



ABSTRACT

In Jema'a Local Government Area (LGA), the environment deteriorates daily due to natural and human factors with human activities being the key roots of environmental degradation which include open grazing, pollution, deforestation, and unlawful pasting of posters in public places. Photography is a vital tool for visual communication, and photographers have long used it to reveal issues that affect people and their environments. Therefore, this paper intends to identify the major causes of environmental degradation in Jema'a LGA. The paper aims at raising

EXPLORING PHOTOGRAPHY AS A TOOL FOR DEPICTING MESSAGES ABOUT ENVIRONMENTAL DEGRADATION IN JEMA'A LOCAL GOVERNMENT AREA (LGA), KADUNA NIGERIA

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Introduction

Jema'a Local Government Area occupies an area of 1,384 km² and had a population of 278,202 at the 2006 census. Its headquarters is in Kafanchan, hosting members of different tribal affiliations. The widely spoken language in Jema'a LGA is the Hausa language while the religions of Christianity and Islam are widely practised in the area. Jema'a LGA is part of the prestigious Jema'a Emirate with the Kafanchan General Hospital, College of Nursing and Yakowa market being important landmarks within the Local Government Area.

Photography has become an important tool for creating awareness about the environment and its conservation for decades. Photographic images greatly impact people's attitudes, behaviour and perception toward Nature (Owen, 2018). Therefore, knowing how people perceive conservation messages through images is significant to warrant that the right messages are efficiently conveyed to targeted viewers. Photography has become a fundamental tool in framing environmental issues and can show better the impact of global warming than words. Environmental photographers certainly depict the beauty in the natural world, but it turns into something much more. Several photographers reported starting with nature photography but, along the way, were awakened by how much a photo could reveal about the world in



environmental consciousness through photographic images of degraded scenes of some environments in Jema'a LGA. This practice-based photography showed how impactful photographs are in conveying environmental messages in other to raise people's consciousness about the environment and shape their attitudes towards environmental conservation. Recommendations were made to help the government, NGOs and the general public to take necessary actions toward improving and protecting the environment. This paper will also provide motivation for further research in the field of photography.

Keywords: Photography, environment, Environmental degradation, Visual Communication

which we live and, for that reason, were inspired to do more (Seelig, 2015). The environment shapes us as a people and as a society. The conservation of the environment provides the essentials for a community to thrive, from clean water to barrier-free areas, from natural disasters like floods and droughts. Kaduna South loses acres of land daily to develop, making us lose touch with the natural world (Bulmer, 2022).

Previous studies show that there is little or no effort to encourage public participation in conservation and sustainable use. The nutritional and cultural value placed on some wildlife (bush meat) endangers the survival of species critical to other food chains. Wildlife and their habitats generally come under pressure during periods of drought or severe energy shortage. Aside from medicinal plants and animals domesticated for human needs, little or no effort is being made to regulate consumption, and exploitation of biodiversity, encourage conservation or promote sustainable use (Mande, 2020). Through practice-based research, photography was explored as a tool for depicting messages about environmental issues in Jema'a Local Government Area, Kaduna Nigeria

Photography

Photography is the method of recording the image of an object through the action of light, or related radiation, on a light-sensitive material (Andy, 2022). The word, derived from the Greek photo (light) and graphein (to draw), was first used in the 1830s. Photography has come a long way in its relatively short history. Masoner (2019) affirmed that the basic concept of photography has been around since about the 5th century BCE. It was not until an Iraqi scientist developed something called the camera obscura in the 11th century that art was born. Even then, the camera did not record images; it simply projected them onto another surface. The images were also upside down, though they could be traced to create accurate drawings of real objects such as buildings. Photo Making fosters artistry through the exploration of lens-based, photographic media. Photography is a rich medium with a long history, a deep connection to the contemporary art world, and boundless potential for self-expression.

Photography is one of the most powerful means of communication that can overcome cultural and linguistic barriers to deliver messages that can lead to greater awareness of any number of topics, including the problems of poverty, civil rights, and, of course, environmental issues. Photography



has greatly helped increase environmental consciousness by visually displaying both the beauty of nature and the consequences to that beauty of accidental and deliberate environmental degradation issues.

Environmental issues require wide-scale cooperation and collective action to resolve, and photographs can enormously impact the public debate. Photographers have a unique perspective on the world and excellent communication skills in visual mediums and often in other areas of life (Crane, 2021). Photographing, therefore, is a very complex relationship. It is a relationship between the subject and the photographer. It is a relationship between the subject and the audience, and it is a relationship between the photographer and his or herself. It is ultimately a relationship between the photographer and the audience and what he/she wants others to think of his/her work. These relationships, and the fact that they never occur arbitrarily, but with purpose through careful thought and reflection, are the very nature of symbolic interactionism. Joel (2022) supported this by stating that photography can expose environmental problems as nothing else can and can help get people to care. The element of danger could not be higher. It is ridiculous to think that we can destroy so many of the Earth's plants, animals, and ecosystems. All of this will come back to bite us sooner than we think. It will not be pleasant (Joel, 2022).

A photograph represents a message that serves to reveal messages with various meanings that need to be fully understood and accepted by the public (Husaini, Mustaffa & Adzrool, 2013; Mustaffa, 2011). It is said a picture worth a thousand words.' This proverb needs to be understood and analysed carefully. Even though it is a simple proverb, it requires someone to understand and digest the message that can be seen in realistic form or interpretive form (Mustaffa Halabi, 2011), which has a connection in its understanding and experience in different cultures and societies. Therefore, a photographic image is not only meant to be seen as a hobby by some people but the role and function are on par with any other medium of communication. From the moment we wake up in the morning until we go back to bed at night, thousands of photographic images surround us.

Visual Communication

According to the assertion of Ijaz (2018), Visual communication plays a significant role in connecting with the viewer. Visual communication has been evolving around from time, but it is not a current invention and has a history. Ijaz argued that visual communication is very useful in the contemporary world. Any display of a thing seen through sight falling in the form of a map, signal, painting, illustration, graphic, book, animation, web design, advertising, film, etc., is regarded as visual communication (Ijaz, 2018).

Günay (2021) also opined, "Visual communication creates the same feeling and emotion without it being necessary to speak a certain language among all the people." In his writing, Günay argued that the sense of sight is the most important sense organ for humans. The events happening in the environment, the existing objects, and situations are first identified upon being seen and tried to be understood. The information obtained through the sense of sight can be remembered more clearly than the information obtained via other senses.

Major Causes of Environmental degradation in Jema'a LGA

According to Ya'u (2021), environmental hazards are global problems that exert tremendous influence on the sustainability and healthy living of human beings in various manifestations.



Existing challenges like climatic change, population change, and rapid urbanisation obscure the plan for a viable living environment. Trans-disciplinary cause and effect analysis and networked spatial thinking are required to tackle land use concurrences, environmental degradation, or social problems, and can even be useful to support sustainable decision-making for politics, Government, and individual citizens (Mande, 2020). Some of the most pressing problems in human affairs include increased populations, food scarcities, environmental pollution, including global warming, extinctions of plant and animal species, and all the attendant sociological and political problems—which are, to a great degree, ecological (Robert & Stuart, 2022).

Approximations submit that 50-75 per cent of the land space is becoming desert in places such as Bauchi, Borno, Gombe, Jigawa, Kano, Katsina, Kebbi, Sokoto, Yobe, and Zamfara states which is a major factor that contributed to the wrecking of agriculture and human livings, making many herders specifically, the Fulani migrate to Kaduna State in search of productive land (Babajide, Frank, Ekperi & Nwata, 2020). The migration of pastoralists from the far north to Kaduna South was initially seasonal, with herders spending December to May before returning to their places of origin (Agboola, 2020). Over the last two decades, however, available pastures shrank in the far north, making the herders stay longer from December to June or July (rainy season). More recently, some have chosen to graze their herds permanently in Jema'a LGA because of the good land. It is evident that the presence of the Fulani herders and their grazing activities have been a major threat to the local farmers as crops are eaten by cows, trees are destroyed to feed the cows, and degrading the land turning into a semi a desert.



Image 1a: Open grazing in February 2022 around Aduwan 5 Jema'a LGA

Photo: Timothy Titus

Camera Model: Nikon D3000, F-stop: f/5.6, Exposure Time: 1/140 sec.

ISO: 400, Focal Length: 24 mm, Aperture: 4, No Flash.



Image 1b: A Fulani man grazing his cattle during the rainy season, along the Jagindi-Kagum road
Photo: Timothy Titus

Camera Model: Nikon D3000, F-stop: f/5.6, Exposure Time: 1/140 sec.
ISO: 400, Focal Length: 24 mm, Aperture: 4, No Flash.

Images 1a & b above show activities of open grazing which is one of the major environmental issues faced in Jema'a LGA. In the absence of farm owners, the Fulani could push their cows to feed on someone's crops and destroy the farm. Based on the researchers' observation and interaction with farmers around the Jagindi axis, people only farm cassava nowadays around their homes because of the destruction by Fulani herders. This issue needs to be addressed by the government of the day.

Pollution

Air Pollution refers to the release of harmful contaminants (chemicals, toxic gases, particulates, biological molecules, etc.) into the earth's atmosphere. These contaminants are quite detrimental, and in some cases, pose serious health issues. **Water pollution** is said to occur when toxic pollutants and particulate matter are introduced into water bodies such as lakes, rivers, and seas. These contaminants are generally introduced by human activities like improper sewage treatment and oil spills (Pradip, Ateeque, Qiaoqiao, Jonatas & Ezzat, 2020). Isife (2017) stipulated that Environmental degradation has resulted in the deterioration of Nigeria's urban and rural environmental quality, which is characterized by water shortages and floods that play a major role in the transmission of communicable diseases.



Image 2: Takau bridge in Jema'a Kaduna

Photographer: Timothy Titus

Camera Model: Nikon D3000, F-stop: f/4, Exposure Time: 1/3200

ISO: 200, Focal Length: 22 mm, Aperture: 3.9, No Flash.

The above image shows indiscriminate dumping of refuse by humans around and under the bridge which is the major channel that drains the city of Kafanchan, Jema'a LGA. This is an eyesore and activity that can cause an outbreak of disease and facilitate floods during the rainy season.



Image 3: Refuse Dump in Jema Kaduna.

Photographer: Timothy Titus



Camera Model: Nikon D3000, F-stop: f/4, Exposure Time: 1/3200
ISO: 200, Focal Length: 22 mm, Aperture: 3.9, No Flash.

Image 3 is another evidence of the poor attitude of humans toward the environment, which not only degrade its beauty but causes air pollution, and blockage of the gutter which is one of the causes of flood in the town. This also shows that the environment is not well taken care of. This unlawful act should be checked and stopped by the appropriate quarters.

Deforestation

Forests are invaluable property of a nation because they provide raw materials to modern industries, timber for building purposes, and habitats for numerous types of animals and microorganisms. Good fertile and nutrient-rich soils having a high content of organic matter offer protection to soils by binding the soils through the network of their roots and by protecting the soils from the direct impact of falling raindrops. They encourage and increase the infiltration of rainwater and thus allow maximum recharge of groundwater resources, minimize surface run-off and hence reduce the frequency, intensity, and dimension of floods. Deforestation is the cutting down of trees to make way for more homes and industries. Rapid growth in population and urban sprawl are two of the major causes of deforestation. Apart from that, the use of forest land for agriculture, animal grazing, and harvests for fuelwood and logging are some of the other causes of deforestation. Deforestation contributes to global warming as decreased forest size puts carbon back into the environment.



Image 4: A tree cut down for timber.
Photographer: Timothy Titus



Camera Model: Nikon D3000, F-stop: f/5.6, Exposure Time: 1/100
ISO: 200, Focal Length: 18 mm, Aperture: 3.6, with Flash

The above shows a tree cut down for timber. This tree was well-positioned in front of a residential home. The implication of destroying the tree is that a major wind-breaker has been destroyed, exposing the house to direct disaster from the wind. Any house that stands in isolation and without trees around, its roof is under the threat of being destroyed by a strong wind. An example is shown in image 5 below.



Image 5: A roof affected by wind.

Photographer: Timothy Titus

Camera Model: Nikon D3000, F-stop: f/5.6, Exposure Time: 1/640
ISO: 200, Focal Length: 20 mm, Aperture: 3.6, No Flash



Image 6: Firewood harvested from Gidan Waya's forest.



Photographer: Timothy Titus

Camera Model: Nikon D3000, F-stop: f/6.3, Exposure Time: 1/400

ISO: 200, Focal Length: 18 mm, Aperture: 3.6, No Flash

Image 5 above shows a bunch of wood harvested from the Gidan Waya's forest which is a concern because the trees are being destroyed and consumed without replacement. Based on experience as citizens of Nigeria, there are factors behind the destruction of trees for firewood in Jema'a LGA of Kaduna State. These factors include poverty and cultural belief. The majority of the people in the Jama'a villages cannot afford the cost of using gas for cooking. In the aspect of cultural belief, many people have the notion that food cooked using firewood tastes better than that cooked on gas.

Conclusion

Environmental degradation has become a topic of discussion and a world concern. Photography is a vital tool for communicating environmental issues modern words can. Therefore it is concluded that photographic images have the power of raising people's consciousness toward the environment and environmental conservation. It is evident that poverty contributes to the destruction of nature which is seen in the destruction of forest for firewood. It is also clear that humans contribute greatly to the degradation of the environment. This is shown in the photographic images explored for this paper.

Recommendations

For the purpose of improving the quality of the environment and its conservation, the following recommendations were tendered:

- i. The government should revisit the monthly public sanitation which was done every last Saturday of the month
- ii. Conservation photography should be encouraged to create environmental awareness to change the attitudes of people toward the environment.
- iii. There should be regular inspection by officials of Local and state governments to ensure that the environment is protected
- iv. Afforestation should be encouraged
- v. The government should enforce laws that will regulate the utilization of natural forest

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