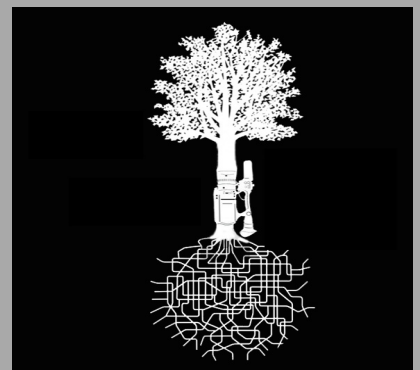




THE COST OF COAL

Assessing The Social, Economical and Environmental Impacts of Coal Mining: A Research Report focusing on the Odagbo and Onupi Communities in Ankpa Local Government Area, Kogi State, Nigeria.



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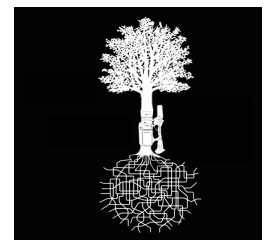
The Media Awareness and Justice Initiative (MAJI) is an independent Non Government Organizations (NGO) who relies on the support of donor, trusts and foundations to ensure that we can keep working and promoting a vision of a fossil fuel free future.

About Us - The Media Awareness and Justice Initiative is an innovative platform that works with marginalized groups, communities and strategic stakeholders with a view of achieving sustainable change.

Our Mission - is to work with marginalized groups and communities to achieve social, economic, cultural and environmental justice by helping them use innovative ICT tools, media, and communication to inform, organize, mobilize and further their struggles to create a better, more sustainable future.

Our Vision - is to see a just, more equitable society in Nigeria.

Research supported by The Global GreenGrants Fund (GGF)



Executive Summary



A Coal mining site in Ankpa Local Government Area, in Kogi State, Nigeria

This research has been prepared following series of engagements with community stakeholders. This is to explore the Social, Economic and Environmental Impact of Coal Mining activities at Odagbo and Onupi Communities in Ankpa, Kogi State Nigeria. This document was researched using support from the Global Greengrants Fund (GGF).

Coal Mining activities have been taking place in Kogi State, Nigeria since the discovery of coal in 1909 leading to the opening of the Okaba and Ogboyyoga coal fields in 1915. With the discovery of oil in Nigeria which replaced coal-burning trains with diesel-powered engines and the shift in priority to petro-dollar, the business of mining which was solely operated by the Nigeria Coal Corporation was left ineffectively regulated in the hands of frontline extractive companies, artisans and illegal miners who took over the mining field with reckless impunity and lack of consideration on the socio-economic and environmental impact of their activities on vulnerable host communities.

This research explores the views of respondents in Odagbo and Onupi coal mining communities while looking at the impact of coal mining activities on their social, economic and environmental livelihood. Data were generated through sample survey using well-structured questionnaires, a review of available literature and personal field observation to the target communities. The researchers aimed at exploring the impact of mineral exploitation on the environment and to emphasize the importance of sustainable environmental management to enduring socio-economic development in Nigeria. Coal mining puts tremendous pressure on local flora and fauna, particularly where of available forests and land are dug for mining to takes place. The effect of mining on ground water level, silting of surrounding water bodies and land are also of great concern. Coal mining may be argued to contribute greatly towards the economic development of a Nation; however it has also been established that it has immense impact on human health, the environment, agriculture and rural economics.



A coal mining site in Onupi community, Ankpa Local government Area, Kogi State, Nigeria.

Introduction



Rural women at the community cassava processing (garri) shed, in Ankpa Local government area, in Kogi state, Nigeria.

Coal mining is the process of extracting coal minerals from under the ground. In this process, the overlying soil layer with existing vegetation is removed and deposited in another fresh area. Thus, the deposition of million tons of overburden earth in the form of rocks, shale and coarse tailing results in barren, biologically inert overburden dumps called mine spoils (Hazarika et al. 2006; Ogbonna et al. 2012). Due to economic benefits of coal mining, it is supposed to bring wealth and employment opportunities in an area, but simultaneously it leads to extensive environmental degradation (Sarma 2002) and changes in the traditional values of the host society

Mining processes, involve the removal of topsoil and subsoil, which destroys plant species that are of benefit to mankind (Down 1974). Many of these plants produce edible fruits and seeds that are used in several cultural settings such as dancing, reception of visitors, opening of ceremonies, making of vows and pledges at marriages (Meregini 2005). Some are also packaged as special gifts and edibles to associates and relations resident overseas. The gathering of these non-formal food items as well as their marketing, offers employment opportunity to rural dwellers, especially women (Meregini 2005), youth and children

Mining activities affect community values and cultural heritage of host communities, causing removal of sacred forests, predisposed of wild remnant species to total extinction, wild plants that produce fruits and seeds of high cultural and industrial values, woody species used in carving masks for various festivals, pasture plants as well as important plants species used for medicinal purposes both for human and domestic animals. Heavy mining metals used by miners and mining companies are detrimental to human health and the environment as it causes long-term increase in the soil toxicity The Kogi State coal district



Cassava processing in Odagbo community, Ankpa LGA

is estimated to have a demonstrated coal resource of about 223 million tones averaging 3.6 meters thick, which underlies 8,900 hectares. (IJEAS Paper, July 2013). The total non-reportable resources by JORC Code are 600 million tonnes. The Okaba District area of (Okobo, Odagbo, Onupi and Awo Communities) is estimated to have a total of 100 million tonnes of demonstrated coal (JORC) to underlie 2,770 hectares within the district. Coal has been a major source of energy in much of the world since the industrial revolution and has been an integral part of the economic prosperity. In 2007 coal provided 26 percent of the world's primary energy supply and was used to generate 41 percent of electricity (World Coal Institute 2009).

Methodology and Data Collection

Research Focus Area

Ankpa Local Government Area (LGA), Kogi State, Nigeria, is part of a host of extractive local government areas in Nigeria, who suffer from the “**Resource Curse**”.

People living in the rural communities covered by this local government area continue to suffer huge environmental, livelihood and health impacts of industrial and artisanal coal mining activities. Series of reports and findings from this local government area show that three (3) active coal mining companies namely **DANGOTE, KOYLA, NORDIC**, continue to practice coal mining in a way that totally puts communal health, environmental sustainability, Community lives and livelihood at risk.

Methodology

The survey was designed to obtain information on the environmental impact of coal mining at the community and household levels through survey sampling method. The sample survey was conducted covering 30 households, 15 each from Odagbo and Onupi belonging to different occupational groups, marital status and educational background. Questionnaires were administered to men and women within the age limit of 60 years and below. The purpose of choosing this age limit is to obtain information on the ecological situation of the two mined locations after commercial mining activity has slowed down. The researchers looked to confirm the respondents' views by carrying out site and location observation of the target study area. This research document presents respondents' view on the impact of coal mining activities in their communities, while also presenting the environmental hazards associated with this extractive practice. Furthermore, we investigated the impact of coal mining activities on social and economic construct of local people in Odagbo and Onupi communities in Ankpa, Kogi State, Nigeria.

Pattern of Data Collection

The data collected from the two communities indicated that majority of the respondents were within the age range of 20–65 years, 22.5% were 20–39 years of age, while 2.5% were from 40 – 59 years of age and 12.5% were from 60 to above. Sixty-five percent of the respondents were married, 20% were single and 15% were widowed. Twenty-three percent (22.5%) of the respondents had no formal education, while 77.5% attained one level of education or the other (32.5% primary, 25% secondary and 20% tertiary, respectively). Household size ranged from one to six persons per household. However, more than half (62.5%) of the respondents had household sizes ranging between four and six persons, while others (37.5%) were in households ranging from one to three persons. The major occupation of the respondents was farming (62.5%), trading (33.5%) and Hunting (5%).

Impacts of Coal Mining - Findings

Coal mining causes immense social and environmental impacts, which compromises and under shadows its cost effectiveness for power generation in private and public sectors; Coal mining activities have greatly impacted on the social lives of the people of Onupi and odagbo communities. The Focused Group Discussion (FDG) session presented data collected during the Key Informant Interview (KII), which bothered, on Income, Employment, Education, Human Right, Social Services and Infrastructure.



A community youth carrying mined coal at an Artisanal coal-mining site in Okobo community, Ankpa local government area, Kogi State, Nigeria.

Employment

Majority of the youths in Odagbo and Onupi communities are mainly unemployed, the few that are employed are either working at the Local Government Area (LGA) level or as labourers / security for the mining companies. Unemployed youths are engaged as volunteers by artisanal mine operators. They enter the coal hole with no skill or Personal Protective Equipment (PPE). Most unemployed youths migrate from the impoverished communities to Ankpa Local Government Headquarter in search of Jobs and economic stability. This lack of employment provides a perfect breeding ground for youth restiveness and insecurity.

Human Rights

The Youth and the Elder Councils at Odagbo and Onupi Communities noted that they have held several meetings to discuss ways to exercise their human rights to freedom of expression, peaceful assembly and inclusion. They indicated that they have engaged with the government and companies to respect and protect community members' rights from the potentially serious environmental, social, and health-related harms caused by coal mining. During the study, the community leader of Odagbo explained that they met with the representatives of government, traditional leaders and elected representatives to advocate for protection of their rights to a healthy environment. These impacts are exacerbated by a lack of transparency, accountability and consultation with communities before mining companies are licensed to operate. Coal mining has also lead to the displacement of households and the disruption of community connection to land. The absence of effective government oversight on mining activities have harmed the rights of communities by depleting water supplies, polluted the air, soil and destroyed arable land and ecosystems in Onupi and odagbo communities, in Ankpa LGA.



Focus Group Discussions (FGD) with community head and youth group in Odagbo community, Ankpa LGA, Kogi state, Nigeria.

Social Infrastructure

The two communities under study lack adequate social infrastructures such as hospital, roads, clean water and schools. In Odagbo Community there is no functional public primary health care centre, except for an ill equipped private clinic. Community people seek healthcare services outside the community, mostly at Okaba community or at the Ankpa LGA headquarters. Some women at Odagbo community believe that coal dust and fine particles from mining roads may be responsible for strong coughs and other respiratory diseases in the community. They also complain about the mining trucks / heavy equipment spoiling their roads, causing erosion. The lack of adequate portable water sources is one of the primary reasons for increased cases of diarrheas among children under 5 in the community.



Focus Group Discussions (FGD), with rural community women in Onupi community, Ankpa LGA, Kogi state, Nigeria.

The Situation is not different at Onupi Community, where there is no single borehole and hospital. The Community had an agreement with Dangote Coalmine Company to construct road, build a school and clinic as part of the Corporate Social Responsibility agreement reached between the company and the community. However, it's been three years and nothing has been done, this had led to protests and the eventual shutting down of the Dangote mining site at Onupi.



Fossil fuel extraction and coal mining continues to be a source of water pollution in rural host communities across Nigeria.

“We are resisting mining activities in Onupi community because Dangote Company has refused to honor the agreement reached” with the community in providing portable water, schools and hospitals”

Social Groups and Association

The activity of social groups and community association in demanding for community rights are another angle to this study. Community members come under various platforms to negotiate for personal and community interest from government and mining companies. Among those organizations are the Odagbo Community Youth Development Association, Odagbo Women Group Association and the Onupi Youth Forum.

Looking at the effectiveness of these groups in demanding for community rights, In Odagbo the groups hold meetings to resolve conflict arising from other youth groups that look to protect interest of the company.

For Instance the Koyla Company recently got a court ruling over NORDIC over a mining location, this has heightening tension over the lockdown order and the deployment of security officials to lock down NORDIC site at Odagbo, most groups took side with NORDIC while some took side with Koyla Company.

These divisions heighten conflict between the groups, which was subsequently quenched by the associations. There are also issues that the associations have been involved with such as the monitoring of the collection of development levy from truck drivers, which is used to “repair-fill” roads and resolve issues among community members fighting over illegal mining activities.

In Onupi the Community Forum meets to resolve conflict among youth over the nomination of a community representative to the mining company and review of the agreement reached by the community leaders with the mining company.

Community association have played an important role in reducing tension in the community, they organize village square meetings and agree on a position. The decision to lockdown Dangote’s coal mining site in Onupi community was taken during a village square meeting and agreed by all member of the community.

Economic Impact of Mining in Odagbo and Onupi Communities in Kogi State

Before mining activities started at odagbo and Onupi communities, majority of the people were farmers, hunters and traders. While the men engage more in the farming, the women takes most of the produce from their farms to the market for sale, the hunters had a productive hunt of wild animals and the land was available for economic activities of lease-farming, planting of economic trees and green forest.



Mining was observed to have various adverse effects on economic trees, wildlife and farming, 100% of the respondents indicated that mining operation affected their farming activities in Onupi community, while 92% of the respondents said that mining operation affected their farming activities Onupi. Also 85% of the respondents indicated that mining operation affected their farming activities in Odagbo community, while 90% of the respondents said that mining operation affected their Economic trees for Onupi community. On Wide life, the responses shows that 30% of the respondents indicated that mining operation affected their hunting activities; wildlife in Odagbo community, while 35% of the respondents said that mining affected their hunting activities, wildlife for Onupi community.

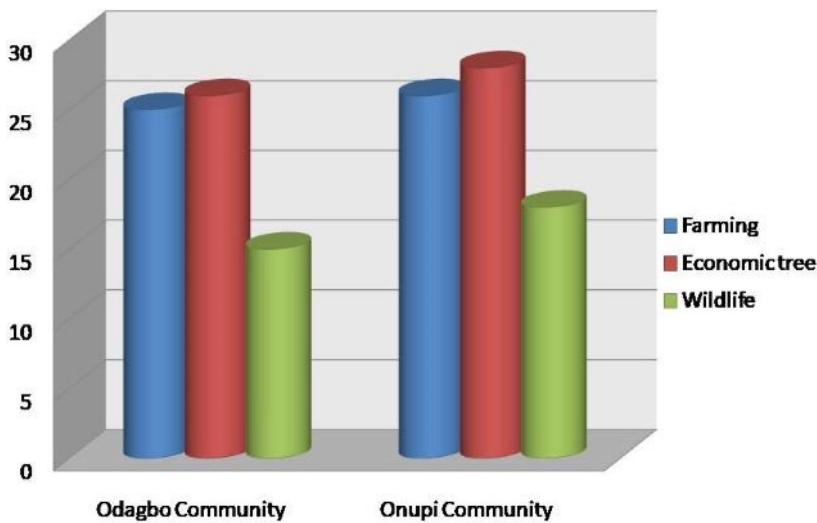


Figure 2 – Economic impacts chart of coal mining in Ankpa LGA, Kogi State

Environmental Impact of Mining in Odagbo and Onupi Communities in Kogi State

In accessing the environmental impact of mining activities at Onupi and Odagbo Communities, questionnaires were administered on respondents identified through stakeholder mapping, key Informant Interview and a focused group discussion to collect data from the respondents whom are residing in the communities.

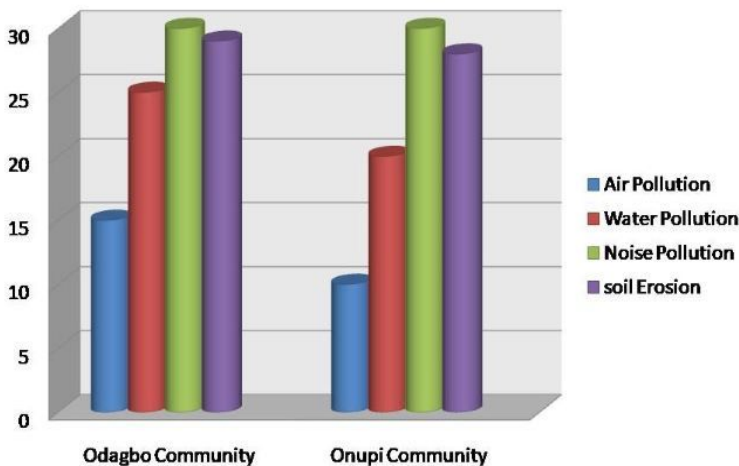


Figure 2 – Environmental impact chart of coal mining

According to the respondents, mining activities were observed to have caused a wide spread environmental degradation. From the perception of the respondents, 32.5% of them indicated that mining activities resulted in water pollution, followed by noise pollution (30% of the respondents), and soil erosion (25% of the respondents), while 12.5% of them indicated that mining resulted in air pollution, respectively. Coal mining has a number of common stages or activities, each of which has impacts on the natural environment.

Mineral extraction involves the destruction and blasting of rocks using explosives. 60% of the respondents indicated that noise pollution was the most severe environmental impact of mining at Onupi community. Whereas at Odagbo community, 65% of the respondents identified water pollution as the most severe environmental impact observed. This they indicated as having direct impacts on their physical health and general wellbeing.



Nordic Coal company, Odagbo community, Ankpa LGA

The National Energy Policy, 2003 stated that the exploitation and utilization of the coal reserves should be done in an environmentally acceptable manner that will minimize environmental pollution arising from the utilization of coal. The reverse seems to be the case hat Onupi and odagbo communities as mining activities have created negative impact on the environment causing erosion, formation of sinkholes, dykes, loss of biodiversity, and contamination of soil, groundwater and surface water. There are numerous damaging environmental impacts of coal mining that occur throughout the cycle of mining process, from preparation, combustion, waste storage, and transportation. Coal dust stirred up during the mining process, as well as released during coal transportation can cause severe and potentially deadly respiratory problems. Most heavy metals released during the mining and burning of coal are environmentally and biologically toxic elements. Coal mining also causes a drastic alteration of the landscape, which can render an area unfit for other purposes, even after coal mining. The clearing of trees, plants, and topsoil from mining areas destroys forests and natural wildlife habitats.



Dangote Coal Company, Onupi community

Artisanal Coal Mining Activities

Artisanal / illegal Coal mining is a non-industrial mining activity carried out illegally by number of people who extract and sell small amounts of coal with zero compliance to health and safety standard. Their activity destroys the social fabric of mining communities, threatens the profitability of the country’s extractive revenue, and causes personal injuries, social inequality leading to community conflict and environmental pollution and degradation.

During the focused group discussion at Onupi and Odagbo Communities, the respondents noted that a large number of unemployed youth and poor households are engaged by illegal mining merchants as field volunteers and paid N40 per bag of coal drawn from the hole. In this process, many large holes are dug into the earth’s surface like a rat-hole’ to catch the shallow coal seams, dig out the coal seams and sell to the illegal merchant whom makes more money selling it at the black market and earning a healthy profit.

Poor policing and corruption have precipitated and giving root to these activities. The local police authority and the Nigeria Security and Civil Defense Corp (NSCDC) mandated to combat act of illegal mining seem to be compromised, this have lead to ineffective containment of the illegal business as trucks loads of illegally mined coal are seen pulling out of odagbo and Onupi Community on a daily basis.



Researcher at an Artisanal mining site in Ankpa LGA, Kogi State

Recommendations

To the Nigerian Government

1. If Nigeria's resolve to continue with its 30% coal power generation policy stands firm, then it must take extraneous care to ensure that the rights and environments of these host communities are protected, and environmental policies are put in place to carry out follow-ups, review and adoption of environmental friendly mining practices, while sanctions imposed on defaulters.
2. The Nigerian Government should mandate mining companies to fill up all open pits created due to mining activities as a way to reduce the prevalent rate of mining related to air and water borne pollution and diseases in the mining host and neighbouring communities.
3. The Nigerian government, should as a matter of urgency set up committees and stakeholder groups to effectively revisit and review the **Nigerian Minerals and Mining Act (2007)**, to reflect present day realities and challenges as identified by strategic stakeholders.
4. Mining companies in Nigeria should be compelled to revisit and implement their development agreements with local communities. There is also an imperative need for the review of existing **Environmental Impact Assessment (EIA)** documents using collaborative stakeholder engagements at the community, local government, state and national levels of governance.

To Communities, CSOs, and CBOs

5. This report identified Illegal mining as a rising threat, and has been reported by majority of the people as a potential source of inter communal and intra communal crisis. CSOs and CBOs have to carry out effective engagement, awareness and sensitization of community leaderships, youth groups and women using town hall meetings, radio, and open-air initiatives.
6. Provisions should be made to give much emphasis on Citizen science and Eco-restoration initiatives in impacted areas. This will enable the effective set-up of social, economic and ecological groups prior to the commencement of mining. The Involvement of local people is recommended for sustainable protection and reclamation of the mined land.
7. Community Based Organizations (CBOs) should provide support to communities and local inhabitants through educating them about their environment, current government programmes, the role of forest, health hazards, requisite precautions and safety measures for human wellbeing, so that they can take informed decisions and necessary precautions for the betterment of their sociological, economic, ecological and environmental needs.
8. Effective District LGA Administration (local ownership of regulatory mechanism) is required to lead the process of developing pragmatic byelaws towards regulating mining activities to be more effective in order to improve community ecology.
9. Community agreement with mining communities should translate from monetary settlement to providing or setting up skill development programme for the local populace and women groups so that they can earn their livelihoods, even after mine closure.

To mining Companies

10. Carry out comprehensive evaluation and assessment of polluted community lands, water sources and health status of residents of mining host communities across Nigeria.
11. Make public the information about the impacts of coal mining on the environmental and human rights of host communities. This should include a robust contingency plan, that will incorporate communal development for affected communities using points under the United Nations Business and Human Rights guiding principles.

Conclusion

Coal has been identified as one of the most environmentally destructive minerals known to man. As it causes land degradation, which creates ecological and socio-economic problems. It affects the ecosystem as a whole, creates social imbalances in rural economies and seriously affects the health of people living in the mining areas. The assessment of the socio-economic and environmental impact of coal mining in the studied communities of Onupi and odagbo have shown that ineffective government regulation, poor policing and corruption plays a significant role in exposing the communities to the hazards of reckless mining activities. This has led to increasing levels of poverty among rural households, rising cases of health & environmental hazards and water pollution. This study concludes that the operations of the miners in the concession area have placed the livelihoods of the rural dwellers under worse conditions due to the loss of their mode of sustenance and self-sufficiency- (farmland). The rural households have been deprived of some of their most basic necessities and habitual activities. The loss of fertile and productive farmland has culminated into a decline in local food production causing food insecurity issues, potential communal frictions, increased living costs and an unending dependency on compensation packages provided infrequently by the extractive mining companies.

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