


Traditional Plays and Climate Change Mitigation Measures among Agricultural Land Users in Ogoja Education Zone, Cross River State, Nigeria

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Abstract

This study investigated traditional plays and climate change mitigation measures among agricultural land users in Ogoja Education zone of Cross River State, Nigeria. To achieve the purpose of this study, one hypothesis was formulated to guide the study. Literature review was carried out accordingly. Survey research design was adopted for the study. A sample of 404 registered farmers was selected for the study. A questionnaire titled Traditional Plays and Climate Change Mitigation Measures Questionnaire (TPCCMMQ) was the instrument used for data collection. The instrument was subjected to face validity by an expert in the Department of Environmental Education and two experts in Measurement and Evaluation. Regression analysis was used to test the hypothesis under study at .05 level of significance. The result of the analysis indicated that traditional play significantly influence climate change mitigation measures among agricultural land users in Ogoja Education zone of Cross River State, Nigeria. It was therefore recommended that communities should intensify efforts in acting such plays that could drive home the issue of climate change and the appropriate method that could be used in combating it.

Keywords: traditional, plays, climate, change, users

Introduction

Climate change is one of the most topical global, national and local issues in recent times. This is so because of the glaringly evidential impact which it has on man's continuous existence on earth. The phenomenon as a concept refers to any long-term change in the usual pattern of the average weather of a particular region or the entire earth as a whole. In simple terms, it refers to any observed long-term variation in the usual pattern of elements of climate such as temperature, rainfall, wind, cloud cover, vapour pressure, among others. The reason why the phenomenon has become a topical issue at various levels of human socialization is because it has been observed that global mean temperatures have risen by 0.6°C towards the end of the 20th century (Intergovernmental Panel on Climate Change (IPCC), 2007). This made temperatures of the six hottest years ever in human history to be recorded between 1997 and 2007.

Temperatures have risen beyond the normal global mean temperature and this has given rise to certain unforeseen consequences. Worthy of note is that climate change consequences are never the same in every part of the globe. Observations have revealed that the low-latitude tropical countries in Africa and South-East Asia have received and will receive the worst impact of the phenomenon. This is due to their heavy reliance on agriculture, the most climate sensitive sector of any given economy. Within Nigeria, the consequences of climate change have been evidential in form of flooding, rise in sea level, intense thunderstorms, incessant droughts, and so on. These unusual environmental disasters have in turn given rise to social-based problems such as food insecurity, social dislocation and increasing poverty levels. As earlier stated, worst hit are the rural dwellers whose main occupation is farming. This is because their reliance on farming serves to heighten their vulnerability to the phenomenon's consequences.

Studies such as Said and Mohammed (2015) have revealed over time that 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. What brings about the increase in greenhouse gases released into the earth's atmosphere in developing societies are issues of deforestation, pollution, over-reliance on chemical fertilizers, slash and burn agricultural practices, and others.

In order to ameliorate the disastrous impacts of climate change, responses by man have come in form of climate change mitigation and adaptive strategies. Mitigation refers either to policies or interventions aimed at reducing emissions of the greenhouse gases or enhancing the absorption of the already emitted gases while adaptive strategies refer to policies or interventions designed to help minimize predicted impacts of the phenomenon on people. The essentiality of mitigation measures among farmers is mainly because of the proven fact that "prevention is better than cure".

From research works, there are many determinants which could possibly influence residents' adoption of climate change mitigation measures in Ogoja Education Zone. Inclusive among them are a combined interaction of community-based environmental awareness strategies applied to facilitate their awareness of the phenomenon and its associated impacts. Environmental awareness is a concept that depicts the extent to which an individual is both aware of, and participates in resolving environmental issues. According to Hassan et al. (2010), it is the emotional attachment and favourable disposition towards adopting best practices of environmental sustainability. Strategies for disseminating environmental awareness among rural agricultural land users include traditional plays, faith-based organizations, village square meetings, town criers and traditional folk media. Ofem et al. (2013) reported that traditional plays have very negligible roles to play in terms of climate change information dissemination among farmers.

Traditional plays refer to an awareness strategy which involves the use of theatrical displays to communicate messages among rural dwellers. It has mostly been revealed as an effective way of creating awareness (Ekerete & Ufot, 2017), while others (Anunobi et al., 2014) found it as an inefficient medium for awareness creation among locals. Based on the above stated

evidences from research works, it is presupposed that traditional plays creates awareness on climate change mitigation measures among agricultural land users in Ogoja Education Zone, Cross River State Nigeria.

The theatrical displays indulged in by indigenous people that give insights of their age-old beliefs, customs or culture is usually referred to as traditional plays. This is because from the perspective of indigenous peoples, traditional plays are viewed as a strategy of transmitting age-long values, and the contextual manifestation/interpretation of their immediate environment (Essien, 2014). In support of this, Ekerete and Ufot (2017) observed that indigenous peoples view the theatrical displays as not only being connected with their past, present and future but also, they see it as a source through which they are provided with a glimpse of awareness and reality that results in their being educated.

According to Obasi and Ebirim (2014), the view of indigenous peoples concerning the displays may not be far-fetched from the fact that the displays seem to serve as a form of traditional communication that not only educates them but also breeds a sense of togetherness, belongingness, and affinity among them. Examples of the displays include traditional dances, masquerade displays, story-telling, proverb-telling, games of local riddles and traditional drama and puppet displays. Based on the perspectives of how indigenous people view the displays, they are presumed to have a very strong influence on them because of their receptiveness towards the idioms, proverbs, and clichés, and each of its functional significance and entertainment components. This is because the traditional displays have been found to solve issues such as speech, word pronunciation, language difficulty, and certain communication-based barriers like perception, interest, attitude, interpretation, and understanding (Mohanty & Parhi, 2011).

In a study designed to investigate traditional folk media and prospects for delivery of agricultural extension services in Nigeria, Daudu and Anyanwu (2009) utilized a survey research design. All registered farmers in Benue State composed the study's population. Sample of 100 respondents was randomly selected and data collection was done using a questionnaire. Inclusive in the questionnaire's posers was an enquiry concerning the farmers' preferred traditional plays and reasons for the preferences. Data collected was analysed using mean scores and frequency counts with a reference mean of 2.00 serving as the judgmental value. The analysis revealed that the farmers' preferred traditional plays were folk songs, traditional drama, folk dance, and folk puppet theatre. From the result, reasons for preference included: (i) an effective medium for information dissemination; (ii) entertainment purposes; and (iii) promotion of culture.

This therefore signified that the traditional plays were preferred for reasons which included serving as a veritable avenue for disseminating information. Probably, could this imply that traditional plays are actually a viable source of disseminating any type of information among the people? Could it probably serve as a viable source in the event of information being related to how they would apply innovative climate change mitigation measures related to utilization of modern technologies? The study of Daudu and Anyanwu (2009) was deemed relevant for

review based on its assessment of farmers' traditional plays' preferences and reasons for the preferences.

Yoshida et al. (2011) carried out a cross-sectional survey research which ascertained the extent to which traditional folk songs could serve as an effective medium for disseminating HIV/AIDS messages in Laos, an Asian country. Population was composed of all adults in a suburban community around the country's capital city, Vientiane. Purposively drawn respondents totalled 49; qualitatively obtained data was collected using Focus Group Discussions (FGDs). The themes of the qualitatively obtained data were designed to include assessing opinions why respondents had positive or negative perceptions concerning utilization of the songs as health messages. The analysis revealed most of them indicating positive perceptions towards utilization of the songs as it triggered their interest to know how to engage in activities that will not only help them prevent the disease but also, increase their knowledge, awareness, and perception of the disease.

Thus, the result indicated that traditional folk songs were an efficient medium for creating awareness, increasing the knowledge and changing the perception of the people towards the disease. Could traditional songs also be utilized to ensure a given set of local farmers have an appreciable awareness level of climate change mitigation measures? Is it possible that what is required of them to be aware of concerning climate change can be encoded into songs for them? Could the songs be designed to effectively transmit the message to them? The study by Yoshida et al. (2011) was regarded relevant for review based on its determination of the effectiveness of traditional songs as an avenue for creating awareness among rural people concerning HIV/AIDS.

Using a survey research design, Mohanty and Parhi (2011) evaluated folk/traditional media and rural development in India. All adult in the country's state of Orissa encompassed the population while 100 respondents were sampled using purposive sampling procedures. The data collection instrument was a questionnaire and inclusive therein was an inquiry concerning the manner to which specific traditional plays were utilized and the specified areas of rural development where they were being used. Descriptive statistics (frequency counts and percentage scores) were employed for data analysis. Result revealed that traditional plays used were songs, drama, theatre plays, dances and storytelling. Result also revealed that areas of rural development where the plays were applied for information dissemination included protection of environment and education.

This result therefore signified that traditional plays were found handy in areas of rural development such as protecting the environment and educating people. Could the "protection of the environment" dimension stated in this study be closely connected to climate change mitigation measures? Or is it rather related to other areas that may be remotely related to the measures? That notwithstanding, could it be presumed that the finding seemingly insinuates traditional songs as an efficient avenue for creating awareness among local farmers concerning climate change and measures to mitigate it? The study of Mohanty and Parhi (2011) was adjudged apt to the present study in that it assessed the dimensions which traditional plays were applied for rural development among locals.

A cross-sectional survey research design was applied to a study conducted to verify the impact of traditional songs as an interventional tool against the spread of HIV/AIDS in Kenya by Wenje et al. (2011). Study's population was adults/youths of the country's Nyanza Province while 159 respondents were drawn using convenience sampling approach. Quantitatively (through questionnaires) and qualitatively (through interviews) obtained data included a poser on the extent to which traditional songs were effective towards respondents' behavioural change towards HIV/AIDS. The poser stated above was designed in a manner which inquired the number of those who had heard of the ailment through traditional songs or through other media such as the radio, newspaper, TV, and others, and the number of those who visited a Voluntary Counselling and Testing (VCT) centre after having received the information from the various media sources.

Data collected was analysed using frequency counts and the result revealed that 29 out of the 58 who heard of HIV/AIDS through traditional songs visited a VCT centre afterwards while only 27 out of the 101 who heard of it from other sources visited a VCT centre afterwards. Thus, the finding purported that the traditional songs had a greater effect on the people's behavioural change towards HIV/AIDS than other media sources. The finding here reveals how traditional songs had a great impact on people's behavioural change due to their health-related concerns. Could the songs have a similar impact on the same people in the event of behavioural change being required towards climate change mitigation concerns? The above reviewed finding was accepted as being relevant for review contingent upon its verification of the impact of using traditional songs to bring about behavioural change among locals.

Iorliam et al. (2012) employed a descriptive survey design in a study on adoption of ICTs as information source and agricultural innovation among Nigerian farmers. Farmers from Benue State formed the population. 120 purposively drawn respondents were sampled for the study. Inclusive in the study's quantitatively collected data was an enquiry which assessed the farmers' sources of information. Descriptive statistics were used for data analysis and result revealed traditional plays as being used very minimally as an information source. This denoted that it was uncommonly used by the farmers for information dissemination. Apparently, could it be that the farmers' demographics (they were all registered farmers who were not living in typical "laid-back rural settings") may have contributed to their non-utilization of traditional plays as an information source? Invariably, could this imply that traditional plays may not serve as a veritable source of information dissemination for farmers who do not reside in typical laid-back rural settings? The finding of the above reviewed study was valued as being suitable for review owing to its appraisal of non-rural based farmers' information sources.

Obasi and Ebirim (2014) evaluated utilization of traditional media and promotion of lifelong learning among adult learners in rural communities in Nigeria in a study which adopted a descriptive survey design. Population comprised of all adult facilitators in Enugu State. No sampling technique was applied as the total number of adult facilitators were only 19, thus a census was carried out. A questionnaire was employed to obtain data. The study's objectives included ascertaining; (i) the extent to which adult facilitators utilized various forms of traditional plays (such as drama, proverbs, songs, and theatre plays) in facilitating learning in

terms of literacy/environmental education, and; (ii) the impact of the strategies on the enthusiasm/interest of the adult learners.

Obtained data was analysed using mean scores. First of all, it was revealed that traditional plays were very much employed by the facilitators. Next, it was revealed that the adult learners' enthusiasm/interest was profoundly impacted upon by the effect of the traditional plays. Thus, this meant that the facilitators applied the usage of traditional communication strategies to enhance learning among the adult learners, and this then influenced them to develop high levels of enthusiasm/interest to learn. Apparently, from this finding, could it be that application of traditional plays to teach adult learners contemporary environmental issues such as climate change mitigation measures would be more efficient than applying methods that do not have any connection with their cultural and traditional inclinations? This study of Obasi and Ebirim (2014) was acknowledged as being germane for review in that, among its other investigations, it ascertained the effectiveness of using traditional communication strategies to promote lifelong learning among adult learners.

A case study design was used by Pwanshikai and Apuke (2016) in their study concerning influence of indigenous tribes' traditional communication systems on participatory democracy in Nigeria. Study's population was formed from an indigenous tribe in Adamawa State (the Bwatiye people) while purposive sampling procedures were utilized to select 10 respondents. Qualitatively collected data (Focus Group Discussions (FGD) and in-depth interviews) was gotten and study's inquiries included: (i) ascertaining the various media utilized to mobilize the people for engagement in democratic activities, and (ii) an assessment of reasons why the media were used. Using thematic content analysis procedures, 8 out of the 10 respondents revealed that festivals and story-telling (traditional plays) were one of the most employed information sources. Reasons for their being among the most used were due to the effectiveness, reliability and credibility of the information received by the locals from the media.

Based on the result, it implied that traditional plays were revealed as being effective, credible, and reliable sources of information among the people as it concerns their being mobilized for democratic activities. Could it be possible that the finding would have been similar if the people were evaluated concerning the effectiveness, credibility and reliability of their traditional plays in the event of relaying information concerning climate change to them? The finding of the study reviewed above was regarded reasonable resulting from its consideration of the effect of indigenous peoples' traditional communication systems on their mobilization for democratic activities.

A descriptive survey design was used by Itari and Asor (2017) in their determination of media mix and utilization of information for rural development in Nigeria. Rural dwellers in Rivers, Akwa Ibom and Cross River states formed the population while 2,226 respondents were randomly drawn. Quantitatively designed data included an inquiry of ascertaining the correlation between media mix (of various traditional play types) and utilization of the information for rural development. Data analysis was done using multiple regressions and the

result revealed a statistically significant predictability between media mix and information utilization.

This therefore implied that using a variety of traditional plays as a single source of information dissemination had a significant predictability on rural dwellers' utilization of such information for rural developmental purposes. Could information dissemination concerning climate change among rural dwellers possibly bring about development to their communities? Could their traditional plays be used to convince them of such? The finding of Itari and Asor (2017) was accepted as being justifiable for review against the backdrop of its enquiry of the predictability of traditional media mix on information utilization among rural dwellers.

Ekerete and Ufot (2017) ascertained farmers' perceived effectiveness of traditional media and sources of information dissemination in Nigeria by using a descriptive survey method. Farmers in Akwa Ibom State composed the study's population. Simple random sampling principles were adopted to select 140 respondents and data was collected with a questionnaire. Study's inquiries included an evaluation of the various traditional media utilized and their perceived effectiveness. Data analysis was achieved using descriptive statistics (frequency counts and percentage scores). It was revealed that a variety of traditional plays (songs, festivals, dances, proverbs, folk tales and riddles) served as the indigenous peoples' major sources of information. In addition, the respondents reported the information sources as being effective.

Hypothesis

Ho1: Traditional plays 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 investigated phenomenon. The study was carried out in Ogoja Education Zone of Cross River State. The education zone is made up of five Local Government Areas (LGAs) namely: Bekwarra, Obanliku, Obudu, Ogoja and Yala. The population of this study consists 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 "Traditional plays and Climate Change Mitigation Measures Questionnaire" (TPCCMMQ). It has sections A and B. Section A elicited responses concerning traditional play 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 Department 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, and Cronbach Alpha reliability estimate method was used to calculate the reliability. The reliability estimate range from .72 to .82. The questionnaire was administered to the respondents with assistance from two trained research assistants within the communities. Simple regression analysis was used to analyse data obtained.

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.

H01: Traditional plays have no significant influence on climate change mitigation measures.

The independent variable of this hypothesis is traditional plays 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 traditional plays on climate change mitigation measure

Model	Sum of squares	Df	Mean Square	F-ratio	Sig	R	R²	Adj R²
Regression	2997.387	1	2997.387					
Residual	9442.523	397	23.905	125.387	.000	.491	.241	.239
Total	12439	398						

a. Predictors: (Constant): Traditional plays

b. Dependent Variable: Climate change mitigation measure

The simple regression analysis in table 1 on traditional plays influence on climate change mitigation measures produced an adjusted R² of .239. This implies that only 23.9 percentage of the variance can be predicted from the independent variable (traditional plays) in predicting climate change mitigation measures. The F-value of the Analysis of Variance (ANOVA) obtained from the regression table was F = 125.387 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 traditional plays have a significant influence on climate change mitigation measures, as the traditional plays influence predicted 23.9% of climate change mitigation measures.

Discussions of the finding

It was revealed from the findings obtained from analysis and testing of hypothesis one that the null hypothesis was rejected. This implied that traditional plays have a significant influence on climate change mitigation measures. This result could be so because the application of traditional plays to teach adult learners contemporary environmental issues such as climate change mitigation measures would be more efficient than applying methods that do not have any connection with their cultural and traditional inclinations. The finding of this study is in consonance with Essien's (2014) assertion that traditional songs are presumed as an effective medium for communicating messages concerned with rural development. Apparently, could this seemingly suggest that traditional songs would also serve as an effective medium for communicating awareness-related messages to rural farmers concerning climate change and its accompanying mitigation measures? However, the finding of this study contradicts Ofem et al. (2013) who reported that traditional plays had very negligible roles to play in terms of climate change information dissemination among the farmers. Could this finding have been as a result of the premise that the phenomenon of climate change is neither traditionally nor culturally enshrined among people within the area? The finding of the study also indicated the farmers as having very low climate change awareness levels.

Conclusion

This study aimed at investigating the influence of community environmental awareness strategies on climate change mitigation measures of agricultural land users in Ogoja Education Zone of Cross River State. The findings from the study showed that traditional plays 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. What brings about the increase in greenhouse gases released into the earth's atmosphere in developing societies are issues of deforestation, pollution, over-reliance on chemical fertilizers, slash and burn agricultural practices, among others. In order to ameliorate the disastrous impacts of climate change, responses by man in form of climate change mitigation and adaptive strategies must be adhered to.

Recommendation

Based on the findings of this study, it is recommended that communities should intensify efforts in acting such plays that could drive home the issue of climate change and the appropriate method that could be used in combating it.

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