

## **Natural Resources, Public Health and Conflicts in Romania and Nigeria**

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**Abstract:** This paper focuses on the relationship between exploitation of natural resources, conflicts, and health of the population in Romania and Nigeria. The issue to be solved is the overlap of resource conflicts with the outcomes of public health in both countries, where environmental degradation, socio-political tensions, and resource mismanagement are the factors that lead to serious issues in the field of public health. The objective is to discuss the effects of historical policies of land restitution, mining, and resource exploitation on local communities, the health of the population, and socio-economic processes. The paper is based on the Resource Curse Theory that implies that the wealth of resources tends to worsen the problems of governance and conflicts instead of contributing to prosperity. The study is qualitative in nature, and it uses case studies in Romania and Nigeria to analyze the issue and adopts a comparative approach to learn more about the overall implications of resource governance on health. The results indicate that the two nations experience extreme environmental degradation including soil pollution, water pollution, and health effects of mining and oil production that worsen the situation of the population in terms of respiratory diseases, water-borne diseases, and malnutrition. Moreover, poor governance systems, corruption, and lack of community involvement are the factors that do not allow to manage natural resources effectively, continuing the threat to health. The research findings are that sustainable management of resources and strong health systems are the key to reducing the adverse health effects of resource conflicts. The research recommended that reinforcing of the governance mechanisms in Romania and Nigeria is vital in implementing environmental regulations, mitigating health risks to populations and must uphold the necessity of the communities to access the gains of sustainable resource management.

**Keywords:** Natural resources, public health, resource conflicts, governance, environmental degradation

### **Introduction**

Natural resources in much of the world: It is not uncommon to encounter conflicts over the ownership and control of the natural resources and this often creates social unrest, political instability and violence, far-reaching consequences on the health of the population. Among these conflicts is the existing Russia-Ukraine War, the Cameroon-Nigeria territorial disagreement over the Bakassi Peninsula, and the tensions between civil society, host communities, multinational corporations, and governments in resource-rich areas of Nigeria, covering the Niger Delta, Ogoniland, and the Bakassi Peninsula. This situation has resulted in prolonged instability in these regions as they are driven by the exploitation of natural resources, the degradation of nature, and unequal distribution of resource wealth, leading to social, economic, and political issues in these communities[1][2]. The opposition to environmental pollution and the rural population in various

countries, including Romania, also demonstrates how ubiquitous these conflicts are, and they directly affect the health of the population[3].

Natural resource conflicts in Romania are most evident through the land and mining conflicts and have implications to the health of the population under the aspect of environmental degradation. The Roșia Montană and Rovina projects have been opposed on environmental and health grounds, resulting in demonstrations and refusal to issue mining licenses[4]. These demonstrations brought to attention the risks inherent in the gold cyanidation procedures, particularly following environmental tragedies such as the 2000 Baia Mare cyanide leak, which not only had ecological effects but also damaged the health of the surrounding communities[5]. Furthermore, the land dispute in the rural areas, and the problem of land claims and illegal logging, have also led to an aggravation in the population health due to the environmental degradation and growth of social-economic pressure.

In this note, oil and mineral production in Nigeria has also posed a conflict between armed and control of the resources, a factor that has worsened the health conditions of the people. The geopolitical issues surrounding resource management can be seen in the geopolitical complexities of the Bakassi conflict between Cameroon and Nigeria, and the environmental cost of oil extraction has seen the long-term health effects of the Niger Delta, pollution has led to incurable conditions like respiratory diseases, waterborne infectious diseases, and lead intoxication[6]. This has enabled these conflicts to continue as the environmental laws are not enforced properly; this impacts the health of the local communities.

Through this, the natural resource conflict in both Romania and Nigeria not only echoes global trends in the struggle to control the use of resources, but also hints that multidimensional solutions to environmental, health, and socio-political issues need to be formulated. These tensions must consider a balance between resource development and community and environmental well-being.

Land conflicts in Romania have been on the rise since 1989 not only due to the systemic shifts in politics but also due to the reestablishment of land ownership rights, particularly in the countryside. These disputes are frequently associated with convoluted matters of ownership and co-ownership, and resident-non-resident tensions[7]. Moreover, water resources, destruction of wildlife, and illicit logging have exacerbated the ecological loss. These stressors have led to habitat destruction, coastal erosion, water contamination, and a decrease in natural resources, which have further worsened the health of the population[8]. They can be very active in resolving these issues and the civil society and the rural communities have been very active and very activist in keeping the health of the population to a high level by ensuring there is better environmental behavior[9]. The Romanian government has learned that it has to take good care of the environment and in this spirit, it has been working with local stakeholders and international organization like European environmental agencies to build capacity and enhance technical cooperation[10].

In the same way, Nigeria is rich in natural resources like crude oil, gold, coal, and steel. But crude oil is the backbone of its economy and majority of its economic activities are centered on the oil industry[11]. The operations of multinational corporations involved in oil and gas exploration have been highly condemned because of their environmentally unfriendly activities, which have led to massive ecological degradation and social tension among the host communities[12]. It has increased environmental degradation, resulting in health problems like respiratory diseases, waterborne diseases, and toxic chemical poisoning[13][14]. They are not well enforced despite national and international environmental regulations, largely due to the underfunding of regulatory bodies, which rely on the corporations they regulate to finance their operations, which creates a conflict of interest, or as the saying goes, he who pays the piper dictates the tune.

The unreported and reported oil spills, continuous gas flaring, frequent equipment failure, and inability to apply international best practices have been devastating to the health of the population. The affected groups suffer malnutrition, inability to access quality healthcare, and exposure to environmental toxins[15][16]. This has caused pollution to water as seen in the Niger Delta where gas flaring and oil spills have severe effects on groundwater and surface water quality,

posing health risks to the local people[17]. Although legislations such as the Environmental Impact Assessment Act and the Petroleum Industry Act have been enacted, the lack of effective enforcement mechanisms has resulted in the incomplete execution of the laws, which exposes communities to health hazards due to polluted water and air[18]. These issues have prompted protests in Nigeria and other developing nations experiencing similar environmental and health issues[19].

Nigerian civil society has demonstrated high advocacy potential, particularly in holding stakeholders accountable and participating in constructive dialogues with governments, international actors, and local populations to improve environmental governance and address health challenges[20]. However, even with these efforts, environmental and health crises continue to occur because of ineffective governance and regulatory frameworks[21].

Water bodies and the environment are specifically impacted. In these areas of abundance, the toxicity of the polluted rivers and streams exposes the communities to the toxic substances, which are taken up by the fish and other aquatic organisms. When such fish are consumed, the harmful substances are transferred to the human population, further increasing the health risks of these communities. These conflicts reinforce the importance of the interplay between natural resource management, environmental sustainability, and human health, and the necessity of holistic policies that support ecological conservation and protect the health of vulnerable groups.

### **Statement of the Problem**

The issue of natural resources has turned out to be one of the burning issues in Romania and Nigeria; it is a complex social, ecological and political and problem that directly taxes the health of the citizens of any country. In Romania, land restitution has been a post-communism legacy that has been causing ownership conflicts especially in the countryside where re-allocation of all the lands lost during the communist regime has resulted in a complex interrelation between those who own the land currently and the absentee owners.

Such territorial conflicts, as well as environmental degradation through illegal logging, loss of wildlife and water pollution have escalated social conflicts, undermined sustainable resource management and have a direct impact on the health of the population[22]. Also, environmental hazards like the cyanide usage in mining projects like Roşia Montană and Rovina have faced a lot of opposition leading to civil society activism because of health issues raised by the people in the affected areas[23]. Despite the political willingness of the Romanian government to deal with these issues, the country is struggling to find a balance between economic development and the safety of the environment and the population, along with cooperation with local communities and international agencies to encourage technical cooperation and capacity building. The interplay of these forces leads to a complicated clash of historical land rights, environmental sustainability and economic interests which threatens not only the social stability but also the health of the population. How can Romania balance these competing interests without further marginalizing vulnerable rural populations and at the same time safeguard the health of the population? What are the forms of governance needed to ensure an equitable and sustainable utilization of resources that will not only be concerned with ecological integrity but also the health of the population in these vulnerable environments in Nigeria and Romania?

The natural resources Nigeria has, particularly, crude oil, coal and minerals, are both a blessing and curse because they contribute to economic development and cause socio-environmental conflicts which have a disastrous impact on the health of the population. The monopoly of oil in the Nigerian economy has led to severe environmental degradation including frequent oil spills, continuous gas flaring and failure of the multinational companies to adopt the best practices globally. The absence of funding of regulatory agencies and inefficiency of enforcement mechanisms also contribute to the situation[24][25]. According to Ite, the practices of multinational oil companies in their operations have enhanced environmental destruction that has caused air and water pollution which directly impacts the health of the local communities, particularly in the Niger Delta. The resulting environmental degradation has caused a wide variety of health issues to the population, including respiratory diseases, water pollution and food insecurity which directly affect the health and economic wellbeing of the local population and cause regular protests and violent conflicts[26].

The grievances and health hazards persist, even with the passing of laws, including the Environmental Impact Assessment Act and the Petroleum Industry Act, due to weak implementation and failure of governance as noted by Ite and Okoh & Daniels. It also emphasizes the lack of funding and proper management of regulatory agencies which also discourage the attempts to resolve the environmental and health problems of the affected communities. All these issues highlight the significance of effective governance frameworks and the application of the law to mitigate the negative health impacts of resource exploitation in Nigeria.

The civil society in Nigeria continues to play a role in fostering accountability and reforms but the questions that continue to be asked are: can sustained dialogue and systemic reforms be the answer to the endemic corruption and power imbalances? How can Nigeria leverage its resource wealth to promote social justice, environmental sustainability and population health, rather than conflict and degradation? These problems provide the background of a discussion on resource governance that is not only relevant in Nigeria, but also in other developing nations that are resource-rich and are encountering the same issues of environmental degradation and threats to the health of the population. This is where the paper examines the natural resources and conflicts in Romania and Nigeria with focus on its impact to the health of the people. The study will focus on the natural resources and conflicts in Romania and Nigeria. Specifically, the study seeks to:

- 1) analyze the role of historical land restitution policies in shaping natural resource conflicts and social tensions in rural Romania.
- 2) assess the environmental and socio-economic impacts of mining projects and resource exploitation on local communities in Romania and Nigeria.
- 3) evaluate the effectiveness of governance frameworks and enforcement mechanisms in implementing environmental laws for managing natural resource conflicts in Nigeria.
- 4) examine the public health challenges of natural resources and conflicts in Nigeria and Romania

### **Theoretical Underpinning**

The Resource Curse Theory is the foundation of the paper, and it was first introduced by Richard Auty in 1993. Resource Curse theory implies that countries endowed with natural resources, especially non-renewable resources (minerals, fossil fuels), enjoy slower rates of economic growth, weaker democratic regimes, and more wars than other countries bereft of natural resources[27]. The main argument of the Resource Curse Theory is that natural prosperity, rather than bringing prosperity, can be posing a problem of governance, economic instability, and social conflict. The abundance of resources can encourage rent-seeking, corruption, and an elitist extraction of economic dividends, undermining the institutional frameworks needed to support sustainable development[28]. Moreover, the power struggle over access of valuable resources often creates disharmony among the communities, governments, and multinational corporations, leading to social unrest, environmental degradation, and population health impacts[29].

The Resource Curse Theory thus presents an elaborate construct of evaluating the complex interrelations between resource abundance, conflict, and public health concerns in both Romania and Nigeria, where the extraction of the natural resources has created social disruptions, legal battles, and severe environmental health consequences. The relevance of this theory in the present study is that it can be applied to explain the paradoxical effects of resource wealth. The contradictions around resource governance linked to mineral mining projects and land restitution in Romania reflect the health crisis in local societies caused by environmental degradation brought about by mining activities such as the ongoing project to reclaim the Halychyna Lake, a water body mined since the 1950s[30]. Similarly, the vulnerability to oil revenues, the inability to enforce rules and regulations, and the inter-communal conflicts were all characteristic of the resource curse era in Nigeria. Here, the oil prosperity is destroying nature and population health, as air, water, and soil are polluted, leading to respiratory diseases, water-related infections, and food insecurity[31]. In the context of this theoretical framework, the research will address how the abundance of natural resources in both countries leads to the creation of governance gaps, environmental and social health issues, and social tensions. It will also determine how to manage natural resources more equitably and sustainably. The emphasis on institutional quality and distributional conflicts in the Resource Curse Theory is

highly relevant to the empirical realities in Romania and Nigeria, and thus, the theory is an important instrument in the study of the interaction between natural resources, conflict, and public health in these nations.

### **Empirical Studies**

The natural resources which are typically considered as the stimulators of economic growth, may lead to the environmental degradation, social tensions and severe health problems of the population. Niger Delta in Nigeria and rural Romania are two areas where exploitation of the resources has led to a number of research studies that look into these matters in isolation. Nonetheless, there is not much research on the correlation of these factors such as natural resource management, governance, conflicts and their overall impact on the health of the population. This review will look at the empirical research on these relationships and highlight gaps in governance, policy implementation and community participation and propose sustainable solutions to enhance health outcomes in resource-rich areas.

Akinola in his work *Natural Resource Conflicts in Africa: The Nigerian Experience* discusses the relationships between the exploitation of natural resources, conflict and population health in Nigeria with a particular emphasis on the Niger Delta region. The research is a qualitative case study which focuses on interviews with community leaders, health professionals and government officials. The research findings confirmed that there has been a deep environmental degradation caused by the exploitation of oil in the Niger Delta resulting in conflicts between the locals and the multinational companies. The major health conditions in the region included mostly respiratory diseases, water born diseases and lead poisoning due to oil spillages and gas flaring. Akinola proceeds to draw the conclusion that the crisis of the public health has been intensified by the bad governance and poor environmental laws, as well as the absence of engaging communities, where the decision-making process of managing the resources occurs. According to him, resources rich regions should be governed with reinforcement of the governance systems and enforcement of environmental laws to reduce the health risks.

In their article, Osawe, Uwa[32] study the problem of natural resource governance and conflicts in Nigeria. They put into focus the lack of benefits of resources distribution that has caused the conflicts between the state, local communities and the multinational corporations. Based on the sustainability, the paper prescribes to improve governance systems, transparency and accountability as a relief to such conflicts to reduce the negative health and environmental consequences of the exploitation of resources.

In his article *Regulatory Agencies and Environmental Degradation in the Niger Delta (1982-2018)* three decades of operation of the regulatory agencies in the management of the negative effects of oil production in Nigeria is the focus of the author, Hart[33]. The overall study design is qualitative and the interviews of the regulation officials, community leaders, environmental experts and policy documents will be used in the study. The findings indicate that despite the provisions of various environmental laws in Nigeria, there exists a bad enforcement of the laws due to corruption and poor funding that has aggravated the conditions of the environment. The effect of this has been the severe health issues like the respiratory malady, water pollution and oil spills particularly in Niger Delta. Hart deduces that one of the chief reasons why health disparities have ensued in the area is as a result of poor work of regulatory agencies and that more financial independence and transparency should be given in order to ensure environmental regulations are adhered to.

In their article *Niger Delta Women and Environmental Justice*[34], Nsirim-Worlu research how the Niger Delta women contribute to the environmental justice by considering how the civil society organizations play the role of fostering healthier environments. The operations and activities of the multinational oil companies in the region have a bearing on the exacerbation of the environmental degradation with disastrous effects on the population health and well-being as discussed in the paper. Such groups as Kebetkache have through workshops and seminars empowered local women such that they demand better governance of the environment. The article indicates that this kind of more grassroots movements of environmental justice has been significant in promoting sustainable activities on the environment of Niger Delta.

In the article *Environmental Degradation, Conflict and Criminality in the Niger Delta: A Conceptual and Empirical Discourse*, Ogadi, Raimi, Nwachukwu[35], discuss the relationship that exists between the environmental destruction caused by the multinational oil companies and the emergence of social conflicts and criminality in the Niger Delta. The paper maintains that the oil exploitation has contributed to the high levels of social unrest including crimes like kidnapping and militancy which has only worsened the situation in the region. The authors stress that there should be improved environmental policies and the adoption of regulations to help in dealing with these problems.

Ijaiya[36] in *Challenges of Corporate Social Responsibility in the Niger Delta Region of Nigeria* criticizes the activities of multinational oil companies in the Niger Delta especially in their inability to deal with environmental challenges like oil spills and gas flaring that have caused serious health challenges to the local people. Although huge amounts of money have been invested in community development projects such initiatives are not enough to counter the environmental degradation that oil mining activities have on the environment. According to Ijaiya, CSR activities should have more extensive programs to conserve the environment and enhance the lives of the affected communities.

Muritala[37] in *Multinational Oil Corporations and Governance in Niger Delta, Nigeria* critically analyses the relationship that exists between the multinational oil companies, the Nigerian government and the communities in the Niger Delta. The paper maintains that the use of oil resources by multinationals has resulted in serious environmental and health issues in the area. Muritala indicates that the inability of the Nigerian government to control these corporations has worsened these problems and this has resulted in continuous social unrest and health crisis in the Niger Delta.

In *Oil, Seeking Peace in the Niger Delta: Oil, Natural Gas and Other Essential Resources*, Kew, Phillips[38] introduce the Niger Delta problems relating to the politics, social and environmental concerns. The study discusses the negative impacts of oil exploration on the community such as pollution of water and ecological damage that has been among the reasons why the fighting in the area is persisting. The authors insist on comprehensive policy shift and local inclusion in the decision making process to distribute oil earnings more equally and rectifying the environmental inequalities the Niger Delta population has to step across.

In a research article called *Petroleum Hydrocarbons Contamination of Surface Water and Groundwater in the Niger Delta Region of Nigeria*, Ite[39] investigate the process of oil exploration on water quality and people health in Niger Delta Region of Nigeria. The study is an amalgamation of the water quality test and interviews of the local residents as well as environmentalists and health care experts. This has been revealed to be one of the greatest contaminations of water sources in Bonny and surrounding areas as the oil spills and gas flares have caused high incidences of water borne diseases such as cholera and dysentery. Ite concludes by saying that poor enforcement of the environmental protection legislations and poor healthcare services and facilities are some of the key players in these health disparities. The findings in the study would advise that more environmental surveillance and community health initiatives ought to be established to reduce the negative health risk generated by oil mining.

In his article *Health Risks Associated with Oil Pollution in the Niger Delta, Nigeria*, Nriagu[40] focus on the relation between oil pollution and the consequences of the pollutants upon health in the Niger Delta. Through a well designed questionnaire, the aspects of functional capacity, health symptoms and limitations in the communities exposed to the oil spill and gas flaring will be assessed in the study. The results show that the health issues of the population in the polluted areas are vast and these comprise respiratory ailments and psychological pressures. Nriagu. claim that interventions must be made to mitigate environmental distress and health risks and add that there needs to be better health policy and community-based health policies to limit the effects of oil pollution. Nriagu[41], in his article *Oil Industry and the Health of Communities in the Niger Delta of Nigeria*, discusses the impact of oil exploration on the health of local communities in the Niger Delta. The study highlights numerous health risks linked to oil pollution which include lung

diseases, cancers and reproductive health complications. According to Nriagu, despite the economic benefits of the oil extraction, there is a health cost faced by the local populations that has largely been ignored. He requires enforcement of environmental laws much more intensively, and a shift toward sustainable oil production that also considers the health and well-being of the communities involved.

The consequences of petroleum exploration on the Niger Delta ecosystem have been summarized by Omoogun[42] in their article Environmental Pollution and Its Ecological Consequences on the Niger Delta: A Review of the Literature. They also focus on the effects of the oil pollution on the quality of water, soil, and air, which has a significant implication on the local biodiversity and human health. They suggest that the way forward in handling such issues is through tighter environmental laws, better enforcement, and community participation in management and tracking of environmental impact.

Ite[43] article titled Petroleum Exploration and Production: Past and Present Environmental Issues in the Nigeria Niger Delta addresses the environmental and health effects of petroleum exploration and production in the Nigeria Niger Delta. The study reveals that oil spills, gas flaring, and environmental discharges of toxic chemicals have drastically affected the area. According to the authors, the Nigerian government has ratified several environmental laws, however, their implementation is weak, and the willingness of multinational oil companies to adopt sustainable practices is not always evident. The article requires more regulated regulation and the development of sustainable oil-mining policies to protect local population health and the environment.

This research gap, and basis of the emergence of the current research proposals is that not enough research has been conducted on the synergetic outcome of the exploitation of the natural resources, the conflicts as well as health of the people in geographical areas where the government controls of the natural resources are relatively poor. The same is also true of the previous research on the issue although it has concentrated on the individual sides of the issue like environmental degradation or resource conflict, they could also not address the issue of how these aspects relate to each other and the overall effect they have on the health of the population. Specifically, the scarcity of research on the role of the system of governance and communal engagement in mitigating the health effects of the exploitation of natural resources, particularly in conflict-prone regions such as the Niger Delta in Nigeria and rural Romania, has created a gap that is rather prominent. Furthermore, the rules of the environmental policy are not properly established in the major part of the countries with a great number of natural resources, which worsen even further the health conditions of the population. In this paper, this gap will be filled by exploring the relationship between poor governance, environmental degradation, and natural resource conflicts as factors that contribute to the declining health outcomes collectively and offer sustainable solutions to the management of natural resources and the overall health of the population.

### **Methodology**

The methodology used in the paper is qualitative, and the data collection takes the form of secondary data through the use of textbooks, journal articles, newspapers, government publications, and international news sites. A content analysis was used to analyze this data to determine the relationship between conflicts and natural resource exploitation in relation to the health outcome of the Romanian and Nigerian people.

### **Data Presentation and Analysis**

Role of historical land restitution policies in shaping natural resource conflicts and social tensions in rural Romania.

Old land redistribution policies in rural Romania play a significant role in the context of conflict over natural resources and tensions within society in the contemporary world. After the end of communism in 1989, Romania embarked on a complex land restitution program to redress communist era expropriations. This was aimed at rectifying historical injustices and returning the land to its original owners or heirs[44]. These policies have been however fraught with complications, unintentionally creating a plethora of social and resource conflicts. Another key issue has been land ownership fragmentation, where various parties claim to own the same land yet they

cannot be reconciled in their entitlements. It has also led to problems of co-ownership, which makes it hard to manage land and agricultural productivity particularly in the countryside where land is a critical asset. Moreover, local social relations and customs of land use were insufficiently taken into account in the restitution process, leading to conflicts between the returning owners and others who had settled or cultivated the land in the communist era. These tensions are further exacerbated by inefficient institutional frameworks to adjudicate differences, resulting in protracted legal procedures and intercommunal rivalry[45]. Additionally, restitution has led to broader environmental conflicts where land ownership changes have affected the protection of natural resources, including forests, water bodies, and biodiversity preservation. Disunity in ownership patterns has undermined good environmental governance leading to habitat destruction and unsustainable resource use. Hence, historical land restitution policies have not only transformed property relations but also introduced multidimensional rural conflicts on social, legal, and ecological levels.

The second noteworthy message regarding land restitution policies is that they are associated with political economy and governance issues that heighten social tensions in rural Romania. Restitution has been marred by delays, bureaucratic incompetence, and corruption, further delegitimizing state institutions and fueling local grievances. The vast majority of claimants experienced prolonged administrative procedures and ineffective compensation schemes, which only served to alienate vulnerable populations and foster a sense of unfairness[46]. Political elites and business actors alike have taken advantage of institutional weaknesses to control the land redistribution process to their own economic benefit to worsen inequalities and social stratification[47]. In addition, the accession of the European Union associated with land restitution policy introduced new regulatory frameworks, changing priorities in the land use planning and rural development. The misalignment with effective real-life restitution has sometimes created policy tensions and opposition among the affected groups, although the EU policies have incentivized sustainable resource management and rural rejuvenation. Thus the social tensions in rural Romania are not only a heritage of the past restitution but rather a consequence of the current governance and economic strains. The complex interaction raises critical questions on how land reform processes can be structured to balance issues of historical justice, sustainable development, and social cohesion. The latent effects of historic land redistribution are therefore crucial in developing sound policies to alleviate disputes and establish sturdy rural societies in Romania.

### **Result & Discussion**

Environmental and socio-economic impacts of mining projects and resource exploitation on local communities in Romania and Nigeria.

The project-level environmental impact of mining and resource extraction on communities in Romania and Nigeria has notable consequences on ecosystems, ecological diversity, and human well-being. Mining ventures including Ro ciosa Montan a and Rovina in Romania have been known to cause severe environmental impacts such as soil and water pollution, and landscape ecological changes[48]. These effects have been intensified by the utilization of hazardous chemicals including cyanide during the process of gold mining as was valued in 2000 during the cyanide pollution of Baia Mare, a major incident that had devastating ecological effects on both water bodies and agricultural land. This environmental degradation not only threatens biodiversity but it also impairs the lives of rural communities who rely on farming, forestry and fishing. Moreover, mining concessions have led to illegal logging and subsequent deforestation, exposing communities to the effects of climate change, such as soil erosion and floods[49].

By the same token, oil and mineral mining in Nigeria has caused chronic oil spills, gas flaring, and destruction of agricultural lands and fisheries, particularly in the Niger Delta[50]. This is compounded with a chronic failure of environmental regulations to protect the ecosystem and pose health threats to the local communities, such as respiratory conditions and water-borne diseases[51]. The environmental outcomes between the two nations are underscores the need to practice sustainable mining and a stronger regulatory framework to ensure limited damage and preservation of natural capital that will benefit future generations.

The socio-economic impacts on the local people are also critical besides the environmental impacts of mining and resource exploitation. Mining activities have aided economic growth and employment in Romania but the consequences are rarely fair and has led to community displacement, loss of land and culture. Civil society activism against mining operations demonstrates that people are not satisfied with the unacceptable consultation process, environmental injustices, and intransparency in decision-making[52]. These tensions would likely lead to poor social cohesion and when resource revenues fail to translate to local development they sometimes lead to broader conflicts. Similarly, in Nigeria, oil wealth has been intertwined with poverty and underdevelopment in the oil regions, where citizens are unemployed, poorly developed, and socially alienated[53]. Traditional livelihoods, including farming and fishing, are equally vulnerable to environmental degradation, exposing the affected communities to a precarious economic position. Land and revenue disputes also exist as a result of resource abuse coupled with poor governance and corruption[54]. Historically, civil society activism and international advocacy efforts have attempted to redress these imbalances, but structural issues are profound. As such, it is imperative to understand these socio-economic processes to design policies that will support equal resource disperse, empower local communities, and promote sustainable development of the mining area.

Effectiveness of governance frameworks and enforcement mechanisms in implementing environmental laws for managing natural resource conflicts in Nigeria.

The systems of governance and enforcement are vital in the management of the natural resource conflicts in Nigeria especially considering the fact that the country depends heavily on oil and mineral resources and the complicated socio-environmental concerns that accompany their exploitation. To control environmental protection, Nigeria has created legal instruments, including the Environmental Impact Assessment Act (1992) and the Petroleum Industry Act (2021), to reduce environmental degradation and facilitate sustainable use of resources[55].

Nonetheless, government failures such as poor institutional capacity, lack of funding and corruption in the regulatory agencies tend to compromise these laws[56]. These failures result in uneven enforcement and regulatory capture, whereby the agencies charged with regulation are affected or dominated by the corporations that they are supposed to regulate. This has brought about a governance paradox whereby in spite of the presence of sound legislative frameworks, the offences of oil spills, gas flaring and illegal mining continue to occur and worsen tensions between the local communities, the state and multinational corporations[57]. Also, the decentralization of the government which is manifested in the duplication of functions among federal, state and local governments, makes the execution of policies difficult and reduces accountability[58]. Such institutional weaknesses hamper the capacity of the Nigerian state to effectively enforce environmental regulations which leaves regulatory gaps that foster distrust and resentment among the affected populations. Consequently, to enhance the enforcement of environmental laws and minimize the conflicts over resources, there is a need to increase the coherence of governance, institutional capacity and transparency and to make it more accountable[59].

The other important factor that defines the success of the environmental law enforcement in Nigeria is the involvement of the community and inclusion of the local stakeholders in governance processes. Historically, resource governance in Nigeria has been accused of being top-down which tends to omit local views and does not reflect the socio-economic conditions of resource-based communities[60]. This alienation and resistance has often resulted in violent confrontations and sustained conflicts. Recent studies indicate the significance of participatory models of governance in which the community members, civil society organizations and traditional authorities are involved in the decision-making and monitoring[61][62]. This type of inclusive governance can increase legitimacy, trust and shared responsibility in environmental stewardship.

Moreover, emerging measures like community-based monitoring and benefit-sharing agreements have demonstrated potential to enhance compliance and minimize conflicts by aligning economic incentives with environmental protection[63]. Nevertheless, there are still major obstacles to be overcome such as power imbalances, poor enforcement of the law and the lack of capacity of the community to effectively participate in the regulation process. The best way to overcome these

issues is to empower the communities by providing them with education, legal literacy, capacity-building and institutionalization of participatory governance through reforms. In conclusion, it is important to note that the effective governance and enforcement mechanisms in Nigeria are not only dependent on robust legal frameworks but also on the involvement of local stakeholders and the enhancement of institutional integrity in order to establish a sustainable management of natural resource conflicts.

### **Public Health Challenges of Natural Resources and Conflicts in Nigeria**

In spite of the natural resources Nigeria enjoys through oil, gas, solid minerals, arable land and water among others, the country is still grappling with poverty levels and significant problems in the health sector among the people. Different causes of these problems include resource control conflicts, violent conflicts between farmers and herders, weak institutions and ineffective resource accountability[64]. This has continuously contributed to the vicious cycle of affirmative action that has been detrimental to the health and well-being of its citizens[65]. Respiratory diseases, water borne diseases, lead poisoning, cancer and organ damage are among the health problems aggravated by oil spills, gas flaring and unauthorized use of the resources that affect the air, water and soil[66]. Such an environmental destruction erodes the ecosystem and in direct consequences, it greatly affects the health of the Nigerian population and mostly the vulnerable groups as the welfare of these people depend on the utilization of these resources in sustaining their lives. The environment at these places has become worse and it is the increase of chronic impairments and health catastrophes. Hart[67] notes that pollution of water sources, especially in Bonny where oil plants are located, has caused the health problems in these communities to be aggravated since locals have been known to develop acute and chronic health conditions due to the consumption of these contaminated waters.

Another issue that concerns health in Nigeria is the consequences of armed conflict on the population health. The direct impacts of violent conflicts are direct loss of life through gunshots, burns and trauma that result in death or disability that leads to the health crisis in the country. Survivors, particularly after experiencing extreme violence are at the risk of having psychological disorders like PTSD, anxiety and depression and other mental disorders[68]. It presents the possibility of a long-term psychological trauma in children in particular. Violence such as Boko Haram attacks in the North-East, banditry in the North-West or farmer-herder conflicts in the Middle Belt, had driven them out of their homes leaving Internally Displaced Persons (IDP) camps overcrowded. These include sanitation, contaminated water, lack of friendly food and hygiene services in these camps which have facilitated rampant diseases that are preventable. Conflict zones have destroyed health infrastructure, placed health workers under unsafe working conditions and disrupted the health supplies which further undermines the health system[69]. Environmental devastation and violent conflicts are multi-dimensional issues that require an intervention and, therefore, multi-dimensional solutions which comprise peacebuilding, environmental control, as well as health system strengthening.

**Peacebuilding and Conflict Resolution:** There is ample need to use Dialogue, negotiation and reconciliation to bring about a lasting peace in Nigeria having resolved the core causes of conflicts. Stimulating peaceful coexistence among warring parties or groups such as farmers and herders or insurgency afflicted people has the propensity to curb violence and instability at a large scale. A correct peacebuilding initiative may recover trust, decrease displacement and reduce trauma. Non violent solutions also guarantee the security of the vulnerable groups as well as enable the rebuilding of cardinal infrastructure including the health facilities. Peacebuilding produces a secure environment in which development and improved citizens health prevail[70].

**Environmental Remediation and Regulation:** Environmental remediation is one of the most important steps in ensuring a healthy ecosystem that has been polluted by oil spills, gas flaring and illegal mining which are some of the causative factors of the health problems, faced by the Nigerian people[71]. Strict environmental policies are required whereby the environment would not be degraded even more with regard to air, water and soil. There are health risks that include respiratory diseases, waterborne diseases and lead poisoning, potentially reduced with an area remediation exercise that includes cleaning of the polluted resources[72]. With adequate management of the

industrial processes, environmental degradation will be curbed and human life not affected in any way, making the resources used to be sustainable.

**Improving Health Systems:** Enhancement of a better health system in Nigeria involves enhancing medical facilities, health care personnel, as well as health care medical supplies especially in isolated and conflict-affected regions. Development of good healthcare systems ensures a strong accessibility of crucial services especially preventive and primary care. Training of healthcare workers and digital healthcare services investment increases the level of service delivery and the capacity of these deliveries to sustain healthcare crisis. Health system strengthening means that Nigeria can react better to both regular healthcare and emergencies and the end result of such actions will be better health outcomes and reduced illnesses that could have been easily prevented.

**Humanitarian Response:** Humanitarian response is recognizable in terms of providing immediate support to conflict-prone communities, displaced individuals and those affected by natural calamities. This aspect entails offering of simple amenities such as healthcare, food, water, shelter and sanitation particularly in Internally Displaced Persons (IDP) camps. The cooperation among the government agencies, the non-governmental and international corporations ensures that help is rendered to the most at-risk groups. The mental health of the survivors needs to be considered too, as well as vulnerable groups such as women and children, because suffering needs to be reduced and dignity needs to be restored.

**Community Engagement:** incorporation of the communities in making decision and in the development would increase the sustainability of the public health activities. Intervention by communities in health edification and formative of policies will make interventions socialized and contextual which will improve the adherence and adoption of health practices. Partnerships between community and health authority improve the social integration which creates ease in taking collective initiatives on issues such as sanitation, hygiene and vaccination. Community based health programs succeed most of the time and lead to positive health results particularly in relation to conflict affected countries.

**Livelihoods Diversification:** By becoming less reliant on resource-based livelihoods such as mining or agriculture which may degrade the environment and lead to conflict, the communities should diversify livelihoods. It is possible to reduce social risks with the economic vulnerability by developing the opportunities of alternative living, this initiative should be directed on the vocational training, small-scale business and sustainable agriculture that may contribute to the social resilience. Diversification of livelihoods does not exclusively benefit the economy but also reduces the environmental strains brought about unsustainable practices that may be detrimental to health of people and their relationship with the environment.

### **Public Health Challenges of Natural Resources and Conflicts in Romania**

Romania is blessed with natural resources that include timber, natural gas, coal and fertile land that has made the economy of the country despite being good in the past years. However, misuse and over misuse of these resources has created health problems of the population of serious nature. In both rural and industrial regions, misuse of resources has caused the deterioration of the environment due to deforestation, water and air pollution and soil erosion. These environmental impacts have a close linkage to numerous health issues among the people and especially those living in regions occupied by resources extraction activities[73]. All these problems have been worsened by lack of effective regulation schemes and poor enforcement procedures and thus it is important to further investigate into the existence of correlation between environmental degradation and public health in Romania.

In addition to the environmental problems Romania has been experiencing the social-political tensions and conflicts at the regional levels that have contributed towards social health outcomes. Even though it is not the epicentre of mass violence, Romania has faced some internal conflicts, financial inequalities and unequal allocation between its resources which has led to local resentment. These tensions, the problem of local governance and inequality of infrastructures have led to displacement, trauma and overworking healthcare systems[74]. The most weakened groups such as children and the elderly, are also the ones affected disproportionately and they would

experience poorly noted health results because of these conflicts.

One of the major issues of public health in Romania is environmental pollution, especially the one caused by industrial activities. Romania has polluted rivers, polluted air and contaminated soil that is a legacy of communism system of industrialization. The Tisza River is one of the worst incidents of environmental degradation because it has been exposed to immense chemical pollution, as a result of which issues such as respiratory diseases and gastrointestinal infections due to bacteria and viruses have been experienced. What is more, the existing old industrial facilities, including coal-fired power plant, also continue to emit particulate matter and toxic gases that even serve to aggravate respiratory ailments, cancer and heart diseases. Even though Romania has made significant gains towards improving the health of the environment ever since its integration into the European Union in 2007, the effects of pollutions have continued to haunt some lives of individuals living near some of the older industries. These are the various environmental and conflict related challenges bringing a complex health hazard.

The healthcare system of Romania is rather advanced but overwhelmingly strained with resource and financial issues and inequalities in healthcare access, particularly in rural areas. Lack of a comprehensive strategy in addressing both the environment pollution and psychological trauma suffered by the displaced people due to conflict has led to less than ideal outcomes in terms of public health. These areas have recorded a surge of mental health problems, especially among young people including children and adolescents, who are not able to cope with the impacts of environmental degradation and war which add up to impact them[75]. These challenges hand in hand with the aging population further aggravate health disparities and fortify social inequalities to further stall national growth.

**Peacebuilding and Conflict Resolution:** In order to mitigate the influence of socio political tensions and wars in the region (Romania), it is required that the causes of these conflicts are also taken care of. Through dialogue and negotiation, the government has the opportunity of avoiding any further violence that displaces people, recklessly destroys neighbourhoods and infrastructure, including health facilities. PEacebuilding efforts may facilitate integration of the society, recovery of trust between communities and psychological trauma. Conflict resolution can result in stability that would enable restoration of services and improving the health outcomes of the population that is at risk of violence and displacement[76].

**Environmental Remediation and Regulation:** Remediation and control of environmental pollution should be imperative to the degradation and pollution of the natural resources of Romania which is a severe health hazard. Tougher environmental requirements and focus on sustainable utilization of the available resources may also help in reducing the level of pollution preventing the exposure to such health hazards as respiratory illnesses and waterborne diseases[77]. The upkeep of therapeutic practices such as cleaning of polluted rivers, the efficient handling of the commercial waste among other practices, is very instrumental in restoring the ecosystem, improving the air and water quality and also enforcing the security of the population. This shall be realized through tightening existing laws that will make industries more accountable to the environmental consequences which shall in the long run make the natural resources of Romania sustainable.

**Health Systems Strengthening:** Romania lags in the areas of health systems strengthening and has to improve on the initiatives to meet the rising demands connected with environmental pollution, health consequences of conflict and health inequality within the area under consideration. The equal access to health services can be achieved through the enhancement of the presence of the healthcare infrastructure particularly in the rural areas. Among the health system strengthening, the medical workers training, the investment in medical equipment and the development of emergency care capacity are major ones. Besides, the health system will be imbued with mental health services to address the psychological shock among survivors of wars as well as victims of environmental destruction. A functional health system will strengthen the ability of Romania to address the issues of population health and enhance the overall health outcomes.

**Humanitarian Response:** Humanitarian responses play a significant role in addressing the health needs of populations exposed to environmental catastrophes or wars. By ensuring the supply

of clean water, sanitation, food, and shelter in the affected areas and the provision of emergency healthcare, it is possible to prevent the spread of diseases and reduce the health risks associated with overcrowding and other adverse living condition factors[78]. In addition, psychological support of traumatized individuals, particularly children and elderly to mitigate long-term psychological effects of war and displacement is vital. Real humanitarian response is a synchronized process toward ensuring that vulnerable populations receive the support they require to recover and regenerate.

**Community Engagement:** Community involvement will be critical to the effectiveness and sustainability of the population health interventions in Romania. Engaging the local people in decision-making and health service efforts will improve ownership and effectiveness of programs. Active communities engaged in environmental protection, health education, and conflict resolution are more responsive to public health issues. Community involvement increases the likelihood of accepting preventative health measures, prohibiting harmful behaviors, and regulating environmental degradation and health inequities. Furthermore, engaging local communities in community-based health and environmental programs can foster solidarity and strengthen grassroots health systems[79].

**Livelihoods Diversification:** Livelihoods diversification would be essential to reduce reliance on environmentally degrading activities such as mining, deforestation, and intensive farming, which are also sources of pollution and conflict. Creating better economic opportunities through promoting alternative sources of income generation such as sustainable agriculture, small businesses, and vocational training can help in relieving economic pressures that otherwise lead to environmental degradation and war. Economic resilience, food security, and health outcomes are achieved by livelihood diversification through stable incomes, poverty alleviation and reduced strain on the public health system. Promoting healthier and economically sustainable rural communities, by fostering sustainable practices, livelihoods diversification can have a positive long-term impact on the economy and the population health overall[80].

1) **Land Restitution and Conflict Resolution in Romania:** As a means of resolving the complications that have been created by the historical land restitution, Romania ought to enhance institutional frameworks that elucidate land ownership rights and co-ownership rights. To decrease prolonged conflicts, it is possible to improve the dispute resolution mechanisms, such as local mediation and legal assistance. Also, the policies should combine social and environmental aspects to make sure that the restitution processes do not increase the tensions in the rural areas or ecological destruction. Partnerships with the community and the government can help to achieve fair land use and sustainable rural development.

2) **Sustainable Mining and Community Development:** Romania and Nigeria are to ensure that the mining and resource extraction projects have strict environmental standards to reduce environmental degradation. Governments should focus on open consultation with the communities that are to be affected and the local people should gain economically and socially through exploitation of the resources. Compensation plans and environmental restoration plans must be compulsory. Moreover, investment in alternative livelihoods and capacity-building of communities will reduce the socio-economic discontinuity, which promotes resilience and minimizes resource-related conflicts.

3) **Improving Governance and Enforcement in Nigeria:** Nigeria needs to strengthen the capacity and independence of regulatory agencies in order to enforce environmental regulations. They need sufficient funds, anti-corruption, and mandate. The transparency and trust will be enhanced by encouraging the community to play a larger role in monitoring and decision-making. Better coordination can be achieved by legal reforms that streamline the roles of the federal, state, and local entities. Adoption of multi-stakeholder governance will enhance compliance, minimize conflicts and enhance sustainable management of natural resources.

4) **Nigeria and Romania require reinforcement of governance systems** whereby there should be a strong implementation of environmental policies to curb the effects of resource exploitation on the health of the population. This involves improving institutional capacity, transparency and community involvement in decision making. Good governance can be used to curb

the degradation of the environment through pollution, destruction of habitats among others which have a direct impact on the health of the people and also see to it that the local communities enjoy the fruits of sustainable management of resources and are better placed to cope with health issues related to resource conflicts.

5) Best practices used in the home countries of Multinational Corporations should be used in their operating host Communities and there should be International laws and laws domesticated in home and Host Communities to ensure compliance and thereafter a sanctioning provision to aid compliance.

6) Government and Operating companies should build hospitals and adequately equip existing ones to cater for the public health challenges of the extraction activities

7) Civil Society must be sensitized and its capacity upgraded in both countries act as safeguards through peaceful constructive engagements and the civil society in developed countries should help in this regard.

### **Conclusion**

The purpose of the current paper was to limitlessly examine the critical issues that is of a nature to stimulate the resource-based conflicts in Romania and that is Nigeria in addition to how the conflicts are settled with particular references to the problem of public health. Such complexities caused social tensions and resource conflicts and emphasized the interconnections among historical justice, property rights, environmental governance, and community well-being. The unmanageability of the resources since land is frequently fragmented and subject to multiple claims, led to an escalation of rural conflicts and the resulting environmental degradation that burdened the health of the population. This revealed how urgent it was to ensure that there were institutional mechanisms that dealt with the legal and social aspects of restitution, but also ensured that they preserved the health of the people. Second, mining and resource extraction had a multifaceted and devastating effect on the environment and socio-economic situation in both countries. The mining activities in Romania led to extreme ecological damage including biodiversity, contamination, and water pollution, as well as rural livelihoods, and the injustice of the perceived injustice to the environment and population health generated local resistance. Likewise, the oil and mineral industry in Nigeria has boosted the economy at the expense of large-scale environmental damage and health. The environment degradation, including air and water pollution, has worsened the health status, comprised of respiratory illnesses, water-borne illnesses, and food insecurity. These effects destabilized the traditional source of living, increased poverty, triggered conflict over resource ownership and division, and the need to balance economic development and environmental sustainability and health. Lastly, effectiveness of governance structures and enforcement structures in Nigeria was critical in addressing resource conflicts and health risks to the population. Institutional weaknesses, corruption, and lack of community participation often obstructed the implementation of comprehensive environmental legislations despite the presence of such legislations. Enhancement of the governance integrity, transparency, and development of inclusive stakeholders engagement were spearheaded as a vital component in enhancing compliance, minimizing the risk to the health of the population and solution to the resource-based conflict. The paper underlines the need to adopt inclusive policies that do not only favour responsible utilization of resources but also uphold the health and welfare of the people.

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