DON'T GAS AFRICA

THE FOSSIL FUELLED FALLACY:

How the Dash for Gas in Africa will fail to deliver development

IN PARTNERSHIP WITH

FOSSIL FUEL NON-PROLIFERATION TREATY

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About Don't Gas Africa: Don't Gas Africa is a campaign led by African civil society to ensure Africa is not locked into fossil gas production. The campaign calls for a transformative, people-led process involving rapid social, economic and political change to achieve energy democracy and deliver renewable energy assets into the hands of people and communities across the continent. Supported by our allies around the world, Don't Gas Africa demands that governments serve the interests of the people, not corporate fossil fuel polluters, and put an end to the fossil-fuel-induced energy apartheid in Africa.

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AFRICA AND THE GLOBAL ECONOMY

Africa's energy system finds itself at a crossroads. In one direction lies a clean energy future: low-carbon, affordable, publicly owned and distributed renewable energy systems that bring power, opportunity, and autonomy to hundreds of millions of Africans and puts an end to energy poverty. In the other direction lies a fossil fuel lock-in: a future in which Africa ensures fossil fuel infrastructure for decades, centralises political power, pulls yet more wealth out of the continent, and pollutes its ecosystems further still. Decisions made today will determine the road taken tomorrow.

These decisions must be made against an unprecedented economic and climatic backdrop. African countries continue to experience the economic fallout of the global COVID-19 pandemic through slumps in trade and investment from the likes of China. Slower growth in Europe and North America is driving a dip in demand for African goods and services, while an international supply chain crunch is impacting both domestic and intra-African trade.[1]

Russia's continued invasion of Ukraine has created additional challenges for Africa. The invasion has disrupted the flow of commodities, such as wheat, corn, and fossil fuels, causing inflationary pressures across Africa. While some African commodity exporters will benefit from high prices, such as Algeria's oil and gas exporters,[2] import-dependent African countries are struggling to shield their citizens from higher prices. In Sub-Saharan Africa (SSA), the prices of staple foods have surged by an average of almost 24 percent, the most since the 2008 global financial crisis.[3] According to the World Bank, the number of Africans living in extreme poverty in SSA will increase by 39 million in 2022.[4]

Africa's economies are also experiencing the fallout from monetary policy responses to the energy crisis in the Global North. Central bank interest rate hikes, seeking to cool the inflationary pressures generated by rising oil and food prices have increased the debt burdens and servicing costs for many African nations. Over the past decade, developing country debt repayments have risen by 120 percent and are now higher than at any point since 2001.[5] Kenya's debt reached $71 billion in 2021 and, as a result, almost 30 percent of current government revenues are spent servicing interest payments.[6] According to the IMF, more than 20 African nations were in debt distress or at risk of debt distress in 2021, with this number expected to climb as interest rates increase.[7] Unlike previous debt crises, where repayments went to governments predominantly in the Global North and multilateral institutions such as the World Bank, private lenders and hedge funds now hold a significant portion of the sovereign bonds of African states. BlackRock, for instance, holds $220 million of Zambian sovereign bonds and is expected to make 110 percent profit through loan repayments.[8]

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With the prospect of stagflation looming large, the global economic outlook has soured. In response to this, many European governments have joined multinational fossil fuel companies in a dash for gas in Africa, rushing to explore, extract, and ultimately export fossil gas from the continent into international markets. The German Chancellor, Olaf Scholz, used his first African tour since taking office to visit Senegal in pursuit of the development of a gas field expected to open in 2023.[9] The Italian government has struck agreements with Angola,[10] Algeria,[11] and the Republic of Congo.[12] At the European level, EU officials have opened talks with the Nigerian government to increase energy flows from Africa's largest economy into Europe.[13] Despite this flurry of deals and glut of investment, there are questions over whether the dash for gas will improve the lives and livelihoods of Africans.

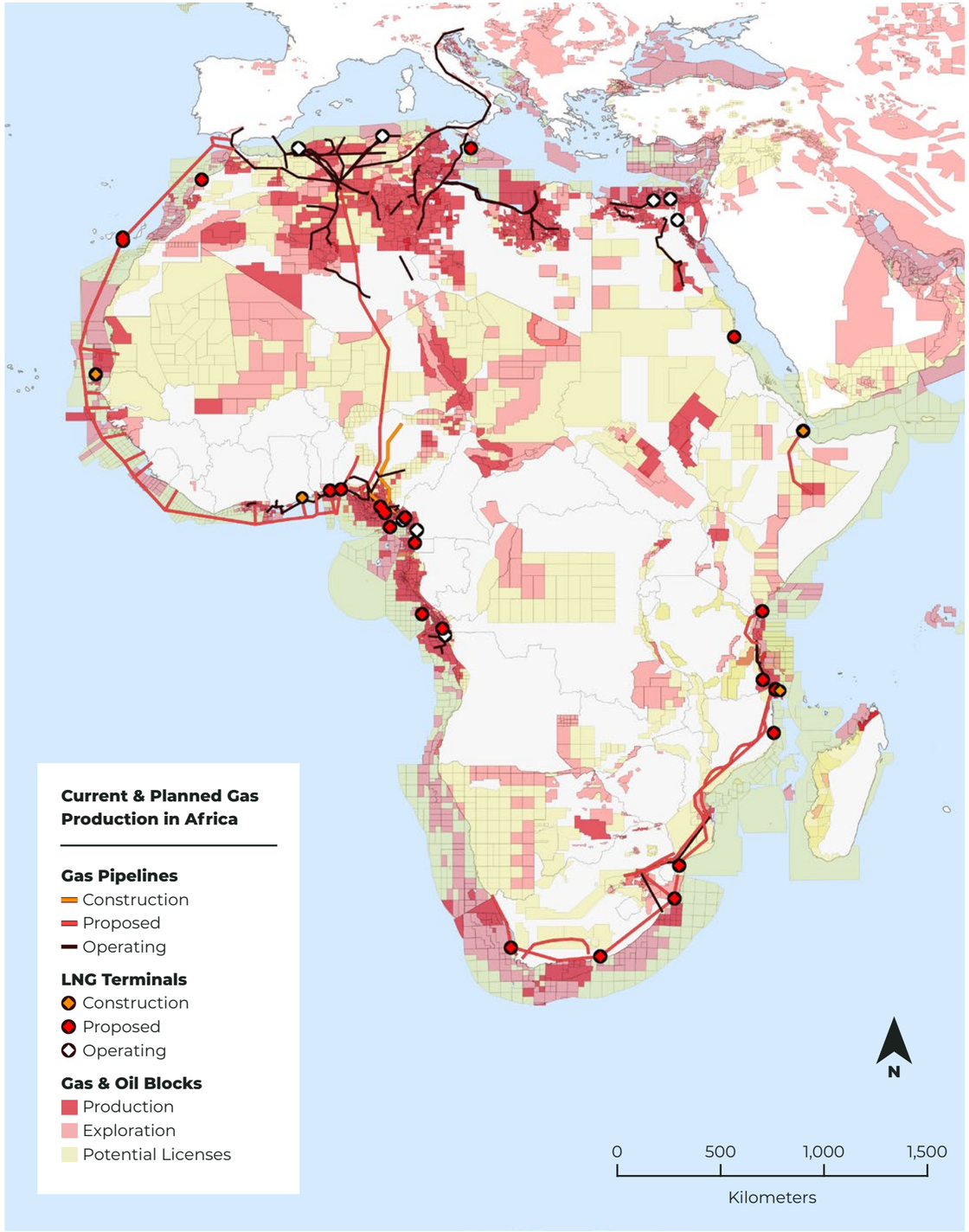
This policy briefing seeks to set out the main risks associated with expanding the fossil gas industry throughout the African continent and the challenges it will pose to both national and regional economies, African governments, citizens, and the natural world. It seeks to centre the voices and concerns of frontline communities across Africa to highlight their demands for a clean and equitable energy system, owned by Africans, for Africans. The empirical synthesis set out in this briefing will act as a toolkit for challenging emerging narratives around fossil gas exploration in Africa, aiding campaign efforts at a local, national, and international level. The final section will suggest future pathways available to African nations that will ensure that this century is one of opportunity, prosperity, and sustainability for the African continent.

THE DASH FOR GAS IN AFRICA

Sensing the opportunity to take advantage of high fossil fuel prices, develop African gas infrastructure, and establish new export markets, African leaders and elites have hosted a variety of European officials and diplomats. What's more, these African leaders and elites have been misappropriating the language of climate justice to legitimise the dash for gas. The Senegalese President, Macky Sall, used his UN General Assembly speech to call for continued investment into African reserves to accelerate development, noting that "it is legitimate, fair and equitable that Africa, the continent that pollutes the least and lags furthest behind in the industrialization process should exploit its available resources to provide basic energy, improve the competitiveness of its economy and achieve universal access to electricity."[14] Macky concluded that ending the international finance for developing gas production would amount to a "major obstacle" for Africa's development.[15]

The viability of fossil gas as a transitional fuel has been widely challenged by a large and growing body of research that highlights the warming impact of methane leakage, additional shipping and transportation emissions, as well as infrastructure lock-in; all of which contradict gas' standing as a lower emission energy source.

The Nigerian Vice President, Yemi Osinbajo, recently denounced a "naive belief in leapfrogging" straight to a renewable energy system across Africa,[16] while declaring that "no one in the world has yet been able to industrialise using renewable energy".[17] Influential members of African governments and the business elite have been emphasising the supposed role gas can play as a 'transition fuel' to a cleaner, low carbon energy system.[18] NJ Ayuk, executive chairman of African Energy Chamber, told the African Energy Week (AEW) conference in October 2022 that "drill baby drill" should "be Africa's message to the world".[19] Sudanese-British telecoms billionaire Mo Ibrahim has called on the continent to use its gas resources as a transition fuel to "close the energy supply gap".[20] The COP27 President and Egyptian foreign minister, Sameh Shoukry, agrees with this sentiment, describing gas as a "transitional source of energy with certainly less emissions".[21] Yet, the viability of fossil gas as a transitional fuel has been widely challenged by a large and growing body of research that highlights the warming impact of methane leakage,[22] additional shipping and transportation emissions,[23] as well as infrastructure lock-in; all of which contradict gas' standing as a lower emission energy source.[24]



LNG Terminals and oil & gas pipeline data from Global Energy Monitor. Oil and gas block data assembled jointly by the Stockholm Environment Institute, Global Energy Monitor, & IGSD from many sources. Source: Dorman, M., Fossil Fuel Transparency Project (SEI-GEM-IGSD), 2022.

The speeches and narratives from African government officials and elites are a far cry from the realities of frontline communities, activists, climate campaigners, and a number of politicians across the African continent, who all share concerns that:

Locking-in fossil fuel infrastructure will do very little to improve energy access and end energy poverty, create good jobs or further development.

Gas reserves are concentrated in just a handful of African states, making it doubtful that expanding production will benefit the development of the entire continent.

Gas exploration and extraction is a direct threat to African heritage sites and biodiversity hotspots, such as mangroves and key fisheries.

Many of the new gas discoveries in Africa will take many years to come online, while some will take decades. Governments will therefore not benefit from current prices, will be saddled with increasing debt burdens, and have assets that will become stranded.

Expanding gas production will not lead to a boom in jobs, despite the claims made by governments and fossil fuel majors. Globally, jobs in clean and low carbon energy are already outstripping those in fossil fuel sectors, with this likely to accelerate in the near future. The long-term, high-skilled, and quality jobs of the future are low-carbon.

Fossil fuel pollution has detrimental impacts on peoples' health, livelihoods, and the environments on which they depend. More fossil fuel production will exacerbate these impacts across Africa.

Africa is acutely impacted by climate change, which is primarily driven by the combustion of fossil fuels. Increasing the production and consumption of fossil fuels throughout Africa will increase emissions, climate impacts and the loss and damage experienced by African communities.

Africa has suffered many broken promises of fossil fuelled prosperity and nothing has changed at this crucial juncture.

Climate pledges to date have been nothing but statements from mendacious Northern governments who have failed to raise funds for climate justice, adaptation, and mitigation, let alone loss and damage.

Africans want an energy system that is owned by them and works for them. Fossil gas infrastructure on the continent produces expensive energy and has high levels of foreign ownership, with African governments often accepting poor contractual terms.

Any investment poured into fossil fuels displaces investment into distributed, clean and affordable renewable energy systems that will bring immediate benefits to African communities.

Africa has an unparalleled opportunity to harness the momentum of low-carbon technologies to create the value chains and industries of tomorrow, leap-frogging the failed extractive energy systems of yesterday.

3 THE CLIMATE IMPERATIVE

Africa is uniquely exposed to climate impacts, despite making a negligible contribution to global emissions. Africans make up 17 percent of the global population, but between 3 and 4 percent of annual emissions.[25] Sub-Saharan Africa, home to 1.1 billion people, was responsible for just 1 percent of global fossil fuel emissions in 2020.[26] Since the dawn of the Industrial Revolution, the African continent has accounted for 0.55 percent of cumulative emissions.[27] By comparison, the USA has been responsible for 20 percent of all emissions since 1850.[28] A recent study found that just one percent of the world's population was responsible for almost a quarter of emissions growth from 1990 to 2019.[29]

Despite such distributional inequity, the African continent will experience higher temperatures, rising sea levels, changing rainfall and precipitation patterns, increased climate variability, more frequent droughts, flash floods, and disruptions to agriculture as a result of climate change.[30] These impacts will exacerbate an array of social, political, and economic challenges that Africa is already grappling with, including drought pushing over 50 million people in the Horn of Africa into acute food insecurity.[31] According to the African Development Bank (AfDB), Africa has been losing between 5 and 15 percent of its annual GDP per capita growth due to climate change impacts, although some regions face higher losses.[32] The AfDB concludes that these impacts will increase government expenditure and reduce tax revenues, ultimately increasing government debt burdens and creating a "downward spiral of risks and vulnerabilities".[33]

Finance for loss and damage, which refers to providing financial support for the destructive impacts of the climate crisis that can no longer be avoided through mitigation or adaptation, is set to dominate the COP27 agenda.[34] Loss and damage is already a reality for millions of Africans - and is set to accelerate. Africa is experiencing higher mean temperatures and hot extremes above natural variability, as well as more rapid rates of rising surface temperatures.[35] Extreme weather, such as prolonged droughts, could cost the continent $50 billion annually by the middle of this century, according to the World Meteorological Organization (WMO).[36] In turn, extreme weather, food and water insecurity, crop failures, sea-level rise could force 86 million Africans to migrate within their own countries by 2050, causing huge disruptions and challenges for governments.[37]

The era of climate crisis has been shaped by the combustion of fossil fuels. Over the past decade, the burning of fossil fuels has caused 86 percent of global CO_2 emissions.[38] While the lion's share of this responsibility lies squarely at the feet of nations like the UK and the USA, preventing catastrophic climate change requires rapidly curtailing the use of fossil fuels and leaving many reserves safely in the ground. Taking equity into account of attempts to keep global temperatures below 1.5°C, wealthy fossil fuel producing nations, such as Norway, the USA, and UK, must cut oil and gas output by 74 percent by 2030 with a complete phaseout by 2034.[39] For the poorest group of producers, with limited capacity to fund a just transition, which includes many of the African gas 'newcomers' like Mozambique and Tanzania, a 14 percent cut in production is needed by 2030, with all production ceasing by 2050.[40] A more recent synthesis report from the International Institute for Sustainable Development (IISD) found that developing any new oil and gas fields is incompatible with the 1.5°C target.[41] The current dash for gas in Africa would see these targets missed, with potentially catastrophic environmental, social, and economic consequences.

Climate impacts across Africa	1.5°C	2°C
Warm spell duration in East Africa.[42]	↑ 25 days	↑55 days
Periods of 3 consecutive heatwave days in the Greater Horn of Africa.[43]	↑ 5 periods	↑ 7 periods
Frequency of warm extremes over land in West Africa.[44]	↑ 249%	↑ 753%
Average drought length in Northern Africa.[45]	↑7 months	↑20 months
Population exposed to water scarcity in East Africa.[46]	↑6 million	↑22 million
Frequency of rainfall extremes over land in Southern Africa.[47]	↑15%	↑30%

Figures like these emphasise both the injustice at the heart of the climate crisis, where those that have done the least to create the crisis are set to suffer the most, and the dearth of climate finance flowing from wealthy nations to Africa. Ahead of COP27 in Sharm El-Sheikh, Egypt, African leaders used a summit in the capital Cairo to call for a sharp expansion in climate finance from rich, polluting nations that have benefited the most from fossil fuelled development.[48] To date, Africa has benefited from less than 5.5 percent of global climate finance despite the continent set to experience some of the most severe climate impacts and disruptions.[49] According to the African Development Bank, the African continent alone requires $108 billion a year to mitigate and adapt to climate change.[50] However, the required amount could be much more. According to the UNFCCC, the amount of finance required to help nations achieve their Nationally Determined Contributions (NDCs) under the *Paris Agreement* is around $5.9 trillion up until 2030.[51]

To date, Africa has benefited from less than 5.5 percent of global climate finance despite the continent set to experience some of the most severe climate impacts and disruptions. According to the African Development Bank, the African continent alone requires $108 billion a year to mitigate and adapt to climate change.

4 FOSSIL GAS IN AFRICA

Reserves: What is in the ground?

The majority of the African continent's fossil gas reserves are located within a handful of states. For instance, in 2020, Nigeria held 32 percent of known African gas reserves, with Algeria having 25 percent, Mozambique with 16 percent, Egypt with 10 percent, and Libya with 8.5 percent. Together, these five nations hold more than 90 percent of known African gas reserves,[52] while the rest of Africa shares the remaining 7.8 percent.[53] Regionally, it is North African states that hold just under half (48 percent) of total African gas reserves, but it is Nigeria and Mozambique that account for the highest and third highest level of country reserves.[54]

Many African gas reserves are currently undeveloped. According to Rystad Energy, 63 percent of African gas reserves are in the discovery phase, while 30 percent are currently producing and 7 percent are under development.[55] Taking advantage of these large gas discoveries will require a substantial amount of investment and time to bring them into production.

Financial forecasting from Rystad Energy suggests that approximately $400 billion is needed by 2035 to exploit the continent's known reserves.[56]

While legacy gas producers on the African continent, such as Algeria and Egypt, can bring new reserves online in a matter of years, for some of the 'newcomer' producers, bringing these undeveloped reserves into production and building the supporting infrastructure around them could take decades.[57] The majority of the large gas discoveries in Africa will therefore not be able to fill current gas demand within international markets to bridge the shortfall of Russian energy exports. Moreover, as many of the undeveloped reserves across the continent are deep-water, ultra-deep water, or within challenging geologies, they are relatively more expensive to extract. These reserves may become prohibitively expensive as fossil fuel majors seek to exploit more established low-cost sites of extraction elsewhere as decarbonisation gathers pace in key export markets, like Europe and Asia.[58]

Production: What is being extracted?

Gas production in Africa has expanded from 0.3 percent of total global output in 1970 to 6 percent in 2020.[59] By 2040, gas production across the continent could double, with Africa potentially contributing approximately 9.2 percent to global gas supply by the end of the next decade.[60] Conservative forecasts from the African Energy Chamber (AEC) suggest that Africa's gas production will peak by the late 2030s at 470 billion cubic metres per annum.[61] This is roughly 75 percent of the gas that Russia is forecast to produce by the end of 2022.[62]

Despite Nigeria having the largest known reserves of fossil gas, the North African states of Algeria and Egypt have been the drivers behind the continent's production. The top three gas producers, Algeria, Egypt, and Nigeria account for 87 percent of all gas produced to date. When you include the production from the next five biggest producers - Mozambique, Angola, Libya, Tunisia, Côte d'Ivoire - these eight countries made up 98% of all the gas produced across the African continent in 2020.[63]

North Africa accounts for the largest share of fossil gas production. Today, Algeria and Egypt together account for around 60 percent of Africa's gas production, with both nations planning to expand production further.[64] Algeria's state-owned fossil fuel company, Sonatrach, recently announced plans to increase its annual gas production to 140 bcm by 2023, which equates to a 76 percent increase.[65] Egypt plans to expand its offshore gas production further after the vast 30 trillion cubic feet Zohr gas field came online, of which Italian fossil fuel giant Eni owns a 50 percent stake.[66] When combining planned oil and gas expansion, Alegria and Egypt together are investing around $227 billion up to 2050 into new projects, which are expected to emit nearly two billion tonnes of CO_2 by the middle of this century.[67] Other legacy producers in Africa, such as Nigeria and Libya, are also planning to significantly ramp up the production of gas, as well as oil.[68]

However, Algeria and Egypt are not alone in their expansion plans. Mozambique, Senegal, Tanzania, Mauritania, Ethiopia, Uganda, South Africa, and Ghana are all planning to significantly increase fossil fuel production in the years ahead, with many of the projects within these nations backed by the largest multinational fossil fuel firms.[69] These 'newcomer' states, who do not have a history of large-scale fossil fuel production, are expected to make up around 33 percent of planned oil and gas expansion across the African continent up to 2050.[70] Both current production within legacy producer states, and the planned gas production in 'newcomer' nations, is still highly concentrated in just a handful of African nations, which adds doubt to the argument that these production plans will improve energy access and drive development across the entire continent.

Without decisive and immediate changes in policy and investment plans, gas production across Africa is expected to increase rapidly. For instance, four of the largest gas projects expected to come online by 2030 are located in Mozambique's northern region of Cabo Delgado, where over 90 percent of extraction will be from ultra-deepwater drilling at depths over 1,500 metres.[71] If planned gas projects get the go ahead in Tanzania, the nation could be producing around 15.7 trillion cubic feet of gas up to 2050, with over half of this coming from ultra-deepwater drilling.[72]

African Fossil Fuel Producer	Investments into new projects in USD (2021-2050)	Expected emissions from new projects in tonnes CO_2e (2021-2050)
Nigeria	$86 billion	1.9 billion tonnes
Egypt	$149 billion	1.1 billion tonnes
Mozambique	$159 billion	2.8 billion tonnes
Senegal & Mauritania (Grand Tortue/Ahmeyim)	$59 billion	1 billion tonnes
South Africa	$79 billion	662 million tonnes

Figures taken from Oil Change International's analysis of Rystad UCube.[73]

Exports: How much fossil gas is leaving the continent?

Despite the need to improve energy access and end energy poverty across Africa, much of the gas produced on the continent is destined for overseas export markets in Europe and Asia due to a lack of refining, processing, and distribution capacity across the continent to support domestic consumption.[74] In 2020, Africa exported 82.5 billion cubic metres of gas, which amounts to around 9 percent of global gas trade, mainly to Europe. In 2021, Africa exported approximately 40 percent of the gas produced on the continent.[75] When combined, Algeria and Egypt accounted for around 69 percent of gas exports.[76] Given its high rate of consumption and its geographical proximity to North Africa, Europe receives the lion's share of current gas exports, at around 83 percent of total African gas exports.[77]

When analysing Africa's gas exports, it is important to differentiate between pipeline gas and liquified natural gas (LNG), both of which are prominent within Africa's legacy producer. Pipeline gas has a longer history on the African continent, with pipelines carrying gas to Europe, the Middle East, and other African nations. Pipelines, by their nature, are highly specific and fixed, meaning that exported gas is bound by the same route and cannot be adjusted according to shifts in global commodity markets. What's more, pipelines rely on cross-border collaboration that can be susceptible to regime change, war, or other geopolitical risks.

African LNG exports have grown rapidly since the start of the millennium. In 2001, LNG exports made up just over half of total African gas exports.[78] By 2019, LNG made up around two-thirds of total gas exports after a number of large LNG terminals came online in Algeria, Egypt, and Cameroon, amongst others.[79] Unlike pipelined gas, LNG is transported via tankers from coastal terminals, which gives exporters control over the destination of exported gas. While LNG exports have been steadily increasing as a share of total gas imports, the continent's share of the global market is declining. In 2008, African LNG exports made up around 25 percent of global exports, but this had decreased to approximately 12 percent by 2019. This decline is due to rapidly expanding LNG production within the largest producer nations of Qatar, Australia, and the USA. These three nations accounted for over half of global LNG exports.[80]

There are 32 LNG facilities planned along the African coastline, with most concentrated in Nigeria and Cameroon, and others in Mauritania, Senegal, Equatorial Guinea, and Côte d'Ivoire along the West Coast.[81] The majority of operating LNG facilities in Africa are located along the West Coast, as well as those currently under construction, in order to feed both European markets and high-consumption nations in North Africa. On the East Coast, there are a number of proposed LNG terminals in Kenya, Tanzania, and Mozambique.[82] Unlike Nigeria, fossil gas newcomers such as Mozambique will require significant amounts of capital investment to bring their LNG terminals to fruition since liquifying gas and building the shipping infrastructure is particularly resource-intensive and can take many years, perhaps decades, to come online. These lengthy lead up times, and the amount of investment required, brings into question the ability for African states to ramp up production and exports to meet the current market conditions.

Energy Demand: Can it be met sustainably with fossil gas?

Energy demand across Africa is set to rise rapidly, which presents a key challenge to many African governments. In 2019, Africa held around 17 percent of the world's population but made up just six percent of global energy demand and three percent of global electricity demand.[83] Population growth across Africa is set to gather pace, with the populations of more than half of Africa's 54 nations set to double or more by 2050.[84] By the middle of the century, a quarter of humanity is expected to live on the continent.[85]

As population and incomes grow, so will the demand for energy. Under the IEA's 'Sustainable Africa Scenario', energy demand expands by a third between 2020 and 2030.[86] However, nearly 80 percent of its present electricity generation is from fossil fuels, with non-hydro renewable energy making up just over 3 percent of generation.[87] As African nations have some of the sharpest carbon emissions growth rates globally, there is a real risk that efforts to meet rising energy demand with fossil fuels, such as gas, will lock the continent into a carbon-intensive development pathway with considerable consequences for the health of African communities and the natural world.[88]

Over the past two decades, gas consumption across the African continent has been rising steadily but remains very low. Using gas for electricity generation has also increased over the past twenty years. In 2000, just nine African nations used gas for electricity generation. Within ten years, this had grown to 15 countries, and then increased further to 18 by 2018.[89] As a result of this growth, the share of electricity coming from the combustion of fossil gas across the whole of Africa has increased from around 25 percent in 2000 to around 40 percent in 2018.[90]

Final consumption of gas, either for heavy industry, transport, or agriculture, has also been growing steadily across Africa over the past two decades, but is highly concentrated in North Africa. North Africa accounts for roughly 85 percent of all African gas used for final consumption, with Egypt using nearly half at around 48 percent and Algeria using a third.[91] South Africa and Nigeria both use sizable amounts of gas for final consumption at around 6 percent each, but this pales in comparison to usage in North Africa.[92] The high level of final consumption in North Africa, especially in regards to heavy industry, suggests a deep intertwining between production and final consumption, with high-levels of infrastructural lock-in that may prevent energy demand being met through sustainable alternatives as well as economic diversification.

Africa's growing energy demand cannot be met sustainably through gas. According to the IPCC, global gas demand must decrease by between 21 and 61 percent from 2020 levels by 2050 in scenarios limiting warming to 1.5°C, with no or limited overshoot.[93] The current global gas infrastructure already supplies the gas volumes required to meet demand within these future scenarios, and any additional infrastructure is at risk of becoming a stranded asset.[94] Due to the increasing competitiveness of renewables, it would be both more sustainable and economically astute to meet Africa's growing energy demand through sources of renewable energy.[95]

Energy Access: Will expanding gas production improve energy access?

Improving energy access remains a top priority for African governments with substantial progress made over the past decade. Yet in 2019, 570 million Africans still lacked basic access to electricity.[96] Throughout Sub-Saharan Africa in 2020, the number of people without access increased for the first time since 2013.[97] Globally, 75 percent of the world's population without access to electricity lives in SSA.[98] High levels of energy poverty and low or intermittent energy access restricts economic activity and development, with annual economic losses between one and five percent of African countries' GDP.[99]

Not all African countries face the same energy access challenges. Some African nations have almost universal access to electricity. For instance, in the North African states of Morocco, Algeria, Libya and Egypt, more than 99 percent of the population had access to electricity as of 2019.[100] Tunisia has achieved universal access for its population.[101] In South Africa, a nation of nearly 60 million people, around 95 percent of the population has access to electricity, although issues remain.[102]

The greatest deficits of energy access are concentrated within the centre of SSA, with less than ten percent of the populations of Chad, South Sudan, and the Democratic Republic of Congo having access to electricity.[103] In 2019, only 4.4 percent of the population of the Central African Republic had access to electricity.[104] Progress towards achieving universal access is also slow. In West and Central Africa, for example, only three countries are on track to achieve universal access by 2030, meaning that 263 million people will still be without electricity well into the 2030s.[105]

Some of the largest legacy fossil fuel producers in Africa are still grappling with low energy access. Approximately 85 million Nigerians, which represents 43 percent of the total population, has no access to grid electricity. As a result, Nigeria has the largest energy access deficit in the world, despite being one of the largest and most established oil and gas producers in Africa.[106] A long legacy of fossil fuel production has failed to deliver for Nigerians and, in 2018, Nigeria overtook India as the country with the greatest number of people living in extreme poverty.[107] The legacy of oil and gas production within Nigeria has also stoked corruption, with the government missing out on tens of billions in fossil fuel revenues to corruption and unfair deals made between fossil fuel majors and government officials.[108] Nigeria's experience suggests that there are substantial limits to pursuing universal energy access and broader developmental goals through expanding fossil fuel production and consumption.

There are also diverse energy needs and accessibility issues experienced by urban populations, on one hand, and rural populations on the other. While urban populations may be closer to centralised grids and sources of electricity generation, connection is not guaranteed due to prohibitively high connection costs. In rural parts of Africa, away from much of the grid infrastructure, many communities face high levels of energy poverty and limited prospects of cheap access to energy. Due to the long lead-up times of building out centralised grid infrastructure, and the vast investment required to do so, it is unlikely that these rural or peri-urban communities will gain access anytime soon, despite governments claiming that higher rates of fossil fuel production will deliver access and a raft of other benefits.

5

THE CHALLENGES OF EXPANDING GAS IN AFRICA

If the dash for gas gathers pace and fossil gas production becomes central to prospective producers' economies, there are a variety of challenges that will emerge. Although many of these challenges intersect across economic, environmental, social and geopolitical lines, with the impacts often reinforcing each other, they are analysed separately.

Economic

Policy and decision makers throughout Africa need to be aware of the economic risks that will emerge if Africa pursues a development pathway paved with fossil gas. The dash for gas in Africa may obscure more long-term, sustainable investment choices that governments can make to provide energy to their citizens, without putting other developmental goals at risk. While some of these economic risks are emergent, many are established and well understood.

The dash for gas in Africa will increase the risk of stranded assets.

As investment continues to flow into gas projects across Africa, there is a growing risk of financial, physical, and regulatory stranding. Over the next decade, the fossil fuel industry is gambling $230 billion in oil and gas projects that could eventually become stranded.[109] By 2050, this figure rises to $1.4 trillion at risk.[110] However, these figures may be much higher in the wake of Russia's invasion of Ukraine, which has caused a dash for gas around the world. This is especially true in Africa where new gas projects are getting the green light and old ones are being revived amid high fossil fuel prices, which are likely to dip in the near future.

Many of the gas projects across Africa are relatively new and within nations that do not have supporting infrastructure. This makes it more likely that these assets will not be able to operate for their expected lifespan and face premature closure. According to Oil Change International (OCI), one third of forecast fossil fuel production is set to take place in 'newcomer' countries, like Mozambique and Senegal, where a lack of supporting infrastructure and regulatory frameworks, combined with challenging geologies, increases the costs associated with the projects.[111] Between 2016 and 2019, wealthy and industrialised G20 nations directed four times as much public finance into fossil fuels in Africa compared to renewables, but up to 71 percent of these oil and gas projects in Africa are at risk of becoming stranded.[112]

Assets becoming stranded pose risks on several fronts. Energy assets becoming stranded will result in forgone revenues for African governments and supporting industries, which could disrupt governments' ability to fund public goods or adjust fiscal policy in response to shifting global contexts.[113] Estimates vary, but global forgone revenues from stranded assets could be as low as $3 trillion by 2035[114] or as high as $28 trillion by 2035.[115] There

Over the next decade, the fossil fuel industry is gambling $230 billion in oil and gas projects that could eventually become stranded. By 2050, this figure rises to $1.4 trillion at risk.

are also concerns over the liability for cleaning up stranded assets, which can often entail significant costs for governments, surrounding communities, and the natural world. As many of the contracts for developing fossil assets are legally binding and long-term, there is very limited scope for governments to alter contractual arrangements to account for clean-up costs without incurring liability and having to pay compensation. It is highly likely that African governments will be expected to shoulder the majority of the clean-up costs for stranded energy assets.

The relatively higher production costs of African fossil fuel projects mean that these assets will become stranded sooner, as fossil fuel majors pivot towards lower-cost extraction sites that are already operational. As roughly 68 percent of planned oil and production in Africa up to 2050 involves relatively costly hydraulic fracking, deepwater drilling, ultra deepwater drilling, or heavy extraction, the risk of assets becoming stranded is further intensified.[116] Compared to the global average, African oil and gas assets are 15 to 20 percent more expensive to develop and operate, as well as 70 to 80 percent more carbon intensive.[117] Capital flight out of African gas projects is a possibility if commodity prices drop, heightening the risk of stranded assets.

If decarbonisation continues to gather pace in Europe and Asia, the biggest prospective importers of African gas, then these assets will find themselves significantly devalued, leaving governments with large debt obligations on assets that are no longer viable. For 'newcomer' producers, like Mozambique, this level of debt may become unmanageable as current debt already sits at around 120 percent of GDP.[118] In 2022, the growth in global electricity demand was met entirely by renewable power generation for the first time, halting a rise in fossil fuel usage.[119] As renewable technologies get cheaper and their deployment continues at pace, they will displace fossil fuels within the global energy system, shrinking the export market for gas and furthering the risk of stranded assets.

The risk of stranded assets might be disproportionately shouldered by African governments. Many of the large-scale gas developments that are emerging across Africa are likely to have been granted on the basis of softened fiscal terms, where African governments offer generous tax relief to multinational fossil fuel companies to secure investment. In practice, this often means financiers and multinational fossil fuel companies are allowed to recoup initial costs before paying taxes. This ultimately delays the opening up of new tax revenue streams for African governments for years after production starts. If the projects in question become stranded then African governments' prospective tax revenues may be greatly reduced and citizens' interests sacrificed as a result.

As roughly 68 percent of planned oil and production in Africa up to 2050 involves relatively costly hydraulic fracking, deepwater drilling, ultra deepwater drilling, or heavy extraction, the risk of assets becoming stranded is further intensified.

Fossil fuel expansion will lock-in expensive energy for Africans.

Fossil fuels have failed to deliver cheap and accessible energy for all Africans. It is highly unlikely that expanding gas production and consumption will reverse this failure. In Nigeria, where fossil fuel production has been ongoing for decades, only 55 percent of the population had access to electricity in 2019.[120] In many cases, fossil-fuelled energy generation produces electricity that is either prohibitively expensive for many African communities or requires a vast and time-consuming build out of the grid infrastructure, hindering development and locking millions into energy poverty. Developing gas industries throughout Africa will do little to bring cheap and accessible electricity to Africans in the near-term and may price many communities out.

Fossil fuels generate expensive energy relative to their clean competition. According to IPCC, the unit cost of electricity from solar has declined by 85 percent over the past decade, while the cost of wind energy has declined by 55 percent over the same time period.[121] These sources of electricity have continued to get cheaper, while fossil fuel electricity has become more unaffordable, requiring substantial government subsidy support. In 2020, according to IRENA, solar became the cheapest source of electricity in human history, with utility-scale solar projects costing an average of $40 per megawatt hour.[122] This was roughly half the price of electricity generated from coal and gas projects, but given the recent increase in commodity prices, utility-scale solar is now even cheaper.

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Africa is uniquely well placed to take advantage of solar, wind, and hydropower generation. According to the World Bank, Africa leads the world in solar potential, holding 60 percent of the best solar resources with average long-term yield of a utility scale solar farm providing electricity at 4.51 kWh/kWp/day.[123] Despite this potential, Africa currently has just 1 percent of the world's installed solar capacity.[124] It is a similar story with wind energy. Africa currently exploits 0.01 percent of its potential wind generation capacity.[125] An IFC study estimated the potential for wind power in Africa at almost 180,000 terawatt hours (TWh) per year, which is enough to satisfy the entire continent's current electricity demand 250 times over.[126]

Overall, using renewable energy to make electricity is cheaper for both governments and citizens in Africa. In 2019, roughly 62 percent of new renewable capacity had lower costs than the cheapest new fossil-fuel generation option.[127] What's more, 56 percent of the hydropower projects commissioned in 2020 had a levelized cost of electricity (LCOE) lower than the cheapest new fossil fuel generation option.[128] According to IRENA, the new renewable generation capacity added in the 2020s will save emerging economies up to US$156 billion over their lifespan.[129] With the cost of renewable generation likely to decrease further as deployment increases, it is clear that locking in fossil gas across Africa means locking out many Africans from affordable energy.

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Investment in fossil fuels displaces investment in clean, distributed, and affordable energy systems.

Investment in fossil fuels displaces investment in the clean energy systems of the future. According to OCI, between 2016 and 2021, public and private financial institutions poured $132 billion in lending and underwriting into 964 gas, oil, and coal projects across Africa.[130] However, as the concentration of fossil fuel production is in a handful of African states, these investments are unlikely to improve energy access and development across the continent as a whole.

If this level of investment were to flow into renewable sources of energy, it could be potentially transformative for Africa. Over the last two decades, just 2 percent of global investments into renewable energy were made in Africa, with large disparities between African nations.[131] Yet, there has been progress in improving investment flows into renewables. The average annual investment flows into renewable energy grew tenfold from less than $0.5 billion between 2000 and 2009, to $5 billion from 2010 to 2020.[132] While this is still far less than investments in fossil fuels, there is momentum building that needs to be encouraged by government policy and finance from wealthy nations.

Renewable technologies are much more likely to bring local benefits, improving energy access for surrounding communities, especially rural ones.[133] The renewable energy sector also has a much stronger job creation potential compared to fossil fuel industries, providing sustainable incomes for local populations that can then be used to pursue other developmental aims. For every one dollar invested in renewable energy, two to five times more jobs are generated than when the same amount is invested in fossil fuels. If this is then combined with other areas of low carbon development like energy efficiency measures and mass public transport (both of which are vital for Africa's sustainable development), then between five and twenty-five times more jobs will be created.[134] Due to the immediate benefits that could be accrued from scaling up renewables, African governments should focus investment on these technologies and build industrial strategies around them.

Scaling up renewable energy across Africa requires climate finance—and wealthy nations must step up. According to IRENA, investments in large hydropower projects and renewable sources of energy needs to top $487 billion up to 2030 across the entirety of the continent.[135] The AfDB estimates a need for $230 to $310 billion up until 2025, with an additional $190 to $215 billion required from 2026 to 2030.[136] To date, global investment flows into African renewables have been marginal, which means a rapid scaling up of financial resources is required. Any additional investment into African fossil gas, from overseas and African governments, displaces investment that could bolster the deployment of renewables.

Renewable energy sources can be a key part of helping Africans adapt to climate change. For instance, decentralised energy systems in SSA have provided more secure and robust power during power outages and blackouts, with fewer detrimental health impacts than using diesel generators, kerosene, or charcoal.[137] Expanding renewable capacity can also allow the uptake of other adaptive technologies in the face of increasing climate impacts, such as air conditioning services, desalination plants, and advanced irrigation systems—all of which are becoming increasingly important for improving health and wellbeing outcomes.[138] There are also a range of non-energy services that renewables can bring to communities, such as using solar panels to reduce evaporation on farm land to improve crop yields or floating solar on sources of water to reduce water loss.[139] Embedding renewables into both mitigation and adaptation strategies can deliver significant benefits for African communities.

Over the last two decades, just 2 percent of global investments into renewable energy were made in Africa, with large disparities between African nations.

Allowing high rates of foreign ownership of Africa's energy system pulls wealth out of the continent at the expense of African citizens.

Around 61 percent of the projected production in Africa between now and 2050 is owned by multinational companies headquartered outside of the continent in Europe, North America, and Asia.[140] Some of the biggest corporate polluters in the world, such as Eni, BP and Total, are also the largest owners of Africa's fossil fuel development pipeline.[141] The financing used to bankroll these projects is also predominantly from North America and Europe.

Between 2016 and 2021, approximately $132.3 billion was poured into fossil fuel companies and projects in Africa by public and private financiers.[142] In particular, financial institutions from North America, Europe, and Australia provided $72.5 billion, with JPMorgan Chase, Barclay, and Standard Chartered all in the top five fossil fuel financers.[143] Nearly half of the potential emissions from the world's largest fossil fuel companies are owned by just ten shareholders, such as BlackRock, Vanguard, and Fidelity Investments.[144] These financial institutions, based in the Global North, are subjecting African communities to pollution, environmental degradation, and emissions lock-in for decades to come.

High rates of foreign ownership of fossil fuel projects throughout Africa allow multinational corporations to reap huge financial rewards on global commodity markets, while African governments and citizens shoulder the majority of risk. This is acutely true in regards to the risk of stranded assets, outlined above, but also in terms of the poor contractual terms given to African governments. According to OCI, the historical split of earnings between fossil fuel companies and the state has never favoured African governments, with this trend worsening as energy industries and markets have been liberalised and opened-up to foreign capital, as well as during the economic disruption caused by the global COVID-19 pandemic.[145]

Some of the largest gas reserves within 'newcomer' producers have high rates of foreign ownership. In Senegal, the first phase of the Sangomar oil and gas field is majority owned by Australian oil and gas giant, Woodside, which has nearly 69 percent equity compared to Senegal's state-owned oil company, Petrosen, having just 18 percent.[146] The second phase of this project will see even higher rates of ownership, with Woodside holding 82 percent of the project.[147] Other gas projects in Senegal show a similar pattern, such as the huge Greater Tortue Ahmeyim (GTA) deep-water fracking project. The Saint-Louis Offshore Profond block within this project is owned by BP (60 percent), US energy firm Kosmos Energy (30 percent), and Senegal's Petrosen (10 percent).[148]

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The tangible benefits of this type of ownership structure are limited, with African governments and communities expected to shoulder the risk, debt, and environmental and social hardships that accompany fossil fuel production.

In addition to the ownership of gas reserves, a lot of the supporting infrastructure will be built elsewhere and transported to Africa, creating little economic or industrial benefits for the continent and its communities. For instance, in Senegal's Sangomar project, the Floating Production Storage and Offload (FPSO) unit, which is a floating vessel used in offshore oil and gas extraction, will be manufactured in China.[149] The same is true for the FPSO in Senegal's GTA project, which creates limited local employment for the construction of the facility.[150] These factors show that fossil fuels do not bring the promised benefits to development, especially when it comes to building up the advanced manufacturing base that is needed for industrialisation.

State ownership of fossil fuel reserves in Africa is concentrated in the north, where Algeria and Libya, amongst others, have kept the state heavily entangled with production. However, the forces of liberalisation have swept across the continent, and state-ownership has been diluted in places like Angola, Nigeria, and Algeria, where fossil fuel profits are captured by an increasingly small number of multinational companies and local elites. There appears to be no sign of this trend reversing, with gas 'newcomers' like Tanzania and Mozambique offering multinational fossil fuel companies high rates of equity. The tangible benefits of this type of ownership structure are limited, with African governments and communities expected to shoulder the risk, debt, and environmental and social hardships that accompany fossil fuel production.

High rates of foreign ownership within the African energy system, the propensity of extracted reserves to go to overseas export markets, and the outsourcing of the major infrastructural elements to manufacturers outside of Africa, highlight the risk that Africa is reproducing the unequal and unjust trade relations of the past through an extractivist economic model. Widespread foreign ownership pulls profits and wealth out of the African continent, as well as causing a range of other social issues, such as violent repression of local populations and a lack of democratic contestation over the path Africa's energy system takes.

An over-reliance on export markets may come at the expense of fostering domestic value chains and industrial development throughout Africa.

Through the dash for gas across the African continent, governments and multinational oil companies are looking to take advantage of export markets for gas, both piped and LNG. High prices on international commodity markets, and nations' efforts to reduce their dependence on Russian energy imports, have created tempting conditions for targeting these export markets. Yet, these conditions are fragile and could change in the coming years, which will have detrimental effects on Africa's development.

While fossil fuel prices are currently high, this has not always been the case. The economic fallout of COVID-19 and the slump in the global price of oil hit fossil fuel-exporting countries hard, especially in Africa and the Global South. For nations that are highly dependent on exporting oil to generate government revenues, structurally low prices significantly reduce governments' ability to fund other public goods, such as health and education. If global gas prices face a similar slump in the future, then the African states keen to develop their gas reserves may find themselves over-leveraged, servicing large debt obligations, while their ability to adapt to shifting economic circumstances is curtailed by reduced government revenues.

There are concerns that by targeting export markets, African states are setting themselves up for new forms of dependency on the Global North, where states that develop a dependence on the revenues from gas exports are dependent on continually expanding gas consumption in Europe and Asia. Such a strategy may ultimately backfire as decarbonisation gathers pace across Europe and Asia, reducing the size of gas export markets. According to the African Climate Foundation, relying on growing domestic and regional gas demand as a hedge against future fluctuations on global commodity markets is unlikely to yield comparable revenues, as domestic African gas prices are often substantially lower than global LNG prices.[151]

Europe, for instance, has set a legislative target to source 45 percent of its energy from renewables by 2030 - less than eight years from now. In terms of Africa's newly developed gas fields coming online and generating profits, eight years is a very short horizon. Established and legacy gas producers on the continent that can ramp up production to meet current demand spikes stand to benefit, but newcomers are unlikely to be able to benefit as their reserves remain undeveloped. The fragility of these export market dependencies, and the direction of travel within global energy systems, will continue to frustrate efforts to achieve sustainable development goals in Africa.

Some of the prospective gas projects on the African continent are set to almost exclusively feed export markets. For instance, 80 percent of the gas currently extracted from the southern production blocks in Mozambique is exported to South Africa.[152] In the Rovuma Basin, in the north of Mozambique, only 12 percent of the extracted gas is planned for domestic use, with the rest going to export markets.[153] Despite a number of gas projects being given the green light in Mozambique on the grounds of improving energy access, the vast majority of extracted gas will head to export markets, while around 70 percent of its citizens remain without access to electricity.[154]

What's more, larger and more established gas producers like the USA and Qatar - and Australia to a lesser extent - are able to increase supply more readily to meet the current uptick in demand. The USA recently penned a deal with the European Commission to phase out Russian gas, with US LNG exports expected to fill the shortfall.[155] In the first three months of 2022, US LNG exports made up almost 60 percent of all LNG's shipments into Europe and is forecast to provide 50 million bcm a year.[156] Qatar's LNG production capacity will rise from the current 77 million tonnes a year to 126 million tonnes by 2027.[157] Qatar intends to increase its LNG exports by 64 percent during this time period.[158] The speed and scale at which these established producers can fill the current gas shortfall suggests that African producers will struggle to compete for market share.

Instead, African governments and international financial institutions should focus on supporting distributed renewable energy systems alongside utility-scale solar, wind, and hydropower as a springboard for furthering industrial development across the continent. There is scope to develop the manufacturing capacity for low-carbon technologies and create value chains that spread across Africa, bolstering trade between African nations, and ensuring that the financial revenues, productivity gains, and job creation uplifts remain within Africa. But such transitions require targeted intervention from governments and policymakers to set the parameters of industrial development and direct financial flows into emerging industries.

No jobs and no future in fossil fuels.

It is doubtful that the expansion of gas production on the African continent will deliver the long-term jobs that governments and fossil fuel firms promise. While jobs in fossil fuels made up more than half of the total energy jobs in Africa in 2019, the extractive sectors as a whole employ less than 1 percent of the total African workforce.[159] Clean energy employment, however, is growing much more rapidly and, globally, accounts for 50 percent of the global energy labour force with the highest growth potential in the years ahead.[160] At the same time, jobs in fossil fuel production are estimated to fall by around 75 percent by 2050 in a 'well below' 2°C scenario, with 80 percent of the employment losses associated with declining upstream fossil fuel production.[161]

Jobs in fossil fuel industries within Africa are often short term, precarious and concentrated in the construction sector, rather than in the ongoing operation of facilities.[162] What's more, the type of employment provided excludes large constituencies

Jobs in fossil fuel production are estimated to fall by around 75 percent by 2050 in a 'well below' 2°C scenario, with 80 percent of the employment losses associated with declining upstream fossil fuel production.

of Africans, primarily women.[163] Nearly 90 percent of women's jobs in Africa are found in the informal sector, and they perform three times more unpaid work than their male counterparts.[164] Unlocking green jobs through large-scale investment into renewable energy, low carbon transport, nature restoration, and energy efficiency could create hundreds of thousands of formal, well-paid, and long-term jobs for African women, aiding efforts to improve gender equality across Africa.

Many of the training programmes created by fossil fuel firms are under-developed or fail to ever materialise. This locks out local communities from the higher-paying roles and fails to develop the transferable skills necessary to access employment opportunities in related sectors.[165] Instead of bringing a wave of opportunity and prosperity, expanding fossil fuel projects often entrench existing inequalities and hinder development. In order to operate and maintain these vast infrastructures, multinational fossil fuel firms bring in overseas labour, who are less likely to put money back into the local economy as wages are expatriated overseas.

Renewable energy generation, and the clean infrastructure that supports it, has the potential to herald in a green jobs revolution across Africa. These jobs have greater longevity and will bring direct benefits to communities across the entire continent, rather than being concentrated around key fossil fuel reserves in a handful of African nations. Even large prospective gas producers could create more jobs by redirecting finance away from the development of gas reserves and into a rapid deployment of renewables. Senegal, for instance, could create an average of 1.4 million job years, which is full time employment for one person a year, by deploying renewables in line with a 1.5°C scenario.[166] Under a 1.5°C scenario, Nigeria could create 4.7 million job years between 2020 and 2030 through rapidly scaling up renewable generation.[167] Renewable energy, not fossil fuels, is the key to creating secure and long-term employment opportunities for Africans.

Under a 1.5°C scenario, Nigeria could create 4.7 million job years between 2020 and 2030 through rapidly scaling up renewable generation.

Environmental

Beyond the economic risks, expanding gas production in Africa will have both direct and indirect effects on the environment. The direct impacts refer to the immediate and localised impacts of the exploration, extraction, transportation, and combustion of fossil gas. Examples include the destruction of biodiversity hotspots, the contamination of groundwater supplies, and the disruption of livelihoods through collapsing fisheries and agricultural yields. Indirect effects, however, refer to fossil fuels' primary role in driving climate change through extreme weather events, mass displacements, and entrenched poverty. Both the direct and indirect impacts of fossil fuel infrastructure are already visible throughout Africa.

The direct impacts of fossil fuel production destroys lives and livelihoods throughout Africa.

Before production even begins, exploration can have a detrimental impact on biodiversity and habitats—and therefore livelihoods. For instance, seismic surveys are known to clear land and accelerate habitat fragmentation, often opening up ecosystems to further extractive industries, such as logging, and disrupting existing industries like agriculture.[168] In the Niger Delta, the construction of two oil and gas pipelines cleared 495 hectares of forest and resulted in the felling of nearly ten million trees.[169] The researchers concluded that the area "had witnessed colossal loss of biodiversity due to habitat displacement, forest fragmentation and deforestation, and escalated exploitation of species."[170]

The direct impacts of fossil fuel infrastructures also cause detrimental harm to marine ecosystems and biodiversity hotspots, which are already under increasing stress due to rising global temperatures and pervasive plastic pollution.[171] Seismic surveys to locate offshore fossil fuel reserves create some of the most intense human-made noises in the oceans and have been shown to disrupt marine species' behaviour, impacting migration routes and feeding grounds.[172] Onshore, gas flaring and hydraulic fracturing have been linked to instances of acid rain and the contamination of groundwater, which both have detrimental impacts on agriculture. In the Niger Delta, gas flaring has been associated with lower yields of cassava, a main staple crop in Nigeria, which makes up 21 percent of global production.[173]

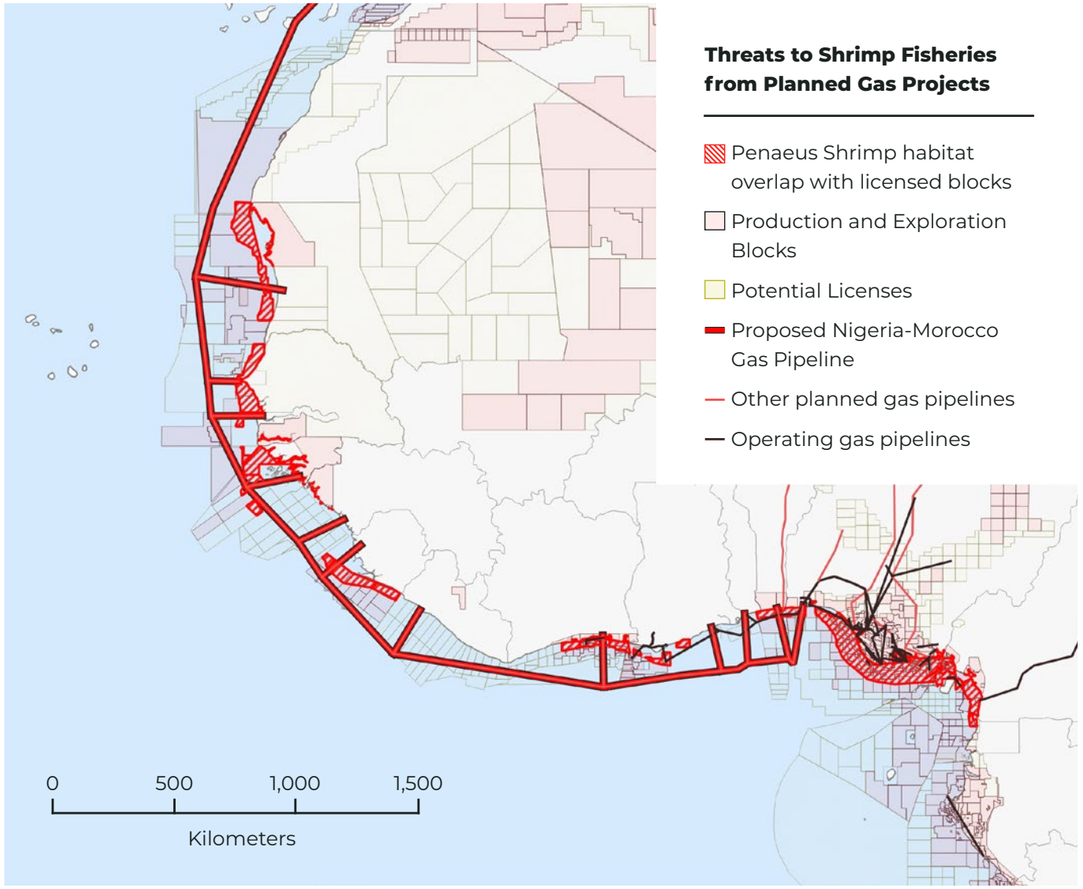
The livelihoods and sustenance of those that rely on artisanal or small-scale fishing, as well as agriculture, are threatened by the expansion of gas infrastructure. For instance, the development of gas fields off the northern coast of Mozambique, in Cabo Delgado, has depleted fish stocks and pushed agricultural workers off their farmland to build the infrastructure, with very little consultation or compensation, destroying the sources of food and income that many have relied upon for generations.[174] Fishing communities that once lived just 50 metres from the sea have now been forced to relocate more than 10 kilometres inland, losing their incomes in the process.[175]

Shrimp fishing along Africa's West Coast.

Shrimp fishing is an important industry along the Western Coast of Africa. In Senegal, shrimp fishing is considered a particularly vital industry because it provides food security, employment, and export income, and has been identified as a driver of development within the government's Emerging Senegal Plan.[176] Shrimp fishing is also a big contributor to Nigeria's economy. Each year, the wild shrimp industry there brings in $57 million.[177] In many other states along the western coast of Africa, artisanal shrimp fishing provides livelihoods and sustenance for many.

Yet the longevity of these shrimp fisheries is being cast into doubt due to the proposed Nigeria-Morocco Gas Pipeline, a nearly 6,000km pipeline that will cross 13 African countries from Lagos, Nigeria, to Tangiers, Morocco, with an extension into Europe planned.[178] It's estimated that the pipeline will cost $25 billion to deliver, but the true costs are unknown, and it will be built in stages over a 25-year period.[179] Even this timeframe, though, is ambitious. As one energy analyst remarked, the pipeline faces a myriad of challenges and is "unlikely to materialize in the short or medium-terms."[180] If completed, the pipeline will be the world's longest offshore pipeline and the second longest overall. As work is still yet to start on construction, despite feasibility being completed in 2019, the 25-year estimate means that it will not be completed until 2046.[181]

The pipeline is set to run directly through a number of shrimp fisheries along the Atlantic coast of Africa, as the map above shows. It is highly likely that this will destroy livelihoods and cut off vital food sources for many communities. Building pipelines under the sea can be highly disruptive to marine ecosystems, causing irreparable damage to feeding and mating grounds as well as emitting hazardous and harmful compounds during the construction process into surrounding ecosystems.[182] When these infrastructures fail, which they often do, the leaks can also damage marine ecosystems. When gas dissolves into the water, for instance, it becomes toxic to marine life and can kill shrimp and other shellfish.[183]



Map assembled by SEI, IGSD, & Global Energy Monitor. Gas pipeline data from Global Energy Monitor. Penaeus shrimp range data derived from FAO FIRMS fisheries database. Source: Dorman, M., Fossil Fuel Transparency Project (SEI-GEM-IGSD), 2022.

Expanding gas production in Africa will increase emissions and intensify climate impacts.

African communities are already facing the deadly impacts of climate change, even though they have only contributed a small amount to cumulative emissions. While there are important aspects of equity and justice that must be navigated, it is undeniable that further expansion of fossil fuel production will lock-in higher annual emissions, accelerating global heating further. Drought, wildfires and extreme weather events will all increase in their severity and frequency if fossil fuel emissions continue, pushing other developmental aims further out of reach.

Drought in the Greater Horn of Africa, which has been directly linked to anthropogenic climate change, is pushing over 50 million people in the region into acute food insecurity.[184] This human catastrophe, which is still unfolding, is a future faced by many more Africans if urgent and equitable global emissions cuts are not made. Under a 2°C scenario, which is below the current trajectory based on the latest international climate pledges, the frequency of warm extremes over land will increase dramatically.[185] In Southern Africa, a 596 percent increase will occur, while in East Africa, the frequency of warm extremes will increase by 822 percent.[186] West Africa will see a rise of 753 percent and the Sahara will see the highest rise under a 2°C scenario, increasing by 930 percent.[187] The figures are large but fail to illustrate the extent of human suffering that will befall African communities under a conservative warming trajectory, with extreme heat, drought, and consecutive crop failures becoming a part of daily life for hundreds of millions.

Alongside extreme heat, other adverse weather conditions will blight African communities. Intense rainfall brings with it the risk of flooding, which will have a disastrous impact on the lives and livelihoods of many Africans. Under 2°C of warming, the frequency of extreme high river flows in the Congo river will increase by 75 percent and in the Nile by 82 percent.[188] The basins of these two great African rivers are home to nearly 200 million people, which makes the heightened risk of flooding a humanitarian crisis waiting to happen.

Flash floods have been shown to contaminate water supplies and cause outbreaks of diseases and illnesses, which will be felt more acutely in vulnerable countries. The observed average mortality rate from floods, droughts and storms is fifteen times higher for countries categorised as highly vulnerable, such as Mozambique, Somalia, and Nigeria, compared to countries with low levels of vulnerability such as the UK, Canada or Sweden.[189] The communities in Africa that have done the least to create the climate crisis are set to suffer the most.

The increasing frequency and severity of climate impacts will exacerbate other developmental aims, such as economic growth, educational attainment, and improved public health outcomes. While the increased risk of floods and storms has been proven to damage educational infrastructure, the impact of climate change on the availability of water, food security and nutrition, parental livelihoods, and migration patterns all have negative consequences for children's educational outcomes—especially for girls and young women.[190]

Climate change will also increase the prevalence of a host of diseases, including malaria, dengue, chikungunya virus, Lyme disease, and encephalitis-bearing insects. According to the World Health Organization (WHO), climate change could cause an additional 250,000 deaths per year between 2030 and 2050.[191] Further analysis by the WHO found that of all the public health events recorded across Africa between 2001 and 2021, 56 percent were deemed climate-related.[192] There is also evidence that these impacts are accelerating: there were 25 percent more climate-related health events recorded between 2011 and 2021 compared with the previous decade.[193]

Climate change is likely to cause setbacks in Africa's battle against malaria. Despite decreasing rates of mortality over the last few years, malaria remains a major health challenge for the continent, with 96 percent of malaria deaths in 2020 occuring in Africa.[194] Under a high-emissions scenario, an additional 75.9 million people in Eastern and Southern Africa will face the risk of endemic exposure to malaria by 2080, with 51.3 million additional people in Western Africa at risk of exposure by 2050.[195]

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Pollution and environmental degradation caused by fossil fuel infrastructures threatens water, air and wildlife.

Despite the false promise of fossil fuels bringing prosperity, the pollution, and environmental degradation caused by expanding production endangers the lives and livelihoods of many Africans by threatening agricultural yields, fisheries, and water supplies.

Fracking for fossil gas, for instance, has been shown to contaminate groundwater and drinking water, while also using vast amounts of water. A single fracking well can use between 1.5 million and 16 million gallons of water, with the wastewater regularly contaminated with lead, chlorine, arsenic, and mercury - all of which are toxic to humans and wildlife.[196] Scientific research exploring the health impacts of over 353 chemicals used in the fracking process found that 25 percent can cause cancer and around 50 percent could cause severe damage to neurological, cardiovascular, endocrine, and immune systems.[197] As much of the projected gas production in Africa requires fracking, the impact of the chemicals used could be significant for surrounding communities and natural systems.[198]

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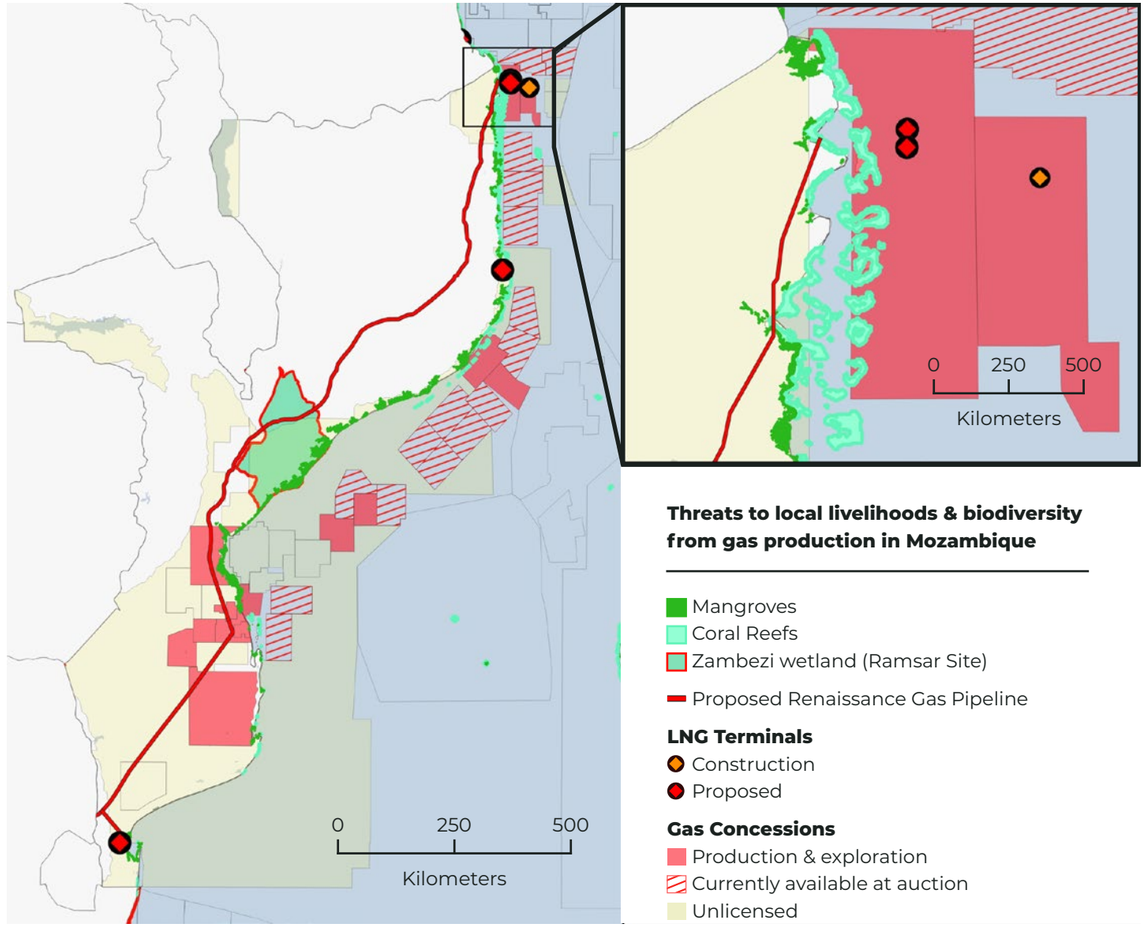
Some of the newly developed offshore gas fields in Africa could also cause significant damage to biodiversity hotspots. Off the coast of Mozambique the exploration and production of gas, as well as the construction of LNG terminals, overlaps with a variety of biodiversity hotspots, including mangrove forests and coral reefs. Not only are these ecosystems already under threat from climate change, but damage to them could cause knock-on effects for other wildlife that relies on them for feeding and breeding grounds. The Ramsar Site, on the north bank of Zambezi Delta, is also set to be disrupted by offshore gas extraction, as well as the proposed Renaissance gas pipeline that will run through it. The Zambezi Delta is one of the world's most biodiverse ecosystems, and the most important wetland on the Indian Ocean coast of Africa, which is essential to the food security and livelihoods of more than 300,000 people.[199]

Off the coast of Mauritania, and stretching as far as Senegal, British Petroleum (BP) has broken ground on the Greater Tortue Ahmeyim (GTA) project, a gas project so large that, when burnt, the emissions would be equivalent to 1 percent of the remaining 1.5°C carbon budget.[200] This gas field is on the edge of the largest known cold-water reef in the world, which acts as a key foothold in global migration corridors for endangered or vulnerable species of shark, whale, turtles, and various seabirds.[201] The drilling will take place 2.7 kilometres below the surface, a depth that has never been attempted before in Africa, with the first extracted gas expected by 2023. The first phase of the project has a lifespan of 20 years and is expected to disrupt ecosystems along the coast of Mauritania and Senegal, spoiling key feeding grounds, fisheries, and mangrove forests, which will ultimately harm those communities that rely on these natural systems.[202]

The act of flaring gas, where excess noxious gases are burnt off at fossil fuel refining stations, is an enormous source of pollution throughout Africa. In the Niger Delta, gas flaring has been linked to health issues in the surrounding communities, including respiratory problems, skin disease, and hypertension.[203] Flaring gas has also been linked to acid rain, which has destroyed entire harvests and contaminated water supplies in Nigeria and South Africa, heightening food and water insecurity and wreaking havoc on livelihoods.[204] The impacts of gas flaring also disproportionately impact women in the surrounding communities through an increased risk of preterm births[205] and foetal neurodevelopmental defects.[206] African women are already disproportionately affected by climate impacts and direct pollution from fossil fuels. Locking in more gas production is likely to exacerbate these inequalities further.



LNG Terminals & pipeline from Global Energy Monitor. Oil & gas blocks from the fossil fuel transparency project (SEI, IGSD, & GEM). Mangrove data from Global Mangrove Watch. Coral reefs from UN WCMC. Source: Dorman, M., Fossil Fuel Transparency Project (SEI-GEM-IGSD), 2022.

Off the coast of Mauritania, and stretching as far as Senegal, British Petroleum (BP) has broken ground on the Greater Tortue Ahmeyim (GTA) project, a gas project so large that, when burnt, the emissions would be equivalent to 1 percent of the remaining 1.5°C carbon budget.

Air pollution is a growing health and social threat in Africa. Outdoor air pollution, of which fossil fuels are a primary driver, claimed 400,000 lives in 2019.[207] If you include household air pollution to this figure from a reliance on polluting cookstoves and burning biomass, the total number of fatalities in 2019 was 1.1 million.[208] Fossil fuelled air pollution is more apparent in nations that rely on polluting fuels like coal, such as South Africa, where an estimated 45,000 South Africans die each year from air pollution derived from the combustion of fossil fuels.[209] However, these studies focus solely on particulate matter so they may underestimate the true harm of fossil fuelled air pollution. For instance, one study suggests that as much as 65 percent of the excess mortality rate from air pollution globally is caused by the combustion of fossil fuels.[210]

Africa is also suffering from high levels of pollution from plastics, of which 99 percent come from fossil fuels.[211] Under 'business-as-usual' scenarios, plastic pollution is set to triple globally by 2060.[212] Fossil fuel giants and petrochemical companies eyeing Africa as a key frontier of future plastics demand and are lobbying to water down regulations in the likes of Kenya.[213] Unlike fossil gas, where the majority of production is exported out of Africa, plastics are being imported in high volumes from established historical polluters, such as the USA.[214] Nearly 513 million tonnes of plastic end up in the world's oceans every year, with Egypt, Nigeria, and South Africa ranked 7th, 9th, and 11th, respectively, on the list of top 20 global plastics polluters.[215]

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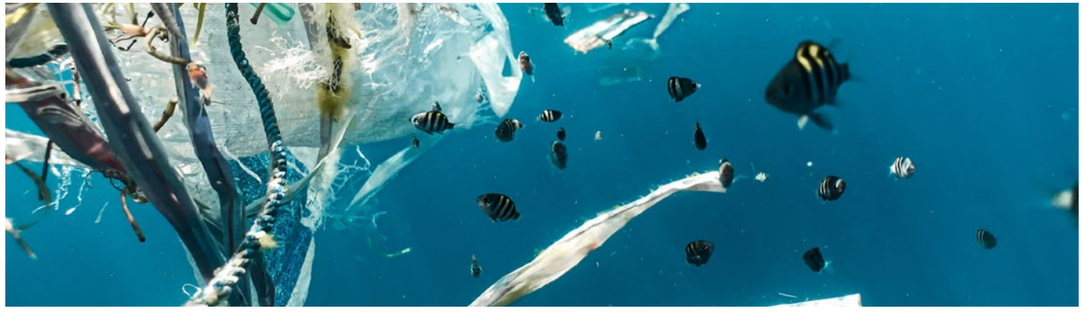
Currently only 12 percent of plastics are recycled within Africa, while the rest is burned, buried or disposed of.[216] Plastic and microplastic pollution are devastating ecosystems around the world. Microplastics are ingested by marine wildlife due to their resemblance to plankton and have been found to be toxic to many marine species by reducing food intake, delaying growth, damaging organs, causing abnormal behaviour, and impacting reproductive cycles.[217] Moreover, there is an emerging concern that plastic pollution may be weakening the ocean's ability to act as a carbon sink for anthropogenic greenhouse gas emissions.[218] As fossil fuel firms ramp up plastics production, emissions from the plastics manufacturing sector could reach 56 gigatons by 2050, roughly 10 to 13 percent of the remaining carbon budget.[219]



Social

Expanding fossil fuel production may reduce African governments' ability to fund other public goods, such as education and health care.

In more than half of fossil fuel producing African states, oil and gas exports account for more than 50 percent of their total export revenues.[220] In Nigeria, one of the largest and richest African fossil fuel producers, oil exports make up more than 85 percent of the government's total export revenues.[221] The pandemic presented a stark reminder of what this level of dependency can mean when fossil fuel demand and revenues both plummet. In response to the slump in commodity prices and demand, the Nigerian government cut its public spending and had to borrow significantly to bridge the shortfall in government revenues, with sovereign debt climbing as a result. As with most economic crises, it was the most vulnerable Nigerians that bore the greatest cost.[222]

For energy exporting nations, poor contract terms with foreign fossil fuel firms have tilted the favour away from African governments towards private business. As the liberalisation of energy systems in Africa has gathered pace, this trend has worsened.[223] Foreign fossil fuel majors often demand more favourable fiscal terms from governments in order to secure investment and invoke private capital, which can include lower profit shares, royalties, and diluted state equity and ownership. It's likely that newcomer producers, such as Mozambique and Senegal, will be expected to offer even more favourable fiscal conditions to foreign investors and businesses in order to launch their fossil fuel industries.

These unequal and unfair contractual terms mean that African governments are expected to shoulder the largest share of risk. Many fossil fuel firms' stipulated contracts ensure that the cost of initial capital outlay is recouped before any taxes of extracted fuels are paid.[224] This means that tax revenue streams from new fossil fuel extraction can take years to open up. What's more, due to the length of these contracts, and the sheer scale of the infrastructure build-out, many fossil fuel operators effectively freeze host governments' ability to amend laws that may seek to increase the tax revenues drawn from extraction in order to fund public goods.[225]

According to McKinsey, the reliance on fossil fuel exports to fund other public goods and developmental aims is extremely risky as instability across global commodity markets may cause sudden and sharp downfalls in export volume.[226] In addition, as renewables begin to take up larger shares of primary energy high-consumption countries, export markets for fossil gas may shrink. As a result, fossil fuel majors that have bankrolled gas projects in Africa to pivot towards lower-cost and lower-emissions reserve basins, of which Africa has few.

There is also a clear correlation between increasing debt burdens and fossil fuel dependency, where energy exporting nations extract and sell higher volumes of fossil fuels in order to service their debt obligations. This creates a vicious cycle of debt and fossil fuel dependency that ultimately undermines developmental aims and increases the reliance on international financial institutions, such as the World Bank and International Monetary Fund (IMF), which often advise austerity measures like cutting public expenditure on health and education to stabilise debt.[227]

For energy-importing nations, government revenues are vulnerable to fluctuations on international commodity markets. Higher fossil fuel prices increase import bills for energy importers, which adds further strain to balancing fiscal spending commitments and containing debt pressures. Current fossil fuel prices have increased the energy import bill of SSA by around $19 billion, with fiscal balances shrinking by 0.8 percent of GDP compared to the previous year, with much of these cost increases passed onto citizens through higher transport and commodity prices.[228] Dynamics like these highlight the risks of domestic energy generation and access being dependent on global commodity prices.

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Fossil fuel projects are highly centralised and could reduce democratic accountability in African states, propping up governments and stoking corruption.

By their very nature, fossil fuel reserves are geographically concentrated. The ownership of fossil fuel production often reflects this fact too. The governance structures around these production hotspots, and the relationships between government officials and private business interests, also tend to be highly centralised and opaque, reducing the space for public scrutiny and contestation. These dynamics are not specific to Africa, but to all fossil fuel producing nations, and is known as the 'resource curse'.[229]

When fossil fuel producing nations rely on energy exports to fund government revenues and expenditures, these funds are rarely distributed equitably to all citizens due to rampant rent-seeking and corruption. The 'rentier state' phenomenon describes states whose incomes derive from rents on natural resources, rather than increases in economic productivity and tax revenues. This phenomenon is often used to explain how states that have abundant fossil fuel reserves experience slower rates of growth than prior to the discoveries.[230] What's more, there is also evidence to suggest that abundant fossil fuel reserves are associated with slower rates of democratisation.[231]

These highly centralised forms of resource governance create a lack of transparency, which can stoke corruption. A report from 2019 that analysed resource governance found that amongst the 28 African fossil fuel producing states, the higher the level of fossil fuel dependency, the less transparent and accountable the management of the extractive sectors tends to be.[232] Opaque governance and split responsibilities leads to high levels of corruption and the syphoning off of public profits into private hands, with local communities left wanting after the promises of prosperity fail to materialise.

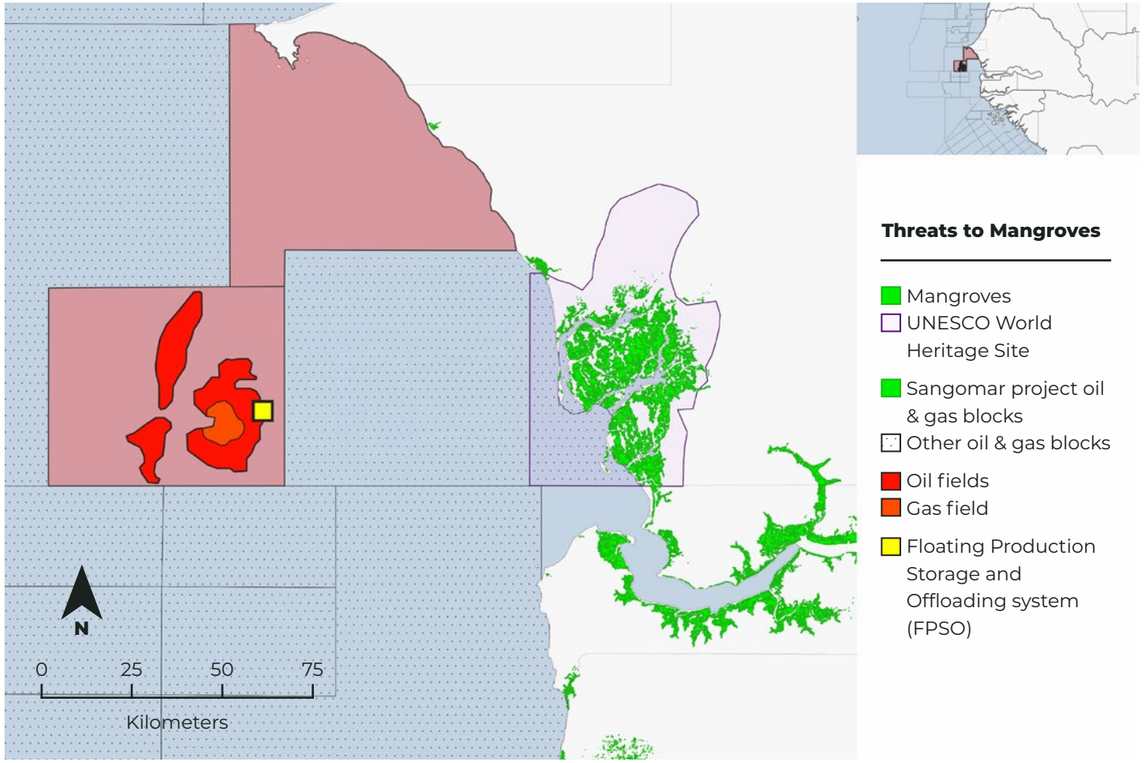
Despite the dominant narrative that corruption is the result of opportunistic African politicians and elites, the multinational fossil fuel industry actively creates structures, opportunities, and incentives for companies and individuals to funnel off wealth derived from resources through transfer pricing, tax avoidance, and tax evasion, amongst other avenues.[233] Multiple studies show that illicit financial flows increase as fossil fuel exports increase due to a myriad of factors, such as monopolies reducing competition and the concentration of ownership in the hands of a few.[234]

Highly centralised forms of power, opaque governance structures, and incentives for corruption and bribery can ultimately reduce the civic space available for democratic accountability. Many of the multinational fossil fuel firms that benefit from the status quo are likely to support the governments than enable them, and vice versa. These networks of incumbency reduce the ability of African citizens to have a say over the policies that shape their everyday lives. A mass deployment of decentralised and clean energy technologies may loosen the grip of a powerful few, opening up the space for democratic processes.

Climate change and fossil fuel production threaten African heritage sites.

Expanding fossil fuel production in Africa will put many heritage sites in peril. According to one report, up to 61 percent of the UNESCO World Heritage Sites across Africa are directly threatened by fossil fuel activities, such as extraction and exploration.[235] Notable examples of the African heritage sites vulnerable to fossil fuel production include the Selous Game Reserve in Tanzania and the Okavango Delta in Namibia, both of which provide essential employment to surrounding communities, education, and tourism services, as well as serving as vital havens for biodiversity.[236]

Some of the recently developed gas projects in Africa are set to directly threaten key heritage sites. The Sangomar oil and gas project off the coast of Senegal is close to the Saloum Delta UNESCO World Heritage Site. Saloum Delta provides an insight into the history of human settlement along the west coast of Africa over the last 6,000 years, with its rich biodiversity and natural abundance showing the co-dependency between humans and nature.[237] The famous shell mounds, first constructed by fisherpeople that populated the delta 5,000 years ago, are still visible, and fishing in the delta continues to provide livelihoods for many.[238] It is highly likely that fossil fuel production nearby will damage this site and the communities that rely upon it.



Oil & gas blocks from SEI, IGSD, Global Energy Monitor. Oil & gas field data/FPSO digitized from public materials. Mangrove data from Global Mangrove Watch. UNESCO WHS from UNESCO website. Source: Dorman, M., Fossil Fuel Transparency Project (SEI-GEM-IGSD), 2022.

The impacts of climate change are endangering Africa's heritage sites along the coasts. Coastal erosion and sea-level rise are putting these sites in peril. One study found that around 56 natural and cultural heritage sites across Africa's coastline are already facing risks from flooding and erosion due to rising sea levels.[239] If emissions rise at a moderate rate, the number of cultural and heritage sites threatened will reach 191 by 2050.[240]

Some of the sites threatened by the impacts of climate change include the ruins of Tipasa in Algeria and the North Sinai archaeological sites in Egypt, as well as coastal heritage sites in Cameroon, the Republic of the Congo, Djibouti, Western Sahara, Libya, Mozambique, Mauritania, and Namibia.[241] Under the high-emissions scenario, there are also heritage sites under threat in Côte d'Ivoire, Cabo Verde, Sudan and Tanzania.[242]

Climate impacts and expanding fossil fuel production will continue to displace Africans internally, creating additional pressures and vulnerabilities throughout the continent.

African citizens are acutely vulnerable to climate change and its impacts, with fossil fuelled-droughts, floods and conflicts already driving displacements, both internally and across borders. Hosting displaced populations can put additional pressures on the already strained budgets of host governments. It can also stretch other vital public provisions, such as food and water security, energy access, and education and health outcomes. What's more, displacement of peoples can be a major driver of violence and armed conflict, which can lead to further displacements.

Expanding fossil fuel infrastructure has also been shown to exacerbate the forced displacement of Africans. A report from BankTrack found that the East African Crude Oil Pipeline (EACOP), which runs from Uganda to Tanzania and is 1,445 km long, will force about 14,000 households across the two countries to move. The resettlement of these families will likely mean a loss of livelihoods and the destruction of social cohesion within communities.

In Cabo Delgado, in the north of Mozambique, the discovery of 10 trillion cubic feet of gas has led to transnational fossil fuel companies, including BP, Total, Shell, Eni, and Exxon, to rush in. This gas reserve, which is the largest ever discovered in Africa, will require hundreds of rural families to be forcefully removed from their homes and away from the farmlands and fisheries that have sustained them for generations.[243] As part of the relocation plan, families have been awarded compensatory plots of land based on the number of palm trees that were on their original plots. This absurd mechanism has led to families that owned 10 hectares of land before the project began being compensated with just one hectare, often a great distance from where they live.[244] There has also been an increase in violence around the project, which has killed many people and caused 30,000 children to flee their homes.[245] After five years of violence in the region, an estimated 785,000 people have been displaced.[246]

Beyond fossil fuel infrastructures, climate change and its impacts are driving displacements across the African continent. For instance, extreme weather, food and water insecurity, crop failures, sea-level rise could force up to 86 million Africans to migrate within their own countries by 2050, causing huge disruptions to communities and whole economies, as well as posing daunting challenges for governments to navigate.[247] But this isn't a future problem—it is a current one. An International Displacement Monitoring Centre report found that around 40.5 million Africans were newly displaced in 2020, roughly 27% of them in sub-Saharan Africa.[248] Internal displacement, driven by climate change, can also exacerbate other issues such as conflict and violence. It is through these impacts that climate change is rightly understood as a 'threat multiplier' for Africa, where climate-induced drought causes food insecurity which, in turn, causes increased competition for scarce resources.[249]

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6 MAPPING EMERGING FRAMINGS AROUND GAS IN AFRICA

African leaders and members of the elite are promulgating a variety of narratives and frames around fossil gas in Africa that need to be challenged. Here is a collection of the main frames and narratives being used, and how they can be challenged:

Frame	Narrative	Rebuttals
"Jobs, jobs, jobs!"	"Expanding fossil gas infrastructure in Africa will create jobs, opportunities, and wealth for Africans."	Globally, jobs in clean and low carbon energy are growing faster than those in fossil fuels.[250] 12.7 million people were employed in renewable energy worldwide in 2021, an increase of 700,000 on the previous year.[251] Currently, Africa's extractive sectors employ less than 1 percent of the workforce, with few permanent and high-paying jobs going to local populations.[252] More fossil fuels will not mean more jobs. For every dollar invested, renewable energy creates 2 to 5 times more jobs than fossil fuels.[253] If you include jobs in public transport, energy efficiency and climate adaptation, every dollar invested provides 5 to 25 times more jobs.[254]
"Extracting fossil gas is a matter of climate justice!"	"Africa has the right to explore and extract its natural resources to fuel its economic development, just like the Global North has. This is a matter of climate justice!"	Africans are the least responsible for the climate crisis, but are expected to be the most impacted by it. This is the injustice at the heart of climate change. Rich nations who have benefitted the most from fossil fuelled-development must provide sufficient climate finance to ensure Africa can achieve sustainable development and meet the needs of Africans. African governments must also use public funds to invest in renewables and low-carbon industries. Fossil fuels are not the only route to achieving this.
"Fossil gas is cleaner than oil and coal!"	"Extracting and burning gas is cleaner than oil and coal, reducing its emissions impact."	Since 2016, gas has been responsible for 50 percent of the increase in greenhouse gas emissions.[255] Although gas is often labelled as low carbon energy, it still has a substantial environmental impact. According to the IPCC, burning gas is the third most carbon-intensive method of generating electricity.[256] A significant amount of methane is released during gas production, which has a higher short-term warming impact than carbon.[257] Also, there is significant leakage in the supply chain for gas which adds further emissions.[258]
"We need African energy for Africans!"	"Exploiting our own natural resources is vital for ensuring energy security throughout the continent and shedding our dependence on foreign economies."	Developing gas in Africa is highly dependent on foreign finance and multinational corporations, with unequal ownership of reserves and poor contractual terms being the norm. As much of the gas will be exported, government revenues will be highly dependent on volatile global commodity markets. With lengthy lead-up times too, gas won't make any notable contribution to African energy security in the near-term.
"Renewables are unreliable!"	"Leapfrogging to renewable sources of energy will do little to improve energy access and economic development in Africa. We need fossil fuels to provide a reliable baseload!"	Renewable sources of energy and storage are now cost competitive with fossil fuels in Africa. Renewables can be deployed and installed quickly, delivering access to energy almost overnight. Renewables have also been shown to be more resilient in Africa in the face of power shortages and blackouts, while delivering a whole host of other benefits that can help Africans adapt to climate change.[259]
"No country has ever industrialised without fossil fuels!"	"All countries used fossil fuels to develop and industrialise - this is the course of human history. Africa must be allowed to pursue this development pathway too"	While most nations to date have used fossil fuels to develop and industrialise, Africa has an opportunity to build a different energy system. According to the IEA, the emergence of new distributed technologies, electrification could take much less time in countries in Africa compared to China, India and nations in the Global North.[260]

7 CONCLUSION

There’s no future for fossil gas in Africa

Africa has a monumental opportunity to pursue sustainable socio-economic development without relying on fossil fuels. The meteoric rise of renewables like wind and solar can now deliver the most cost competitive electricity in the history of humanity, and Africa has some of the greatest untapped potential for these energy technologies. As a report from the International Finance Corporation states, onshore wind power in Africa could match the region’s current electricity demand 250 times over. Africa’s solar potential is almost unlimited. These distributed and modular technologies can provide the foundation for something quite radical: the industrialization of Africa through the technologies of the future, not the failed, extractive and corrupt energy systems of the past.

Fossil fuelled development will not deliver for African communities. While carbon emissions are the primary driver of the climate crisis, fossil fuels have harboured a whole host of direct and indirect impacts, from contaminated sources of drinking water and the irreversible decline of nature, to drought, wildfires and flash floods. But the alternative development pathway that is now emerging offers a chance to foster resilience in the face of these impacts and provide cross-cutting benefits that can help deliver improved health and education outcomes, clearer air and a less polluted natural world.[261]

The idea that gas will bring prosperity and opportunities to Africans is a tired and overused fallacy, promulgated by those that stand to benefit the most: multinational fossil fuel firms and the elite politicians that aid and abet them. It is a huge gamble to pursue these gas projects throughout Africa in the hope that they will bring development, wealth and industry. It is highly likely that they will not and, instead, will burden African governments and citizens with vast debts, stranded assets, environmental degradation and more broken promises.

While Africa should not be framed as a continent of destitution and need, the wealthy countries of the Global North and the largest current polluters must step up and deliver on the promise of financial investment and reparations for loss and damage. These countries - the USA, UK, Canada, Norway, Australia, and China, among others - have benefited the most from fossil fuelled development since the dawn of the Industrial Revolution and have both the wealth and capacity to facilitate a global just transition and support Africa leapfrog straight to clean, distributed energy systems as part of economies that operate within planetary boundaries.

Tackling fossil fuel production will remove the main driver of global emissions, preventing some of the worst impacts of climate change, while phasing out fossil fuels will prevent the industry’s infrastructure causing permanent damage to natural and human systems. A rapid deployment of renewables in Africa will stimulate economies, create inclusive jobs for all, boost energy access, free up government revenues for the provision of public goods, and improve the health and wellbeing of human and non-human communities.

Africa does not need to replicate the fossil-fuelled development pathways of the past, and nor should it fall for the leaky promises of the dash for gas. As the recently elected Kenyan president, William Ruto, puts it: “The energy crisis is a wake-up call that fossil fuels are the opposite of freedom, yet the world has become shackled to them. We need to break free from those chains, to accept there is a better way to power the world’s economy. It is one that is fairer, cheaper and less destructive to ourselves and our communities, to our families’ future, and to the natural environment on which we all depend.”[262]

“The energy crisis is a wake-up call that fossil fuels are the opposite of freedom, yet the world has become shackled to them. We need to break free from those chains, to accept there is a better way to power the world’s economy. It is one that is fairer, cheaper and less destructive to ourselves and our communities, to our families’ future, and to the natural environment on which we all depend.”

- William Ruto
Kenyan president

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