
Oil took our forests: Deforestation in the Niger Delta

The Niger Delta, in Nigeria, is rich in petroleum resources with the first commercially viable oil well drilled there in 1956. The region hosts the second largest petroleum reserves in Africa, with the Nigerian economy heavily dependent on the industry. And that's exactly where one of the most ecologically diverse regions on Earth is located. It is also home to more than 30 million people from more than 40 ethnic nationalities. Most of them depend on farming and fishing for their livelihoods and food security, as well as their cultural identity and well-being. Deforestation in connection with activities of oil companies poses acute threats to both the environment and people.

For forest-dependent Peoples of the Niger Delta, oil has not only stolen their forests but their foods, lives, livelihoods, dignity and culture. This region has the most extensive mangrove forests in Africa and the fourth largest in the world. Mangroves play critical roles in shoreline protection, water purification, climate regulation and livelihood support. They provide resources for construction, food and are reservoirs of biodiversity. More than 60 per cent of commercial fish in the Gulf of Guinea breed in the Niger Delta mangroves. Unfortunately, about 40 per cent of the mangrove in the Niger Delta has been lost primarily due to oil and gas exploitation. Furthermore, 27 per cent of mangroves potentially threatened by oil spills globally are found in the Niger Delta. (1)

An aerial view of the Niger Delta shows a region criss-crossed by lines that heavily fragment the forests, making room for additional deforestation by loggers, poachers, miners and other forest resource harvesters. Generally, tropical forests in Nigeria run from the coast to between 150 and 200 kilometres inland from the Atlantic coast. The Niger Delta is a huge fan-shaped region in Nigeria fed by deposits from two major rivers, (the River Niger and the River Benue) and emptying into the Atlantic Ocean. The natural vegetation here is the tropical rainforest with thick and lush canopies.

All stages of oil and gas extraction processes directly impact the forests of the Niger Delta. At the exploratory stage, seismic lines are cut through the forests and even more deforestation occurs when pipelines are being laid. Although seismic lines are temporary and the environment could recover after the completion of the survey, mangrove forests can remain damaged for decades as the lines remain open after clearing. The oil companies are fully aware of the deforestation caused by their activities. A Shell fact book highlights the “visibility of seismic line cutting on the mangrove swamp... It is the aerial roots that are subject to most of the cutting. Recovery of the cut roots takes 2-3 years, but re-growth of mangrove trees, to make the seismic line indistinguishable from the uncut areas, may take 30 years or more”. (2)

It is estimated that there is between 5,000 to 7,000 km of pipeline networks in the region. Considering that these pipelines have at least 100 metres right of way, the extent of the deforestation associated with these pipelines is enormous. Added to these major pipelines are smaller flow lines that connect the oil wells and that equally impact the territory.

In addition to the pipelines, there are canals built by oil companies for the movement of their equipment inland. There are other canals constructed to transport process water and other wastes from oil flow stations to rivers and to the ocean. Roads built to access oil wells, flow stations and

other locations further slash through the forests of the Niger Delta. These infrastructural developments are often accompanied by dredging and sometimes sand filling of swamps and other wetlands. Dumped dredging materials alter the topography and hydrology of affected areas and impeded the recovery of deforested areas.

Oil companies also use poorly constructed waste dump sites in the forests that further deepen the forest cover losses.

Forests on Fire (and Pollution Stories)

The level of pollution from oil extraction and processing is estimated to be equivalent to more than 13 million barrels of crude oil (more than 2 billion litres), causing enormous damage to the environment and posing severe health threats to the people who live in the region. Unsurprisingly, the region holds the dubious record of being one of the top ten most polluted places in the world.

Besides the oil spills, routine gas flaring equally impacts the forests of the Niger Delta through stunting of tree growth and overall poisoning of the ecosystems. The flares cause acid rain and acidification of soils and water bodies. They alter local ecological conditions including damaging the vegetation and forests, contributing to climate change, which further stresses coastal ecosystems.

Oil pollution is a major cause of mangrove forest destruction in the Niger Delta. The unregulated and destructive harvesting, conversion of mangrove covered areas into agricultural land or built-up zones, such as for housing or industrialization are also contributory factors.

The problem of oil spills in the Niger Delta has been described in several reports. (3) One of them, the United Nations Environment Programme report on the Environmental Assessment of Ogoniland of 2011, found contaminated soil and groundwater; pollution of vegetation such as mangroves; aquatic contamination resulting, among other things, in a decrease in fish; communities exposed to petroleum hydrocarbons in outdoor air and drinking water, sometimes at elevated concentrations, and also exposed through dermal contact with soil and sediments. In the community of Ejama-Ebubu, the study found heavy contamination present 40 years after an oil spill occurred, despite repeated clean-up attempts of dubious quality.

Spills happen due to a variety of reasons, for example due to corrosion of pipelines and operational and equipment failures. For example, in the Bodo Creek area, more than 1,000 hectares of mangrove forest were degraded by two major operational oil spills in 2008 and 2009 and subsequently reinforced by several spills due to pipeline breakage.

In January 1998, 40,000 barrels of crude oil (more than 6 million liters) was spilled by the oil company Mobil at their Idoho offshore production platform. Some of that oil evaporated, but the impact of the spill spread beyond the borders of Nigeria, reaching Benin Republic and causing harm to coastal communities along that stretch.

There was an offshore oil spill at Shell's Bonga platform in December 2011. Shell and the Nigerian government announced that 40,000 barrels of crude oil was dumped into the Atlantic Ocean. At the Idoho platform incident the volume of oil spilled was also said to be 40,000 barrels. That appears to be a comfortable measure of ecological abuse by the oil companies. The Bonga spill affected 20 coastal communities in three states of the Niger Delta. (4)

One of the largest oil spills in Nigeria was the Funima Well 5 offshore well blowout in January 1980

with a spill of at least 200,000 barrels of oil (almost 32 million litres) into the Atlantic Ocean and causing damage to 340 hectares of mangrove forest.

In 2004, Nigerian Liquefied Natural Gas pipeline transversing through Kala-Akama, Okrika mangrove forest leaked and caught fire, and devastated and estimated 27 km² of the mangrove forest. Repeated contamination from aged pipelines and abandoned but not decommissioned wells repeatedly contaminate recovering mangrove forests.

In more recent years, massive deforestation and ecological harms have been caused by blowout of poorly maintained, abandoned or derelict oil wells. In November 2021, for example, there was a wellhead blowout at Well 1 of the Oil Mineral Lease 29 on Santa Barbara River.⁽⁵⁾ Crude oil was spewed into the river and neighbouring mangrove forests for six weeks. The official estimate of the volume of crude oil spewed into the environment was put at 3,000 barrels, whereas experts estimate a release of at least 500,000 barrels of crude oil (more than 79 million litres). The incident left a trail of suffocated and dead mangroves besides the general devastated ecosystem. The wide disparity between official and independent figures of the volume of crude oil dumped into the environment raises questions about accountability in the handling of serious issues impacting oil field communities.

The mode of handling oil spills has also exacerbated ecological impacts of production. Forests have been incinerated by fires set on crude oil by oil company contractors who are not competent in oil spill clean-up. This happened at Aleibiri forest in Ekeremor Local Government Area in Bayelsa State in March 1998 and another in Foutorogbene Community in August of the same year that Shell's contractors sought to cover the evidence of a major oil spill by setting the forest on fire. ⁽⁶⁾

Another factor that contributes to widespread deforestation in the Niger Delta is oil theft. It is generally agreed that the operation is at industrial scale and includes crude stolen for export and some stolen for bush or artisanal refining. Bush refining requires clearing of large areas of forests and dumps crude oil into the environment in an uncontrolled manner. The stealing process sometimes involves clandestinely breaking of pipelines and leaving them to keep leaking crude into the environment because of poor equipment handling.

A remote-sensing study, "Mapping Impacts of Crude Oil theft and Illegal Refineries on Mangroves of the Niger Delta of Nigeria with Remote Sensing Technology", found that distressed mangrove vegetation associated with illegal or unauthorised refining activities covered an approximately 37.6 km² area.

Assault on the Deltas

Hundreds of thousands of Niger Delta residents have suffered from the impacts in the almost seven decades since oil was discovered in the region. Two crude oil spill fire deforestation incidents deserve to be mentioned here: those in Goi and Bodo. Shell was successfully challenged in courts in The Netherlands and the United Kingdom by the impacted communities over both incidents.

One spill from a Shell facility affected Goi community in Ogoniland, Nigeria, in 2004. The community and the adjoining mangrove forest caught fire, sacking the entire community. The impacts were so extreme that the residents of Goi left their homes and evacuate the community. "We were eating, drinking, breathing the oil," said Eric Dooh to The Guardian. Nearly 20 years after the spill, he returned to visit the community, which remained deserted, with decimated biodiversity. ⁽⁷⁾

The second community is Bodo, also in Ogoniland. A 2008 major oil spill there destroyed vast areas of mangrove forests. These oil spills destroy the lives of the impacted communities. Water contamination makes fishing impossible – the main livelihood for many of these communities –, prevents them from accessing safe drinking water, and even their lands are contaminated, often making it impossible for them to farm. (8)

In both Goi and Bodo, an official sign warns: “Public Notice, PROHIBITION! Contaminated Area, Please Keep Off” (see picture).

The deforestation of the Niger Delta has gained notoriety mostly by the accompanying oil pollution and gas flaring. The region should be a cautionary tale to other regions where the drive for petrodollars continues to sideline care for people and the planet. This is particularly disturbing in Africa where there appears to be a coordinated assault on world heritage and other protected areas. The flash points include Virunga National Park in the Democratic Republic of Congo, Okavango Delta in Namibia/Botswana, the Saloum Delta in Senegal – all of them UNESCO World Heritage Sites – and Murchison Falls National Park in Uganda.

But resistance to this destruction has been woven for a long time. In an article previously published in the WRM Bulletin, Ken Saro-Wiwa, a leader of the Movement for the Survival of the Ogoni People (MOSOP) warned about the long-term impact of the destruction of Ogoniland by oil companies. He described the environment in his community of Ogoni as having been “completely devastated by three decades of reckless oil exploitation or ecological warfare by Shell.... An ecological war is highly lethal, the more so as it is unconventional. It is omnicidal in effect. Human life, flora, fauna, the air, fall at its feet, and finally, the land itself dies.” Ken Saro-Wiwa was ‘legally’ assassinated by hanging, in November 1995. His message is as strong as ever. (9)

The struggle to reforest and reclaim the forests is ongoing with community women leading the charge by raising nurseries of mangroves and replanting in degraded portions. Despite the huge harms wreaked on the Niger Delta forests, the people have not given up hope.

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