ABSTRACT
The belief that farmers can use improved information to advance their productivity and profitability is widely held. Since agricultural campaign conveys information capable of facilitating access to, and transfer of agricultural innovation, to rural farmers, an appropriate channel is therefore needed to undertake such task. Radio in particular has the capacity of reaching large number of geographically dispersed, remote and often not highly literate people, and can thus be used to mobilize farmers to adopt improved farming techniques. Community-based radio stations were established in different localities across Bauchi state and they are well engaged in transmitting Agricultural programs like ‘A koma gona’ and ‘Noma tushen arziki’, using the local languages of the host communities. The Bauchi State Agricultural Development Programme (BSADP) is the State’s main implementation agency for all Agricultural policies concerning extension and information dissemination in the state. This paper will seek to assess the patronage of these stations by the Bauchi state farmers in relation to how well they transmits agricultural information as well as their potentials in creating greater agricultural awareness to the farmers. Methods adopted for the study were survey and content analysis. The result shows the high level of patronage for these stations as well as the acquaintance of Agricultural programmes transmitted on the stations by the Farmers in the state.

INTRODUCTION:
Agriculture is still considered as the mainstay of the Nigeria’s economy in spite of growing urbanization and increased revenue from the oil sector. Historical experiences have shown that there are no cases of successful development in any country in which the rise in agricultural productivity did not precede or accompany development (Audu, 2003 p6).
The belief that farmers can use improved information to advance their productivity and profitability as well as contribute to higher rates of agriculture, economic growth and poverty reduction is widely held and has been a key rationale for agricultural campaign as an important element of agricultural development in Nigeria (Gershon, F 2010 p16).
Agricultural campaign is a general term use to refer to mobilization of farmers to adopt the application of scientific research and new knowledge to agricultural practices through farmer education using different channels or avenues {Gershon F., Jock R.A., Regina B., and Klaus D. (edits)} 2010 p18]. The field of agricultural campaign encompasses a wider range of communication and learning activities organized for rural people by educators from different disciplines, including Agriculture, agricultural marketing, health and so on. The emergence of different agencies embarking on agricultural campaign in Nigeria today is widely acknowledged. Since agricultural campaign must convey information capable of facilitating access to, and transfer of agricultural innovation and knowledge among the different entities involved in
the innovation system and create competent institutional modes to improve the overall performance of the
innovation or knowledge system in relation to productivity and market value, the use of media therefore,
especially Radio, particularly community-based, is considered inevitable.

Generally the information for dissemination to farmers may include techniques of applying fertilizers,
insecticides and fungicides to crops, improved methods of cultivation and soil conservation, techniques of
planting, harvesting and storage of crops. There are also new technologies of animal husbandry as well as
processing and marketing of various agricultural products. For the farmers to adopt the new technologies
and put them into good use, the new ideas must reach them at home or farms through effective
communication method such as the use of radio. The mass media are increasingly becoming a veritable
instrument for enhancing as well as transforming the agricultural productivity through agricultural
campaign and communication services in Nigeria.

The mandate of disseminating agricultural information in Nigeria rests with National Agricultural
Extension Research Liaison Services (NAERLS) and the agricultural development projects (ADPs), thus
in Bauchi State, the Bauchi State agricultural development programme (BSADP) is the State’s main
implementation agency for all agricultural extension and information services as well as all agricultural
policies that concerns rural development. This agency has used the recently established community –
based radio stations in the state as a powerful communication tool for enhancing agricultural campaign
and extension services and has claimed to have recorded a great success. The stations were essentially
established to promote development through social mobilization broadcast and political sensitization to
raise the consciousness of the people and public education in spheres of human endeavors. Bauchi radio
corporation (BRC) is made as the supervising and managing agency of the stations and they are mandated
to use local languages of their hosts’ communities in their activities. It is seen that community
broadcasting in these stations is sustained by the principles of access and participation, volunteerism,

The Bauchi state agricultural development Agency (BSADP) in collaboration with Bauchi Radio
Corporation, using the community - based radio stations, has made tremendous efforts to transfer
information on agricultural technologies to farmers through various programmes mainly in Hausa,
Fulfulde and English. Some few other local languages in Ningi and Bununu areas respectively have also
been used in programmes’ transmission. The programmes were aimed at reaching farmers with improved
agricultural technologies so as to increase agricultural production with reduced cost in the state. The
various aspects of the programmes include crop production, crop protection, livestock management and
livestock enterprises, women in agriculture, agro forestry and organic farming. Other aspects includes
organic technology such as land preparation, planting of early season crops, soil conservation, crop
rotation practices, application of compost, mulching of crops, crop rotation practice, intercropping, mixed
cropping, crop residues, animal manuring, minimum tillage, planting of legumes and green manure e.t.c.
(BSADP report, 20013). The result is thus indicative of harnessing radio for agricultural campaign in the
state.

LITERATURE REVIEW

RADIO AND AGRICULTURAL CAMPAIGN: AN AFRICAN OUTLOOK

Historically, agricultural extension agents have failed to communicate effectively technical information to
farmers in a way that total or complete success of the extension service delivery would be actualized in
Africa. Radio has been regarded as a very powerful tool that helps agricultural campaign to this effect.
This is evident considering the fact that a greater proportion of African people accepted radio as a useful
and their major source of information.

In their effort to emphasize the position of Radio among Africans in relation to public mobilization,
Fraser & Restrepo-Estrada, 2002 has stated:

Because radio sets are cheaply available, portable, run independently of power grids and do
Experiences through researches have revealed the potentials gained by agricultural campaign from both the coverage and programs of radio using participatory communication approaches in Africa. Small-scale farmers produce approximately 70% of the food consumed in Sub-Sahara Africa. Yet, despite being the primary food producers, small-scale farmers are more likely than any other segment of the population to be impoverished and to suffer the effects of hunger and malnutrition. Many agricultural innovations have been developed by researchers and by small-scale farmers themselves that if adopted on a wide scale would make a significant contribution to increasing food security and reducing poverty. Too often, these innovations are hidden in a localized development project or stuck in a library shelf. The challenge is to find a way to communicate these ideas to hundreds of thousands of farmers in an effective and affordable way. Agricultural radio has long been used as an extensive agricultural information dissemination strategy, but, until recently, very limited evidence was available to confirm that farmers listen, learn and act as a result of hearing radio broadcasts, and little was known about best practices (Kevin Perkins, 2010).

The African Farm Radio Research Initiative (AFRRI) was an unprecedented investigation of the effectiveness of radio in addressing the food security and agricultural goals of resource-poor farmers in five countries of Africa: Ghana, Malawi, Mali, Tanzania, and Uganda. The project was a participatory, multi-stakeholder programme aimed to discover, document and disseminate best practices for using radio-based communications to enhance food security in Africa. It started in 2007 and ended in September 2010, and was implemented by Farm Radio International in partnership with World University Service of Canada, and with funding from the Bill & Melinda Gates foundation.

The AFRRI project as implemented in these countries, revealed that participatory radio campaigns offer more effective and cost-efficient means of encouraging farmers to adopt new and improved agricultural practices (Kevin Perkins, 2010).

In Zambia, a renowned consultant agency on Agriculture, ‘MASDAR’ has provided support to the extension services using radio as a strong tool. In particular, on the Zambian agricultural research and extension project (ZAREP), considerable success was achieved in coordinating the research and extension services and uses radio to improve the efficiency in understanding of farmers to agricultural innovations discovered from the research stations (ZAREP report in MASDAR 2011).

Almost all communities of Africa in one time or the other employs Radio in undertaking the agricultural campaign works. In Nigeria for example, throughout the 1980s MASDAR consultant managed both the Kano State agricultural development program and the extension and training components of the Bauchi state ADP, and has since then recorded success in using radio as a strong channel for their information dissemination (MASDAR: 2011).

Other projects involving agricultural extension using Radio as a channel for information have been implemented in Uganda, Sudan, Cameroon, Ethiopia, Mozambique, Tanzania, the Gambia and Moldova to mention only few. Currently there is increasing emphasis and call to the employment of radio, especially community-based to compliment agricultural campaign works through the use of community – based extension (CBE) in Africa (Kevin Perkins 2010).
Radio and Agricultural Campaign in Nigeria

The importance of sharing information locally and opening up wider information networks for farmers on agricultural information and technologies will never be over emphasized. Radio initiatives as part of broader communication for development strategies have been used by national agricultural extension research liaison service (NAERLS) and agricultural development projects (ADP) all over Nigeria to facilitate agricultural campaign and to promote improved farming practices.

As earlier mentioned, the NAERLS and the ADPS were mandated and thus become responsible for agricultural information dissemination in Nigeria and since then, they adopted radio as a powerful tool as channel for information delivery and communication as a key task for agricultural campaign accomplishments.

These agencies have acknowledged the fact that practical considerations and budgetary implications more often compel the extension agents to directly interact with only fraction (limited number of farmers) that the extension packages was intended for, so they consider the use of Radio as remedy to that problem. Radio can supply coverage of a considerable area and hence using the local languages and by engaging the community members as part of the programs, the turn out tend to be high. The examples of employing Radio as channel of agricultural campaign by NAERLS and ADP can practically be seen in various States of the nation using the State’s own and private Radios to reach their localities.

In Kano State for example, Kano state radio AM & FM were used and the private stations such as Freedom radio, Pyramid radio and Ray power were duly engaged. These stations were able to transfer skills on agricultural innovations through programmes such as ‘Noma tushen arziki’, ‘Na duke tsohon ciniki’, ‘A koma gona’ and ‘Noma jari’ (KSADP report, 2012).

In Bauchi State BRC AM and FM, Globe FM radio and Ray Power were in full employment to compliment the campaign effort. Here the stations also impart agricultural skills to farmers using programmes such as ‘A koma gona’ and ‘Noma tushen arziki’.

In Kaduna state, FRCN and Nagarta were employed for programs sponsored by NAERLS and ADPs. The famous programmes ‘Kartau sarkin Noma’ and ‘Noma jari ‘of Radio Nigeria Kaduna (FRCN) could not easily be forgotten by Northern Nigeria farmers if disseminating information on agricultural innovation is anything to reckon with.

We cannot cease to remember how Rima Radio in Sokoto state and Gotel Radio in Adamawa state propagate agriculture through their various programmes. The same applies to Gombe state, Imo state, Katsina state, Ogun state etc. (NAERLS Report: 2011).

In Nigeria, many agricultural researchers have investigated improved technological packages and the radio is used in high capacity to disseminate the information to the farmers at various localities in various states of the federation. Today new trends using the community-based extension (CBE) has been employed.

Theoretical Framework
Diffusion of innovation theory and the development communication theory would be used to explain this study. Diffusion of Innovation theory was proposed by Paul Lazarsfeld, Bernard Berelson and H. Gaudet
in 1944 and it explains a process in which new idea, discovery or practice is communicated through appropriate channels or medium over time among and within members of a community or social system. The theory further describes the factors responsible for social change in thought and actions of the people and the process of adopting a new technology or idea.

This theory involves four elements, the innovations, communication channels, time and social system. So it involves communicating to members of a social system a discovery or new idea based on research (Asemal, 2011).

Diffusion theory has its roots from the agricultural extension in America, when American government wanted farmers to adopt new farming technologies that help improve productivity. It was believed then that if these new ideas are to be accepted by farmers, the best way to do this is to use mass media. The theory is talking about the source, medium, message and receiver. Since the belief was that mass media have effects on the people, if the new products or ideas are to be disseminated to members of the society, the new things have to be made known to people through mass media. Today any successful dissemination of information must adopt knowledge, persuasion, innovation and reinforcement package through mass media.

Some scholars however, contended that mass media and interpersonal communication must be combined to give effective results. They argued that attitude change takes place because of inter-related variables and not only because they listened to media messages.

Development communication theory on the other had emphasizes information and provision of education in social communities as a result of participatory communication which guarantees involvement of members of the community (Horton and Hunt, 1980). In this regard, the community-based radio stations in Bauchi state guarantees community participation and the promotion of the host community’s norms, culture and values so the application of this theory in this respect is imperative

**DEFINITION OF TERMS**

The key words have been conceptualized and applied to this study as defined below:

1. **Community-Based Radio**: Refers to Radio as a medium of communication which is located in a given locality owned by government (as in case of Bauchi state) that provide a reasonable level of participation to the people in the community, and which promote at reasonable rate, the norms and values of the host community and at the same time fulfilling the motives of government such as democratization, stability and normalization.

2. **Agricultural Extension Services**: Refers to services which assist farmers, through education procedures, to apply scientific research and new knowledge to agricultural practices, in order to improve farming methods and techniques, increase production efficiency and income, better their standard of living and lifting social and educational standard.

3. **Agricultural Information**: Any information about an activity or event, which the farmers have knowledge or skills of, that can guide the farmers on appropriate ways to increase their productivity.

4. **Agricultural Campaign**: Refers to the use of agricultural information and education to mobilize
farmers to adopt new farming techniques and agricultural innovations.

5. **Agricultural Education**: Any knowledge or skill, idea or even behavior which the farmers needed in order to be able to adopt agricultural innovations and new technologies.

6. **Agricultural Mobilization**: Refers to any action, attitude or behavior, way or means of inviting the indulgence of the farmers as well as winning their minds to adopt the agricultural innovations in their farming practices.

**AGRICULTURAL CAMPAIGN ON COMMUNITY-BASED RADIO STATIONS IN BAUCHI STATE.**

The challenge remains that in Nigeria, as in many African countries, majority of those who owns radio live in rural areas while the stations they accessed mostly from are concentrated in cities, towns and urban centers, and because of distance, area of coverage and many other reasons, major public and commercial stations cannot serve well the rural people. It was in this light that at the Abuja World Radio day forum (2013), the UNESCO country representative, Joseph Ngu, highlighted that;

The present scope of radio in Nigeria is not established to cater for the rural People who constitute the majority of the population, simply because majority of the radio stations are located in Nigerian cities, as such the rural populace are at present excluded from the advantages of participatory communication which remain a veritable tool for rural progress as well as for rural development, hence the need for community base broadcasting, here in Nigeria would never be overemphasized.

Bauchi state was not an exception because the major public and commercial Radio stations such as BRC, AIT, Ray Power and Globe FM are relatively concentrated in Bauchi city and they remained less accessible to most part of the rural areas where 70% of Bauchi state farmers live. This has reduced to some extent the effectiveness of these stations in agricultural campaign. It will suffice the advantages of participatory communication if rural broadcasting would be supported through community-base radio stations to reach the majority of the population living in countryside and to catalyze attitudinal and behavioral changes.

In what seem to be an apparent effort to overcome some of these problems, the Bauchi state government established ten (10) community-based FM radio stations in various local governments of the state. They are established essentially to promote development by improving the general life quality of the people in the rural areas through social mobilization broadcast and thereby raising the consciousness of the people and public education in spheres of human endeavor. The BRC is made the supervising and monitoring agency of these stations. The stations which consist of Jama’are FM station, Gamawa FM, Zaki FM, Bununu FM, Ningi FM, Misau FM, Ganjuwa FM, Alkaleri FM, Kirfi FM and Toro FM station were mandated to use local languages of their host communities in transmitting their programs and to adopt the principles of access and participation, volunteerism, diversity, Independence and locality in their operation. Effective communication of new research findings and technologies in agriculture to rural farmers remains a strong element of agricultural campaign and is a promising strategy for increasing agricultural productivity. The community-based radio stations were established to achieve this.

As rightly pointed, the community-based radio stations in Bauchi state were essentially established to promote development through social mobilization broadcast, it is expected that using local languages of their hosts communities they can be able to provide diverse range of services meeting community needs in ways unmet by the major public and commercial stations. It is assumed also that community broadcasting in these stations if sustained by the principles of access and participation, volunteerism, diversity, independence and locality, can help a great deal in agricultural campaign intensification.

The Bauchi State Agricultural Development Agency (BSADP) in collaboration with Bauchi Radio Corporation, using the community-based radio stations, have claimed to have transferred information on agricultural technologies to farmers through various programs mainly in Hausa, Fulfulde and English. The programs, as they claimed, were aimed at reaching farmers with improved agricultural technologies.
so as to increase agricultural production with reduced cost in the state. The various aspects of the programs include crop production, crop protection, livestock management and livestock enterprises, women in agriculture, agro forestry and organic farming. Other aspects include organic technology such as land preparation, planting of early season crops, soil conservation, crop rotation practices, application of compost, mulching of crops, crop rotation practice, intercropping, mixed cropping, crop residues, animal manuring, minimum tillage, planting of legumes and green manure e.t.c (BSADP report, 2013). If the claim has turn out to be true, then harnessing radio for agricultural campaign in the state would be inevitable.

Despite the above assertions, the questions often asked by many were and still are:
1. **To what extent do the stations transmit agricultural programmes?**
2. **Do the farmers in the state patronized and identified with the stations?**
3. **And what specific benefits the farmers enjoy from the stations?**

Appropriate answers to these questions would indicate the effectiveness or otherwise of these stations as far as agricultural campaign is concern and this paper is set to address that. To supply answers to the above questions, an assessment of the farmers on how well they patronized the stations in relation to creating greater agricultural awareness as well as the examination of the programmes produced by these stations in relation to how well they addressed agricultural issues in the state have been done.

**METHODOLOGY**

For the purpose of this work survey method was employed and was complimented with content analysis. Okoye (1996:5) defined survey research as a ‘method which is geared towards the study of people, their attitudinal frame of minds, their systems, opinions, motivational range and behavioral manifestations’. A survey involves asking people questions about their behaviors, attitudes, beliefs, knowledge, feelings, plans and backgrounds. A survey is done through the administration of questionnaires or face to face interviews and thereby filling in responses. On the other hand, content analysis is a method of gathering information through observing, examining and analyzing the messages in text or audio programs. As rightly said, survey method was adopted and data was collected on beliefs, opinions, feelings and perception of Bauchi state farmers regarding agricultural programs aired by the community-based radios over the years of their existence. Data was gathered through the use of questionnaires, and conducting an in depth interviews with the program producers to gain an insight into the intentions behind the programs produced and achievements recorded. Three radio stations were selected one each from the three senatorial districts of the state to serve in the study. The stations were Jama’are (FM), Ningi (FM) and Bununu (FM). Over the years of their existence, programs have been produced by the stations, the ADPs and the state government. The programs have also been content analyzed qualitatively in terms of frequencies, time slot of the programs and the quality of the presenters to allow for inferences as whether the programs are capable of inducing farmer’s interest. It also allows for personal judgment of what the programs could achieve. The study concentrates on agricultural information, agricultural education and agricultural mobilization as a key task for agricultural campaign.

**FINDINGS AND INTERPRETATION**

500 farmers across the three senatorial districts of the state were surveyed. The results are thus summarized below:

Majority of the farmers, in addition to the farming as occupation, they were either civil servants, business men or engage in one craft ship or another. Very few of them take farming solely as their occupation throughout the year. Majority also are male by gender and married by status, only few female engage in farming as an occupation as the result indicated. While majority attended only primary school, only few have secondary and post secondary education and majority of them are between 31 – 60 years of age. Majority of the farmers speaks Hausa, a minimum speaks Fulfulde with very few speaking other languages such as Geranci Jaranci Sayanci, e.t.c. Majority of the respondents are Muslims, few Christians, and none of the respondents indicates practicing traditional religion.

Almost all the respondents were aware of the existence of the community – based radio stations in their areas. They also listen to them consistently and do not usually face problems in accessing the stations. The only shortcoming which the farmers don’t oga well with is that some of the stations go off air in
some times of the day. All the respondents attest to having knowledge of agricultural programmes transmitted by these stations and most of them can mention the names of the programmes aired. They are also conscious of the variations of time that the programmes are transmitted. Although they slightly differ on the appropriateness of the timing but majority acknowledged the current timing as more appropriate. While interviews with the producers of the programmes revealed that they under take visits and interact with the farmers on quarterly basis, and that farmer’s responses were always used in programme’s design and execution, farmers on the other hand attested that such visits were real. The visits were informative and educative they said.

Majority of the respondents believe that the programmes transmitted by these stations addressed the agricultural issues in their areas, and that the programmes highlighted issues regarding agricultural information, agricultural education and agricultural mobilization. Majority of them also agreed that the programmes ‘A koma gona’(Ningi and Bununu stations), ‘Noma tushen arziki’(Jama’are station), are capable of creating good awareness to the farmers in relation to agricultural innovation, and also that the mentioned programmes influence farmers attitudes in relation to adoption of agricultural innovations to farming practices.

Majority of the respondents felt that they benefited more from these stations in terms of easy access, nearness, participation and consistent programme flow. That they attested as been rare in the major stations which are concentrated in Bauchi city.

FINDINGS
From the foregoing therefore, one cannot but understands that the Bauchi state farmers have identified themselves with the community – based radio stations established by Bauchi state Government across the localities of the state. It is worth acknowledging also that the agricultural programmes transmitted by these stations such as ‘A koma gona’ and ‘Noma tushen arziki’ were capable of inducing farmer’s behaviors to adopt the agricultural innovations to their farming practices. It is imperative to understand that the interactive sessions between farmers and programme’s producers during visitations at home or farm have pave way to more mutual understanding between the farmers, producers and the agricultural workers or agents in the area. This in itself has helped in mobilizing farmers as far as listening to the programmes is concern.

It is suffice to note also that the programmes transmitted by these stations have addressed the agricultural issues of their host communities. It was confirmed also that the programmes carries elements of Agricultural information, Agricultural education and Agricultural mobilization, and these are the key actors as far as Agricultural campaign is concern. In a more precise manner, it is now certain that Agricultural information and education delivery given to the farmers as agricultural campaign packages on the community-based radios over the years of their existence, has impacted positively on agricultural beliefs, practices and skills of the farmers in Bauchi State. This is in passion with our belief that radio as a medium of communication is an instrument of social change, thus, the community-based radios being proximate to their host communities, has the capacity of reaching large number of geographically dispersed, remote and often not highly literate small holder farmers and can improve their social conditions through information dissemination, knowledge creation and teaching skills.

Equally one can vividly understand that the farmers of Bauchi state have benefited immensely from these stations in terms of easy access, nearness, participation and consistency in programme flow. That they attested as been rare in the major stations which are concentrated in Bauchi city. We cannot afford to forget that, essentially it is seen that community broadcasting in these stations is sustained by the principles of access and participation, volunteerism, diversity, independence and locality.

RECOMMENDATIONS
In consideration of the findings above, the following recommendations are proffered:

1. Federal government shall, through its broadcasting agency (NBC), commit to granting license for the establishment of Community Radio stations in the country as once promised by the President. This will boast development because while majority of Nigerians relied mostly on Radio as their source of information, community Radios are characterized by easy access, nearness to rural people as well as guarantees rural participation.
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2. Community – based Radio stations similar to those established by Bauchi state government across its localities, shall be established by other states of the nation across their localities to encourage rural participation in democratization and various developmental processes in the nation.  
3. Bauchi state government shall maintain and support the current stations through adequate equipment maintenance, workers motivation and other means as may deem appropriate in order to justify the patronage accorded to the stations.

REFERENCES  


BSADP Bulletin of 2011 vol. 1 No. 13, vol. 1 No. 16, 18

BSADP Bulletin of 2012 vol. 1, No. 6, vol., 1 No. 5, 10.