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Oil-Induced Environmental Dilapidation and Effect on Child Labour Practices in the Niger Delta Region of Nigeria

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ABSTRACT

The issue of child labour in the Niger Delta area of Nigeria remains a tenacious socio-economic abnormality, engendered by momentous environmental deprivation, deficiency, lack of basic societal infrastructures and organizational discriminations. While SDG 8 (Decent Work and Economic Growth), specifically Target 8.7, is against child labour, the prevalent socio-demographic certainties of the Niger Delta environment demand a genuine and practical approach that underscores environmental responsibility and accountable socio-economic sustainability. This study surveys the connection amid environmental degradation and child labour practices in the region and suggests approaches for improving eco-friendly and supportable child labour endeavours. Using a mixed-methods approach combining secondary data analysis and qualitative synthesis, the study identifies poverty, ecological decline, and governance gaps as primary drivers of child labour. Quantitative estimates suggest that between 67.6% of children in rural Niger Delta communities are engaged in some forms of child labour with a substantial share exposed to ecologically risky conditions. The study adds to the increasing works connecting environmental susceptibility with community wellbeing and climaxes the need for unified strategies that alleviate environmental restoration and social shield to lessen child labour commonness in the region.

Keywords: child labour, environmental deprivation, Niger Delta, socio-economic factors, livelihood vulnerability

1.0 INTRODUCTION

In 1958, precisely at Oloibiri, the Niger Delta part of Nigeria witnessed the commencement of the exploration and production of oil from beneath the earth surface (Eshiet and Udoyen, 2024) and what stated as a fortunate adventure became a processing natural resource of socio-economic crises and environmental deprivation. For over 65 years of oil and gas exploration the inhabitants of the region have experienced more of negative evolving consequences with severe impacts on livelihoods (Bankole et al., 2024) that is linked with various environmental resources. Some studies (Lawal and Ese 2012; Nwabuenyi 2012; Aigberua et al., 2017; Chijioke et al., 2018; Adeola et al., 2022) have revealed the menace of oil exploration and associated predicaments in the region with approaches taken by Government to addressing the situation. According to Ede and Edokpa (2015), the revenue generated from oil and gas exploration in the region services at least 80% of Nigeria's budget and ranking as Africa's largest producer of oil and thirteenth globally (Eshiet and Udoyen, 2024). According to the

National Bureau of Statistics (2023), over 28 trillion naira was realized from commercial oil sales constituting slightly over 80% of exports revenues accrued to Nigeria. Although oil production from the region has meaningfully attributed to Nigeria's financial proceeds, it has also caused extensive ecological dilapidation, arising from oil spills, air pollution, soil and water effluence, gas flaring, as well as the devastation of agricultural viable lands and marine bionetworks. These negative experiences have had weighty socio-economic drawbacks for local communities whose livings customarily depend on local means of support such as fishing, farming, and other natural resource–based doings. Most prominently of all the negative experiences has been conflicts of interests, community clashes and crises as well as exposure of defenseless offsprings of several families to child labour and as a result, the inhabitants are left to struggle for survival. Child labour is predominant in the Niger Delta area, engendered principally by poverty and deficiency of educational and economic availabilities. As disclosed by Ofuoku et al., (2020), there is a high involvement of child labour in most farming activities that are considered hazardous in the Niger Delta region. It was emphasized that the reason for this involvement included cultural, economic and political factors and most of the children combined schooling and agricultural practices. However, it was opined that their involvement in agricultural skills should give them a future positive interest in agriculture as a career. Angalapu and Ojewale (2024) highlighted that the Rivers State Government of Nigeria, acknowledged that progenies of the age 14 and 15 years are seriously entangled in illegitimate oil theft and refining in the Niger Delta most especially in Rivers and Bayelsa states. This anomaly was ascribed to poverty, lack of viable alternative means of survival and the growing criminal associations in communities across the states. It was revealed that over 88% of Bayelsa state's populace experiences extreme poverty and over 4.3 million people in Rivers state live below the poverty level. This study examines how sustainable and eco-friendly approaches can be combined into viable plans to lessen the detrimental effects of child labour while addressing the region's socio-economic certainties.

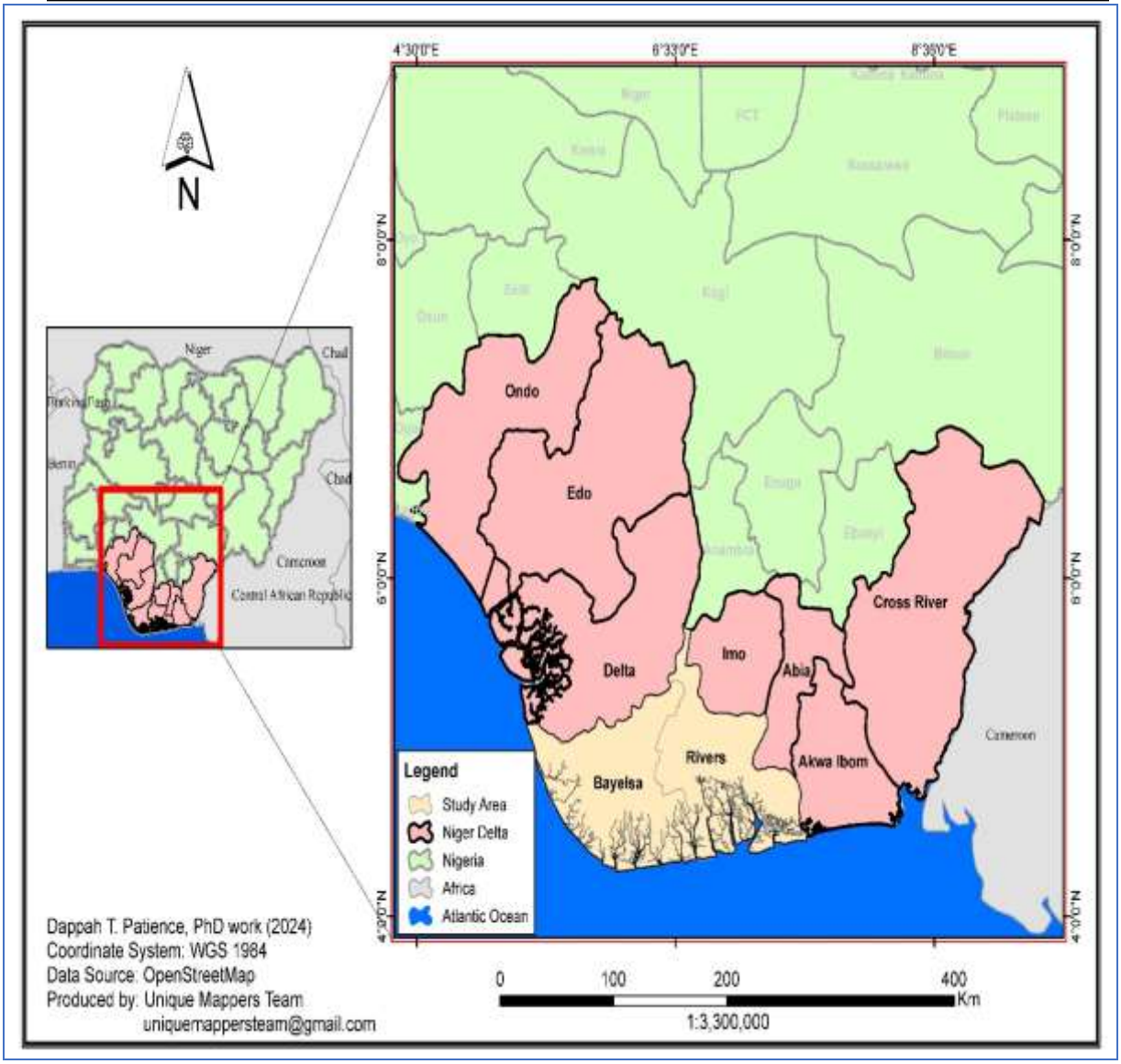

Figure.1: Niger Delta Region Showing Rivers and Bayelsa Study Area

2.0 Conceptualizing Child Labour in Development Research

Child labour has long been recognized as a multidimensional socio-economic phenomenon closely linked to poverty, household vulnerability, and institutional constraints in developing economies. The International Labour Organization defines child labour as work that deprives children of their childhood, potential, and dignity, and that interferes with their education or physical and psychological development (Diallo et al., 2013). Despite global commitments to eliminate the practice, child labour remains widespread in many regions of the Global South, particularly in sub-Saharan Africa where structural poverty, demographic pressures, and limited access to education contribute to its persistence. Economic theories of child labour have traditionally emphasized household decision-making within contexts of resource scarcity. One of the most influential theoretical contributions is the model developed by Basu and Van (1998), which posits that child labour emerges primarily as a response to household poverty. According to this framework, families rely on children's labour when adult income is insufficient to sustain household consumption needs. The model further suggests that once household income rises

above a subsistence threshold, families withdraw children from labour and prioritize schooling. This poverty-driven explanation has become a dominant paradigm in the economics of child labour and has shaped many policy interventions aimed at reducing child labour through poverty alleviation programs.

Empirical research across developing countries has often supported this theoretical framework. For example, Edmonds (2005) found that improvements in household income significantly reduce children's labour participation, suggesting that economic growth and income expansion can play a critical role in lowering child labour rates. Similarly, Beegle et al. (2009) demonstrated that household economic shocks often increase child labour participation as families attempt to stabilize household income during periods of financial distress. These findings reinforce the notion that household economic vulnerability remains a central driver of child labour in many contexts. However, subsequent research has shown that the relationship between poverty and child labour is more complex than initially assumed. In particular, Bhalotra and Heady (2003) identified what has been termed the "wealth paradox," whereby children from relatively wealthier agricultural households may still participate in labour due to higher labour demand within family enterprises. This paradox challenges the simplistic assumption that higher household wealth automatically leads to lower child labour participation and suggests that household labour demand and production structures can also shape children's economic roles within families. These findings highlight the importance of examining broader socio-economic contexts in which household decisions regarding child labour are made. Child labour cannot be understood solely because of poverty but must also be analyzed within the broader socio-economic systems that shape household livelihood strategies.

2.1 Socio-Economic Determinants of Child Labour

A substantial body of empirical research has examined the socio-economic determinants of child labour across different regions of the world. These studies typically focus on factors such as household income, parental education, household size, labour market conditions, and access to schooling. Together, these variables provide insight into how economic and demographic conditions influence household decisions regarding children's participation in labour activities. Household income is widely considered one of the most significant predictors of child labour participation. Numerous studies have demonstrated that children from poorer households are more likely to engage in labour activities as families attempt to supplement limited household income (Edmonds & Pavcnik, 2005). In many developing economies, children's labour contributions form part of broader household survival strategies, particularly in rural areas where labour markets are informal and income opportunities are limited. Parental education is another critical determinant frequently highlighted in the literature. Higher levels of parental education are generally associated with lower rates of child labour participation, as educated parents tend to place greater emphasis on formal schooling and long-term human capital development (Emerson & Souza, 2007). Educated parents may also have better access to employment opportunities and higher income levels, reducing the economic pressure that often drives child labour participation. Household size has also been identified as an important factor influencing child labour prevalence. Larger households may experience greater economic strain due to higher consumption needs, increasing the likelihood that children contribute to household income through labour activities (Ray, 2000). In many rural communities, children's labour is integrated into household production systems such as farming, fishing, or small-scale trading, making labour participation a normalized aspect of household economic organization.

In addition to household-level characteristics, contextual factors such as access to education and labour market opportunities also shape child labour dynamics. Where educational opportunities are limited or perceived as low quality, households may prioritize labour participation over schooling. Similarly, weak labour market structures that limit adult employment opportunities may increase reliance on children's labour contributions within households. Despite the strong empirical support for these socio-economic determinants, several studies have emphasized the importance of considering broader structural factors that may influence child labour participation beyond household characteristics alone. In particular, environmental and livelihood disruptions can significantly alter household economic strategies and may weaken the explanatory power of conventional socio-economic predictors.

2.2 Child Labour in Sub-Saharan Africa

Sub-Saharan Africa has consistently recorded the highest prevalence of child labour globally, reflecting the region's complex interaction of economic vulnerability, demographic pressures, and institutional limitations. Studies conducted across various African countries have identified poverty, household size, and parental education as key predictors of child labour participation (Bikoue, 2021; Gebregziabher et al., 2023). In many African rural economies, children's labour plays an integral role in household livelihood systems, particularly within agricultural production. Children often participate in farming, livestock management, and other household economic activities as part of traditional family labour arrangements. While such participation may not always be classified as hazardous labour, it can nonetheless interfere with children's educational opportunities and long-term human capital development.

Research in Ethiopia, for example, has demonstrated that household poverty significantly increases the likelihood of children participating in labour activities, particularly in rural areas where households depend heavily on agricultural production (Gebregziabher et al., 2023). Similarly, studies in Cameroon have found that household economic status, parental education levels, and family size strongly influence child labour participation (Bikoue, 2021). However, African scholars have increasingly emphasized that structural vulnerabilities such as environmental degradation, climate variability, and resource scarcity also shape child labour dynamics. In many rural communities, environmental stressors can undermine traditional livelihood systems, forcing households to adopt coping strategies that may include increased reliance on children's labour contributions. These dynamics are particularly evident in resource-dependent regions where environmental degradation directly affects household income opportunities. As natural resources become depleted or degraded, households may experience declining productivity in traditional economic activities such as agriculture and fishing, increasing economic pressures that contribute to child labour participation.

2.3 Child Labour in Nigeria

According to Bassey et al., (2012), child labour remains an issue of concern in Nigeria in spite of legislative measures occasioned by the government at various levels. In 2022, Nigeria made efforts to eliminate the worst forms of child labour where the Child Right Act was signed to provide free and compulsory education for children while prohibiting use of children in illegal activities. Nigeria has ratified all key international treaties on child labour such as the ILO 138, Minimum Age, ILO 182 Worst Forms of Child Labour, UN CRC, UN CRC Optional Protocol on Armed Conflict, UN CRC Optional Protocol on the Sale of Children, Child Prostitution and Child Pornography and the Palermo Protocol on Trafficking in Persons. Nigeria has one of the largest populations of child labourers in Africa, reflecting the country's complex socio-economic inequalities and structural development challenges. Research on child labour in Nigeria has primarily focused on socio-economic determinants such as household poverty, parental education, and demographic characteristics. Togunde and Carter (2006), for instance, examined the socio-economic causes of child labour in urban Nigeria and found that household income levels and parental education significantly influence children's labour participation. Their findings suggest that children from poorer households are more likely to engage in labour activities to supplement household income, particularly in informal urban economies. Similarly, Alimi (2010) identified household income, family size, and parental occupation as key determinants of child labour participation in rural Nigeria. The study concluded that economic vulnerability and limited access to educational opportunities often compel households to involve children in labour activities.

3.0 METHODOLOGY

3.1 Data Sources

This study adopts a mixed-methods approach, combining both quantitative and qualitative data analysis. The qualitative approach examined randomly selected participants in the study areas of their thoughts and experiences concerning environmental degradation arising from a major global business network that bonds their daily lifestyle to raising their offsprings' and associated impacts. Also, the quantitative method evaluates the data retrieved in qualitative terms using statistical instruments such as regression

analysis. A combination of both qualitative and quantitative approach provides a thorough exploration and understanding of the study and validating research outcomes. In this study, the population under investigation comprises of strategic communities in the region. These communities were selected due to the oil and gas activities that take place in the environment. The inhabitants of the study areas depend on the natural environment for their socio-economic survival. The communities are also a vital focal point for exploring the impacts of environmental degradation on child labour practices in the designated region. Sampled persons within the study environment are considered very valuable for contributing insights, opinions, and perceptions on how oil and gas induced environmental degradation impacts on child labour practices. The study had purpose to capture a wide range of viewpoints to inform a comprehensive understanding of the subject matter and adopts an inclusive approach that acknowledges the validity of every viewpoint on the issue of child labour from the framework of environmental degradation. This inclusive representation ensures that diverse views of experiences are considered in the study leading to a meaningful outcome.

The study also applies a Sustainable Livelihoods Framework (SLF) integrated with environmental risk analysis in the following dimensions:

- Human capital (education, health)
- Natural capital (land, water quality)
- Financial capital (income sources)
- Social capital (community norms)
- Physical capital (infrastructure)

The qualitative study involved a survey via interviews and discussions with Focus Group drawn from various socio-demographic and socio-economic status. A purposive sampling strategy was used in selecting the contributors in the communities that has knowledge of the subject matter. The participants for the group discussion were not prearranged; but a reiterative process was followed until a data saturation point was reached. Sampled persons within the study environment are considered very valuable for contributing insights, opinions, and perceptions on how oil and gas induced environmental degradation impacts on child labour practices. The study had purpose to capture a wide range of viewpoints to inform a comprehensive understanding of the subject matter and adopts an inclusive approach that acknowledges the validity of every viewpoint on the issue of child labour from the framework of environmental degradation. This inclusive representation ensures that diverse views of experiences are considered in the study leading to a meaningful outcome.

To determine the sample size for the quantitative survey, the Taro Yamene statistics was utilized, to consider the population size and margin of error.

$$n = \frac{N}{1+N(e)2}$$

Where:

n = sample size

N = population size

e = margin of error

We assume a margin of error (e) at 5% or 0.05, which is a common choice for sample size calculations.

Given:

N = 70,203

e = 0.05

$$n=\frac{70,203}{1+70,203\ (0.05)\,2}$$

$$n=\frac{70,203}{1+70,203\ *0.0025}$$

$$n=\frac{70,203}{1+271.025}$$

$$n=\frac{70,203}{176.5075}$$

397.7338073452…

n ≈ 398.

Therefore, the sample size from a population of 70,203 with a margin of error of 5% is 397.73. Since sample sizes must be whole numbers, it will be rounded up to the nearest whole number. Therefore, the sample size for this study is 398. The instruments for data collection in this study includes a self-structured household questionnaire. In addition to the questionnaire, a semi-structured guide was also implemented. Unlike the questionnaire, the interview (formal and informal) and FGD guide consists of entirely open-ended questions. This approach allowed for a more in-depth exploration of participants' perspectives, opinions, and cultural attitudes regarding child labour practices in a region affected by environmental degradation. The structured questionnaire was designed to include both closed-ended and open-ended questions in a Likert scale format. The closed-ended questions focused on specific aspects such as the incidences of child labour and factors contributing to this practice. Meanwhile, the open-ended questions provided participants with an opportunity to elaborate on their thoughts and experiences related to child labour.

From the ethical point, contributors in the study area were extensively informed about the research purpose, objectives, and methodologies involved. They were provided with comprehensive details about their rights as participants, including their right to withdraw from the study at any time without repercussions. To safeguard participants' identities and personal information, stringent measures were implemented to ensure that all data collected during the study remain confidential and are anonymized during analysis. The researcher demonstrated respect for participants' autonomy, cultural beliefs, and viewpoints throughout the research process.

4.0 RESULTS AND DISCUSSION

Table 3.1 shows the empirical overview of child labour in the Niger Delta for age classification 5 – 17 years with the environmental risk classification while Table 3.2 shows the percentage environmental changes and livelihood effects.

Table 3.1: Environmental Risk Classification

Child Labour Activity	**Percentage of Children Engaged**	**Environmental Risk Level**	**Explanation**
Farming	17%	Medium	Exposure to agrochemicals, severe weather, and degraded soils, but generally less toxic than oil-related work.
Fishing	7%	High	Contact with polluted water, oil-contaminated rivers, and risk of drowning.
Informal oil activities	14%	Very High	Exposure to crude oil, toxic fumes, explosions, and heavily polluted environments.
Domestic work	44%	Low	Usually indoors with minimal environmental exposure, though other social risks may exist.
Street trading	3%	Medium	Exposure to air pollution, traffic hazards, and weather conditions.

Note: Percentages overlap due to multiple activity participation

Table 3.2: Environmental Changes and Livelihood Effects

Environmental Issue	**Relative Importance**	**Impact on Livelihoods**	**Consequence for Children**
land/soil degradation	33.3%	Soil infertility	Increased farm labour demand
Surface water pollution	27.7%	Abridged fish population	Entry into hazardous fishing adventure
Air pollution	20.9%	Health hazards	Child exposure to air contaminants

The findings indicate that child labour is a typical issue in the region with majority of respondents indicating the prevalence of child labour. While domestic work had the highest percentage i.e. 44 %, farming followed suit with 17 % engagement. This shows that the common trend of child deprivation in the region arising from external socio-economic and lack of developmental forces engender child labour in the region. Another notable account is the extensive eco-friendly degradation that has impacted the region over the years. The 33.3 % soil degradation (Table 3.2) which hampers the limited land availability for productive agricultural yields is a critical factor. The 27.7 % surface water pollution shows that aside other problems encountered across surface water usage such as transportation means will drive child labour to other engagements such as informal oil activities and street trading. Ecological pollution accompanying with oil production has harshly interrupted the natural source of revenue systems such as fishing and farming, which is the core fundamental basis of communities in the Niger Delta. As the main pattern of living decay, households across different income levels may experience similar economic pressures that compel them to rely on children's labour contributions as part of household survival strategies.

The findings of this study therefore support the argument that child labour in environmentally vulnerable regions may be driven by broader structural conditions rather than by individual household characteristics. Similar patterns have been documented in other regions affected by environmental stress. For example, studies conducted in drought-prone areas of Sub-Saharan Africa have shown that environmental shocks can significantly increase child labour participation as households attempt to compensate for declining agricultural productivity (Dammert et al., 2018). Likewise, research in South Asia has demonstrated that environmental hazards such as flooding and land degradation can disrupt household livelihoods and lead to increased reliance on children's labour contributions (Bandara et al., 2015). The findings therefore suggest that environmental conditions play an important role in shaping the economic behaviour of households in the Niger Delta. By undermining traditional livelihood systems and limiting economic opportunities, environmental degradation may create structural conditions that encourage widespread reliance on child labour. This interpretation is consistent with studies linking environmental vulnerability to broader patterns of social and economic inequality in resource-dependent regions (Barbier and Hochard, 2018).

Integrating environmental factors into child labour research therefore represents an important direction for future scholarship. The relationship between environmental degradation and child labour remains relatively underexplored in the literature, particularly in regions affected by extractive industries. By highlighting the role of environmental livelihood disruption, this study contributes to a growing body of research emphasizing the interconnected relationship between environmental sustainability and social welfare. Effective child labour reduction strategies in the Niger Delta therefore require a more comprehensive approach that integrates environmental restoration, livelihood development, and social protection programs. Restoring degraded ecosystems and improving environmental governance can help revitalize traditional economic activities such as fishing and agriculture, thereby reducing household reliance on child labour. At the same time, programs aimed at diversifying rural livelihoods and improving employment opportunities can help strengthen household economic resilience. Recent studies have also highlighted the persistence of child labour across different socio-economic groups within Nigerian communities. Despite the growing body of literature on child labour in Nigeria, relatively few

studies have examined the role of environmental degradation in shaping child labour dynamics. Given the significant environmental challenges facing certain regions of the country, particularly the Niger Delta, this represents an important gap in the existing literature.

The Niger Delta region of Nigeria provides a unique context for examining the relationship between environmental degradation and child labour. As one of the world's most important oil-producing regions, the Niger Delta has experienced decades of environmental pollution resulting from oil exploration activities. These activities have led to widespread contamination of land and water resources, severely affecting traditional livelihood systems such as fishing and agriculture. Numerous studies have documented the environmental and socio-economic consequences of oil exploitation in the Niger Delta. Adonteng-Kissi (2021) highlights the extensive environmental damage caused by oil spills, gas flaring, and industrial pollution in the region, noting that these environmental impacts have significantly disrupted local ecosystems and rural livelihoods. Similarly, Ordinioha and Brisibe (2013) documented the health and environmental consequences of oil spills in the region, emphasizing the long-term ecological damage inflicted on local communities. The destruction of fishing grounds, farmland, and water resources has undermined traditional economic activities that historically supported rural households in the Niger Delta. These environmental disruptions have also contributed to widespread food insecurity and economic vulnerability in many communities within the region. Babatunde (2023) notes that declining agricultural productivity and reduced fishing yields have forced many households to seek alternative livelihood strategies, often within informal economic sectors characterized by unstable income opportunities. Environmental degradation therefore represents a significant structural factor shaping household livelihood decisions in the Niger Delta. As traditional economic activities become less viable, households may increasingly rely on alternative survival strategies that involve greater participation of children in economic activities. A noticeable aspect of environmental deprivation in the region is oil pollution. Recurrent oil pollution as in spills ensuing from various legal and illegal operational activities such as pipeline deterioration, ruptures from obsolete oil-bearing facilities, and illegal interference have polluted linked farmland and water bodies.

5.0 CONCLUSION

This study examined the influence of environmental induced factors on child labour prevalence in environmentally degraded communities of the Niger Delta. United Nations Environment Programme (UNEP, 2011), disclosed that years of oil pollution in several parts of the region have diminished farming yields and made both surface and groundwater hazardous for general use. Soil adulteration decreases crop harvests, while contaminated waterbodies seriously reduce fish population. The region's main cultural habitation is largely dependent on faming and fishing, therefore, the serious impacts created by spills on these main habitations changes the socio-economic dynamics by engendering financial loss and unavailability of agricultural yields. Another main aspect of environmental degradation in the region is gas flaring. The unceasing combustion of natural gas during the process of oil production discharges gaseous and particulate emissions, especially greenhouse gas into the lower atmosphere. This continuous flaring instigates climate change and other effects on the sensitive environment such as increased heat stress, dry and wet depositions of pollutants such as the black soot that causes respiratory health complications. The composition of acid rain that arises from the dilution and mixing of air pollutants in the atmosphere impacts on crop, enables rust in infrastructures, reduces soil fertility leading to crop loss. As agricultural yields reduce severely in the region, it becomes a survival battle for majority of the locals leading to high poverty and child labour rate. Child labour is predominantly impacted by income susceptibility. When family earnings deteriorate, guardians may count on the contributions of children ability to contribute economically, probably via other laborious and demanding activities such as local trading. This not only exposes the vulnerable to ecological hazards but block access to schooling, thus strengthening family sequences of poverty. The relationship between environmental degradation and child labour highlights the wider societal consequences of social decline. Therefore, environmental deprivation is a foremost instigator of livelihood defenselessness, influencing economic firmness, food availability,

and social comfort. Confronting this problem entails an all-inclusive method that integrates ecological renovation, economic broadening, and institutional transformation. Deprived of such unified plans, the sequence of deprivation and susceptibility will continue, promoting chronic under-development in the region.

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