



From Deforestation to Pollution: Unraveling Environmental Challenges in Nigeria and Pakistan

Magaji Sule, *Department of Economics, University of Abuja*
ORCID: 0000-0001-9583-3993

Abdullahi Idris Ahmad, *Department of Economics, Federal University Oye-Ekiti*
ORCID: 0009-0000-3149-8567

Sani Bariki Sabiu, *Department of Economics, University of Abuja*
ORCID: 0009-0002-2229-7792

Amina Abdullahi Yunusa, *Department of Economics, University of Abuja*
ORCID: 0009-0004-2582-4505

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Abstract: Environmental degradation is a global crisis with far-reaching consequences for ecosystems and human well-being. This paper delves into the specific environmental challenges faced by Nigeria and Pakistan, focusing on biodiversity loss and land, soil, water, and air degradation. The causes of environmental degradation, rooted in economic factors, have multifaceted impacts on health, agriculture, and overall quality of life. The consequences are not confined to national borders, as environmental issues in one country can affect the global population. This study examines the specific types of environmental degradation prevalent in both nations, highlighting the alarming rates of deforestation, water contamination, and air pollution. This paper finds that Nigeria and Pakistan face severe environmental challenges with high deforestation rates, water pollution, and air degradation. Biodiversity loss, exacerbated by human activities, is a shared concern with implications for the global ecosystem. The study emphasises the urgency of addressing these issues through country-specific measures and global collaboration.

Keywords: Environmental Degradation, Land Degradation, Water pollution, air pollution, deforestation, soil degradation, and biodiversity loss

JEL Classification: P28

I. Introduction

Environmental degradation is the decline in the quality of the environment caused by the depletion of resources, particularly air, water, and soil. According to Johnson et al. (1997), pollution and species extinction are also involved. According

to the United Nations (2004), environmental degradation is the loss of the environment's capacity to meet ecological and social objectives. As such, it describes any adverse change to the surroundings.

Causes of environmental degradation are linked to economic factors such as poverty, level of economic development, population growth, urbanisation and growth of urban slump, intensification of agriculture threatening forest and species, and lack of use of modern energy in cooking, transportation, industry and equipment (Aluko & Magaji, 2022; Magaji, 2022).

The consequences of environmental degradation are multidimensional. For example, industrial pollution affects the entire atmosphere and has no respect for the country's border. It affects the health of the global population. Therefore, environmental degradation in one country affects the whole global population. For example, carbon emission depletes the ozone layer, increases greenhouse gases in the atmosphere and causes global warming. Land degradation affects agricultural productivity and food security. Lands become barren, oceans become dishwater degraded, and water is degraded, life. Species of living things disappear due to deforestation, and water pollution affects the global health of the population (Shaba et al., 2018). Global environmental issues encompass ozone layer depletion, global warming, and biodiversity loss. However, the most significant concern is environmental degradation, which impacts all of humanity globally without discrimination based on any specific country, region, or race (Bureau of Energy Efficiency, <https://beeindia.gov.in/files>). Therefore, this paper seeks to portray environmental degradation in Nigeria and Pakistan by focusing on biodiversity loss and land, soil,



forest, air, and water degradation. Accordingly, the next sections are on the types of environmental degradation, comparing Nigeria and Pakistan's environmental degradation, country-specific measures against environmental degradation, conclusions, and recommendations.

II. Type of Environmental Degradation

Common environmental concerns are biodiversity loss, water, land forest, soil, and land degradation. They are discussed in turn:

i. Biodiversity Loss: Human activities, such as excessive consumerism, population expansion, and intensive agriculture, have led to the extinction of approximately 68% of species (Patrick & Simon, 2020). According to the IPBES Global Assessment Support on Biodiversity and Ecosystem (2019), the expansion of human land use for industrial agriculture, cattle farming, and overfishing endangers more than one million species of plants and animals, placing them in danger of extinction. Brad (2019) asserts that people are causing extinction and modifying the natural ecosystem at an unparalleled rate. Around 11,000 years ago, vegetation covered over 70% of the Earth's land surface. However, this area has since been reduced by half. Moreover, the yearly community has witnessed a 20% decrease (Bradshaw et al., 2021).

ii. Water Degradation: There is a mounting apprehension regarding the depletion of freshwater supplies on Earth. The cause of this issue can be attributed to the combination of excessive population growth, excessive consumerism, and climate change (Johnson et al., 1997). Water contamination significantly affects the environment and leads to degradation at multiple levels (Magaji & Eke, 2015). The pollutants encompass industrial and domestic sewages, pesticides, fertilisers, and other substances (Lamessa et al., 2023). SDG 6.3 aims to enhance water quality by decreasing pollution, eradicating dumping, and minimising the discharge of dangerous chemicals and substances, among other measures, by 2030.

iii. Land Degradation: This focuses on any undesirable change to the land. Over time, the biophysical environment is affected by human activities, such as human-induced floods and bush burning (Musa et al., 2022). This negatively affects biodiversity, agricultural productivity and the environment, aggravating food insecurity. According to the UN (2018) estimate, 30% of the land is degraded worldwide, and about 3.2 million people reside in these degraded lands. Hence, the UN SDG is targeted at the restoration of degraded land and soil.

iv. Forest Degradation: Forests play a crucial role in climate adaptation efforts. However, due to forest degradation, climate change, especially high temperatures and changing weather patterns, caused pest infection and increased forest fire risk increased (Tarolli *et al.*, 2019). Additionally, human activity, such as agricultural expansion and infrastructural development in road building and urbanisation, destroyed almost 50% of the tropical forest from 1960 to date (IUCN, 2021). This poses a significant risk to numerous species' survival and diminishes the forests' capacity to deliver vital functions (Ismail et al., 2019). To counteract this regrettable pattern, nations and other landholders are restoring forest landscapes across 350 million hectares by 2030 (Gichuki et al., 2019). The United Nations conveys its apprehension through the Sustainable Development Goal (SDG) 2030 agenda, which aims to protect, restore, and promote the sustainable use of land-based ecosystems, efficiently administer forests to ensure their durability, combat desertification, reverse land degradation, and stop biodiversity decline.

V. Soil Degradation focuses on physical, chemical, and biological diminishment in soil quality with accompanying loss of organic matter, fertility, and structural conditions resulting in erosion and excessive flooding. The primary factors contributing to soil degradation are agricultural practices, industrial and commercial pollutants, urban growth leading to the loss of valuable land, overgrazing, long-term climate changes, deforestation, and wind erosion (Tarolli, 2019).

For example, deforestation reduces microbial activity due to making the Earth bare. This reduces yields and makes land less amenable to crop cultivation. In addition, synthetic fertilisers and pesticides diminish plant nutrition. More so, floods, surface runoff, landslides, winds, storms, and the heavy use of machines harm soil fertility, composition, and structure. For example, industrial and mining activities cause toxic pollutants through industrial spills and poor waste disposal, making the soil infertile for agricultural or ecological purposes. This problem is also a concern of SDG 15.

vi. Air Degradation: According to WHO (2020), air degradation is defined as the presence of chemical, physical, or biological factors that contaminate the air. Air degradation, also known as air pollution, arises when particulate matter and gases are suspended in the atmosphere, causing threats to human well-being, climate stability, and forest ecosystems. Sources of these pollutants are



ear and truck exhaust, fumes, nuclear weapons, dust, volcanoes, and wildfires. Fossil fuel contains hydrogen gas and carbon substances, which are released when burned in order to produce light and heat, which pollute the air (Manu & Ahmad, 2021). Annually, air pollution claims the lives of over 3 million individuals globally while also inflicting various health issues ranging from asthma to heart disease upon a significant number of people. The economic impact of this is substantial, as it results in significant costs for society regarding the loss of human lives and the adverse effects on public health (OECD, 2016). Against these negative consequences, the Global action plan targets achieving clean air in urban areas by the year 2030 through the elimination of the use of fossil fuels in transport and home heating. Furthermore, the Clean Air initiative urges governments to attain air quality that is deemed safe for their citizens while harmonising efforts to address climate change and air pollution by 2030. Furthermore, SDG 7 explicitly targets the provision of clean and cost-effective energy by investing in clean energy infrastructure and technology, as well as enhancing the accessibility of clean energy.

III. Environmental Degradation in Nigeria and Pakistan

Environmental degradation in Nigeria and Pakistan is almost on the same scale. Although they are on different continents, both are classified as developing economies with similar characteristics. It, therefore, behoves us to portray the nature of their environments in the areas earlier identified, especially biodiversity loss, forest, land, soil, water, and air.

i. Forest, land and soil degradation in Nigeria and Pakistan: The situation is similar in Nigeria. A detailed analysis of deforestation between 1979 and 1995 reveals that the total forest area decreased by 48% in the North-central region, 7% in the Northeast, 60% in the Northwest, 53% in the South East, 13% in the South-South, and 12% in the South West. The forest cover 2000 was projected to be 13.5 million hectares, a decrease from 17.5 million hectares in 1990. This indicates an annual loss of approximately 400 thousand hectares or a fall of roughly 2.6%. Others are the causes of oil pollution in the Niger Delta, overgrazing in the Northern part of the country, urban sprawls, industrial waste, mining activities and bush burning (Tunde et al., 2016).

Pakistan is confronted with numerous environmental perils, among which land

degradation emerges as the most severe. Land degradation in Pakistan mainly involves deforestation, desertification, salt, sodicity, soil erosion, waterlogging, depletion of soil fertility, and imbalances in nutrient levels. Pakistan has a forested land area of around 12 million hectares, susceptible to deforestation and desertification. The combined area of forest, scrub, and planted trees is distributed across 4.2 million hectares. Within this, natural and modified coniferous scrub, riverain and mangrove forests cover 3.5 million hectares, tall tree forests span 2.4 million hectares, scrub forests exist on 1.1 million hectares, and plantations occupy 0.7 million hectares. The forest cover in Punjab constitutes less than three per cent of the total land, while in Sindh, it is half. The ongoing deforestation is resulting in significant depletion. The rate of decline in woody biomass is the second greatest globally. The annual percentage varies from 4 to 6 per cent. Annually, approximately 7,000-9,000 hectares of land are subjected to deforestation. This rate is particularly severe in the northern regions, where the per capita use of fuel wood is ten times greater, primarily due to the brutal winters experienced in those areas. Due to population growth, the annual increase in household firewood consumption is expected to reach three percent. At the current pace, the country's woody biomass is projected to be completely depleted within the next 10-15 years (Zia-ul-Hassan & Arshad, 2006).

Jabeen (2019) considers Pakistan to be in a 'Green Emergency' due to the country's annual loss of about 27,000 hectares of natural forest area. Pakistan lost 49ha of tree cover and experienced a net change of 1% (negative) in tree cover from 2001 to 2022. In a nutshell, both Nigeria and Pakistan are under a 'Green Emergency'.

ii. Water Degradation in Nigeria and Pakistan: Obiezu (2022) shows that 70% of water in Nigeria at the point of consumption is contaminated. As per the World Bank (2021), over 60 million individuals in Nigeria lacked access to fundamental potable water in 2018, while 80 million people did not have access to upgraded sanitation facilities during the same period. Additionally, the report shows that 167 million people could not access basic hand washing facilities, 39% of households in rural areas lack access to essential water supply and 29% practice open defecation.

According to Siddique et al. (2023), Pakistan is experiencing severe water pollution, making it one of the most polluted countries in the South Asia Region. This pollution is causing the



population to unknowingly consume significant amounts of harmful substances such as microbes and heavy metals through their diet. Ishaque et al. (2023) argue that Pakistan is confronted with a water scarcity issue caused by climate change and population increase, as well as a deficiency in providing clean and potable water to its population. In March 2023, Aljazeera reported, based on UNICEF reports, that families residing in places hit by floods are compelled to consume and utilise water that may contain disease-causing agents due to the lack of other options. The report indicates that half a year following the floods in Pakistan, there are still 10 million individuals who do not have access to clean and safe water. There is ample evidence to suggest that Nigeria and Pakistan are severely affected by water degradation and urgently need clean water.

iii. Air degradation in Nigeria and Pakistan: Nigeria's air quality in 2020 averaged pm 2.5 concentration, 7.4 times the WHO annual air quality guideline value. In Lagos, the economic centre of Nigeria, the ambient air pollution resulted in economic losses of 2.1 billion in 2018 and caused 11,200 premature deaths in the same year. Nigeria is Ranked number 18 with the worst air quality in the World, but Pakistan is ranked number three. According to the same report, Lahore leads other cities of Pakistan in air pollution. The country has an average pm 2.5 concentration, which is the same as Nigeria (IQAIR, 2023).

iv. Biodiversity loss in Nigeria and Pakistan: Biodiversity refers to the variety and variability of life on Earth, including all living organisms and the ecosystems in which they exist. Nigeria is facing a significant risk of extinction due to climate change, economic development, changes in land use for agriculture, the introduction of invasive species, pollution from crude oil exploration and exploitation, canalisation that primarily threatens mangroves, deforestation, desert encroachment, excessive hunting, and the construction of roads and residential buildings. Anthropogenic activities, such as excessive resource extraction, particularly timber, have resulted in the loss of natural habitats in Africa. Since 1970, nearly 21 million hectares of forest have been lost. Additional perils to terrestrial habitats encompass wildfires, particularly in savannah regions, soil cultivation for agricultural purposes, excessive fishing, forest depletion, road development, and the establishment of residential and commercial areas. Desert encroachment occurs in Nigeria, moving southwards at approximately 0.6km per year. This phenomenon mainly affects the states of Borno, Jigawa, Katsina, Kebbi, Yobe,

and Sokoto. Due to this encroachment, Sokoto has already lost 11.43% of its total land area (Anwadike, 2020).

IV. Country-specific measures against environmental degradation: Nigeria and Pakistan

Nigeria implements multiple efforts to safeguard its natural environment and preserve endangered species. These initiatives encompass the development of national parks and reserves, the formation of the Nigerian Conservation Foundation, and the implementation of legislation to save wildlife. In Nigeria, less than 5% of the total land area is currently occupied by forests. To enhance the preservation of the country's ecology, the government is intensifying its efforts to protect the natural habitat for animals in this African nation. There is an increasing recognition of the significance of afforestation in human well-being and ecological equilibrium.

Nigeria's animal welfare status has been gradually improving, as the Animal Protection Index (API) indicates. The Nigerian Animal Welfare Plan was initiated in 2016, alongside a review of the current Animal Rights Legislation. In recent years, there has been a growing trend of allocating more considerable funds towards the welfare and preservation of animals. Animal rights campaigners are actively promoting awareness efforts through various means. The increasing popularity of animal rights campaigning has led to other lesser-known expressions. The increasing prevalence of animal rights activism in Nigeria is reflected in various forms, including the widespread presence of animal-themed casino games like Jungle Giants, Epic Ape, and Anaconda. The nation's national parks and reserves prioritise the preservation of the natural ecosystem and diverse endangered species.

In July 2021, Nigeria launched its National Reducing Emissions from Deforestation and Degradation (REDD+) Strategy, aiming to reduce emissions from the forest sector by 20% by 2050 (REDD+ Nigeria, 2021).

Numerous institutions and organisations have been established in Nigeria to address environmental degradation. The National Agency for the Great Green Wall (NAGGW) is a Nigerian governmental entity functioning under the purview of the Ministry of Environment (Nigeria). The main goal is to address land degradation and desertification, improve food security, and support people adapting to climate change in Nigeria. The



NAGGW is Nigeria's central hub for implementing the African Union's Great Green Wall of the Sahara and the Sahel initiative. The primary objective of the NAGGW is to effectively tackle and reverse land degradation, mitigate biodiversity loss, and enhance the resilience of ecosystems to the impacts of climate change by the year 2025. Furthermore, the NAGGW strives to guarantee these ecosystems' uninterrupted provision of essential services, which are crucial in enhancing human welfare and eradicating poverty.

The National Environmental Standards and Regulations Enforcement Agency (NESREA) is a governmental organisation in Nigeria, founded by legislation in 2007 to guarantee a more pristine and more salubrious environment for the citizens of Nigeria. The agency functions as a government-owned enterprise under the jurisdiction of the Federal Ministry of Environment. The director general of the NESREA corporate group acts as both the leader and chief executive officer of around 483 firms. NESREA's 33 National Environmental Regulations cover human activities that harm the environment. The agency possesses the power to oversee and regulate processes and equipment, ensure adherence to established standards, enforce penalties against those who violate the rules, carry out public inquiries, and present recommendations to the minister for evaluation, all to preserve environmental quality.

Since its inception, NESREA has achieved significant environmental compliance, monitoring, and enforcement milestones. These achievements consist of adopting several regulations designed to protect the environment, monitoring compliance with environmental standards, and enforcing measures to ensure adherence.

The Nigeria Erosion and Watershed Management Project (NEWMAP) is a World Bank-funded initiative that comprehensively addresses the pressing problem of gully erosion in Southeastern Nigeria and land degradation in Northern Nigeria. This project originated from the request for aid made to the World Bank in 2010. The Federal Ministry of Environment is overseeing the project. The project encompasses many components, such as investments in erosion and watershed management infrastructure, establishing institutions for erosion and watershed management, providing information services, and measures to address climate change.

REDD (Reducing emissions from deforestation and forest degradation) was established in 2005 due to the cooperative endeavours of the Coalition for Rainforest Nations.

REDD, mainly focusing on carbon credits, offers a financial incentive for embracing eco-friendly measures.

In addition, in 2017, the Nigerian Federal government and other West African nations pledged to restore around 10 million acres of degraded land under the African Forest Landscape Restoration Initiative (AFR100) and the Bonn Challenge, which is based in Pakistan. Pakistan's government has implemented a range of measures and initiatives to address pollution, such as the National Environment Action Plan (NEAP), the Pakistan Environmental Protection Act, 1997 (PEPA-97), the Environmental Impact Assessment (EIA), and CLEAN—Centre for Environmental Analysis and Networking.

The Pakistan Environmental Protection Act, 1997 (PEPA-97), was established in 1997 to prevent and regulate pollution and promote sustainable development by protecting, preserving, and restoring the environment. Several revisions were made to the rules and regulations until 1997 to enhance their benefits and effectiveness.

PEPA performs various roles.

PEPA frequently operates under the jurisdiction of Federal and provincial Agencies to investigate environmental issues, either proactively or in reaction to complaints from individuals or organisations, in order to identify any cases of manipulation (PEPA, 1997). The main objective of PEPA is to prepare, establish, and modify the values for the net explosive quantity (NEQ).

CLEAN stands for the Central Laboratory for Environmental Analysis and Networking.

Cleanse The Pakistan Environmental Protection Agency was established as required by section 5 of the Pakistan Environmental Act (PEPA) 1997. The leading roles of CLEAN are to maintain and implement the standards and rules specified in the PEPA 1997 law.

The Legal Enforcement (L/E) Directorate of the Pakistan Environmental Protection Agency plays a vital role in ensuring compliance with and executing the National Environmental Quality Standards (NEQS) and environmental legislation.

Identify and rectify constraints that hinder the execution of environmental legislation and National Environmental Quality Standards (NEQS). Unfortunately, there is scepticism regarding the efficacy of the government and regulatory authorities in tackling this significant issue, as they need to allocate it as an adequate priority. Hence, there is an adverse effect on the environment and the well-being of the general population (Mukhtar, 2023).



The government has expressed concern about the potential environmental hazards hindering economic growth and societal development. As a result, since the early 1990s, Pakistan has addressed environmental issues by enacting new legislation and creating institutions such as the Pakistan Environment Protection Council. Nevertheless, the majority of funding for environmental protection is provided by international creditors, whilst a mere 0.04 per cent of the government's development budget is allocated to this purpose. As a result, the government needs help in effectively implementing environmental regulations, while private enterprises may need help to meet the financial requirements of international trade organisations' environmental standards. The Pakistani government has launched a new Clean and Green Pakistan programme to tackle environmental issues.

In 2019, the Government of Pakistan introduced a Clean Green Pakistan scheme. The programme sought to organise a competition among Pakistani cities to assess their cleanliness and vegetation level. A digital platform has been created to streamline citizen registration and activity reporting, enabling them to earn points. Citizens would receive medals upon attaining a designated threshold of points.

The Khyber Pakhtunkhwa (KPK) government initiated the Billion Tree Tsunami in 2014 as a proactive measure to combat the issue of global warming. Pakistan's Billion Tree Tsunami initiative has successfully rejuvenated 350,000 hectares of forests and degraded land, exceeding its obligations under the Bonn Challenge. The project aims to enhance the ecosystems of designated forests, privately owned landfills, and agricultural areas. This would be achieved by closely cooperating with the relevant communities and stakeholders to ensure their active involvement in the project by implementing promotional and outreach services. Within a year, it has successfully included an additional 750 million trees into a comprehensive "tree tsunami" initiative to address the growing loss of forests.

The project was successfully concluded in August 2017, surpassing the expected duration.

The Pakistan National Conservation Strategy Report outlines three specific goals: preserving natural resources, advancing sustainable development, and enhancing resource consumption and management efficiency. This statement considers itself a summons for active engagement directed towards central and provincial

governments, corporations, non-governmental organisations (NGOs), local communities, and individuals.

The primary agricultural pollutants that come from several sources and spread without a specific point of origin include nutrients, specifically nitrogen and phosphorus, silt, animal faeces, pesticides, and salts. Agricultural nonpoint sources transport contaminants into surface water by direct runoff or infiltration into groundwater, eventually discharging into a surface water outlet. Diverse agricultural techniques contribute to the erosion of soil particles.

The occurrence of erosion-derived silt in fish habitats and wetlands is a significant problem since it often contains elevated concentrations of agricultural pesticides, leading to runoff contamination. Consequently, this runoff harms the aquatic habitat by elevating temperatures and reducing oxygen levels. Chemical fertilisers and animal facility manure are the primary contributors to excessive nutrients in surface water from nonpoint sources. These nutrients are the primary contributors to eutrophication in surface water. Agricultural activities, including the application of pesticides, can result in the contamination of both surface and groundwater sources. Return flows, runoff, and leachate emanating from irrigated fields have the potential to convey sediment, nutrients, salts, and other substances. Inadequate grazing practices in riparian areas and higher-elevation regions can lead to a deterioration in water quality. Pakistan's growth is a long and complex process that spans multiple generations.

The National Conservation Strategy recognises the need for two significant changes in values: the restoration of the conservation ethic based on Islamic moral standards, known as Qantas, and the revitalisation of community spirit and responsibility (Nadeem & Hameed, 2008).

The National Conservation Strategy Report proposes prioritising fourteen programme areas for implementation: conservation of soil in croplands, improvement of irrigation efficiency, safeguarding of watersheds, support for forestry and plantations, restoration of rangelands and enhancement of livestock, protection of water bodies and promotion of sustainable fisheries, preservation of biodiversity, enhancement of energy efficiency, development and utilisation of renewable resources, prevention or reduction of pollution, management of urban waste, assistance for institutions managing shared resources, integration of population and environmental programmes, and preservation of cultural heritage.



The document delineates sixty-eight distinct initiatives in various domains, each with a strategic objective, anticipated outcomes, and the necessary resources to be provided over a decade. The government has assessed the possible contributions of environmental non-governmental organisations (NGOs), women's organisations, and international NGOs in collaborating with them to enhance their conservation efforts. The Eighth Five-Year Plan (1993–98) includes the implementation of recommendations outlined in the National Conservation Strategy Report.

A recent study conducted by the Global CLEAN movement revealed that the mean temperature in Pakistan increased by 0.2 degrees over two years. This represents a significant and influential shift, highlighting the importance of climate change advocacy.

Pakistan boasts 14 national parks, 72 wildlife sanctuaries, 66 game reserves, 9 coastal and littoral protected areas, 19 protected wetlands, and countless more protected grasslands, scrublands, forests, and natural monuments.

Pakistan has formally approved and accepted various international environmental and climate agreements.

V. Summary

Environmental degradation poses a critical threat to the ecosystems of Nigeria and Pakistan, impacting biodiversity, water quality, and air purity. Rooted in economic factors such as poverty and rapid urbanisation, the causes of environmental degradation have far-reaching consequences on health, agriculture, and overall well-being. This paper explores the specific environmental challenges faced by both countries, shedding light on the alarming rates of deforestation, water contamination, and air pollution.

In Nigeria, deforestation is occurring at a rate of approximately 3.5% annually, resulting in the loss of natural forest cover and degradation of land. Water degradation is evident in widespread contamination, with a significant percentage of the population lacking access to clean water. Air degradation, particularly in economic centres like Lagos, contributes to economic losses and premature deaths.

Similarly, Pakistan grapples with severe land degradation, exemplified by the loss of woody biomass and the erosion of millions of hectares of land. Water degradation is a pressing issue, with severe pollution affecting the South Asia Region. Air pollution, especially in cities like Lahore, ranks

among the highest globally, impacting human health and environmental stability.

Despite the challenges, both countries have implemented measures to combat environmental degradation. Nigeria has launched the National Reducing Emissions from Deforestation and Degradation (REDD+) Strategy, focusing on afforestation and conservation. In Pakistan, initiatives like the Billion Tree Tsunami and the Clean Green Pakistan project demonstrate commitment to mitigating environmental risks. However, this paper underscores the need for strengthened measures, global cooperation, research collaboration and increased awareness to address the complex issue of environmental degradation.

VI. Conclusion

Environmental degradation in Nigeria and Pakistan is a pressing issue that demands immediate attention and comprehensive strategies. The causes of degradation, rooted in economic factors, underscore the interconnectedness of environmental and economic sustainability. Both countries experience alarming rates of deforestation, water contamination, and air pollution, posing threats to biodiversity, human health, and overall quality of life.

The consequences of environmental degradation extend beyond national borders, emphasising the need for global collaboration and concerted efforts. Biodiversity loss, land, soil, water, and air degradation are intertwined challenges that necessitate multifaceted solutions. This paper highlights the urgency of addressing these issues, considering the alarming statistics on deforestation rates, water quality, and air pollution in both nations.

Country-specific measures against environmental degradation are evident in the initiatives undertaken by Nigeria and Pakistan. Nigeria's efforts include the establishment of national parks, the Nigerian Conservation Foundation, and legislation to protect wildlife. The National Reducing Emissions from Deforestation and Degradation (REDD+) Strategy aims to reduce emissions by 20% by 2050. Pakistan, through the Billion Tree Tsunami and Clean Green Pakistan projects, demonstrates a commitment to afforestation and environmental preservation.

However, challenges persist in implementing environmental laws and standards. Both countries face limitations in enforcing regulations, and financial constraints hinder the efficacy of environmental protection measures.



Global initiatives and collaborations are essential to supplement national efforts and address the transboundary nature of environmental degradation.

VII. Recommendation

International Collaboration: Nigeria and Pakistan should actively engage in international collaborations to address the global challenges of environmental degradation. By sharing experiences, knowledge, and resources with other nations, they can develop more effective and comprehensive strategies. A collaborative approach allows for the exchange of best practices, innovative solutions, and the pooling of resources to tackle environmental issues that transcend national borders.

Sustainable Development Policies: Both countries must prioritise integrating sustainable development policies into their national agendas. Striking a balance between economic growth and environmental conservation is crucial for long-term resilience. Sustainable development policies can guide decision-making processes, ensuring that economic activities align with environmental sustainability goals. This approach fosters a harmonious relationship between economic prosperity and the preservation of ecosystems.

Biodiversity Conservation, Afforestation, Reforestation, Water Management, Air Quality Improvement, Environmental Education, Legislative Strengthening, Community Engagement, Monitoring and Reporting, Climate Change Adaptation, and Research and Innovation: To address specific environmental challenges, Nigeria and Pakistan should focus on strengthening biodiversity conservation efforts, accelerating afforestation and reforestation initiatives, implementing comprehensive water management strategies, enforcing stringent air quality regulations, integrating environmental education into curricula, continuously updating environmental legislation, engaging local communities, establishing robust monitoring systems, developing climate change adaptation strategies, and investing in research and innovation for sustainable technologies. These measures collectively form a holistic and proactive approach towards building resilient and environmentally conscious societies in both nations.

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