



RESEARCH ARTICLE

Human security, sustainable livelihoods and development: the case of the Niger Delta region in Nigeria

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This article critically examines the complex connections between human security and livelihoods in relation to development in the Niger Delta of Nigeria. This region is pervaded by a web of socio-economic and environmental issues that have severely impacted the lives of people and communities due to environmental degradation. For example, the exploration and exploitation of natural resources in this region has had extensive consequences on the livelihood activities of the people. Moreover, the Niger Delta has been affected by persistent social instabilities and a lack of access to some of the basic assets of security, including personal, health, economic and environmental security. While the concepts of livelihoods and environmental degradation are reasonably well understood in the context of the Niger Delta, the complex links between them in relation to human security remain unexplored. To examine how environmental degradation impacts livelihoods, this article explores the concept of human security, following a rights-based approach in line with the sustainable livelihood framework. Furthermore, it draws from semi-structured interviews conducted in the region on the lived experiences of community members, such as farmers and fishers, and their challenges in bridging generational crises in the context of environmental degradation. I argue that understanding the interconnectedness of security and livelihood issues in the context of such crises provides an innovative approach to considering both environmental and social factors in sustainable development, which is essential for the overall well-being of people in the region.

Keywords sustainable livelihoods • human security • development • environmental degradation • Niger Delta

Key messages

- Environmental degradation and socio-economic challenges pervade the Niger Delta because of exploration and exploitation of natural resources; in particular, gas flaring and oil spillages have severely impacted the livelihood activities of community members such as farmers and fishers.

- The article draws from lived experiences of community members in the Niger Delta of Nigeria to explore the implications of oil pollution on their sources of livelihoods, bringing together the interrelationship between environmental degradation, livelihoods, and human security.
- The article argues that understanding the interconnectedness of human security and livelihoods in the context of development provides an innovative approach to achieve sustainability in the socioeconomic activities of community members in the region and beyond.

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Introduction

The human security concept brings together the elements of human rights and development in a new approach to security. In accordance with a more inclusive approach to security for the support of human life and dignity, the United Nations Development Programme (UNDP, 1994) put forward seven pivotal areas that require more attention, such as health, economic, food, community, personal, political and environmental security. Environmental security as an aspect of human security explores security by looking at the risks posed by environmental change. Environmental degradation is a widely known problem in the Niger Delta. However, unfortunately, it has not received much attention from the government, and oil companies that exploit natural resources give little or no attention to the environment or people.

It is important to note that in the Niger Delta, people are dependent on their natural environment as the traditional source of livelihood through agricultural activities like farming and fishing. However, issues of environmental pollution have become a significant threat to their means of survival. This has become a human security concern, as community members in the Niger Delta are vulnerable to the impacts of extractive-led development like exploration and exploitation activities in their community. According to Mbiba (2022), the primary effects of development are on people's lives, livelihoods and human security. In response, the sustainable livelihood framework (SLF) and the rights-based human security concept are concentrated on human development.

As mentioned earlier, the rights-based approach places value on defending people's lives, rights and capacity for a dignified existence. The SLF is focused on ensuring that people and communities have the means, possibilities and capacities to improve their quality of life and sustain their subsistence over the long run, all while protecting the environment and meeting the requirements of coming generations. The significance of upholding and implementing human security in development initiatives is emphasised by incorporating a rights-based perspective into these frameworks.

This article uses the SLF to critically examine the complex connections between environmental degradation and livelihoods in relation to development in the Niger Delta of Nigeria. Using the Niger Delta as a case study, this article draws from both

existing studies and primary data collection through semi-structured interviews to analyse the linkages between environmental degradation and livelihoods. This aims to improve the understanding of how the concept of human security can be brought into dialogue with the SLF in the context of development.

The article examines the impact of oil spillages through the lived experiences of community members in the region, focusing on their sources of water and the impacts of environmental degradation on their ways of life, as communities depend on both land and waterways for the sources of their livelihoods in the Niger Delta. The article further addresses the issues of vulnerabilities and argues that human security and access to livelihoods should be included in development discourses. Lack of access to a source of living poses a challenge to sustainable development, and human security is therefore crucial to the achievement of development in sustainable ways. The article begins by revising key literature in this field and bringing together the concept of human security with the SLF before going on to apply these ideas to the case study context of the Niger Delta in Nigeria.

Background

This section discusses the development of the human security concept, focusing on environmental concerns and the risk these concerns pose to livelihood activities. Additionally, this section explores rural livelihoods using the SLF.

Human security and environmental degradation: an overview

Right from the 1990s, there has been an increasing interest in the study of non-traditional security, particularly in light of the emerging challenges brought on by various factors, including the consequences of globalisation (Coliandris, 2016). In East Asia, issues related to environmental degradation, infectious disease outbreaks, illegal migration and several types of transnational crime, among others, have been increasingly perceived as threats to the security of states, societies and the international community at large (Swanstrom, 2010). These non-military concerns are now classified as non-traditional security threats or issues in security studies. The label attached to these security threats has been a notable development. It is notable because there is a growing tendency by several actors – governments, policy communities and civil society – to classify and treat an increasing list of both national and transnational issues as security concerns (Buzan et al, 2018).

The changes in the security landscape that followed the emergence of societal and environmental issues that threatened the security of states and societies after the end of the Cold War have led policymakers to examine the basis of the meaning of security (Caballero-Anthony, 2016). For almost two decades since international relations scholars began to rethink what security meant, no consensus has been reached. Nevertheless, some elements have gained solid footing within the contested security space. Among these is non-traditional security (Martel, 2016).

In this context, the concept of human security brings together the elements of security, rights and development (Tadjbakhsh and Chenoy, 2009). In accordance with a more inclusive approach to security, the UNDP (1994) proposed seven crucial areas that needed more sustained attention. These areas are non-traditional security issues, which include economic, health, food, environmental, community, personal

and political security, as well as later encompassing human dignity as a critical value that needs to be defended (Foreign Policy Bulletin, 1994; Collins, 2016).

Ofori et al (2020) and Soeya (2005) argue that there are excessive damaging effects of degradation that are already destroying the lives/livelihoods of individuals and communities worldwide, adding that insecurity is the risk or fear of losing something that is of value. For instance, people who have jobs are concerned about the risk of unemployment; families who value having enough food are concerned about food security. Thus, security can be applied to many different things that are valued, such as jobs, health or organisations, and refer to various kinds of risks, such as unemployment, food insecurity and political instability (Swatuk, 2004).

The 1994 United Nations (UN) *Human Development Report* (UNDP, 1994) presented a comprehensive conceptualisation of human security, illustrating the aim, scope and purpose of the concept. Instead of only just conceiving security as the protection of the state, the 1994 *Human Development Report*, demanded the inclusion of socio-economic variables, without, however, disregarding the continued importance of traditional security. According to the report, the world can never be at peace unless people have security in their lives (UNDP, 1994: 46). Also, it is worth noting that human security has a rights-based angle that can be used to achieve social justice and support for people's dignity (Foreign Policy Bulletin, 1994). The 1994 *Human Development Report* is clear that security is human-centred, which means that it is inextricably linked to human development. Human security covers seven aspects: personal, economic, food, health, community, political and environmental security. These categories of human security are connected because one category cannot be addressed in isolation from other categories. There are four major features of human security detailed in the 1994 *Human Development Report*: first, human security is universal, that is, it is centred on principles that have transcultural, trans-systemic value and worldwide applicability; second, the different components of human security are interdependent; third, the focal point should be on freedom from fear and want; and, fourth, human security should be human-centred, meaning that human beings should become the referent object of security (Collins, 2016).

The purpose of human security is to protect the vital core of all human lives in ways that promote human freedoms and fulfil the aspirations of all individuals. Human security is defined as protecting human life from crucial and pervasive risks and conditions while also developing its strengths and aspirational characteristics (Schilling et al, 2021). It also entails putting in place systems that provide individuals with the fundamentals of survival, such as dignity and a means of earning a living. In human security, protection and empowerment are the two primary courses of action that are proposed by the Commission of Human Security to achieve the goals of freedom from fear, want and indignity, which are the three types of freedom incorporated in human security (UNDP, 1994).

According to the UNDP (1994), human security is based on respect and dignity for individuals. This means that all actors, whether institutional, corporate or individual, must ensure that their actions do not threaten human security. For instance, individuals who are lacking in environmental security are most likely to lack food security. Furthermore, food security is best considered as food sovereignty, which focuses on healthy food produced by the people to respond appropriately to the needs of the people (Siloko, 2023). To this, human security stresses the interconnection of threats and reactions to threats in two ways.

First, it emphasises the interconnectedness of threats and their respective responses. The interconnectedness of the threats is clear, for example, environmental degradation can result in deprivation, which may in turn cause poverty. [Bassey \(2023: 109\)](#) states that the United Nations Environment Programme's (UNEP's) assessment of the Ogoni environment in Nigeria reveals high levels of ecosystem destruction for over five decades due to the exploitation of natural resources. This resonates with experiences shared by community members, government officials, traditional rulers, non-governmental organisations (NGOs), farmers and fishers involved in this research in the Niger Delta, who emphasised how environmental degradation is negatively impacting the livelihood activities of people and posing critical threats to their human security.

The second principle of human security is comprehensiveness; this suggests an all-encompassing approach that highlights the need for cooperation and multi-sectoral solutions that bring together agendas on security, development and human rights, among others. Lastly, human security is prevention-oriented. By identifying and addressing the dangers and core causes of vulnerabilities, human security aspires to prevent insecurity by implementing strategies of empowerment and protection ([Oscar and Gomez, 2012](#)). To this, [Ferris and Weerasinghe \(2020\)](#) point out that the developmental aspect of human security focuses on insecurities related to poverty, health, education, gender disparities and other types of inequality. Thus, the concept of human security, in its various forms, has opened academic thinking to attend to such development issues as poverty, food insecurity and environmental degradation in interconnected ways.

In particular, researchers and policymakers have come to see environmental degradation as a security risk ([Schnurr and Swatuk, 2012](#)). Environmental security is part of the non-traditional security concerns that have deepened and broadened the concept of security. Environmental security deepens security, as it considers not only the security of states but also the security of the environment and its various subsystems, as well as the risks posed by an environmental change to the people themselves. This view emphasises a growing concern about the linkages between environmental change and development issues like human security and poverty ([Jensen and Lonergan, 2012](#)). As a result, there has been an increasing concern among academics and policymakers that the issues of security and development should be tackled together to attain sustainable development ([Duffield, 2001](#)). [Duffield \(2001\)](#) further suggests a more consolidated approach that recognises the connections between security and development in addressing modern-day issues.

Simultaneously, in bringing together development with security, human security has been critiqued for being ambiguous and having a broad definition. [Duffield \(2007\)](#) criticised the idea of human security because it places too much emphasis on the rights and well-being of the individual instead of the systemic problems, such as environmental degradation, poverty and inequalities, that lead to insecurity. Also, rather than genuinely addressing the interconnected and compounded problems that people around the world are confronted with, he argues that human security has been appropriated by Western powers to further their geopolitical goals. Nonetheless, [Duffield](#) suggested a different strategy for addressing systemic causes of insecurity, such as a more comprehensive and holistic approach to security that acknowledges the interconnectedness of several challenges and menaces. [Duffield](#) opined that the strategy would entail a shift from the traditional approach to security to a more centred

people's approach that puts the wants and interests of communities and individuals first and promotes social justice and inclusion.

Duffield (2001) further claims that neoliberalism has a connection to human security. Due to its political and economic philosophy, which supports deregulation, privatisation and free markets, he makes the case that neoliberal policies have made it harder for the government to defend its population and deliver essential services, making them more susceptible to different types of insecurity. Duffield argues for more democratic engagement, the advancement of social fairness and the redistribution of power and wealth. In his opinion, such a strategy would be more successful in tackling the intricate and interrelated problems that people are confronted with worldwide.

Hence, environmental security as an aspect of human security has now become an essential concept in security debates. It is increasingly evident that environmental change poses key risks to human security by undermining access to necessary environmental assets, such as productive soils, clean water and food (Matthew et al, 2009). This includes the impact of pollution on the traditional livelihood activities of fishing and farming, which are of particular relevance in the context of the Niger Delta.

Livelihood impacts and the SLF in the development context

Understanding rural livelihood strategies and dependence on environmental resources can help reduce and prevent livelihood stresses caused by the degradation of environmental resources, as environmental resources contribute significantly to rural household incomes (Nguyen et al, 2015). A comprehensive understanding of the different livelihood activities that rural households undertake in developing countries is pivotal in providing helpful information for development interventions (Ameha et al, 2014).

In most developing countries, agricultural livelihoods play an essential role in the rural economy (Mpandeli and Maponya, 2014). However, it is clear that environmental crises negatively affect livelihood activities in agriculture, particularly farming and fishing. For example, crop yields in polluted areas are reportedly lower than those in non-polluted areas (Apata, 2010). Furthermore, according to Elum et al (2016), oil companies operating in developing countries have been accused of environmental degradation and pollution by their host communities, resulting in contaminated rivers, forest destruction and biodiversity loss.

Furthermore, environmental destruction affects the livelihoods of local and indigenous communities who depend on the ecosystem for survival, leading to increased poverty and displacement (Ayuba, 2012). There is, therefore, an increasing need to understand how and to what extent environmental degradation caused by extractivist activities threatens human livelihoods in some cases but creates opportunities for others, how societies cope and adapt to these environmental changes, and how public policy could reduce threats and improve human security (Richard et al, 2010). Within this complex and dynamic environment, individuals and communities negotiate their lives, livelihoods and overall well-being. Therefore, it is essential to assess human vulnerability to environmental changes (Mike et al, 2010). However, it is no longer enough to focus solely on identifying human vulnerabilities. As mentioned earlier, it is also important to consider opportunities and strategies to progress from a situation of vulnerability to one of human security.

To understand and examine the livelihoods of people experiencing poverty, the SLF is people-centred and explores rural development, placing emphasis on people's freedom of livelihood choice. In addition, the SLF is a holistic framework that examines the complex livelihoods of rural communities (Kunjuraman, 2022). The SLF understands that poor people operate in vulnerable circumstances (Elizondo, 2017). Within these circumstances, they have assets like natural resources that facilitate access to poverty alleviation. However, there is also a broader political system and decision-making process about resource extraction that exacerbates vulnerability and produces marginalisation (Serrat, 2017). To add to this, livelihoods are made up of material and social resources, skills, and assets that individuals and communities will use for a source of livelihood (Elizondo, 2017). A person or household may be able to obtain a sustainable livelihood in several ways, such as rights to graze, fish, own livestock and have stable employment (Bohle, 2007).

The SLF is rooted in discourses of rights, equity, security, capabilities and sustainability, with a rights-based strategy to development founded on the need to promote and protect human rights – rights recognised by the global community in ways that are protected by international legal mechanisms. It comprises economic, social, civic, cultural and political rights, which are interdependent. The rights-based approach to livelihoods includes discourses of empowerment and participation without any form of discrimination. These form the central building blocks of the concept of livelihoods (Debnath, 2019).

A rights-based approach involves placing focus on the most vulnerable and understanding the sources of vulnerability to improve the situation. The rights-based SLF emphasises the circumstances for the development of livelihood strategies, as well as the livelihood outcomes that follow. The SLF human-rights-based approach brings in more comprehensive political-economy discussions and accountability structures to provide a more complex understanding of rural livelihoods (Nkobou et al, 2021). Simultaneously, it presents an understanding of human security from the aspect of empowerment, dignity and rights, as well as the human security aim of freedom from fear and want (UNDP, 1994).

The SLF has evolved from shifts in perspectives on poverty, participation and sustainable development (Biggs et al, 2015), and in 1987, the Brundtland Commission made reference to resource ownership, basic needs and rural livelihood security (Brundtland, 1987). The 1992 UN Conference on Environment and Development linked sustainable livelihoods to socio-economic and environmental concerns. Both instances were important for moving international concern regarding environmental problems towards a focus on people and their livelihood activities and placing these concerns within a policy framework for sustainable development (Biggs et al, 2015).

According to the Brundtland Report (Brundtland, 1987: 41), sustainable development is 'the development that meets the needs of the present generation without compromising the ability of future generation to meet their own needs'. Therefore, right from the inception of the Brundtland Report in 1987, serious thoughts have been given to development. 'Sustainable development' is the expression used to bridge the gap between environment and development. Furthermore, it is often referred to as constituted by three basic aspects: environment, economy and society. In its approach to development, the Sustainable Development Goals (SDGs) are genuinely transformative in several ways and represent a long-overdue conceptual change. These goals are set out to deal with major societal issues, such as an end to

poverty and access to clean water. According to [Crabtree and Gasper \(2020\)](#), the SDGs may be tailored towards a human security perspective. Additionally, historically, the idea of sustainable development emerged because of environmental concerns, which were addressed in *Our Common Future* ([Brundtland, 1987](#)), and places a focus on environmental protection ([Hak et al, 2016](#)). In the remaining sections of this article, bringing together the theoretical concept of human security and the SLF will further facilitate the understanding of livelihood issues in the Niger Delta in the development context.

Methodological approach

Taking into account the literature reviewed earlier, this article uses the Niger Delta region as a case study to unpack the complexities of the livelihoods of people in relation to environmental degradation and its impact on human security. As a starting point, I draw upon secondary data from academic and policy sources to analyse relevant information, exploring how a lack of access to livelihood activities is impacting on development and how it relates to human security.

To gain an in-depth understanding of the livelihood crisis in the Niger Delta, I conducted semi-structured interviews with community members in the Niger Delta region about their lived experiences and the challenges they face in the context of environmental degradation. Participants were sampled mainly according to their affiliation, such as government officials, NGO workers, farmers and fishers, in order to gain a comprehensive understanding of environmental degradation and livelihood issues. Data collection took place between May and July 2022 and involved a total of 45 semi-structured interviews in selected communities in the Rivers and Bayelsa States in the Niger Delta region. Data emerging from the interviews provided first-hand understanding from the perspectives of affected communities about how they cope with the impact of environmental degradation on their livelihoods. These two states were selected because they experience the highest occurrence of oil spillages in the country.

The qualitative data were coded with the use of NVivo software. For the purposes of this article, I particularly draw on data focused on the degradation of the environment, crude oil pollution of land and water, the loss of livelihoods, human rights abuses, and social consequences in order to understand the relationship between environmental degradation and livelihoods in the context of the Niger Delta.

Niger Delta region: the context

The Niger Delta is Nigeria's oil-rich region, which is located in the South-South geopolitical zone of Nigeria. The Niger Delta covers about 70,000 km² and makes up 7.5 per cent of Nigeria's land mass ([Frances et al, 2011](#)). The region comprises nine states – Abia, Akwa Ibom, Bayelsa, Cross Rivers, Delta, Edo, Imo, Ondo and Rivers State – and it flows into the Gulf of Guinea. The region is one of the most important wetland and coastal marine ecosystems in Nigeria; it is also home to about 31 million people and produces important natural resources ([Ite et al, 2013](#)). Oil was discovered in Nigeria in 1956 at Oloibiri in Bayelsa State. In 1958, Nigeria joined the ranks of oil producers when its first oilfield came on stream, producing about 5,100 barrels per day ([Oloruntegbe et al, 2009](#)). The Niger Delta area is

undoubtedly important and significant in almost all debates in Nigeria and the Gulf of Guinea. Over recent decades, the region has been the focus of debates considering the various governance and security challenges bedevilling the region (Tantua et al, 2018). These debates mainly concern the control of the natural resource deposits in the region and the manner in which they are exploited, being the backbone of the Nigerian economy while at the same time dramatically impacting local livelihoods (Enyoghasim et al, 2019).

The manner of exploitation and utilisation of the natural resources has caused instabilities in the Niger Delta region and Nigeria at large (Ezirim, 2010). Previous studies on the Niger Delta area (Collins, 2018; Tobi-Aiyemo, 2019; Babatunde, 2020; Ezuma and Sunday, 2021) have investigated the dynamics of the problems of oil exploration and exploitation and how oil-bearing communities have been protesting over the negative impact of oil exploration, corruption and the failure of the wealth from oil production to result in better living conditions for the people of the Niger Delta (Aduloju and Okwechime, 2016). In the region, there are environmental degradation issues combined with unfulfilled promises of redress from the Nigerian government and multinational oil companies; consequently, activism within the Niger Delta people has emerged, acquiring a violent dimension. The Nigerian experience displays a limited commitment to environmental fairness and sustainable development, specifically within the Niger Delta area, where the existence of oil and gas appears to be more of a curse than a blessing to the people (Chenchouni et al, 2022). Militancy is a response to the Nigerian government's impunity, human rights violations, perceived neglect of the region (David and Lanre, 2010) and collaboration with multinational companies (Aduloju and Okwechimem, 2016). That is the major reason why militants in the Niger Delta area are not only confronting the Nigerian government but also battling over the extension of global capitalism represented in the region by multinational corporations (Ojakorotu and Gilbert, 2010). To this end, most studies have recommended that the rights of the people to their resources should not be sacrificed, particularly in a situation where it threatens people's livelihoods (Martins et al, 2015; Elum et al, 2016).

This problem has engendered conflicts, as in the case of the Ijaws and Ogonis, who have been in ceaseless conflict with the multinational oil companies, such as Shell and Eni, operating in their communities. Oil as a natural resource endowment in the Niger Delta region should be a blessing for the people; however, due to its negative impacts and perceived negligence from regulators, oil has come to be a curse to the region since its first discovery (Okpebenyo et al, 2023).

The Niger Delta region is home to different ethnicities, such as Ijaws, Urhobos and Ogonis; agriculture accounts for economic activities in this region, with farming and fishing constituting 90 per cent of economic occupations (Prince, 2018). Therefore, the people from the region depend generally on their natural environment of soil, forests and rivers for their livelihoods (Ebegbulem et al, 2013). Overall, the region is suffering from destructive oil pollution, though the consequences of oil spillages depend on such factors as geographical location or the size of the spillage. The socio-economic and environmental costs of producing oil can be extensive, including the loss of biodiversity, water and air pollution, the destruction of wildlife, damage to the ecosystem and the degradation of farmland and aquatic life (Elum et al, 2016).

Environmental degradation relating to oil pollution, which is the most referenced form of degradation in the Niger Delta region, has had consequences for the region.

According to [Inyang \(2018\)](#), the region suffers from neglect, disintegrated social infrastructure, high unemployment, poverty, conflict and social deprivation. This situation, which is a continuing problem, has impacted the living conditions of people who are dependent on the environment for their subsistence, including farming, fishing and potable water supply ([Nwaichi and Osuoha, 2021](#)).

Oil spillages, which take place on both land and water, are a threat to livelihoods. [Akpan \(2012\)](#) pointed out that oil could penetrate the soil up to a depth of 0.65 m in the worst affected area of spillage. Spillage of oil on land destroys crops and causes damage to the quality and productivity of the soil that communities use for farming. On water, it destroys fisheries and pollutes water that is used for drinking and other domestic usage, which, in turn, reduces any improvement in the livelihood activities of people in the region ([Ikenna et al, 2016](#)).

Environmental degradation causes severe damage to host communities, as germination, growth process and crop yields are stifled by oil spills ([Uzoma and Mgbemena, 2015](#)). To buttress this, [Ahmadu and Egbodion \(2013\)](#) show that cassava farm size and land productivity in communities affected by oil spillages were notably lower than in non-oil-spillage communities. With an increase in the loss of soil fertility as a result of the destruction of soil microorganisms and diminishing productivity in agriculture, farmers have been forced to abandon their farmland ([Osuke and Emeka-Okpara, 2014](#)). Also, fishers in contaminated fishing areas experience low fish harvests and income. According to [Gbigbi \(2013\)](#), fishers in environmentally degraded areas incurred excessive costs of production and low harvests of fish, presumably due to oil exploration and exploitation activities causing lower profit. These circumstances continue to increase the hopelessness of the people; [Ikenna et al \(2016\)](#) cited unproductive soil because of environmental degradation as eradicating the people's interest in farming and fishing. It is undisputed that all forms of environmental degradation have adverse effects on living and sources of livelihood. A small oil leak, for example, has the ability to wipe out a family's food supply and income for a year; the repercussions of such livelihood loss range from no education for children because their parents cannot afford to pay school fees to abject poverty ([Ogbija et al, 2015](#)).

In addition, communities in the region also experience losses in crop yields as a result of gas flaring. Several studies have attempted to establish the consequences of oil exploration activities on agricultural productivity in the Niger Delta area ([Numbere, 2018](#); [Onuoha et al, 2018](#); [Gimah, 2019](#); [Okoyen et al, 2020](#); [Ukhurebor et al, 2021](#); [Numbere et al, 2023](#)). In a study of the effect of gas flaring on the growth and yield of maize on farmlands situated close to the point of flaring, it was revealed that the average percentage of plant survival and grain yields decreased significantly in all the samples situated close to the point of flaring, and farmlands located within 200 m to the gas-flaring point could not yield any produce ([Seiyaboh and Izah, 2017](#)).

According to [Ikenna et al \(2016\)](#), Nigeria flared a total of 313,553,980 mscf (thousand standard cubic feet). This has resulted in the devastation of the environment. Acid rain, which is caused by gas flaring, increases soil acidity, which leads to poor crop yields ([Simon et al, 2014](#)). [Ikenna et al \(2016\)](#) show that farmers experience a total loss in crop yield when cultivated within a range of 100 m from a flaring location, a 45 per cent loss 600 m from a flaring location and a 10 per cent loss 1 km away from a gas-flaring site. Thus, most communities close to oil

production areas in the Niger Delta have suffered from the destruction of substantial portions of their fertile farmlands. The following section will explore these issues by bringing together the lived experiences of community members to display how environmental degradation, livelihoods and human security are interrelated in development contexts.

Connecting environmental degradation, livelihoods and development: human security and sustainable livelihood approaches

In this section, I will present and analyse how environmental degradation is impacting livelihood activities in the Niger Delta in the context of development by bringing together the concept of human security and the SLF. I argue that there is a strong connection between environmental degradation, livelihoods and human security in the Niger Delta region, and I explore the implications of this for thinking about development. I begin by exploring how environmental degradation was experienced by participants in this research, before going on to explore impacts on livelihoods and the implications of these for human security and development.

'We are all flooded with crude oil': environmental degradation

As explained earlier, environmental degradation due to the exploration and exploitation of natural resources by multinational companies is impacting livelihood activities in the Niger Delta region in multiple ways. From the perspective of a government official, the impacts of the ecosystem destruction are multifaceted:

Today, the state government is grappling with issues of environmental pollution, bush burning, pollution of the waterways; we are grappling with issues of pipeline vandalism, where raw crude is littered on the environment, thereby the ecosystem is destroyed, burned, incarcerated. The earth inhales this crude, and the biomatter is gone, crop yield is lost, fish production is lost. (Interview 26, government official, male)

The scale of the damage highlighted by this interviewee suggests that community members in the Niger Delta have had their sources of living extremely affected by pollution, and their primary means of survival – farming and fishing – have been contaminated and lost because of oil spillages. This has led to the loss of their economic security. Therefore, their abilities to meet their basic needs have been impacted by the loss of livelihoods.

I explore this in relation to arguments made by [Elum et al \(2016\)](#) that oil companies operating in the region have been accused of environmental degradation and pollution by their host communities, which has led to contaminated rivers, loss of biodiversity and forest destruction. It appears that the exploration of natural resources by multinational companies is responsible for the degradation of the environment. According to an experience shared by a representative from an NGO working in the region: 'I have seen several spill sites. So, from these spills, spills occur in the Niger Delta almost every day. A spill incident that occurred in a community in Abua Odua local government area of Rivers State ... spread to a community [in] Bayelsa State called Oruma'

(Interview 34, NGO worker, male). This suggests that the Niger Delta has experienced different forms of environmental pollution, and the interviewee highlights how the spill has spread between different states in Nigeria. This also means that there is an intensified impact on the spaces or ecosystems once deemed safe in the Niger Delta. It is necessary to point out that the presence of natural resources like oil and gas was supposed to serve as a socio-economic wheel to speed up development; nevertheless, the circumstances of the oil-producing region, which is the Niger Delta, is a far cry from what was anticipated. Nowadays, and despite its rich natural resources, the Niger Delta environment is faced with several challenges as a result of pollution, loss of habitat and damage to fishing and farming methods (Elisha and Felix, 2021).

Likewise, this was also indicated by a government official in an interview. Pollution happens daily in the Niger Delta, and this is causing an obstacle to development in this area, increasing the frequency of oil spillage occurrences: 'Oil issues are inevitable matters. Why? Because [they are] daily activities; every day, we normally witness two or three incidences within the state, most especially in the Southern Ijaw' (Interview 25, governmental official, male). This refers to the fact that people in Niger Delta depend on the ecosystem and services they offer to be able to conduct their businesses and sustain their livelihoods. To this, comprehending the compound interrelation and interdependence of the three aspects needs some effort, and the effort must be continuous, as it is essential for development. This relates to the lived experiences of several NGO staff interviewed in this research, with the following example vividly illustrating this argument: 'Crude oil was oozing out from the ground from different angles and then spreading within the environment, in particular, cassava farm, young cassava farm and matured cassava farm. We are all flooded with crude oil' (Interview 35, NGO worker, male).

Crude oil spillage has contaminated the soil, and these spillages spread through the land that people are dependent upon for their survival. Farmlands are chiefly flooded with spillages, and this, in turn, has led to loss of food production. These environmental changes are the major cause of socio-economic issues. Community members become more vulnerable due to poverty. To address concerns associated with rural livelihoods, the next section critically analyses the impacts and loss of livelihood experiences from community members in the Niger Delta.

'I went to the farm to go and uproot somethings, but nothing came out': environmental degradation impacts on livelihood activities

Exploration and exploitation activities are severely impacting agricultural production in the Niger Delta, as there is a significant decline in agricultural activities due to oil pollution damaging farmland and contaminating aquatic life. As argued by Mpandeli and Maponya (2014), agriculture plays a vital role in rural economies. In this sense, livelihood activities are negatively affected by environmental challenges. To show how environmental damage is negatively affecting farmers and fishers, including through the loss of access to their farming and fishing activities, the lived experiences of community members present key issues in this analysis:

I have noticed some changes in the last ten years. I do not kill fish like I use to do before now. I used to also produce well in my farming, but now I do not produce much again. Crude oil is worrying us and affecting my fishing

and farming activities. My village is close to a pipeline. We do not even have drinking water because we drink from the river. (Interview 20, community member, male, farming and fishing)

Residents of the Niger Delta are facing both mental and socio-economic challenges because of the significant impact of crude oil spillages on their farming and fishing activities. Also, people who live close to pipelines do not have access to clean water. This poses threats to their overall well-being. The Niger Delta, with its abundant ecological diversity, requires a comprehensive restoration approach, as extractivism is closely linked to ecosystem damage and the denial of the right to water, food, human dignity and a safe environment. According to [Richard et al \(2010\)](#), understanding human vulnerability to environmental problems in the context of natural disasters, hazards, famines and, even more recently, climate change can consequently inform attempts to conceive of and promote human security. As discussed in the literature review, the livelihood concept is intricately connected to the concept of human security when it comes to the ability to overcome vulnerability and respond positively to environmental change.

Also, sustainable development is all about making progress and finding a balance between protecting the environment, promoting social well-being and advancing the economy in a way that does not compromise the resources of future generations; there is a general agreement that development will lead to positive change shown in relation to the growing ability of people to have power over material assets and resources and to secure the necessities of life, such as education, peace, economic freedom and sustainable development. However, this is not the case for the people of the Niger Delta. It is clearly understood from the data that farmers and fishers have not been as productive as they used to be for over a decade now because oil spillages are impacting their farmlands and waterways. The challenges for the Niger Delta in achieving sustainability are related to the levels of environmental degradation, which, if not checked properly and promptly, is capable of compromising social well-being, economic development and environmental equity.

From the data shown earlier, we see how oil spillages become a threat to human livelihoods, as they affect the people of the Niger Delta who depend on the ecosystem for their survival, leading to human vulnerabilities and a lack of environmental security. This is also evident from the following fisherman's experience:

Everything was OK until this oil spillage happened, which destroyed a lot of things for the work we are doing. My farm is close to the river, and as the oil affected the river, it also affected my farm. I went to the farm to go and uproot somethings, but nothing came out. (Interview, community member, male, farming and fishing)

Community members are facing various forms of vulnerability, as environmental changes are affecting their livelihood activities. There is a challenge of having a life of dignity without farming or fishing, which is the backbone of their sustenance. Currently, sustainable development in the Niger Delta suggests the type of development that poses a challenge to the ability of future generations to meet their own needs because of the measure of restrictions on access to sources of livelihood. Thus, poverty in the Niger Delta region plays a part in unsustainable development because the degradation of the environment is pervasive in this region. Unfortunately, to date, Nigerian legislation has struggled to prevent environmental degradation because lawmakers advocate for

short-term economic gain through support for oil and gas companies instead of long-term environmental protection (Adesina et al, 2020). As such, the sustainable management of the environment in the Niger Delta is yet to be achieved (Omobola, 2013).

The negative impact of oil exploration and exploitation activities on the environment in the Niger Delta is clear. According to Bassey (2020), the ecosystem is degraded by a high degree of toxic contaminants in waterways and on land, with about 600,000 barrels of water produced by daily oil production activities being disposed of in the Niger Delta environment. Concurrently, Antia et al (2022) argue that dumping fluids from oil and gas activities contaminates both aquatic and terrestrial environments and, as a result, both destroys living organisms and pollutes groundwater. Thus, it is clear from the data shown earlier that environmental degradation, such as from crude oil spillages, is negatively impacting the agricultural activities of community members in the Niger Delta region of Nigeria.

'When you pollute the environment, you have already denied us of that right': human security and development

As discussed so far, environmental security has become an essential concept in security debates because of the increasing acknowledgement that environmental changes pose risks to ecosystems and human well-being. It is evident that environmental changes pose real risks to human security by undermining access to necessary environmental assets, such as productive soils, clean water and food (Matthew et al, 2009). As a result of the rise in environmental challenges, environmental security has become an essential concern of human security and development studies. Also, there have been perceived human rights violations from those oil spillages, as people have been impacted by pollution in the Niger Delta. During my fieldwork, a traditional ruler, activists and community members shared their various experiences as follows:

Already, because we are entitled, according to Article 24 of the African Charter on Human and People's Rights, were entitled to an environment that is favourable to our development. So, already, when you pollute the environment, you have already denied us of that right. And it is a violation of our right to survival ... in terms of gas flaring. (Interview 1, traditional ruler, male)

Yes, if I go to farm, and I could not use my farm to get the kind of products that I need, my right is violated; my right to live is ... violated. If I go to the river, and I want to get water to drink, which is for free, and I could not do that, so I have to look for money to buy pure water, my right is violated. OK, and then if something happens in my land, a spill happens, and I am trying to go and find out what really happened, and you do not allow me to go, you bring army, you flogged me up, my right is violated. (Interview 34, NGO worker, male)

I want ... the government to help us because we are suffering. Because anything this oil is on, the river, we do not kill fish, and even our farming, we do not yield much. So, the government should help us, so that we can continue with our farming and fishing activities. (Interview 8, community member, female, farming and fishing)

I would like to say that government should try and come to help us because if it is like this, then there is no way for us. It is not good that our children cannot go to school again; it is bad. It would be good for government to be in support because we are all tired of suffering. Our children do not deserve this. If government does not do anything, then when tomorrow comes, it will just be the same thing, even worse. (Interview 14, community member, male, fishing)

These quotes show the connection between environmental degradation, livelihoods and human security. From the interview data, I argue: environmental degradation because of oil spillages is critically impacting sources of livelihood; people in the Niger Delta are dependent on their environment for livelihood activities; and these impacts have led to human security concerns. The salience of the issues discussed by the participants in the interview data cannot be understood as solely related to human security, as they are also inextricably linked to other development-related issues. In development, human security is already related to the concept of people's centredness or sustainability. The emergence of sustainable development brings with it the notion of community development, of which the environment is also a bridging concept. [Duffield \(2007\)](#), for example, in his work on security, posited that development processes need to consider the potential for creating a balance between the interests and opportunities of various groups in communities. Human security prioritises people over states because people's security is threatened by continuous crises in precarious lives.

Human security is all about protecting and securing people. As observed from the interview data, people in the Niger Delta have been denied their human rights due to the negative impact on the environment of oil spillages and the failure of the government to address the issue. They do not have access to their farmlands and clean water. Moreover, even those that still have access do not produce much because crude oil kills the fish and lowers farming yields. Also, people cannot freely speak up because both the oil companies and the government sometimes threaten them with the military. This situation has resulted in the hopelessness of community members. However, they are calling on the government to develop political and social-cultural structures to address the problems of environmental impacts on their livelihood sources because most farmers and fishers can no longer take care of their children or send them to school, as they cannot afford it. As such, this has become a human security and development concern.

Conclusion

Environmental degradation is impacting sustainable livelihoods and development in the Niger Delta region of Nigeria. According to [Schnurr and Swatuk \(2012\)](#), environmental degradation has been seen as a security risk, and [Jensen and Lonergan \(2012\)](#) opined that there has been a growing concern about the linkages between environmental change and development issues, such as human security and poverty. According to the World Commission on Environment and Development ([Brundtland, 1987: 15](#)): 'Already in Latin America, Asia, the Middle East, and Africa, the environmental decline is becoming a source of political unrest and international tension. The recent destruction of much of Africa's dryland agricultural production was more severe than if an invading army had pursued a scorched-earth policy.'

Due to the impacts of environmental degradation on livelihood activities caused by environmental changes in the Niger Delta, it is necessary to revisit approaches to livelihoods in development thinking, taking into account issues of politics and power, with a focus on policy and institutional processes. To buttress this argument, [Sneyd \(2016\)](#), drawing from Scoones' analysis of the SLF, argues that it is no longer possible for development experts to hide behind poor models and blind spots. Instead, questions, frameworks and methods in development must align with the sustainable livelihoods of the most vulnerable and hold accountable political institutions and processes of decision making that hinder the aspirations of the impoverished in order for development to begin to take place. This is especially visible in rural areas due to the lack of environmental security as a result of changes in the environment, as discussed earlier in line with a rights-based approach.

Applying the theory of human security in the case of the Niger Delta is a critical idea within a holistic approach to studying the issues that threaten human beings' survival, daily life and dignity, as well as strengthening the efforts to confront these threats. This focus reflects the belief that human beings should lead lives without having their survival threatened or their dignity impaired. Thus, human security can be understood as the protection and preservation of human survival and daily living against environmental degradation and the loss of sources of livelihood. Analysing environmental degradation impacts on livelihood activities, as seen in the experiences of individuals who engaged in agricultural activities in the Niger Delta, from a human security perspective urges us to explore issues from the reference point of people-centred development.

As discussed in the data analysis, for the Niger Delta to attain development, the impact of environmental degradation on livelihood activities needs to be acknowledged and, in turn, environmental degradation needs to be halted. This is linked to understanding development in the context of livelihoods. The human security concept provides a theoretical approach to understanding what it is to live a meaningful life. To this, we must understand development in connection with livelihood experiences. This article has contributed to the theoretical connections between human security and livelihoods in development discourses. According to the human security concept, freedom from fear could be freedom from threats to humanity, such as environmental degradation.

The SDG agenda is set to address human challenges so that people can live sustainable lives around the globe. However, the example of the Niger Delta suggests that there is a need for more responsiveness from the Nigerian government, state governors and political leaders to emerging threats and their impacts, as insecurities arise in different forms in the daily lives of most individuals. Correspondingly, the human security approach offers a pivotal supplement by combining many available mechanisms focused on recognising and managing existential threats in people's daily lives ([Gasper et al, 2020](#)). Therefore, human security discourses are necessary in development debates for the attainment of sustainability. Also, this article has argued that to make progress with development, there must be access to livelihood activities.

Finally, this article has shown how environmental damage negatively affects development processes in the Niger Delta. As evidence from the data analysis shows, environmental degradation is depriving farmers and fishers in the region of access to their farmlands and rivers, with several negative impacts on livelihoods and the environment. I argue that the element of access to livelihood activities needs to be added into development discourse to achieve sustainability, as there is no development without

access to livelihood activities. Therefore, this interrelationship between livelihoods and human security calls for a meaningful change in power and socio-cultural structures for development processes to be sustainable in the Niger Delta region.

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Conflict of interest

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