

ENVIRONMENTAL AND HEALTH RISKS OF BUSH BURNING: INVESTIGATING THE
STRATEGIC CONTROL MEASURES IN RURAL COMMUNITIES IN AKWA IBOM STATE

By

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ABSTRACT

This research looks at the environmental and health risks of bush burning, investigating the strategic control measures in rural communities in Akwa Ibom State. The study noted that many pollutants are emitted when burning bushes, including ozone, hydrocarbons, nitrogen oxides, and carbon monoxide, all of which contribute to air pollution and negative health effects. The research highlights the need for immediate action and the detrimental effects of bush fires on ecological balance and human well-being. The proposed strategies for reducing these risks include public education campaigns, strengthened regulations, neighborhood-based fire safety programs, encouragement of alternative livelihoods, and the deployment of preventative alarm systems. These strategies have the potential to address the underlying causes of bushfires and promote long-term development in rural areas. This investigation provides policymakers, stakeholders, and community stewards in Akwa Ibom State and beyond with crucial insights by clarifying the health and environmental consequences of bush burning and offering workable alternatives. It emphasizes how important it is to work together to protect the environment, maintain public health, and spread sustainable land management techniques throughout rural areas. The study covers a number of noteworthy topics, including bush burning, the dynamics of rural communities, types of environmental hazards caused by bush burning, solutions for common bush burning incidents, methods for reducing health risks associated with bush burning, and strategies for reducing risks to the environment associated with bush burning. The study concluded that bush burning has significant consequences for the health of humans and the integrity of ecosystems. Therefore, understanding the extent of these risks and defining effective strategies to mitigate them become essential requirements for promoting long-term development in rural communities. One of the recommendations of the study was that Akwa Ibom State should make sure that laws against random bush burning are strictly enforced, strengthening public health and environmental protection.

KEYWORDS: Environment, Health, Health Risks, Bush Burning, Rural Communities, Akwa Ibom State.

INTRODUCTION

Both the ecology and human health have suffered because of bush fire. Air pollutants such carbon monoxide, hydrocarbons, hydrogen sulfide, nitrogen oxides, sulfur oxides, ozone, and other oxidants are produced as a result. According to Hamid (2010), population explosions, industrialization, urbanization, and intensive agriculture have caused tremendous damage to our environment. The issue has been made worse by man's overuse of natural resources and misunderstanding of the laws of nature. In rural, underdeveloped nations where traditional agricultural techniques are used, the great majority of farmers utilize bush fire as one of their farming strategies. This practice could be described as the process of clearing, gathering, and burning forestland for preparing the land for crop or livestock production (Aluko, 2019).

Odeyemi (2020) mentioned that bush burning, a traditional land management practice, has long been ingrained in the rural communities of Akwa Ibom State, Nigeria. Although it may have had other uses in the past, such as clearing land for farming or hunting, the practice currently presents serious threats to the environment and public health. Bush burning needs immediate action since it presents serious dangers to the environment and public health in remote Akwa Ibom State towns. Through the implementation of tactical measures including public awareness campaigns, regulation enforcement, alternative livelihoods, community-based fire control, and early warning systems, stakeholders may lessen the negative effects of bush burning and encourage sustainable development in the area. The environmental and health risks associated with bush burning in rural communities of Akwa Ibom State demand urgent attention and concerted action (Akwa Ibom State Government, 2022).

This study aims to assess the threats that bush burning poses to the environment and human health in rural communities in Nigeria's Akwa Ibom State, as well as potential mitigation strategies. Common land management techniques like bush burning have a big impact on the ecology and people's health. Sustainable development in rural regions depends on recognizing the scope of these threats and developing workable solutions.

CONCEPT OF BUSH BURNING

During the dry season, when the grasses and weeds are dry and combustible, bush burning is a frequent occurrence. The primary uses of bush burning in agriculture are for soil fertility enhancement, insect control, and land clearance for cultivation. The act of purposefully or unintentionally setting fire to plants is known as bush burning. It's a prevalent practice in Nigeria. Bush burning, however, has a lot of detrimental repercussions on the economy, health, and ecology. It causes air pollution, soil degradation, loss of biodiversity, greenhouse gas emissions, damage to infrastructure and livelihoods, and increased vulnerability to climate change (Wikipedia, 2024).

According to Otitoju and Uka (2019), bush burning is the removal of the natural vegetation cover that protects the soil surface using fire. As a result, the land is exposed to the impacts of UV light, water erosion, and wind. Burning bush has a negative impact on the economy, health, and environment. Air pollutants such carbon monoxide, hydrocarbons, hydrogen sulfide, sulfur, nitrogen oxide, ozone, and other oxidants are produced as a result. Burning bushes releases particulate matter in the form of smoke, fumes, dust, and mist.

Ogundipe (2024) mentioned that bush burning, also known as slash-and-burn agriculture, has been a traditional farming practice in many parts of the world for centuries. Clearing and burning bush is a common agricultural technique known as "bush burning." In West Africa, it is a customary behavior. It is regarded as a form of environmental danger even if it is a rapid method of eliminating the weeds. Bush burning may be done for agricultural, social, or economic reasons. Nigerian bush burning is caused by a number of things, including as farming methods, hunting, insect management, and unintentional ignition.

Mbewe (2022) defined bush burning as the process of setting forest vegetation on fire in order to clear a piece of land for farming or get rid of waste in the environment. The majority of people who engage in bush burning do it with the best of intentions, but they are frequently ignorant of the harm that their actions bring to the surrounding crops, trees, and wildlife. When hunting, the bush is purposefully set on fire to capture tiny animals. During the dry season, when most plants and woodlands have dried out and are extremely flammable, other fires are started accidentally. Small fires that subsequently spread to larger ones can be started by cigarettes, matches, campfires, and other objects. The practice of burning plants to remove it is known as bush burning. Bush burning may be done for agricultural, social, or economic reasons. In West Africa, it is a customary behavior. It is regarded as a form of environmental danger even if it is a rapid method of eliminating the weeds. Bush burning is a very popular act in Nigeria, especially during the dry season when the weeds and grasses are dry (Lesson Notes, 2023). The act of clearing, collecting, and burning forestland to make way for the cultivation of crops or cattle is known as the bush burning procedure. We name this area of ground being prepped for agricultural the swidden.

Traditionally, the practice has been carried out since time immemorial and is considered a method of replenishing the lands, especially where shifting cultivation is adopted (Tikaysmall, 2016). The uncontrolled burning of plants in woods, grasslands, or shrublands is referred to as bush burning, often known as wildfires or bushfires. Although fire has always been a normal component of many ecosystems, human activity has drastically changed the frequency, severity, and effects of bush burning. Bush burning poses significant environmental, socio-economic, and public health challenges, necessitating a comprehensive approach to prevention, detection, and response (IPCC, 2019).

CONCEPT OF RURAL COMMUNITIES

Geographical regions outside of towns and cities are referred to as rural communities, or simply the countryside. Small villages and a low population density characterize typical rural areas. Rural regions are sometimes defined as those with little or no development, including forestry and agricultural areas. Rural areas are defined differently in each country for administrative and statistical reasons. Because rural communities are closely associated with land-based businesses like forestry, agriculture, and resource extraction, they have distinct economic and social dynamics. Rural economies can be subject to boom and bust cycles and vulnerable to extreme weather or natural disasters, such as droughts (Wikipedia, 2024).

Cheprasov (2024) mentioned that rural communities are areas that are non-urban, meaning they have fewer than 50,000 and 2,500 people in a designated area. The bulk of the world's land is found in rural regions, although the proportion of people who live in these places is declining. Compared to urban towns, rural villages are frequently

smaller and/or have lower population densities. In rural settlements, the population is often smaller and more homogeneous, with an average age of 55. While living expenses and the cost of commodities are often cheaper in rural regions, household incomes are typically lower and rates of poverty are higher. Geographic isolation, or the way a place's topography divides its inhabitants, is one characteristic that characterizes rural communities.

A rural neighborhood or region is a wide expanse of land with a low population density and few houses or other structures. There is virtually little population density in rural regions. Living in a city or other urban region is common. They live and work in close proximity to one another. Less people live in rural areas, and those who do are spread out across large distances in their homes and places of work. The majority of rural communities' main industry is agriculture. Most individuals work or reside on ranches or farms. Small towns, villages, hamlets, and other settlements are located in or encircled by rural areas. Because there are fewer people and buildings in rural areas than in cities, wildlife is more common there. In fact, rural areas are often called the country because residents can see and interact with the country's native wildlife (National Geographic, 2024).

MacTavish (2020) stated that rural communities are spatially, physically, and socially distinctive. Traditionally excluded from the urban definition, rural regions are often vast, open spaces with very few dwellings and inhabitants compared to urban areas, which have higher densities. People live farther apart in rural regions, and there are bigger gaps between their residences and places of commerce. The majority of people live or work on farms or ranches, and agriculture is the main industry in most rural communities. Rural regions frequently encircle tiny communities, such as hamlets, villages, or small cities. Wildlife is also much more common in rural areas due to the lack of people and buildings (Safeopedia, 2017).

TYPES OF ENVIRONMENTAL RISKS OF BUSH BURNING

The following are types of environmental risks associated with bush burning:

- **Loss of Biodiversity:**

The variety of living forms on Earth, such as fungi, animals, plants, and microbes, as well as the ecosystems in which they coexist and interact, is referred to as biodiversity. Bush burning may quickly devour large tracts of vegetation, destroying homes for a wide variety of plant and animal species and interfering with vital ecological processes like pollination, seed dissemination, and nutrient cycling. This results in a loss of biodiversity. Bushfires can cause the immediate death of a wide variety of animals, including mammals, birds, reptiles, insects, and many species that cannot flee quickly enough to find safety in unburned areas or escape the extreme heat and flames. Some species may rely on fire cues for germination or regeneration, but excessively frequent or intense fires can disrupt these natural processes, leading to changes in vegetation composition and structure (Lindenmayer, 2021).

- **Air Pollution:**

There are serious environmental concerns associated with bush burning, a common occurrence that is frequently made worse by climate change. One such risk is air

pollution. When vegetation burns during bushfires, a variety of pollutants are released into the atmosphere, harming air quality and endangering ecosystems as well as human health. The kind of plant burned, the severity of the fire, and the weather may all affect the smoke's composition after a bushfire. The exact health effects of smoke are difficult to determine because of the complex mixture of gases, aerosols, and chemical substances that it can include. However, exposure to bushfire smoke has been associated with respiratory symptoms, cardiovascular effects, and increased hospital admissions for respiratory and cardiovascular conditions (Johansson, 2018).

- **Soil Erosion and Degradation:**

Bush burning poses serious environmental problems due to soil erosion and degradation, which compromise ecosystem production and health. Through a number of processes, including the elimination of vegetative cover, the breakdown of soil structure, the loss of organic matter, and increased runoff, bush burning adds to soil erosion. Additionally, bush burning speeds up the processes that degrade soil, reducing its productivity and quality through changes in pH, compaction, and nutrient loss. Bush burning reduces the soil's fertility and productivity by destroying its organic matter and minerals. It also reduces the soil moisture and increases the soil temperature, making it more susceptible to erosion and compaction. It also alters the soil pH and microbial activity, affecting the soil quality and health (Sulaeman, 2020).

- **Water Contamination:**

Burning bush is a widespread practice across the world that presents a number of environmental problems, including contaminated water. Burning brush exposes the soil by removing vegetative cover. Rainfall later on may cause erosion, which might sweep silt into neighboring lakes, rivers, and streams. Water quality is deteriorated by sediment flow, which lowers oxygen and clarity levels and damages aquatic ecosystems and life cycles. Bush burning delivers nutrients like nitrogen and phosphorus into the environment through the combustion of organic debris. These nutrients have the potential to cause eutrophication, a condition in which an overabundance of nutrients promotes the development of algae, via seeping into groundwater or runoff into surface water. Algal blooms not only deplete oxygen levels upon decomposition but also produce toxins harmful to aquatic life (Denchak, 2023).

- **Damage to infrastructure and livelihoods:**

Roads, bridges, buildings, electricity lines, and communication networks are examples of infrastructure that may be destroyed or damaged by bush fire, which can have an impact on service delivery, transportation, and communication. Additionally, it can harm or completely destroy assets used for a living, such as machinery, animals, crops, and food supplies, which will have an impact on people's income, well-being, and access to food. Bush fire often has a detrimental impact on the livelihood of those who reside in these places and immediately affects family security. Bush burning can affect the livelihood of people if measures are not taken (Aluko, 2019).

- **Increased vulnerability to climate change:**

Rather than being a static condition, vulnerability is a complex process influenced by social, political, and economic factors that interact both locally and globally. The

definition of vulnerability is a function of exposure, sensitivity, and ability to adapt. Burning bush weakens ecosystems' and populations' ability to adapt to the effects of climate change, including heat waves, droughts, floods, and disease outbreaks. It also reduces the potential of ecosystems and communities to mitigate climate change, such as by sequestering carbon, regulating water, and providing ecosystem services (Thomas, 2018).

- **Greenhouse gas emissions:**

Earth warms due to the trapping of heat by greenhouse gasses. Nearly majority of the rise in greenhouse gases in the atmosphere is caused by human activity. The main cause of today's climate change is greenhouse gas emissions from human activity. Burning bush generates a lot of greenhouse gases, which cause climate change and global warming. These gases include carbon dioxide, methane, and nitrous oxide. These gases can also affect regional and global climate patterns, such as rainfall, temperature, and wind (United States Environmental Protection, 2024).

TYPES OF HEALTH RISK OF BUSH BURNING

The following are the types of health risks associated with bush burning:

- **Respiratory Problems:**

Diseases of the chronic respiratory system (CRDs) impact the lungs' airways and other components. Asthma, occupational lung disorders, pulmonary hypertension, and chronic obstructive pulmonary disease (COPD) are among the most prevalent. The inhalation of smoke and particle matter is one of the most obvious and immediate health concerns associated with bush burning. Hazardous compounds found in smoke include sulfur dioxide, nitrogen oxides, carbon monoxide, and particulate matter. These compounds can enter the lungs deeply and worsen pre-existing respiratory conditions including asthma and bronchitis. Prolonged exposure to these pollutants can result in chronic respiratory conditions (World Health Organization, 2024).

- **Cardiovascular Complications:**

Exposure to the toxins caused by bush burning might cause cardiovascular difficulties in addition to respiratory concerns. Your heart and blood arteries are affected by cardiovascular illnesses, or CVDs. Fine particulate matter can enter the bloodstream, causing inflammation and increasing the risk of heart attacks, strokes, and other cardiovascular diseases like heart failure, pericardial disease, aortic disease, and cerebrovascular disease (Cleveland Clinic, 2022).

- **Eye Irritation:**

Feelings of dryness, itching, soreness, or grittiness in the eyes are referred to as ocular irritation. Burning shrub smoke can irritate the eyes, resulting in redness, stinging, and wetness. Prolonged exposure may lead to more severe eye conditions such as conjunctivitis, corneal damage, burning pain, sensitivity to light, and blurry vision (Barrell, 2020).

- **Skin Irritation and Allergies:**

When the immune system overreacts and produces antibodies to fend against these "invaders," skin irritation and allergies result. Skin irritation from coming into contact with the ash and other leftovers from bush burning can result in dermatitis, rashes, and itching. The symptoms of pre-existing skin diseases may worsen for those who already have them. Additionally, the smoke can contain allergens that trigger allergic reactions in susceptible individuals (Sachdev, 2023).

- **Exacerbation of Existing Health Conditions:**

Bush burning can be especially harmful to people who already have respiratory diseases like asthma or chronic obstructive pulmonary disease (COPD). The smoke and pollutants can exacerbate their symptoms, leading to respiratory distress and increased healthcare utilization (Hassan, 2022).

- **Impact on Vulnerable Populations:**

Bush burning poses a significant health danger to children, the elderly, and people with weakened immune systems in particular. People without homes and those with existing medical issues have been disproportionately affected by the problems caused by bush fire. Their developing or weakened respiratory and immune systems make them more prone to respiratory infections, exacerbations of chronic conditions, and other adverse health effects (Dean, 2023).

- **Long-term Health Impacts:**

The health of populations—physical, psychological, social, and economic—will probably be negatively impacted for some time by bush fire. Chronic exposure to the pollutants from bush burning can have long-term health consequences, including reduced lung function, increased susceptibility to respiratory infections, and a higher risk of developing chronic respiratory and cardiovascular diseases over time (National Library of Medicine, 2012).

- **Environmental Health Risks:**

Every year, people who live or work in harmful conditions pass away all around the world. It's important to remember that bush burning presents serious environmental dangers, such as habitat destruction, soil degradation, and air and water pollution, even if it has no direct bearing on human health. These environmental impacts can indirectly affect human health by disrupting ecosystems and food chains, leading to changes in air and water quality, and affecting agricultural productivity (Brusseau, 2019).

REMEDIES TO PREVALENT BUSH BURNING IN RURAL COMMUNITIES

Bush burning is a common practice in rural areas around the globe, yet it presents serious problems for the environment, society, and economy. Bush burning is a common problem in rural areas that has to be addressed using a multipronged strategy that includes community engagement, regulation, education, and alternative techniques. Nonetheless, putting into practice workable solutions can lessen its effects and encourage rural development that is sustainable. By implementing these remedies in a coordinated and sustained manner, it is possible to mitigate the prevalence of bush

burning in rural communities, thereby protecting human health, preserving the environment, and promoting sustainable development (Joshua, 2023). Here are some effective remedies to combat bush burning in rural communities:

- **Public Awareness and Education Campaigns:**

By raising people's knowledge and understanding of environmental sustainability challenges, education and awareness campaigns may encourage sustainable behaviors and practices among individuals and communities. It is imperative to initiate extensive public awareness efforts to inform rural populations about the detrimental effects of bush burning on their well-being, the environment, and means of subsistence. These campaigns can include workshops, seminars, posters, and educational materials distributed in local languages to ensure widespread understanding (SciSpace, 2024).

- **Promotion of Sustainable Land Management Practices:**

The idea behind sustainable land management is the understanding that land is a limited resource and that using it now shouldn't affect how future generations may utilize it. Utilizing land resources to promote social progress, economic expansion, and environmental sustainability is the goal. Bush burning may be less necessary if sustainable land management techniques like mulching, composting, and mechanical clearing are promoted. Providing training and technical support to farmers and landowners on these alternative methods can facilitate their adoption (DGB Group, 2023).

- **Implementation and Enforcement of Regulations:**

While enforcement refers to the process of making sure rules and regulations are followed through monitoring and investigations, implementation refers to the act of putting laws and regulations into practice. It is crucial to create and implement laws that limit or control bush-burning activities. This might entail establishing precise rules for controlled burning, defining acceptable times and places, and enforcing sanctions for noncompliance. Collaboration between local authorities, environmental agencies, and community leaders is vital for effective enforcement (Panghal, 2023).

- **Introduction of Incentives:**

Giving communities incentive to use alternative land clearance techniques, can assist accelerate behavior change? An incentive is a factor that exerts a driving force or pushes someone to do something or behave in a specific manner in order to complete the goal. This could include subsidies for equipment and materials needed for alternative practices, tax breaks, or access to funding for sustainable land management projects (Vedantu, 2024).

- **Community-Based Fire Management Programs:**

In contrast to other natural disasters, bushfires are mainly brought on by human activity. They may be avoided with well-known and accessible methods including education, awareness raising, and capacity building. In particular, community-based fire management is crucial. Participating in fire management initiatives can provide local communities the authority to take charge of efforts to prevent and control wildfires. This may involve training community members in fire prevention techniques,

establishing community fire brigades, and organizing regular patrols to monitor for and respond to wildfires (Global Fire Monitoring Center, 2017).

- **Investment in Fire Suppression Infrastructure:**

Any infrastructure for fire prevention must have a fire suppression system. Any collection of technical components intended to put out a fire is referred to as "fire suppression." Investing in fire suppression infrastructure may help rural towns respond to wildfires more swiftly and efficiently. This infrastructure includes things like water sources, firebreaks, and firefighting apparatus. Providing training to local firefighters and equipping them with the necessary resources is essential for building resilience against bushfires (CLM Fireproofing, 2020).

TREATMENT OF HEALTH RISK OF BUSH BURNING

The following can be used to treat the health risks of bush burning:

- **Education and Awareness:**

Education efforts aimed at communities that burn brush can increase public knowledge of the risks to health and damage to the environment that come with this practice. Promoting awareness about the health hazards of bush burning is crucial. Providing information about alternative land-clearing methods and sustainable agricultural practices can help communities make informed decisions and reduce their reliance on bush burning (Johnston, 2012).

- **Regulation and Enforcement:**

Strict laws governing bush burning should be put in place and strictly enforced to help lessen the negative health effects. Legislation that forbids uncontrolled burning, particularly during dry seasons, and imposes fines on offenders might discourage the activity and safeguard public health. Effective enforcement mechanisms, including fines and penalties for violators, are essential for ensuring compliance with regulations and preventing unauthorized burning activities (Shen, 2019).

- **Adoption of Sustainable Practices:**

While maintaining soil fertility and biodiversity, encouraging the use of sustainable land management techniques like mulching, composting, and mechanical clearing can lessen the need for bush fire. The adoption of sustainable practices offers a promising solution to mitigate the health risks of bush burning while promoting environmental conservation and agricultural sustainability (Schipanski, 2014).

- **Alternative Energy Sources:**

One sustainable way to reduce the health concerns connected with bush burning is to use alternate energy sources. Providing access to clean energy alternatives such as biogas, solar, and wind power can reduce dependence on biomass burning for cooking and heating, thereby mitigating air pollution and respiratory health risks (Chowdhury, 2017).

- **Community Engagement and Participation:**

A systematic approach to an organization's community-based stakeholders is known as community engagement, and it entails cultivating connections, creating communications, and overseeing interactions in order to accomplish predetermined goals for both the community and the organization. Engaging local communities in decision-making processes and empowering them to implement sustainable land-use practices fosters ownership and a long-term commitment to preserving environmental and public health (Simply Stakeholders, 2023).

REMEDIES TO BUSH BURNING ENVIRONMENTAL RELATED RISK

According to the National Interagency Fire Center (2021), remedying the environmental risks of bush burning requires a multifaceted approach that addresses prevention, regulation, sustainable practices, early detection, and restoration efforts. Below are the remedies to the bush burning environmental-related risk:

- **Prevention through Education and Awareness:**

It is crucial to teach communities about the risks associated with bush burning as well as the effects it has on the ecosystem. Campaigns to raise awareness might stress the value of sensible land management methods and fire safety measures. Educating the community about less destructive alternatives to conventional land clearing techniques, like manual clearing or supervised controlled burning.

- **Implementation of Strict Regulations:**

Strict laws and fines against bush burning can serve as a disincentive. Laws should forbid burning without permission and penalize offenders with fines or other sanctions. Working together with law enforcement, environmental organizations, and local government to monitor and enforce adherence to regulations.

- **Promotion of Sustainable Agricultural Practices:**

Promoting the use of sustainable farming methods can aid in lessening the demand for slash-and-burn methods. Crop rotation, mulching, and agroforestry are a few techniques that can increase soil fertility and lessen the need for damaging land-clearing techniques. Training, tools, and incentives for farmers to adopt sustainable practices can promote environmental stewardship over the long run.

- **Early Detection and Rapid Response:**

Early wildfire detection can be aided by the development of effective early detection technologies, like as satellite monitoring and community-based reporting networks. The spread and environmental damage caused by wildfires are reduced by forming rapid response teams with firefighting apparatus to quickly contain and put out the flames.

- **Reforestation and Ecosystem Restoration:**

It is essential to fund reforestation projects to repair ecosystems that have been harmed by bushfires in order to conserve biodiversity and sequester carbon.

Participating in habitat restoration and tree planting campaigns with the local community can promote environmental responsibility and a sense of ownership.

- **International Collaboration and Knowledge Sharing:**

International cooperation and knowledge exchange on wildfire management techniques can be facilitated to enable nations to benefit from one another's best practices and experiences. Working together to develop comprehensive strategies to reduce the environmental risks connected with bush burning with international organizations like the International Union for Conservation of Nature (IUCN) and the United Nations Environment Programme (UNEP).

CONCLUSION

Bush burning has severe impacts on ecology and human health, evident in the production of pollutants like carbon monoxide and hydrocarbons. Factors like population growth, industrialization, and intensive agriculture worsen environmental damage, especially in underdeveloped regions such as Akwa Ibom State, Nigeria. Traditional practices like bush burning further endanger the environment and public health. Immediate action is imperative, necessitating measures like awareness campaigns, regulation enforcement, and community-based fire control to mitigate these risks and promote sustainable development. Collaborative efforts among stakeholders, policymakers, and communities are crucial in addressing the urgent environmental and health concerns associated with bush burning. This study emphasizes the need for viable solutions to protect ecosystems and human well-being in rural areas.

RECOMMENDATIONS

- Akwa Ibom State government should ensure stringent enforcement of laws against indiscriminate bush burning to safeguard the environment and public health.
- Akwa Ibom State government should ensure comprehensive community education campaigns to raise awareness about the hazards of bush burning.
- Akwa Ibom State government should ensure to provide access to sustainable agricultural practices, offering training and resources to mitigate reliance on bush burning.

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