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# Environmental Education as a Panacia in Building Resilience against Land Degradation and Climate Change in Akwa Ibom State.

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**Abstract**

*Land degradation and climate change impact is a global problem and concern. Environmental education that can create the necessary awareness and change the attitude of people towards nature, has not be given adequate attention. This study examined environmental education as a tool in raising awareness against land degradation and climate change in Akwa Ibom State. The study adopted a descriptive survey design and was conducted in the three senatorial districts using stratified sampling method. Accidental sampling was used to sample the 255-sample size determined by Taro Yamane's formula. The instrument used for data collection was questionnaire. The findings revealed that 80% of respondents have not received any education on land degradation and climate change and 20% respondents noted that they have been educated on land degradation and climate change. The study also revealed that they would be reduction of land degradation and climate change if the people are educated on these global environmental issues. The work recommended that environmental education should be included in school curriculum as a general subject both globally and locally. Stakeholders, non-governmental organization and government should intensify their efforts in their campaigns on environmental issue in Akwa Ibom State.*

***Keywords:*** *Environmental education, Land degradation, Climate Change.*

## 1.0 Introduction

Environmental problems like land degradation and Climate change among other Environmental issues need constant awareness, both locally and globally, to equip man with the knowledge that can change those attitudes that are detrimental to land degradation and Climate Change. Studies have shown that Education is the act of acquiring knowledge and skills through learning in formal or informal way. According to Onwineng (2023) Environmental Education is a process of transmission of Environmental awareness for the purpose of seeking a change of values and attitudes in order to ensure sustainable use of the immediate environment and its proper management. Hence Environmental education on

land degradation and Climate change is of necessity in building awareness or consciousness against land degradation and Climate change.

World Bank (2020) agreed with the above and noted that Education is the single strongest predictor of climate change awareness. Mainstreaming climate education that will change mindsets and behaviors on climate not just for students but also for their parents, communities and governments. This will also help foster better preparedness and resilience against climate shocks among entire populations. Climate change education gives young people greater awareness of climate risks and more access to tools and solutions for addressing these risks and managing related shocks. Technical and vocational education and training can also accelerate a green economic transformation by fostering green skills and innovation. Environmental education infrastructure can help mitigate the impact of heat, pollution, and extreme weather on learning, while helping address climate change

World Bank (2020) also reported that Environmental education on climate change brings about mindset and behavior change, which will spur climate action and foster better preparedness and resilience to climate shocks. Foster green skills for a transition to a more sustainable future, by building in-demand skills for a greener economy at all education levels, but especially in upper secondary and post-secondary education and encourages support on research and innovation, through dedicated research grants and training of graduate students and academic staff on technologies, processes and policies contributing to climate change mitigation and adaptation. They Suggested the Investment in Environmental education infrastructure, by building or rehabilitating for green designs, climate-resilient materials and energy efficiency. Strengthen community resilience to climate's impacts on education, by empowering families to recover faster and with fewer impacts on their schooling when facing climate-related shocks

Ranjan et al., (2022) noted that Land-based learning is an integral part of environmental education, particularly for cross-cultural climate change resilience. It typically uses a cross-cultural and environmentally focused approach to education by recognizing the deep physical, mental, and spiritual connection to the land. They added that Land-based environmental education provides the opportunity to learn that each culture is unique, and it can build community connectedness and revitalize cross-cultural knowledge, languages, and practices and how land-based environmental learning is useful for developing cross-cultural community-led climate change resilience, particularly for

children and youth. Focusing on a relational approach in a cross-cultural community garden setting, the authors wanted to learn from each other how their land-based environmental education had become an opportunity to build community-led climate change resilience, celebrating different cultures, nations, ages, knowledge systems, and practices. From the assertion above, Environmental education in the local practice of land use system locally is building resilience.

United Nation ( 2020 ) reported that Climate change continues to be one of the greatest challenges facing our planet and humanity today, and could drive an additional 100 million people into poverty by 2030 are least responsible for climate change and People will suffer from its impacts like Drought and rising temperatures, excessive precipitation and flooding, sea level rise and saltwater intrusion, coastal erosion, loss of agricultural crops, degradation of coral reefs due to bleaching, increased instances of pests and diseases, and unpredictable storms and weather events are just some of the challenges. These variations in climate not only affect the environment and resilience of natural ecosystems, but also have ripple effects on every sector of the economy and society including economic instability, agriculture and food insecurity, water access and sanitation and sanitation, health and well-being challenge. Environmental education on land degradation and Climate Change is a must to build a resilience and mitigate the above Environmental problem.

Land degradation is fundamentally linked to both climate change mitigation and adaptation. The land-use sector has great potential to reduce emissions, sequester carbon and increase both human and ecosystem resilience to climate change impacts. However, this vital global resource continues to be degraded by poor agricultural practices, deforestation, soil erosion, desertification, droughts and floods. Environmental education will promote agroecology and sustainable land management practices to improve ecosystem services and address some of the drivers of land degradation at the community level. Agroforestry, permaculture, use of soil amendments, organic composting, mulching, vermiculture, crop rotation, forest and watershed reforestation, and elimination of harmful chemicals, pesticides and fertilizers on farms were some of the problems that Environmental education program is fundamentally linked to address the issues of climate change mitigation and adaptation.

Without Environmental education on land degradation, land resource will continue to be degraded by poor agricultural practices, deforestation, soil erosion, desertification, droughts and floods.

### 1.1 Purpose of the study

1. To find out if citizens in Akwa Ibom State have received education on land degradation
2. To find out if Citizens in Akwa Ibom State have received education on Climate Change.

## 2.0 Literature Review

A lot of thinkers have written on the above subject matter. Shalidulla (2021) noted that Land degradation has been an elusive term in geographical literature and environmental studies because of its association with similar natural occurrences, such as deforestation, desertification, and soil erosion. In an understandable sentence, land degradation is perceived as the impairment of the quality of the land and its surrounding associate elements because of natural or human-made causes. He added that it is a process in which the value of the biophysical environment is affected, and the changes or disturbances to the land and its related components have been identified as deleterious or undesirable for the whole environment and its inhabitants.From the above fact, it is important for various Stake holders to consider Environmental Education as a major input to land degradation.

Joan and Fredrick (2021) conducted a study on Environmental Education and its effect on Environmental sustainability and reported that; Environmental education for sustainable development remains a valuable subject of contemporary society, which is characterized with environmental issues such as climate change, pollution, loss of biodiversity, and resource degradation. They noted that the delivery of Environmental Education is based on the North American Association for environmental education values of knowledge, dispositions, competencies, and responsible behavior towards the environment. They reported that Environmental Education is a transformative tool to learners since it prepares learners with skills, attitudes, knowledge, and values to resolve environmental problems. It promotes environmental activism and action-oriented resolution of environmental issues. The full benefits of Environmental Education are challenged by limited human capacity, questionable professionalism, limited resources, and poor transformation of knowledge to practice. These challenges however can be alleviated through community engagement in formulating Environmental Education programs, multidisciplinary engagements, and research on Environmental Education delivery and quality. The study above only indicate the fact that Environmental education is the life line to Environmental sustainability.

Sangita and Sharma (2021) reported that Land is an essential resource that is degraded day by day through some major factors like natural, anthropogenic and climatic factors. It is the principal basis for human well-being and livelihood as it provides us food, shelter, and multiple other ecosystem services. Land degradation has become a severe environmental problem. It is observed that a complex interplay between a variety of interrelated processes lead to what we define as land degradation. It occurs in the form of deforestation, desertification, rapid changes in climatic conditions, water-logging, salinization, erosion, and loss of organic matter components, etc. But we can save our land or manage our land from degradation by identifying sustainable land management practices and by adopting a precise environmental Education strategies and methodology for assessing land degradation and mitigating it. The above study shows that Environmental Education can be used to address the anthropogenic activities above.

Fernado Antonio (2018) noted that Degradation is currently affecting 25% of Earth's land and 40% of Earth's agricultural land. The environmental consequences of landdegradation are vast, including amplified soil losses, water quality deterioration, biodiversity decline and degradation of ecosystem services and corresponding values, especially if actual land uses disrespect capability (natural use), in which cases land is in a state of environmental conflict. They added that The global cost of land degradation just looking to agriculture approaches US$ 500 billion/yr. Facing this terrible ecological and economic scenarios, the United Nations General Assembly adopted the "Sustainable Development Goals" in 2015, which comprise a target to combat desertification and restore degraded land. The aim is to achieve land degradation neutrality by 2030. Framework models have already been proposed to unpack this innovative concept and address its operation through the Rio Conventions. While implementing these models, which follow the response hierarchy to avoid and reduce reverse land degradation, environmental consequences of land degradation should be compensated by sustainable land management practices that render the Earth no net loss of the land-based natural capital relative to a baseline. Environmental Education is a major tool in achieving the global awareness and sustainable action of Land degradation.

Land degradation is a composite term; it has no single readily-identifiable feature, but instead describes how one or more of the land resources (soil, water, vegetation, rocks, air, climate, relief) has changed for the worse. A landslide is often viewed as an example of land degradation in

action – it changes the features of the land, causes destruction of houses, and disrupts activities. In reverse of this degradation Environmental Education Iskey in bringing about a balance in land Environment.

UNESCO (2020) Ascertained that, Climate change education helps people understand and address the impacts of the climate crisis, empowering them with the knowledge, skills, values and attitudes needed to act as agents of change.

The international community recognizes the importance of education and training to address climate change. The UN Framework Convention on Climate Change, the Paris Agreement and the associated Action for Climate Empowerment (ACE) agenda call on governments to educate, empower and engage all stakeholders and major groups on policies and actions relating to climate change. From the above write up its important to know that environmental education Is an integral aspect that can be use in building a resilience environment.

According to world bank (2020), Education is critical to change behavior and promote climate action. Taking this into account, Climate Change Education may be understood as "learning in the face of risk, uncertainty, and rapid change" (Stevenson et al., 2020). It aims to build understanding of and the ability to address climate change, climate injustice, and the effects of global warming on biodiversity (UNESCO and Education International, 2021). High quality Climate Change Education helps to prepare students who understand the "social and economic consequences and complexities of change" and are able to adapt to such change (McKeown & Hopkins, 2010, noted that Climate Change Education is essential in preparing a climate-resilient workforce and to actualizing human potential. Climate Change Education is a powerful lever for social equality, inclusive growth, and climate resilience, which should be helpful for governments to address the disproportionate impacts of climate change on those who are disadvantaged. Closing gender gaps by investing in girls' Climate Change Education, for example, builds more resilient communities against future crises like droughts, flash floods, and storms. The researcher considered climate change education as a bedrock in building resilience in climate change which is one of the main issues environmental education seek to address.

UNESCO (2021), added that Teachers often lack the necessary content knowledge quoting (Plutzer, McCaffrey, Hannah, Rosenau, Berbeco, and Reid, 2016), on resources, and pedagogical training noting that, a recent survey of 58,280 teachers in 144 countries shows that fewer than 40% of them feel confident teaching about

climate change, though nearly 95% of them believe it is important or very important to teach it (UNESCO and Education International, 2021). Moreover, teaching climate change is considered "pedagogically demanding," given the related socio scientific matters

They concluded that; Climate change is an urgent challenge facing humanity and the future of the planet. Investment in Environmental education, including Climate Change Education, will enable students to become informed about climate science, develop the skills needed in the green economy, and shape attitudes and behaviors needed to engage effectively with climate solutions. Creating a sustainable future begins with the youngest learners by cultivating a reverence for nature and a responsibility to care for it, attitudes and habits that develop sustainable behaviors that balance environmental, social, and economic needs so that all can prosper. It promotes inclusion and equity, recognizing that marginalized populations are often most vulnerable to climate change impacts. Climate Change Education nurtures flexible thinking to solve complex problems so that students can respond to climate change impacts and prevent future disasters. Building students' capacities to promote sustainable development necessitates a reorientation of the curriculum and a system-wide commitment from the national to local levels. From teacher preparation and on-going training to school infrastructure and partnerships with state and none state actors, can build a resilience climate action.

### 2.1 Environmental Education Goal

The main goal of Environmental Education is to ensure a quality of life of man which by implication means improving the quality of the earth or Environment to avoid environmental degradation, to safeguard the destruction of the Environment for the benefit of Mankind. The aim is to produces Environmentally literate Citizens who are willing and capable of taking positive environmental actions and influencing others both on Local and Global space. The mission of Environmental education is to provide basic in-depth knowledge and skills to halt any form of degradation in the Environment in order to promote a sustainable environmental use and earth management for the benefit of all. In view of the fact that education will be use to control and regulate the behavior of Mankind in his Environment.

### 2.2 Environmental Education Objectives

The objectives of Environmental education as summarized in the Belgrade conference.It will be review to suit the essence of this work.

#### 2.2.1 Awareness

Environmental education should help group of people, individual, acquire an awareness of the sensitivity of the Environment and its support system and problems. Knowledge of the natural Environment and the resources, the beauty of nature, physical features, vegetation, lakes rivers mountains, etc. Man relationship with nature and the implication with the future generation. This knowledge will help individual and people value the existentiality of it. In relations to this study, The awareness of land degradation and climate change will help in shaping peoples attitudes toward this global problems if given the necessary environmental education.

### 2.2.2 Knowledge

Environmental education should help individuals and social groups acquire basic understanding of the total environment, its various problems and the role of man. The knowledge of problems caused by man to the environment and consequence of such problems to man and the Environment will enlighten the individual on how human activities contribute to the environmental degradation. In relations to this work, knowledge of land degradation and climate change will create a positive trend toward the Environment and will help the public to know the threat of their activities to the Environment and the impact of the value change of land and climatic actions.

### 2.2.3 Attitude

Environmental education should help individuals and social groups acquire social value and ethics with strong passions and feelings for the environment and the motivations in active participation and improving the situations of the environment. Attitude change is one of the major important element of environmental education which will help individual change their negative attitude toward nature and build a sustainable ways of relating with nature and create a lasting approach toward conservation of natural resources. In relations to this study, the attitude of people toward land degradation and climate change. Environmental education will change the attitude of farmers, industries and individual who are constantly involved in the destruction of the environment that causes land degradation and climate change.

### 2.2.4 Skills

Environmental education should help people acquire the skills for solving environmental problem. This expresses the psychomotor domain of learning experience where people acquire a conservational skills and environmental management skills such as the

skill of planting trees, flood and erosion management, strategies of redeeming the earth from further degradation, different skills of sustainable practices in agriculture, industries etc in protecting the environment for the benefit of the present and not compromising the standard of the environment for the upcoming generations. This environment education will impact into people the needed skills in land reclamation and climate change restoration.

### 2.2.5 Evaluation

Environmental education should help individuals and groups of people evaluate environmental measures and educational programmed and the inter relationships with ecological, social, political, economic social aesthetic in their relations to their outcome on the environment. This will help in making adequate policies that should favor the environment by different stake holders. Environmental education will help people evaluate outcome of land degradation and climate change impact on man and the environment.

### 2.2.6 Participation

Environmental education should help people develop a sense of responsibility and commitment toward people involving in actions regarding Environmental problems, without participation the issue of awareness, knowledge, attitude and skills will be fruitless. Environmental education build that sense of participation by individual, None governmental organizations, groups of cooperate bodies who are interested in environmental issues would rise and take actions. Participations helps in conservation, protection and management of environmental issues. Regarding this work, environmental education on land degradation and climate change will promote the participation of action towards land use management devoid of degradation and climate change action will be taken into consideration with necessary action plan and participation in mitigating the current climate change problems.

## 2.3 Environmental Education Strategies.

One common approach to environmental education is the experiential learning approach. This approach emphasizes hands-on activities, field trips, and practical experiences to engage learners and deepen their understanding of environmental issues. It encourages active participation and encourages individuals to connect with nature through direct experiences, such as conducting field research, participating in environmental restoration projects, or engaging in outdoor recreational activities.

Further approaches to environmental education are diverse and can vary depending on the specific goals and target audience. Some common approaches include:

1. Experiential Learning: This approach emphasizes hands-on experiences and direct interactions with the environment. It encourages students to observe, explore, and participate in activities that foster a deeper understanding of environmental issues.

2. Inquiry-Based Learning: This approach focuses on questioning, investigating, and problem-solving. Students are encouraged to ask their own questions, conduct research, and analyze data to develop their own understanding of environmental concepts.

3. Place-Based Education: This approach emphasizes the local context and encourages students to explore and study their own community and its natural surroundings. It helps students develop a sense of place, connection, and responsibility towards their environment.

4. Project-Based Learning: This approach involves students in long-term, in-depth projects that address real-world environmental issues. It fosters critical thinking, collaboration, and problem-solving skills while allowing students to make a tangible impact in their community.

5. Environmental Advocacy: This approach focuses on empowering students to become active advocates for environmental issues. It includes activities such as organizing campaigns, participating in public hearings, and engaging in policy discussions to create positive change.

6. Outdoor Education: This approach takes learning outside the classroom and into natural environments. It includes activities like field trips, nature walks, and camping, allowing students to directly experience and appreciate the natural world.

7. Sustainability Education: This approach emphasizes the interconnectedness of social, economic, and environmental systems. It teaches students about sustainable practices and encourages them to make choices that promote a more sustainable future.

These approaches can be combined or adapted to meet the specific needs and goals of different educational settings, ensuring that environmental education is engaging, effective, and impactful.

### 2.4 Environmental Education Principles

Environmental education is an essential aspect of fostering a sustainable future, and it plays a pivotal role in raising awareness about environmental issues and cultivating responsible citizenship. It seeks to empower individuals with the knowledge, skills, attitudes, and experiences necessary to address pressing environmental

challenges. The principles of environmental education provide a framework for effective teaching and learning practices aimed at promoting environmental stewardship and ecological literacy.

### 2.4.1. Holistic Perspective

One of the fundamental principles of environmental education is the adoption of a holistic perspective. This principle emphasizes the interconnectedness of social, economic, and environmental systems, encouraging learners to recognize the complex relationships that exist within ecosystems. By understanding that environmental issues are not isolated but rather interwoven with various aspects of human life including culture, politics, and economy—learners can appreciate the broader implications of their actions. This holistic approach fosters critical thinking, enabling individuals to analyze environmental problems in a comprehensive manner and consider sustainable solutions that benefit both people and the planet.

### 2.4.2. Active Participation

Active participation is another key principle of environmental education. This principle posits that learning occurs most effectively when individuals are actively engaged in the learning process. Environmental education encourages experiential learning opportunities, such as field trips, community service projects, and hands-on activities, which allow learners to explore their surroundings and engage with the environment directly. Participating in projects that aim to restore habitats, reduce waste, or promote conservation fosters a sense of stewardship and responsibility. When individuals actively participate, they are more likely to develop a personal connection to the environment and a genuine commitment to sustainable practices.

### 2.4.3. Critical Thinking and Problem Solving

Developing critical thinking and problem-solving skills is a core tenet of environmental education. Learners are encouraged to question assumptions, analyze data, and evaluate sources of information to make informed decisions regarding environmental issues. This principle empowers individuals to identify and define problems, brainstorm potential solutions, and assess the consequences of their choices. By fostering a mindset that values inquiry and reflection, environmental education equips individuals to tackle complex global challenges, such as climate change, biodiversity loss, and pollution. Moreover, this emphasis on critical thinking prepares learners for active citizenship by enabling them to engage in informed discussions and contribute to the democratic decision-making process related to environmental policies.

### 2.4.4. Fostering Environmental Attitudes and Values

Another important principle of environmental education is the cultivation of positive attitudes and values toward the environment. Environmental education aims to inspire a sense of wonder, empathy, and respect for the natural world. By promoting values such as sustainability, conservation, and stewardship, it encourages individuals to recognize their ethical responsibility to protect the environment for future generations. This principle emphasizes the importance of emotional engagement in the learning process; when individuals develop a personal connection to nature, they are more likely to adopt pro-environmental behaviors and advocate for environmental justice.

### 2.4.5. Inclusivity and Diversity

Environmental education also acknowledges the importance of inclusivity and diversity. This principle advocates for the inclusion of diverse perspectives, experiences, and cultural contexts in environmental education programs. By incorporating a variety of viewpoints—especially those of marginalized communities—educators can provide a more comprehensive and equitable understanding of environmental issues. This principle recognizes that environmental challenges affect different communities in unique ways, and it seeks to empower all individuals, regardless of their background, to engage in environmental decision-making. Inclusivity not only enriches the learning experience but also fosters a sense of shared responsibility for the planet.

### 2.4.6. Lifelong Learning

Lastly, the principle of lifelong learning underscores the idea that environmental education is not confined to formal education settings but is an ongoing process that extends beyond school years. Lifelong learning encourages individuals to continually seek knowledge and develop their understanding of environmental issues throughout their lives. This principle is essential in an increasingly complex and rapidly changing world where environmental challenges evolve and new solutions emerge. By promoting a culture of continuous learning, individuals can adapt to new information and technologies, thereby remaining engaged and informed citizens capable of contributing to sustainable practices throughout their lives.

## 3.0 Methods

This study was conducted in the three senatorial district of Akwa Ibom State using stratified sampling method. Descriptive survey design was adopted to explore, summarize and describe the properties of the data and identifying their positions. The population size of 255 was used

as determined by Taro Yamane. The instrument used was questionnaire. Accidental sampling procedures was used to collect the data from the respondents. The data was analyzed using percentage to know how many respondents gave a particular answer and to compare one quantity against another.Furthermore, the rating of the responses was based on a two point scale of Agree (A) and Disagree (D). Simple percent was used to as a tools to answer the research question. Items that recorded 50% and above response on Agree is considered positive while 50% and above responses on disagree was considered negative.

**4.0 Result/Findings**.

The result from Table 1 indicates that item two and eight gave negatives responses that means people responded that they haven't received any form of education on land degradation and lack of education can caused land degradation, while other items agreed that Environmental education will help to mitigate, conserved, land degradation problems.

**Table 1: Environmental Education on Land Degradation**

| S/N | ITEMS | NO OF AGREE | % OF AGREE | NO OF DISAGREE | % DISAGREE | DECISIONS |
|---|---|---|---|---|---|---|
| 1 | You have heard any information on land degradation | 247 | 96.9% | 8 | 3.1% | Positive |
| 2 | You have received informal education on land degradation | 97 | 38% | 158 | 62% | Negative |
| 3 | You haven't received informal education on land degradation | 240 | 94.11 | 15 | 5.9% | Positive |
| 4 | Environmental Education on land degradation can help stop land degradation | 233 | 91.4% | 22 | 8.6% | Positive |
| 5 | Environmental education cannot stop land degradation | 213 | 83.5 | 42 | 16.5 | Positive |
| 6 | Environmental education is necessary in conservation of land | 198 | 77.6% | 57 | 22.4% | Positive |
| 7 | Land degradation is the consequence of lack of Environmental education | 168 | 65.9% | 87 | 34.11% | Positive |
| 8 | Land degradation is not the consequence of lack of environmental education | 97 | 38% | 158 | 62% | Negative |
| 9 | Do you think Environmental education on land degradation can change peoples attitude towards land | 252 | 98.8% | 3 | 1.2% | Positive |
| 10 | Do you think Environmental education will help mitigate land degradation problems | 223 | 87.5% | 32 | 12.5% | Positive |

**Table 2: Environmental Education on Land Degradation**

| S/N | Items | NO OF AGREE | % OF AGREE | NO OF DISAGREE | % OF DISAGREE | DECISION |
|---|---|---|---|---|---|---|
| 1 | You have heard information about climate change | 105 | 42.2% | 150 | 58.8% | Negative |
| 2 | You have received informal education on climate change | 24 | 9.4% | 231 | 90.6% | Negative |
| 3 | You haven't received informal education on climate change | 43 | 16.9% | 212 | 83.1 | Negative |
| 4 | Environmental education on Climate change can help stop climate change | 168 | 65.9% | 87 | 34.1% | Positive |
| 5 | Environmental education cannot stop climate change | 108 | 42.4% | 147 | 57.6% | Negative |
| 6 | Environmental education is necessary to build a resilience climate change | 204 | 80% | 51 | 20% | Positive |
| 7 | Climate change is the consequence of lack of environmental education | 217 | 85% | 78 | 15% | Positive |
| 8 | Climate change is not the consequence of lack of Environmental education | 239 | 93.7% | 16 | 6.3% | Positive |
| 9 | Do you think Environmental education will help mitigate climate change people attitude | 254 | 99.6% | 1 | 0.4% | Positive |
| 10 | Do you think Environmental education will help mitigate climate change problem | 200 | 78.42 | 55 | 21.6% | Positive |

Analysis from Table 2 indicates that items one, two, three, and four shows negatives responses, this implies that they have not received any form of education on climate change, while others believed Environmental education on climate change will build resilience against climate actions, and also credited the fact that lack of education is the bend to climate change problems

Analysis from Table 2 indicated that items one, two, three, and four shows negatives responses, this implies that they have not received any form of education on climate change, while others believed Environmental education on climate change will build resilience against climate actions, and also credited the fact that lack of education is the bend to climate change problems.

## 5.0 Discussion of Results /Findings

From table one 62% percent in item 2 disagreed that they have not received any form of education on land degradation, while 38% agreed that they have received education on land

degradation. This implies that the number of percentages of people that have not received education on land degradation are more than those that have, While in item 8 also disagreed in 62% that land degradation is note the consequence of lack of Environmental education on land degradation, with regards to other causes of land degradation which are not man made but through natural disasters. Other items agreed above 50%to the fact that Education on land degradation is important in building resilience on land degradation and Environmental education is also necessary in solving land degradation. This agreed with what Sangita and Sharma (2021) said that Land degradation has become a severe environmental problem. It is observed that a complex interplay between a variety of interrelated processes leads to what we defined as land degradation. It occurs in the form of deforestation, desertification, rapid changes in climatic conditions, waterlogging, salinization, erosion, and loss of organic matter components, etc. But we can save our land or manage our land from degradation by identifying sustainable land management practices and by adopting a precise environmental Education strategies and methodology for assessing land degradation and mitigating it. The above study shows that Environmental Education can be use to address the anthropogenic activities.

From Table two, item 1,2,3 and 5 disagreed that they have not received education on climate change with the following percentages 58.8%, 90%, 83.1% and 57.6%. This implies that a lot of people have not been educated on climate change, while others agreed that Environmental education will built a resilience climate change action. This agreed with what World Bank 2020; said that education is critical to change behavior and promote climate action. Taking this into account, Climate Change Education may be understood as "learning in the face of risk, uncertainty, and rapid change" (Stevenson et al., 2017). Added that Environmental education It aims to build understanding of and the ability to address climate change, climate injustice, and the effects of global warming on biodiversity.

The study indicated the urgent need for Environmental Education in combating land degradation and climate change at various levels both formal and informal approaches to create the needed awareness at Local and Global space.

## RECOMMENDATIONS

Based on the results and the findings of this study, the following recommendations were made:

1. Environmental education should be made compulsory and general subject to address the issues of land degradation and climate change

and other Environmental problems to ensure we safe our planet.

2. Non formal approaches should be considered by different stakeholders of the environment to educate individuals that lacks formal Schools settings for a wholistic awareness.

3. Environmental education awareness should be address as a matter of urgency and emergency in both Local ang Global space.

4. Government should create environmental education department in each of the Local government area with the responsibility of creating awareness of environmental problems at the grass root.

## CONCLUSION

Environmental education can empower individuals to make informed decisions and advocate for a more sustainable future of the earth facing unprecedented global environmental threats, the importance of effective environmental education continues to grow, making it an indispensable element of our educational systems and societal frameworks. Environmental education is an essential aspect of fostering a sustainable future of the Environment.

## REFERENCES

Farnando, A. (2023). Land degradation: multiple environmental consequences and routes to neutrality science direct. Environmental Science & Health. Volume 5. Pg. 29-86

https://www.worldbank.org/en/new/feed

Joan, N., & Fredrick M. N. (2021). Environmental Education and its effects on Environmental Sustainability, Research Gate.

Shalidulla, K.M.D. (2021). Land degradation: causes, impacts and interlinks with the Sustainable Development Goals. Springer Link.

Ranjan, D.J., & Kayira, P.D. (2022). Law-Based Environmental Education as a Climate Change Resilience on Justice and Equity on Climate Change Education. Routledge.

Onwineng, V. (2023). Journal of Environmental and Tourism education. Vol 6 no 2 special edition . University of Calabar Press. University of Calabar, Calabar

Sangita, M., & Sharma, V.N. (2021). The global problem of land degradation: A review National geographical journal of india 67, (2) 216-231. Research Gate.

Stevenson, 2018 Ackerman M.J., Journal of the American. 2018. Jack.org

UNESCO 2020, Climate Charge Education.

UNESCO Green Academies: Guidelines for climate resilient buildings. https://unhabitat.org/sites/default/files/2021/02/372158eng.pdf United Nations Educational, Scientific and Cultural Organization

UNESCO and Education International. (2021). Teachers have their say. Motivation, skills, and opportunities to teach education for sustainable development and global citizenship. https://unesdoc.unesco.org/ark:/48223/pf0000379914

UNESCO. General Conference, 40th, 2019. https:// unesdoc.unesco.org/ark:/48223/pf0000370215 United Nations Educational, Scientific and Cultural Organization (UNESCO). (2021a). Getting every school climateready. How countries are integrating climate change issues in education https://unesdoc.unesco.org/ark:/48223/pf0000379591 United Nations Educational, Scientific and Cultural Organization (UNESCO). (2021b).

UNESCO. https:// unesdoc.unesco.org/ark:/48223/pf0000245752 United Nations Educational, Scientific, and Cultural Organization (UNESCO). (2019). Framework for the implementation of Education for Sustainable Development (ESD)s beyond 2019.

United Nations Educational, Scientific and Cultural Organization (UNESCO). (2016b). Global Education Monitoring Report. Education for people and planet: Creating sustainable futures for all. Paris, France:

World Bank Groups. 2020. The Adaptation Principles: 6 ways to build resilience. Climate Adaptation and Resilience. Climate Adaptation Plan.