

Village Square Meetings and Climate Change Mitigation Measures of Agricultural Land Users in Ogoja Education Zone of Cross River State, Nigeria

¹Cecilia K. Essien, Ph.D
cecilessien2017@gmail.com

¹Anthony G. Bullem, Ph.D

¹Sylvester Ogbudu Okwo
*¹Department of Continuing Education and Development Studies
Faculty of Art and Social Science Education
University of Calabar, Calabar*

Abstract

The purpose of this study was to determine village square meetings and climate change mitigation measure of Agricultural land use in Ogoja Education zone of Cross River state, Nigeria. One hypothesis was formulated and tested for the study. Literature review was carried out accordingly. Survey research design was adopted for the study. A sample of 404 registered farmers was randomly selected for the study. The selection was done through the stratified random sampling technique. The questionnaire titled Village Square Meeting and Climate Change Mitigation Measures Questionnaire was the instrument used for data collection. The instrument was validated by an expert in Environmental Education and two experts in Measurement and Evaluation. The reliability estimate of the instrument was established using the Cronbach Alpha reliability method with reliability coefficient of .76 to .86. Simple regression analysis was used to test the hypothesis under study at .05 level of significance. The result of the analysis revealed that village square meetings have a significant influence on climate change mitigation measures. It was recommended that village square meetings should be carried out more often in order to increase awareness on the part of land users for increased productivity or agricultural yield.

Keywords: village, meetings, climate, change, mitigation

Introduction

Village square meeting is one of the media of traditional media of communication in the rural communities. It is a channel used in disseminating information to the rural dwellers. Village square meeting takes place in the village square where lots of issues that affect the community are discussed such as agricultural innovative programmes, burial arrangement, coronation, among others. Mitigation is the act of reducing the severity, seriousness or painfulness of something.

In Ogoja Education Zone, some residents assert that their climate change mitigation measures do not include minimising the extent to which they engage in bush burning and reduce usage of timber/fuel-wood, thereby somehow purporting their support for unabated deforestation of the area. They have been observed to indicate that their prime climate change mitigation

measure is that of applying chemical fertilizers in large quantities to their crops, thus breeding the presumption that their awareness of climate change mitigation is vague. Research reports over the years have revealed that climate change mitigation in the area is being engaged in a manner which seems to encourage the prevalence of the phenomenon's effects instead of minimising them (Okwuchukwu et al., 2016). In addition, many other worrisome issues concerning the engagement of the people in climate change mitigation measures remain unanswered.

The adoption of climate change mitigation measures among a given set of people implies that they are intent on contributing their support towards mitigating the effect of the phenomenon. Thus, engagement of the given set of people in mitigating the phenomenon's effects requires them carrying out the mitigation measures in a manner which would impact on the phenomenon's effects significantly. Yet, within the study area, issues seem to plague the manner in which agricultural land users engage in mitigating the phenomenon's effect. Most people pay little attention towards ecological restoration projects, rather preferring to ensure that such projects do not attain any level of success; this implying that they are in support of extensive removal of vegetation cover without replacement. Next, they have been observed to engage in wanton and indiscriminate bush clearing and burning, while also allowing indiscriminate cattle grazing, thus insinuating the belief that they have little or no interest in sustainable soil management practices. It is based on the observations made concerning climate change mitigation measures in the area that the researchers posed a question: do village square meetings have any influence on climate change measure on agricultural land users in the study area?

Conceptually, gatherings of a given community's ranking/elite members at specified or designated meeting points within the community are referred to as village square meetings. Ranking personnel in communities include each of clan and traditional heads, members of each of council of chiefs and elders' forum, executive members of community development committees, elites, youth executive, among others. Usually, the gatherings of the aforementioned categories of personnel are held in order to resolve challenges facing the community. Despite being conceptualised as village square meetings, it does not imply that all meetings held by the aforementioned groups of people are held in places designated as "village squares". The information obtained from village square meetings is usually taken by community members as being very reliable and credible in the event of the existence of an effective authority in place in the community (Torri & Hermann, 2010). On the other hand, the seeming weakness of this information source in some societies is that it has a limited information seeking capability concerning human capital development from the three tiers of government due to lack of institutionalized frameworks within them, which are designed to seek for such information; also it is seemingly deficient in garnering information from the private sector concerning the socio-economic empowerment of its people (Iwuchukwu & Udoye, 2014).

In a study predicated on a descriptive survey design, Fashola et al. (2010) examined sustainable promotional strategies for emerging indigenous technologies and climate change in Nigeria. Population was composed of farmers from the south-west region of the country while 362

respondents were randomly drawn. Data collection was done quantitatively. Study's posers included ascertaining respondents' climate change information sources. Data analysis was achieved using frequencies and percentages. Result revealed that majority of the respondents indicated that they obtained climate change information from informal contacts with personnel who were part of "village square meetings" in their communities. This signified that information from ranking personnel within the area served as the most pronounced source of climate change-related information to farmers.

Even as the finding appears to imply that farmers obtain most of their climate change information from the ranking personnel, the observations bred by the result are thus – could it be possible that the ranking personnel would periodically organize the farmers and give them more information than they inquire (for example, appropriate and well-informed information on areas concerned with the phenomenon of climate change including its mitigation measures)? Or could it be that they would merely give them information only on what they ask for when the farmers approach them based on informal contacts/meetings? The finding of Fashola et al. (2010) was earmarked as being apt for review on the grounds that it determined the information sources of farmers on the phenomenon of climate change.

Unegbu (2013) investigated rural dwellers' most utilized media in their interaction with local government authorities in Nigeria by applying a survey research design. The population of the study constituted of adult male and female in Imo State. A sample of 1,840 respondents was drawn from the population using purposive sampling principles. A questionnaire was employed to elicit responses and one of the posers therein ascertained the information media which the locals preferred. Data analysis was done using descriptive statistics of frequencies and percentages. The result revealed that a combination of traditional rulers' meetings and community elites' meetings were the most preferred media of interacting with local government personnel.

Thus, the result purportedly implied that anytime the need arose for communities within the area to either receive or send information to a local government, it was through the meetings of their traditional rulers or those of community/village meetings. In the event of information exchange concerning measures of climate change mitigation having to be sent or received from local government personnel, could it be presumed that the locals might still prefer their most used form of media? The finding of Unegbu (2013) was acknowledged as being germane for this review against the backdrop of its evaluation of rural communities' preferred interactive media with local government authorities.

Daudu and Mohammed (2013) ascertained information dissemination accessibility and utilization for socio-economic empowerment among Nigerian rural dwellers by employing a descriptive survey research approach. All rural dwellers in the country's northern region made up the population. 2,000 respondents were sampled randomly across all states in the region and data was elicited from them quantitatively, using a questionnaire. Inclusive among the study's inquiries was an evaluation of available media used to disseminate information among the rural dwellers. Using frequency counts, percentage scores and rank order to analyse obtained data for each of availability and utilization, it was discovered that a combination of market square

meetings, community development leaders' meetings and traditional rulers/elders' meetings served as the most accessible channel of information dissemination. In addition, the result also revealed that information disseminated by the above stated medium was the most utilized by rural dwellers as far as socio-economic empowerment-related information was concerned. This signified that as far as rural dwellers' socio-economic empowerment information was concerned, not only did a combination of the aforementioned meetings serve as the most available channel but also, the information disseminated by them was the most utilized. Could it be possible that they disseminate well-informed information concerning the phenomenon of climate change and its mitigation measures to the rural dwellers? Could they possibly have adequate awareness concerning the phenomenon so as to disseminate appropriate information to the rural dwellers on the necessity of inculcating the mitigation measures in their daily livelihood processes? In the event of them actually disseminating information concerning the phenomenon to the rural dwellers, would it make any influential effect on the rural dwellers' daily livelihoods? The above reviewed empirical study was considered necessary for review due to its evaluation of access/utilization of disseminated information.

Mgbakor et al. (2013) applied a descriptive survey method to a study which examined the influence of mass media on agricultural extension development in Nigeria. All registered Delta State farmers served as population. A sample of 120 respondents was randomly drawn. Posers in study's quantitatively designed data collection instrument included an evaluation of the accessible mass media sources to farmers. Descriptive statistics (percentages and rank order) were used for data analysis. Analysis revealed farmers' leaders as their 2nd most accessible information source. This indicated that the outcome of farmers' leaders' meetings was a highly accessible information source for the farmers. Could this suggest that information from this source would create a desired impact on the farmers? Could it be possible that the leaders usually disseminate climate change information to the farmers? The study by Mgbakor et al. (2013) was considered suitable for review based on its inquiry of accessible information sources to farmers.

Nsereka and Adiele (2013) evaluated trade-modern media and mobilization of grassroots in Nigeria by employing a descriptive survey method. Population of the study was composed of rural dwellers in the South-Eastern region of Nigeria. A sample of 915 respondents was drawn using purposive and random sampling procedures. Data collection was with the aid of a questionnaire. Inclusive in study's posers was an enquiry of communication media that could enhance effective mobilization of grassroots. Frequency counts and percentage scores were applied to analyse collected data. Analysis revealed that almost all of the respondents agreed that community leaders, village heads and elites, and any other renowned stakeholder(s) within communities should be co-opted into any arrangement concerned with grassroots' mobilization. This, they said, was due to the perception that community-based meetings involving the aforementioned personnel in their various communities could serve as a veritable source of information.

Based on the result, it meant that grassroots perceived that leaders of various kinds within communities should be incorporated into any campaign concerned with mobilizing them as such would enhance its effectiveness. Could this be translated to connote that incorporating all

of the aforementioned within communities in the event of the need to mobilize grassroots for a given community-based climate change mitigation measures awareness programme would facilitate the turn-up during the programme? The above reviewed finding was valued as being suitable for review with regards to its evaluation of media sources and mobilization of grassroots within communities.

Duru et al. (2015) determined enhancement of rural farmers' capabilities and effective soil management in Nigeria. The study was hinged on a descriptive survey method while all Imo State-based farmers made up the population. Systematic random sampling technique was applied to select 480 respondents. Data collection was with a questionnaire. Posers therein included ascertaining farmers' preferred strategy of capabilities' enhancement. Frequencies, percentages and rank order were used for data analysis which revealed that passing of relevant soil management information to them through their elite farmers or farming leaders ranked as the 3rd most preferred strategy of enhancing their capabilities.

This meant that the farmers had a high level of preference towards eliciting soil management information from their elite farmers/farming leaders towards the enhancement of their capabilities. Could this high level of preference have any connection with an accompanying high level of practical utilization of the information from their farming leaders/elite farmers? Or would the high level of preference rather be more connected with overcoming communication-based issues? The above reviewed study was earmarked as being worthy for review proceeding from its determination of farmers' preferred enhancement capabilities in line with information sources concerning effective soil management.

Hypothesis

Ho1: Village square meetings have no significant influence on climate change mitigation measures.

Methodology

A survey research design was utilized for the study. It is a research design used when a study is concerned with obtaining data on, and describing the present trend or condition in a given population based on an investigation phenomenon. The study was carried out in Ogoja Education Zone of Cross River State. The population of this study consist of all the 1,143,074 community members of Ogoja Education Zone of Cross River State (NPC, 2019). Stratified random sampling technique was employed in selecting the sample for the study. Ten percent of the respondents were proportionally selected from each stratum (Local Government Area) in such a way as to obtain the required sample size. Secondly, simple random sampling technique was used to select the respondents that were sampled for the study, taking into consideration, the gender disparity of the respondents. The sample for the study was 404 registered farmers (236 males and 168 females) in the study area.

A questionnaire designed by the researchers was used to elicit data for the study. It is tagged the "Village Square Meeting and Climate Change Mitigation Measure Questionnaire" (VSMCCMMQ). It has sections A and B. Section A elicited responses concerning village square meetings strategies. The section is made of 12 items with 6 each for the sub-sections for

the sub-independent variables on a response rubric of strongly agree (SA), agree (A), disagree (D) and strongly disagree (SD). For Section B, there are 10 items for the dependent variable, with a response rubric of always (A), often (O), sometimes (S) and rarely (R). The face and content validity of the instrument was ascertained by giving draft copies of the instrument to an expert in the Departments of Environmental Education and two experts in Test and Measurement in the University of Calabar. A trial test was conducted with 30 respondents who were not part of the main study before using Cronbach Alpha reliability estimate method to calculate the reliability with coefficient of .76 to .86. The questionnaire was administered to the respondents with assistance from two trained research assistants within the communities. Simple regression statistical tool was used to analyse data.

Presentation of results

In this section, the analysis of data based on the hypothesis of the study is presented. The hypothesis was tested at 0.05 level of significance.

Ho1: Village square meetings have no significant influence on climate change mitigation measures.

The independent variable of this hypothesis is village square meetings while the dependent variable is climate change mitigation measures. Simple regression statistics was used in testing the hypothesis and the results are presented in table 1.

Table 1: Summary of simple regression analysis on the influence of village square meetings on climate change mitigation measure

Model	Sum of squares	DF	Mean Square	F-ratio	Sig	R	R2	Adj R ²
Regression	3243.926	1	3243.926					
Residual	9276.508	397	23.426	138.478	.000	.509	.259	.257
Total	12520.435	398						

- a. Predictors: (Constant): Village square meetings
- b. Dependent Variable: Climate change mitigation measure

The simple regression analysis in table 1 on village square meetings influence on climate change mitigation measures produced an adjusted R² of .257. This implies that only 25.7 percentage of the variance can be predicted from the independent variable (village square meetings) in predicting climate change mitigation measures. The F-value of the Analysis of Variance (ANOVA) obtained from the regression table was F = 138.478 having a p-value .000 with 1 and 398 degrees of freedom at .05 level of significance. The null hypothesis was rejected. This result therefore signifies that village square meetings have a significant influence on climate change mitigation measures, as village square meetings predicted 25.7% of climate change mitigation measures.

Discussion of the finding

This section focuses directly on the discussion of finding that emerged from the result of analysis. Based on the result of the study:

It was revealed from the findings obtained from analysis and testing of hypothesis one that the null hypothesis was rejected. This implied that village square meetings have a significant influence on climate change mitigation measures. The finding of the study is not surprising because farmers obtain most of their climate change information from the ranking personnel. The finding of this study supports Mgbakor et al. (2013) that farmers' leaders' meetings was a highly accessible information source for the farmers. Gatherings of community personnel are held in order to resolve challenges facing the community. Despite being conceptualised as village square meetings, it does not imply that all meetings held by the aforementioned groups of people are held in places designated as "village squares".

Conclusion

The study aimed at investigating the influence of village square meetings on climate change mitigation measures of agricultural land users in Ogoja Education Zone of Cross River State. The findings from the study showed that village square meetings have a significant influence on climate change mitigation measures in the study area. The main driver of climate change is man through his developmental activities. Climate change is as a result of an increase in mean global temperatures. This increase is brought about by an accompanying increase in the amount of greenhouse gases released into the earth's atmosphere.

Recommendation

Based on the findings of the study, it was recommended that village square meetings should be carried out more often in order to increase awareness on mitigation measures on the part of the land users for increased productivity or agricultural yield.

References

- Daudu, H. M. & Mohammed, Z. (2013). Information dissemination, access and utilization for socio-economic empowerment of rural people in northern states of Nigeria. *Annals of Library and Information Studies*, 60, 235-241.
- Duru, P. N., Chux, O. C. & Sunday, U. I. (2015). Enhancing the capability of rural farmers towards effective soil management in Amucha Community, Imo State, Nigeria. *Journal of Emerging Trends in Economics and Management Sciences (JETEMS)*, 6(8), 381-385.
- Fashola, O. S., Osuntade, O. B. & Shobowale, A. O. (2010). Sustainable promotion strategies for emerging and indigenous technologies on climate change in South West Nigeria. *Journal of Sustainable Development*, 7(2), 69-77.
- Iwuchukwu, J. C. & Udoeye, C. E. (2014). Climate change information needs of pineapple farmers in Enugu State, Nigeria. *Journal of Agricultural Extension*, 18(1), 73-83.
- Mgbakor, M., Iyobor, O., & Okezie, U. P. (2013). Contributions of mass media to the development of agricultural extension in Ika North East LGA of Delta State, Nigeria. *Academic Journal of Plant Sciences*, 6(3), 127-133.
- NPC (2019). *Projected population estimates for Cross River State Northern Senatorial District*. Calabar: NPC.
- Nsereka, B. G., & Adiele, K. (2013). Gauging the comparative effectiveness of trado-modern media in grassroots campaigns: The case of NOA mandate. *New Media and Mass Communication*, 13, 7-16.

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- Okwuchukwu, O. G., Uche, N. I., Oli, N. P. & Onyebuchi, O. G. (2016). Health information dissemination in an era of globalization among the Igbos of Southeast Nigeria: Harvesting resilient traditional mass media systems to advantage. *Advances in Research*, 7(4), 1-7.
- Torri, M. & Hermann, T. M. (2010). Biodiversity conservation versus rural development. What kind of possible harmonization? The case study of Alwar District, Rajasthan, India. *J. Hum. Ecol.*, 31(2), 93-101.
- Unegbu, V. E. (2013). Citizens' most used media of interaction with the Local Governments in Nigeria. *Information Management and Business Review*, 5(2), 73-82.