

Media and Road Shoulder Agricultural Practice in Bayelsa State, Nigeria: Focus on Sagbama-Ekeremor Road Axis

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Abstract

Background: Bayelsa State's topography poses serious challenges to sustainable agriculture. Its landscape is typified by swampy lowlands, creeks, tributaries, and marshes, which, though rich in aquatic resources, limit the availability of dry arable land suitable for conventional farming. Consequently, many rural farmers have resorted to marginal lands, including road shoulders, as alternative sites for cultivation.

Objectives: The objectives of this study were to determine the reasons farmers engage in road shoulder farming; ascertain the awareness level of the dangers associated with such practice, and examine whether the media have been sensitizing the farmers about these dangers

Methodology: The study adopted the survey research design, with a sample of 100 respondents purposively drawn from farming communities along the selected road axis. Quantitative and qualitative research methods were used. Data were analyzed thematically, and in using frequency tables and percentages.

Results: Findings revealed that economic hardship, scarcity of arable land, and convenience are the major factors responsible for road shoulder farming. The study also found a low level of awareness of the dangers associated with the practice, and minimal media sensitization efforts.

Conclusion: While road shoulder farming provides temporary economic relief for farmers in Sagbama-Ekeremor road corridor, it poses significant dangers to life and road safety.

Unique contribution: Insights from this study contribute to evidence-based communication strategies and guide policy interventions that balance livelihood needs, safety priorities, and sustainable agricultural practices in Bayelsa State.

Key Recommendations: It was recommended that the Bayelsa State Government should create

more accessible and safe agricultural lands for rural farmers, and that the media, in collaboration with government and non-governmental organisations, should intensify awareness campaigns to discourage the dangerous use of road shoulders for farming.

Keywords: *agriculture, farming, media, road, safety, shoulder*

Introduction

Long before the discovery of oil turned Nigeria into a petroleum-dependent nation, agriculture was the backbone of the country's economy, supplying jobs, food, and raw materials for businesses (Guanah, Emakunu, Okowa-Nwaebi & Egbra, 2020). The industry continues to be a vital pillar of national growth, accounting for a sizable portion of the GDP and providing the majority of Nigerians with their primary source of income. With more than 70% of Nigerians working in subsistence farming, agriculture contributed roughly 22.35% of the country's GDP in 2021, compared to roughly 23.07% between 1981 and 2023 (Central Bank of Nigeria, 2025; Food and Agriculture Organization, 2019). Despite this importance, the sector still performs poorly when compared to industry (27.47%) and services (49.50%) because of inadequate land tenure arrangements, little mechanization, and the negative consequences of climate change (Central Bank of Nigeria, 2025; Food and Agriculture Organization, 2019).

By supplying raw materials, producing foreign exchange through plantation crops like cashew, cocoa, coffee, and rubber, and offering markets for industrial goods like fertilizers, storage facilities, and farm inputs, agriculture supports industrial development (Guanah, Obi, Egbra, & Akumabor, 2017). Also, it guarantees food security, which is necessary for both economic diversity and national stability. In order to boost productivity and sustainability, the Nigerian government has been encouraged to acknowledge these roles and revitalize agricultural policies, promote mechanisation, and increase access to technology (Central Bank of Nigeria, 2025).

Agriculture is still a major economic sector in Bayelsa State, which is in the centre of Nigeria's Niger Delta and has been the subject of recent state-led development projects. In addition to training young people in contemporary farming methods like soilless and greenhouse farming, the state administration has started dry-season farming initiatives aimed at crops including rice, cassava, and plantains (*Bayelsa Watch*, 2024; *Vanguard Nigeria*, 2025). By investing more than ₦500 million in equipment and forming alliances with foreign organizations to promote best practices, the Ministry of Agriculture hopes to become self-sufficient in rice production, with an annual target of one million metric tonnes (*Bayelsa Watch*, 2024; *The Sun Nigeria*, 2024). These initiatives show a growing dedication to making Bayelsa an agriculturally based, productive economy.

However, sustainable agriculture has significant obstacles due to the state's geography. The swampy lowlands, creeks, streams, and marshes that characterize Bayelsa's geography restrict the amount of dry arable land that can be used for conventional farming, despite the region's abundance of aquatic resources (United Nations Development Programme - UNDP, 2022a). As a result, many farmers in rural areas have turned to marginal places, such as the shoulders of roads, as alternate agriculture locations. This practice has grown especially common along the Sagbama–Ekeremor axis, where small-scale farmlands have replaced road shoulders that were initially intended as drainage areas and emergency safety zones.

Road shoulders perform vital safety and infrastructure roles by acting as a buffer between pedestrians and traffic, helping with drainage management, and serving as pull-off locations for vehicles in difficulty (FRSC Annual Report, 2022; SSATP Africa Status Report on Road Safety,

2025). These goals are compromised when they are turned into farmlands, which also leads to a hazardous overlap between driving and farming. In addition to drivers losing safe emergency spaces, farmers growing close to high-speed traffic run the risk of serious accidents, which frequently leads to traffic jams and secondary crashes when cars stop on the main carriageway (FRSC, 2022; SSATP, 2025).

The struggle for livelihood in a landscape that simultaneously jeopardizes those very livelihoods is a deep socio-environmental dilemma that is reflected in this predicament. Furthermore, it highlights more general concerns about safety education, public awareness, and behavior modification in rural development contexts. Road shoulder farming's continued existence begs important issues regarding how well local populations are aware of these dangers and how the media has contributed to the spread of preventive awareness.

According to McQuail (2010), the media plays a crucial role in educating the public and influencing behavior on matters of social importance. In this regard, promoting public awareness of the risks involved and opposing risky farming practices depend heavily on effective media involvement (Faruk, Okaiyeto & Musa, 2018).

Statement of the Problem

In Bayelsa State, the practice of road side farming, especially along the Sagbama–Ekeremor axis, is a complicated example of how public safety and livelihood requirement meet. Many rural farmers turn to growing crops along road shoulders as an adaptive survival strategy in a state where access to reliable agricultural land is restricted by swampy topography, marshlands, and seasonal flooding (UNDP, 2022b; ReliefWeb, 2024a). However, this approach compromises the main safety and infrastructure functions of road shoulders, which are intended to serve as drainage channels, emergency pull-off areas, and pedestrian and vehicle safety buffers (FRSC Annual Report, 2022; SSATP Africa Status Report on Road Safety, 2025).

Farmers put themselves and other road users at danger when they turn these safety zones into farmlands. Along high-speed corridors, the presence of crops and farming operations limits vehicle maneuverability, hinders emergency stops, and raises the risk of accidents and secondary collisions (FRSC, 2022; SSATP, 2025). The practice continues despite the obvious drawbacks, which begs the question of how well-informed farmers are about these concerns and how much public education and media sensitization have helped to solve the problem.

Roadside land encroachment and unsafe land use are examples of human-induced risk factors that receive little attention in Nigerian road safety studies and media reports, which typically concentrate on driver behavior, vehicle crashes, and road infrastructure quality (Akintayo, Yusuf, & Eze, 2024a; RSIS, 2025). With few focused interventions addressing the socioeconomic and behavioural causes of road shoulder farming, this research and communication gap has led to policy neglect.

Likewise, this practice's continued existence implies that either the current sensitization campaigns are failing or that the messages have not sufficiently connected with or reached rural populations. In other Nigerian states, where harmful livelihood practices continue despite public campaigns, similar shortcomings in awareness and communication efficacy have been reported (Ibrahim, 2022a; Adeyeye, 2024). Therefore, the circumstances in Bayelsa State underscore the urgent need to examine not just the socioeconomic factors contributing to the occurrence but also the function of the media as change agents.

Accordingly, this study sought to examine why farmers in Bayelsa State continue to engage in road shoulder cultivation despite its hazards, assess their level of awareness about the dangers

involved, and evaluate the extent and effectiveness of media sensitisation campaigns on the issue. Without such evidence-based understanding, policy responses risk neglecting the human, livelihood, and communicative dimensions that sustain this unsafe yet adaptive rural practice.

Objectives of the study

1. To determine the reasons farmers, engage in road shoulder farming along the Sagbama–Ekeremor road axis.
2. To ascertain the awareness level among these farmers about the dangers associated with road-shoulder farming.
3. To investigate whether the media have been sensitising farmers about the dangers and to assess the reach and effectiveness of such media messaging.

Literature Review

Theoretical framework

This study is framed primarily by Diffusion of Innovations Theory (Rogers, 2003), complemented by Risk Communication and Development Communication paradigms. Diffusion theory helps explain how awareness about risk avoidance (i.e., stopping shoulder farming) may spread through social networks, extension agents and media channels; it also predicts barriers to adoption when economic incentives are misaligned.

While development communication places more focus on bottom-up, participatory messaging and the necessity of offering options rather than just prohibitions, risk communication offers instruments for structuring and delivering safety messages (clear, actionable, repeated, and culturally appropriate). By incorporating these frameworks, recommendations are supported that use structural supports (such as enforcement, extension services, and alternate land access) in conjunction with media message to modify behavior in a sustainable manner.

A useful theoretical framework for comprehending how awareness of environmental and traffic safety policies develops throughout cultures is provided by the Diffusion of Innovations Theory (Rogers, 2003). The theory describes how social influence, communication channels, and perceived rewards determine whether people and groups embrace or reject new ideas. According to this theory, the media play the role of change agents by influencing societal norms, changing perceptions, and promoting behavioural changes through organised and reliable information campaigns (Nwachukwu, 2021). The media can improve community involvement in safe and sustainable practices by bridging the communication gap between the public and regulatory bodies by presenting environmental and safety issues in relatable situations.

Risk Perception, Behaviour Change and Diffusion Theory

Research on agricultural communication has made extensive use of behavioural change frameworks, particularly Rogers' Diffusion of Innovations, to explain why certain technologies and safe practices are adopted or rejected (Rogers, 2003; diffusion applications in Nigerian agricultural studies 2020–2024). Adoption is influenced by a number of factors, including perceived relative advantage, compatibility with livelihoods, trialability, observability of results, and complexity of advised behavior.

Without persuasive communication or alternative options reaching the community, economic necessity may trump perceived safety costs in risky behaviors (e.g., roadside growing) (Diffusion applications in Nigerian agriculture; technology adoption literature). Designing media messaging techniques that can connect with farmers' daily reality is made easier by combining diffusion

with risk communication and social norms approaches.

Environmental and Livelihood Pressures in the Niger Delta and Bayelsa State

Due to coastal geomorphology, the legacy of oil pollution, and frequent flooding, the Niger Delta's environment is fragile, making it difficult to find safe farmland and forcing households to adapt (Hyprep investigative reports; UN/UNICEF flood briefs; research on agricultural and environmental sustainability). Reliance on marginal spaces and alternate cultivation sites resulted from 2022 floods and recurring seasonal inundations that destroyed agricultural plots, decreased productivity, and uprooted households (UNICEF, 2022; UNDP, 2022b; ReliefWeb, 2024b). Particularly in Bayelsa, severe flood effects have eroded farm plots and forced farmers into more vulnerable and dangerous areas (Impact on Practical Agricultural Training, 2025). The decision-making environment in which shoulder farming develops as an adaptive method is supported by these environmental factors.

Road Shoulder Farming, Road Encroachment, and their Safety Implications in Rural Nigeria

The practice of growing crops on the little strip of land next to paved roads, which is frequently intended as a drainage channel, safety buffer, or emergency stop area, is known as road shoulder farming (FRSC, 2022). Due to issues including land scarcity, soil degradation, and frequent flooding, farmers in rural Nigeria, particularly in flood-prone areas like Bayelsa State, are increasingly using these designated areas as alternatives to traditional farmlands (UNDP, 2022a; ReliefWeb/OCHA, 2024). Similar trends have been noted in states like Benue, Kogi, and Anambra, where risky farming techniques continue to be used due to a lack of arable land, lax enforcement of land-use regulations, and low public awareness (Ibrahim, 2022a; Adeyeye, 2024). Researchers refer to this phenomena as a type of "livelihood–risk trade-off" (Akintayo, Eneh, & Yusuf, 2024b), in which populations with limited resources put their immediate survival and food security ahead of following safety rules. Although road side farming has temporary financial advantages, it violates safety regulations and road design standards and presents serious risks to both farmers and drivers (Eze, 2021; Okon, 2019).

In addition to farming, roadside encroachment includes a variety of unofficial land uses that spread into the road corridor, including trading booths, makeshift shelters, and crop cultivation (Systematic Reviews on Road Encroachment, 2025). By cutting sightlines, blocking drainage systems, and removing emergency refuge zones, such actions jeopardise the integrity of road infrastructure. These encroachments raise the danger of crashes, especially involving pedestrians and roadside occupants, according to the SSATP Africa Road Safety Status Report (2025) and associated studies (RSIS Review, 2025).

Research and official publications have connected roadside activities in Nigeria to avoidable collisions and postponed emergency responses (FRSC, 2022; BMC Traffic Safety Analyses, 2025). However, local studies frequently analyze land-use and encroachment trends apart from road safety problems like driver behavior, vehicle condition, and road design. Because of this division, there is a knowledge vacuum on the larger socioeconomic and infrastructure factors that influence road shoulder farming and the hazards that go along with it. As a result, new research supports an integrative approach that considers road safety as a complex socio-economic and environmental phenomenon with roots in livelihood insecurity and poor spatial planning, rather than just as a transport engineering problem (Akintayo et al., 2024b; SSATP, 2025).

Road Safety, Land Use, and Sustainable Development

The concept of sustainable development emphasises the balance between human needs and environmental safety. The United Nations Sustainable Development Goals (SDGs), particularly Goals 2 (Zero Hunger), 3 (Good Health and Well-being), and 11 (Sustainable Cities and Communities), stress the importance of safe land-use practices and resilient infrastructure (UN, 2023). Road shoulder farming, while addressing short-term hunger and income concerns, undermines the broader sustainability agenda by increasing accident risks and road maintenance costs. According to empirical data, about 8% of rural road fatalities in low-income nations each year are caused by risky land use close to transportation infrastructure (WHO, 2023). Roadside encroachment is a "neglected risk factor" that increases the incidence and severity of collisions in Nigeria, according to the Federal Road Safety Corps (FRSC, 2022). This emphasizes the necessity of a communication-focused approach that incorporates community involvement, media advocacy, and safety education.

Agricultural Communication, Media Channels and Rural Reach

Studies indicate that radio programs, especially those in indigenous languages and with participatory formats, increase farmer knowledge and adoption of new practices. In Nigeria, radio and extension agents continue to play a significant role in the dissemination of agricultural information (Adeyeye, 2024; Choice FM Benue case study, 2024; various agricultural radio impact studies 2019–2024). Although social media and e-extension are developing platforms, their reach is restricted in many Niger Delta areas by digital barriers and unequal rural access (Research on Nigerian agricultural posts on Facebook; NAERLS reports). Radio, extension, and community activities are often the most successful mix (Faruk et al., 2018; Ibrahim, 2022b; Adeyeye, 2024). According to this body of research, media could be useful for raising awareness of shoulder-farming, but only if the messages are repeated, customized, and disseminated through reliable sources.

Media Sensitization, Environmental Risk Communication, and Public Safety Awareness in Nigeria

Deliberate communication efforts to raise public knowledge and encourage behavioural change toward safer and more sustainable behaviors are referred to as media sensitization (Okoro & Ugwu, 2021). The media, including both traditional and contemporary venues, are essential for social mobilization, education, and the spread of information in Nigeria (Nwosu, 2017). They are crucial in influencing public perception and encouraging conscientious attitudes toward safety procedures and environmental management through campaigns, jingles, documentaries, and news stories (Oso, 2020; Nwankwo & Aja, 2023).

When messages are culturally appropriate, regularly repeated, and distributed through reliable and trustworthy means, successful media-driven sensitization has been shown to be able to reduce harmful behaviors in the areas of environmental management and road safety (Ogunyemi & Abiola, 2020a). Nevertheless, despite these possibilities, a large portion of Nigeria's media coverage on road safety has focused on traffic law enforcement, vehicle accidents, and infrastructure deterioration, frequently ignoring important human-induced hazards like roadside encroachment and road shoulder farming (RSIS, 2025; FRSC, 2022). This disparity is indicative of a larger pattern in which more spectacular or event-driven reporting consistently garners media attention than the environmental and developmental aspects of safety concerns.

One example of a neglected environmental and safety issue is the improper use of road shoulders

for farming. The Federal Road Safety Corps (FRSC, 2022) reports that illicit roadside activities, like as farming, trading, and informal structures, are responsible for a significant percentage of roadside accidents in Nigeria. These actions increase the danger of accidents for both drivers and pedestrians, in addition to jeopardizing the integrity of the road infrastructure. In this sense, media sensitization becomes essential for informing local communities and rural residents about the risks connected to these practices, while also encouraging adherence to safety rules and sustainable land use.

Empirical Review

The relationship between media communication, rural livelihood patterns, public safety, and rural adaptation to land scarcity in Nigeria has been the subject of numerous research. The majority of respondents to Ibrahim's (2022c) study on rural awareness of farming-related dangers in Nasarawa State lacked sufficient knowledge about safe agricultural practices close to public infrastructure. In a similar vein, Adeyeye (2024) noted that in Ondo State, radio and television campaigns rarely addressed agricultural encroachment, even if they periodically addressed road safety. This resulted in poor behavioural change effects.

According to a comparative study by Akintayo et al. (2024a), road shoulder farming continued in states like Benue and Kogi in spite of awareness of the possible risks, mainly because government and media messaging were not contextually sensitive or translated into local languages. This result supports previous claims made by Nwankwo and Aja (2023) that initiatives to raise awareness of rural risks continue to underuse local communication channels such town criers, market information boards, and community radio.

The studies of road safety communication in Nigeria conducted by the FRSC in 2022 and the RSIS in 2025 made clear that public education campaigns were primarily reactive, appearing following deadly accidents rather than being ongoing preventive initiatives. Additionally, Ogunyemi and Abiola (2020b) pointed out that most road safety mass media programs are urban-focused, ignoring the rural people that are most impacted by dangerous behaviors like road shoulder farming. Adebayo (2018) discovered that because of population pressure, Nigerian farmers frequently turn to nontraditional farmlands. Similarly, Okechukwu (2021) noted that low literacy and limited media access lead to a lack of knowledge of safety and environmental issues among rural residents. This study aims to close the gap in the literature on road shoulder farming, which is still lacking. There is still a lack of empirical research linking these environmental pressures to the social communication dynamics that support roadside cultivation, despite some studies (UNICEF, 2022; ReliefWeb, 2024a) documenting the connection between climate-induced flooding and shifting agricultural patterns in Bayelsa State. This disparity highlights the importance of the current study, which aims to investigate the behavioural, perception, and awareness aspects of road shoulder farming as well as the media's influence on safer substitutes.

Identified Research Gaps on Media Sensitisation and Road Shoulder Farming in Bayelsa State

According to the examined research, road side farming results from a complicated interaction between communication gaps, environmental restrictions, and economic necessity. Many farmers are forced to grow crops along road shoulders and drainage reserves in remote and flood-prone areas like Bayelsa State due to a lack of access to arable land, frequent flooding, and unstable livelihoods. This behavior raises the risk of accidents and infrastructure deterioration while also breaking traffic safety laws, even though it temporarily boosts the economy.

Theoretically, the media can influence public awareness and behavior, but in Nigeria, their coverage of environmental risk communication and road safety is still limited and inadequately tailored to local conditions. The majority of current campaigns and press coverage ignore human-driven environmental hazards such as roadside encroachment and road shoulder farming in favor of concentrating on traffic law enforcement, infrastructure deterioration, and auto accidents. The media's ability to promote long-lasting behavior change at the local level is compromised by this constrained framing.

Additionally, the literature points up important conceptual and empirical gaps in our knowledge of how well media messages influence farmers' beliefs and behaviors. Few studies combine these viewpoints in a single, localized study centred on road shoulder farming in Bayelsa State, despite the fact that studies show the socioeconomic and environmental factors that contribute to risky land use and recognise the potential of the media to affect agricultural and environmental behavior. The frequency, framing, and reach of local media messages on this topic are likewise not well supported by empirical data. Instead of focusing on the structural factors that support roadside cultivation, such as landlessness, flood displacement, and lax regulatory enforcement, the majority of media coverage prioritizes dramatic collision events. As a result, nothing is known about the connection between farmers' awareness levels, information sources, and actual adherence to environmental and traffic safety regulations.

Therefore, by integrating key informant interviews with farmer survey data, this study fills up these gaps in the literature and offers a comprehensive analysis of the problem. In Bayelsa State, it aimed to ascertain the level of farmers' knowledge on the risks of road shoulder farming, pinpoint their main information sources, and assess how well media sensitization campaigns promoted safer and more sustainable land-use practices.

Methodology

The quantitative and qualitative research methods were adopted for this study, and a cross-sectional survey with roadside farmers along Sagbama–Ekeremor. The Sagbama–Ekeremor corridor in Bayelsa State was selected due to widespread roadside cultivation, and its relevance as a rural transport lifeline connecting several communities. The population for the survey is smallholder farmers who cultivate plots directly adjacent to the road shoulders, or within one metre of the paved carriageway.

A purposive sample of 112 farmers was chosen from 16 communities along the axis (7 per community). The sample is purposive, to reflect those actively cultivating on road shoulders. Key informants were selected purposively based on their professional roles. The qualitative component included 19 key-informant interviews made up of 1 Agricultural Extension Officer, 1 local media practitioner, chiefly community radio and state reporter, 1 Road Safety Officer, and a farmer each from the 16 villages along the Sagbama-Ekeremor corridor, to wit, Sagbama, Tungbo, Buluo-Orua, Angiama, Ebedebiri, Toru-Orua, Angalabiri, Ofoni, Lalagbene, Ayamasa, Alebiri, Angalaoweigbene, Oborugbene, Amanagbene, Isampou and Ekeremor.

A structured questionnaire was used for quantitative data collection; it comprised of socio-demographics; reasons for shoulder cultivation (multiple choice + open response); awareness items (Likert scale - highly aware to not aware); exposure to media messages (frequency scale); self-reported accidents/near misses; alternative land access options. The key informant interview guide was used to gather qualitative data; it comprised of topics that included perceptions of causes, media coverage, recent interventions, and feasible solutions. Out of the 112 copies of the questionnaire administered to the respondents, only 100 (89.29%) copies were returned, and

found useful for analysis. The quantitative data were analysed using frequency tables and percentages to reflect responses on the three research objectives, while the qualitative data were analysed thematically.

Data Presentation and Analysis

Table 1: Reasons Farmers Engage in Road Shoulder Farming

Reason	Frequency	Percentage (%)
Lack of available farmland	40	40
Economic hardship	25	25
Fertility of roadside soil	15	15
Proximity to homes and ease of access	12	12
Ignorance of regulations	8	8
Total	100	100

Source: Field Survey, 2025

Data in Table indicate that environmental pressures and economic necessity drive marginal land use in Bayelsa State.

Table 2: Awareness of Dangers Associated with Road Shoulder Farming

Awareness Level	Frequency	Percentage (%)
Highly aware	15	15
Moderately aware	20	20
Slightly aware	30	30
Not aware	35	35
Total	100	100

Source: Field Survey, 2025

Table 2 shows that most respondents (65%) showed low awareness (slightly or not aware), indicating poor understanding of the risks involved. This suggests media and extension messages, where present, but have not fully penetrated local understanding or translated into changed behaviour.

Table 3: Media Sensitisation on Road Shoulder Farming

Media Exposure	Frequency	Percentage (%)
Regularly exposed to media campaigns	10	10%
Occasionally exposed	25	25%
Rarely exposed	30	30%
Never exposed	35	35%
Total	100	100%

Source: Field Survey, 2025

The data in Table 3 reveal limited media exposure on the issue, as 65% of respondents rarely or never encountered any sensitisation messages, specifically about road shoulder farming.

Qualitative Data from Interview

Reasons Farmers Engage in Road Shoulder Farming

From the interviews with the farmers, it was discovered that the practice persists primarily because of poverty and land scarcity. The Road safety Officer mentioned limited awareness of the risks involved while the Agriculture Extension Officer and local media practitioner repeatedly mentioned that when farmers face flooded fields and limited alternative plots, shoulder cultivation is chosen as a survival strategy.

Awareness of Dangers Associated with Road Shoulder Farming

It was generally agreed that the awareness level about the dangers associated with road shoulder farming was quite low. This may be due to the fact that the mode of communication in the rural areas here tend to be more effective if it is done through indigenous media systems of communication like through the Town Crier; this is necessary, even though most of the dwellers here are educated.

Media Sensitisation on Road Shoulder Farming

The community radio practitioner reported constrained programming budgets, limited airtime for niche topics, and little sponsorship for sustained campaigns about shoulder farming. He stated that they 'would broadcast such programming if funding and technical resources were available.' The Road Safety Officer observed that 'while laws exist to protect road setbacks, enforcement is patchy and socially sensitive: many encroachments are by neighbours and voters, making strict enforcement politically complicated.'

Most of the farmers said they were not aware a single media sensitisation or campaign on road shoulder farming. Responses likewise indicate that most local media focus on general road safety or emergency incidents rather than proactive campaigns on roadside cultivation, showing few targeted items. This highlight both an outreach gap and a missed opportunity for behaviour-change communication.

Discussion of Findings

According to the study's findings, farmers mostly practice road shoulder farming as a result of financial difficulty and a lack of available land, which supports Adebayo's (2018) claim that rural residents are forced to choose riskier options. Due to the low-lying terrain and frequent flooding in Bayelsa State, there is less dry arable land available, which has led some rural farmers to grow on the shoulders of roads, endangering both road safety and emergency access.

According to the survey results, farmers cultivate shoulders primarily because to severe economic need (25%) and land shortage (40%). These findings suggest structural factors. These results are consistent with more extensive regional data showing that households are forced into marginal land use and that available arable land is diminished as a result of flood displacement, soil degradation, and unsuccessful remediation of contaminated farmlands (such as in areas affected by oil) (AP/Hyprep reporting; environmental sustainability reviews). In this situation, shoulder farming is not an ignorant decision but rather a survival tactic (AP, 2024; Nzeh, 2024).

Additionally, 65% of respondents (somewhat aware + not aware) exhibit low awareness, according to data from Table 2. Just 15% of people are fully aware of the further ramifications

(loss of emergency shelter, responsibility, possible legal consequence) that go beyond the apparent collision risk. This indicates that two-thirds of farmers are not well-informed about the whole range of risks associated with shoulder farming. Many people are aware of the immediate danger of collisions, but less are aware of the systemic costs, which include obstructing emergency shelters, raising the risk of confluence, the potential loss of crops to oncoming traffic, and the legal and livelihood repercussions following accidents.

This disparity implies that when messages are present, they are either not transmitted through reliable indigenous channels (such as direct extension contact or radio in local languages) or are not sufficiently precise or framed for local reality (Adeyeye, 2024; Choice FM instance). In addition to alerting people to potential dangers, risk communication must also provide workable alternatives; otherwise, the messages would be disregarded or given less importance than urgent demands for survival. The lack of knowledge about the risks involved supports Okechukwu's (2021) conclusion that Nigerian rural dwellers lack sufficient knowledge about safety procedures. Thirdly, interview data indicates that the media's coverage of this topic is sporadic and restricted. Road safety is covered by the local media (FRSC notifications, crash reports), however there are rarely long-term campaigns about shoulder farming. Lack of donor money and sponsorship for persistent public service messaging, editorial emphasis on dramatic crash events rather than slow-burn structural drivers, and poor coordination between media outlets and extension services are some of the causes that come to light. This supports more general findings that media can successfully impact agricultural practices, but that communication frequency, local language usage, and connection to incentive programs or demonstration projects are key factors in success (Akintayo et al., 2024b; Adeyeye, 2024).

Furthermore, the lack of media coverage in this discussion highlights the necessity of more focused sensitization campaigns via community media, television, and radio. Information on the function of the media in assisting farmers with their agricultural endeavours has been provided earlier by Guanah, Leader, and Furomfate (2023), with special attention to farmers in riverine regions such as Bayelsa State.

A prerequisite for behavior change is effective risk communication, spearheaded by community radio in indigenous languages and supported by local government and agricultural extension. The provision of alternative farming plots, community-led participatory solutions, legal enforcement of road setbacks, and focused media campaigns are all necessary.

Conclusion

Along the Sagbama–Ekeremor axis, road shoulder farming is a result of several interrelated structural pressures, including socioeconomic (poverty and lack of alternative livelihoods), environmental (flooding and degraded land), and governance (weak enforcement and limited support for resettlement or alternative plots). The majority of farmers are not fully aware of the systemic risks and the legal and regulatory ramifications, even though some are aware that working next to live carriageways is dangerous. The role of the media is underutilized; community radio and coordinated media-extension partnerships hold particular promise for increasing awareness and promoting safer behaviors, but their effectiveness requires integration with tangible livelihood options and a methodical enforcement approach. The best chance of lowering roadside horticulture without worsening poverty or social stress is to implement policy measures that combine realistic alternatives, participatory enforcement, and sympathetic communication. In conclusion, road shoulder cropping presents serious risks to life and road safety even while it temporarily helps farmers in the Sagbama-Ekeremor road corridor.

Recommendations

- i. To lessen their reliance on hazardous farming areas, development organizations should provide farmers with economic empowerment and the Bayelsa State Government should establish more accessible and secure agricultural sites for rural farmers.
- ii. To deter the risky use of road shoulders for farming, the media should step up awareness campaigns in coordination with official and non-governmental organizations.
- iii. Using community outreach initiatives and local radio stations, the media should step up public education campaigns on the risks of road shoulder farming.

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