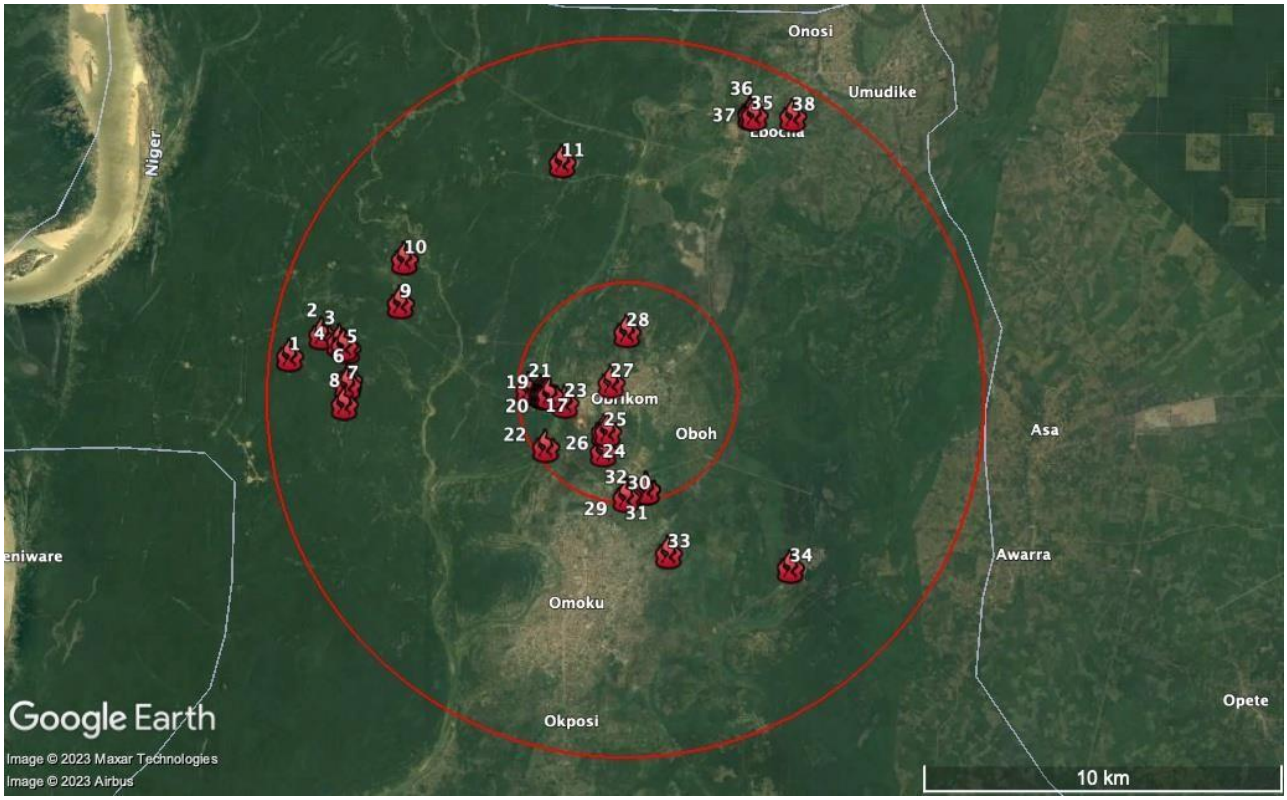
Gas explosion at the processing plant 17/10/22; Community members fleeing the area (Source: SDN)

Photo, clockwise starting left: A high pressure gas leak from rusted gas pipelines; Gas pipelines and structure overgrown with plants and leaking gas; Gas pipeline running alongside a road laid by NAOC contractors. (SDN)

Response to leaks

NAOC claims that *"any leak is reported to regulators for joint inspection involving the regulator, the company and representatives of [the] concerned community".* On the regulator's website, there are records for 38 gas leaks within the past five years (February 2018-February 2023) within 10 kilometres of the gas facility, and 17 gas leaks within a 3km radius (see map below). 33 out of 38 records claim that a community representative was present at the joint investigation visit (JIV), however in this research, representatives of the community claim that they did not participate. The publicly accessible versions of records hide the names of the community representative present, so we are not able to verify who was present, and whether this was a genuine community representative or not.

NAOC claims that *"from 2018 till now over 95% of spills/gas leaks in flow lines in the area have been due to sabotage".* The regulator's records align closely - for the 38 spills, 92% were recorded as sabotage or theft. However, residents stated that when a "*leakage [or] spillage comes up, instead of them (NAOC) going to seek to contain it and pay the communities and the principal landlords their dues, they tag them [as] sabotage in order that they avoid the payments of the compensation."*[47] This highlights a common dispute between communities and OGCs in the region. Oil and gas infrastructure is prone to spills, and while many incidents result from third party action, there are concerns that many may be misreported in this way to avoid paying fines and compensation. Without improvements to the JIV process, companies that lead the gas expansion will continue to be confronted by communities over their reporting.[48]



Map: Gas leaks reported by the regulator. Outer circle 10km, inner circle 3km. (Source: Oilspillmonitor.ng)

From what we have been able to observe, it does however appear that gas leak response is not working properly. All gas leak sites we visited in June 2022 were still leaking when we returned to the sites ten months later in March 2023. One showed signs of welding on the pipeline in an attempt to seal the leak, but it was visibly still leaking (photos below).

Photos: Gas leak continues; Gas leaking from welded section; Gas leaking from section tied with rag.

Community relations

Similar to other IOCs, NAOC claims they have invested in several corporate social responsibility (CSR) projects, that have *"made verifiable positive economic and health impacts in Obrikom and surrounding communities"*. Yet when we shared this list with community members, they claim that the majority were delivered a long time ago, not in full, or not at all (full responses in the table below). For example, the health centre is in a state of disrepair, and is not in use as it lacks basic equipment, medicine, and staff.

Similarly, the school classrooms, built in 1993, are in a bad condition, and the adjacent science laboratory, built in 1998, has no equipment and is reportedly a den for criminal gangs. We do not have details of the arrangements for the ongoing maintenance of these facilities and who is responsible, however, the current status of these projects suggests much more needs to be done to ensure projects like this have significant positive economic and health benefits for communities.

Community members accused NAOC staff of directing benefits such as scholarships towards their family members, and embezzling funds meant for livelihood training and business start-ups, although we were unable to verify this. Furthermore, as is commonly alleged across the industry, NAOC has reportedly used CSR projects to perpetuate a system of 'divide and rule', where they share money and contracts to create "*conflicts about who takes what, and at what percentage among the four leadership arms of the community*".[50] Through direct financial and security arrangements with youth groups, the youth have become, *"almost managers of the communities […] the military arm of every community".*[51] It is alleged by communities that this enables the IOC to maintain control, and douse any resistance, at the cost of local security, since these groups typically destabilise communities and leadership structures. Under plans to expand gas production, while there is a risk that OGCs will continue to instrumentalise similar promises to communities to buy the social license to operate, there is optimism that new community development trusts, ushered in by the PIA, will improve the selection, funding, and delivery of future projects.

Photos: Health centre not in use; Health materials and centre waste; School classrooms

NAOC claim	Community response
Award of secondary school bursary	Yes, but poorly funded and not done regularly
Award of tertiary institution scholarship	No, awarded to staff relations most of the time
Construction of school blocks	Yes, but 20 years ago and in poor condition now
Rehabilitation of school	Yes, once, a long time ago
Construction of roads and drainages	Yes, mostly around their facility
Construction of market	Yes
Women and youth development centres	No, never delivered
Rehabilitation of health centre project	Yes, but no equipment or staff
Construction of an ICT centre	Yes, but not adequately addressed
Provision of free electricity	Yes, but poor, epileptic supply
Provision of micro-credit	No, not for any community members
Skills acquisition programme for youth employment	Yes, but implemented poorly and liable to embezzlement
Agricultural projects	No, never delivered
Potable water schemes	No, never delivered

NAOC claims in a letter to SDN, and community responses

Health impacts

Respondents recalled that "*we used to drink natural water from our streams and rainwater, but it is not like that anymore",* because there are too many toxins from flaring gas.[52] This is likely a result of acid rain, which forms from sulphur and nitrogen oxides released by the flares, and leaching of contaminants from soils. Studies link human consumption of acid rain with skin cancers, lesions, stomach ulcers, and leaching of mucus in the intestinal walls.[53]. Flares also release hydrocarbon compounds such as benzene and other volatile organic compounds, which are highly cancerous, and affect blood forming, giving rise to anaemia and leukaemia.[54]

Residents claimed they suffered from a long list of other ailments, which studies find are caused by pollutants released by gas flares, including cancers, and eye, bronchial, rheumatic, neurological, cardiovascular, developmental, and reproductive disorders.[55] We heard stories from residents about how the gas flaring causes a *"pepperish feeling in your eyes"*[56], and that there are now *"more people with eye problems"*[57], and how *"young people are going blind. So many persons are wearing glasses because they can't read".*[58] A NAOC staff member reported that after leaks, *"sometimes you will just see somebody getting weak and dying off due to the inhalation of gases"*, and that *"people are having so many lung problems, so many cancer problems"*.[59] This is supported by recent study by the World Bank, which found a significant positive association between gas flaring and respiratory illnesses, stunting, wasting, and being underweight among children in the Niger Delta.[60]

Several respondents claimed that *"arthritis is now like malaria and typhoid",* meaning a very common occurrence.[61] While no scientific studies could be found on the relationship between arthritis and gas flaring or leaking, emerging studies find excessive risk evident at very low levels of exposure to air pollution,including pollutants found in gas flares, such as carbon monoxide, nitrogen oxide, and particulate matter.[62] It is therefore feasible that residents hosting the gas facility have higher rates of all these health issues. But this is generally not well diagnosed due to the low provision of healthcare, here and across the Niger Delta.

Gas flares on a community shoreline (SDN)

Oil (or hydrocarbon) pollution on waterways surrounding community (SDN)

Economic impacts

There is a knock-on impact on livelihoods. Firstly, the health of farmers and fisherfolk is harmed by the impacts highlighted previously, reducing their capacity to work. Secondly, farmers complain that "*the soil is no longer advantageous to us"*[63]. Pollutants from flaring such as nitrogen, black carbon and sulphur have been proven to acidify the soil and deplete nutrients, supporting claims that agricultural land is less fertile.[64] They also claim that vegetation is no longer green, but *"yellowish, because of the [heat from the] flare"*[65] has caused plants and crops to become stunted and die off[66]. Therefore, the previous *"huge harvest from the yam farmers, from cassava and others"* is a thing of the past, as *"these days, these crops do not do well"*.[67] The flares also hinder the hunters, "*because the gas being flared in the night – [and] the flame is so high that when the animals see them, they run away".*[68]

Simultaneously, acid rain accelerates the decay of building materials and paints, and infiltrates waterways, which increases acidity, damaging plants, fish and animals.[69] It can also increase absorption of aluminium, which makes water toxic to fish and crustaceans.[70] As respondents recounted, fisherfolk are not as productive, as "*the gas has so polluted our rivers that you cannot even see the aquatic animals that we aresupposed to get from there".*[71] The rivers are also unsuitable to other economic uses, such as for *"those who use the river water for the fermentation of cassava".*[72] This waterway pollution exacerbates the impacts of oil spills, and is worsened by discharges from the gas facility. As recounted by the King:

> *"Because Agip has channelled their drainages that carry all manner of substances, waste substances, toxic substances, and dangerous hazardous chemicals into these areas, all the biological faunas, and biodiversity in our river have been damaged, and so the river is no more productive. There's no more fish, fishermen are put out of the job".*[73]

In the target area, "*95% of our farmlands are almost prone to floods",* so the toxic substances wash over crops. The floods also carry *"oil to the forests so that the snails die even at stage of laying of eggs"*[74]*,* killinganother local protein source. As a result of all these impacts, there is a high level of unemployment, and locals claim, *"that is why there is a high rate of crime here"*.[75]

Satellite imagery from 2013 and 2023, suggesting significant environmental damage around the gas flare site at the NAOC facility (Source: Google earth)

Conclusion

Nigeria must proceed with caution in the face of the scramble for African gas. The transition away from Russian supplies has opened enticing opportunities. But if billions of dollars of investments are pumped into the current system of the oil and gas industry in Nigeria, there must be widespread improvements, and greater efforts to also support the clean energy transition. Companies are currently free to operate without sufficient accountability to industry standards, government regulation, and host communities. As a result, existing projects cause mass hardship across the Niger Delta. Residents exposed to gas and other hazardous wastes suffer several long-term negative health and economic effects. This highlights the risks of further expansion if oil and gas companies continue to operate without due care, under the current system of weak enforcement of Federal regulations for pollution and host community development.

Meanwhile, the Federal Government is banking on gas (and oil) for the foreseeable future, undermining Nigeria's long-term energy transition. This will come at a great financial cost that bears several significant risks for future Nigerians who must repay debts, live among hazardous facilities, and be in a country with a national economy and domestic electricity system dependent on fossil fuels. If the Federal Government does not direct investments into diversification of energy, the country will remain hooked on imports of refined energy products, in exchange for exports of raw hydrocarbons, replicating and worsening the current trade deficit. All of this will be at odds with the country's commitments to diversify the economy and reduce emissions and get to net-zero by 2060.

We recommend

The **international community** and **oil and gas companies** should:

1. Clarify the intentions and needs for gas supply with relevant Nigerian policymakers to ensure that related expectations are realistic given likely scenarios.
2. Ensure divestments by IOCs include an environmental and social legacy plan, that deals with the toxic consequences of historic operations.

The **Federal Government** should:

1. Take immediate action to study the current exposure levels to toxins in host communities, then design and implement remediation measures.
2. Improve enforcement of regulations, to hold all projects to a higher standard for their construction, operation, maintenance, emergency response, decommissioning, and community relations.
3. Properly assess the risks involved with gas expansion, and create a strategy to minimise the impacts, maximise the benefits, phase out oil and gas assets, and plan for a post-oil and gas future.
4. Ensure all new assets are aligned with industry best practice for 'decarbonisation" to reduce the emissions from the sector.
5. Ensure investments are also made into gas supply infrastructure that feeds the domestic market and can meet demand, including reviving programmes for gas flare utilisation, while increasing investment and charting a clear course towards a clean energy transition.
6. Make investments in the national economy and renewable electricity generation capacity that enhance productivity and diversification in preparation for a fossil fuel rent-free future.
7. Ensure investments increase energy access to host communities, as well as alternative livelihood programmes to reduce the risk of damage to oil and gas infrastructure.

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SDN supports those affected by the extractives industry and weak governance. We work with communities and engage with governments, companies and other stakeholders to ensure the promotion and protection of human rights, including the right to a healthy environment. Our work focuses on the Niger Delta.

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