

**ASSESSING “NOMA TUSHEN ARZIKI” TELEVISION PROGRAMME FOR  
SMALL-SCALE FARMING DEVELOPMENT IN DU DISTRICT, JOS SOUTH  
LOCAL GOVERNMENT, PLATEAU STATE**

**BY**

**AKUSON, PATIENCE DANIEL**

**MA/ARTS/27759/2012-2013**

**A DISSERTATION SUBMITTED TO THE SCHOOL OF POSTGRADUATE  
STUDIES, AHMADU BELLO UNIVERSITY, ZARIA, NIGERIA, IN PARTIAL  
FULFILLMENT FOR THE AWARD OF MASTER OF ARTS (MA) IN  
DEVELOPMENT COMMUNICATION**

**DEPARTMENT OF THEATRE AND PERFORMING ARTS,  
FACULTY OF ARTS,  
AHMADU BELLO UNIVERSITY,  
ZARIA, NIGERIA**

**JUNE, 2017**

## DECLARATION

I Akuson, Patience Daniel, hereby declare that this dissertation entitled “**Assessing “Noma Tushen Arziki” Television Programme for Small-Scale Farming Development in Du District of Jos South Local Government, Plateau State**” was carried out by me in the Department of Theatre and Performing Arts under the supervisions of Prof. M.I. Umar-Buratai and, Prof. Victor Ayedun-Aluma. The information derived from other literature has been duly acknowledged in the text and a list of references provided. No part of this dissertation was previously presented for another degree or diploma at this or any other Institution.

.....

Akuson, Patience Daniel

MA/ARTS/27759/2012-2013

.....

Date

## CERTIFICATION

The dissertation titled **“Assessing “Noma Tushen Arziki” Television Programme for Small-Scale Farming Development in Du District of Jos South Local Government, Plateau State”** by Akuson, Patience Daniel meets the regulations governing the award of the degree of Masters of Arts (M.A) in Development Communication of the Ahmadu Bello University, Zaria and is approved for its contribution to knowledge and literary presentation.

-----  
Professor M.I. Umar-Buratai  
Chairman, Supervisory Committee

-----  
Date

.....  
Professor Victor Ayedun-Aluma  
Member, Supervisory committee

-----  
Date

.....  
Professor M.I. Umar-Buratai  
Head of Department

-----  
Date

.....  
Professor S. Z. Abubakar  
Dean School of Post Graduate Studies

-----  
Date

## **DEDICATION**

This study is dedicated to the Almighty God and my loving parents and siblings who gave their unflinching support during the course of this programme.

## **ACKNOWLEDGEMENTS**

I wish to sincerely express my gratitude to the Almighty God for His grace, mercy, favour and provision throughout the course of this study and for making it a reality.

To my able and dynamic supervisors, Prof. M. I. Umar-Buratai and Prof. Victor Ayedun-Aluma, whose expertise and rich contributions to this work are immeasurable; I consider myself very favoured to have you as supervisors.

I wish to also thank all academic and non-academic staff of the department, all of whom have been of help in one way or the other, worthy of mention is Dr. Emmanuel Jegede, Post Graduate (PG) coordinator for his advice.

To my friends and colleagues who have shown relentless efforts in making sure this study becomes a huge success, most especially Abayomi Onifade, Imoh John Obot, Adebisi Olugbenga, Rosemary Terlumum Matthew, Sunday Ogbe, Valiya Gado, Adebija Iyoboro, Jane Smith Solomon, Faith Joseph, Faith Bonat, Faith Obekpa, Mercy Dadang, Emily Gyang, Gyang Dayi, Ashibu Simon, Peter Philibus amongst others, I thank you so much.

To my parents; Mr. and Mrs Daniel Akuson “you are God sent and simply the best parents in the world” only God can reward your sacrifice of love. To my siblings, Aaron, Arhel, Joy, Lydia, Joel, Samuel, Jonah, Emmanuel (Shadow), and Edward your supports are amazing and unquantifiable, God bless you all. To my sister in-law Ruth you are simply the best, God bless you. I am not forgetting my uncles and aunties Mr and Mrs Danjuma Akuson, Mr and Mrs Nuhu Akuson, Mr and Mrs Kurah, Mr and Mrs Dauda Akuson, Mr and Mrs Hosea Akuson God bless and keep you all.

I also appreciate farmers in Du; those interviewed and those who willingly gave information to enrich this study. Also to the producer and presenter of Noma Tushen Arziki programme thank you all for your immense support and contributions to making this study a reality.

## **ABSTRACT**

This dissertation assesses “Noma Tushen Arziki” television programme for small-scale farming development in Du district of Jos South Local Government of Plateau state. Acknowledging the fact that the programme was initiated by Plateau Radio Television Corporation (PRTVC) to help farmers with useful information that will educate them on new and improved systems of farming, government incentive available for them, new technology and seedlings so as to improve their farm yield and productivity. However, there is still poor farm yield and hunger within the state; and a recent survey conducted by the National Bureau of statistics, placed Plateau state among the 10 poorest states in Nigeria. This study therefore seeks to assess ‘Noma Tushen Arziki’ television programme with a view to determining the efficacy of its communication strategy for small scale farming development in Plateau state. Through the use of both the quantitative and qualitative research methods and tools, this study discovered that inconvenient timing of the programme, lack of awareness creation and farmers preference for watching films and other free cable network channels to watching the local channels available (PRTVC); and lack of feedback mechanism and participatory platforms of “Noma Tushen Arziki” has resulted to low viewership and subsequently lack of impact of the programme on farmers. The Democratic-Participant Media theory and The Development Media theory were used to underpin the study. Questionnaire, Focused group Discussion and Key-Informant Interview were used to elicit responses from respondents in Du District. Three hundred and eighty-two respondents and two interviewees were engaged in the study. Based on the findings, the researcher recommends that the programme needs to be rescheduled so that the time will be conducive for farmers; awareness creation campaign on the existence of the programme should be carried out; topics discussed on the programme should be within the contemporary needs of farmers at the time; and feedback mechanism should be put in place on and off the programme. With this, farmers will have access to the programme; it will enhance their participation on the programme and will lead to improved yield and hunger reduction in the state.

## TABLE OF CONTENTS

Title Page -----	i
Declaration-----	ii
Certification-----	iii
Dedication-----	iv
Acknowledgements-----	v
Abstract -----	vi
Table of Contents -----	vii

### CHAPTER 1: INTRODUCTION

1.0 Background to the Study-----	12
1.1 Statement of the Research Problem-----	14
1.2 Aim and Objectives of the Study-----	17
1.3 Research Questions-----	18
1.4 Significance of the study-----	18
1.5 Scope of the Study-----	19



## **CHAPTER 2: REVIEW OF RELATED LITERATURE AND THEORETICAL FRAMEWORK**

2.0. Introduction-----	20
2.1. Perspectives on Communication and Development Communication-----	20
2.2 Agricultural Development Communication-----	26
2.3 The Potentials of Television in Agricultural Development -----	32
2.4 Importance of Television in Communicating Agricultural Development-----	35
2.5 Participatory Approaches to Agricultural Development-----	37
2.6 Small Scale Farming-----	39
2.7 Noma Tushen Arziki Television Programme-----	42
2.8 Review of studies on Noma Tushen Arziki -----	45
2.9 Media Mix -----	47
2.9 Theoretical Framework-----	47

## **CHAPTER 3: RESEARCH METHODOLOGY**

3.0 Introduction-----	49
3.1 Research Design-----	49
3.2 Research Population-----	51
3.3 Sample size and Procedure-----	52

3.3.1 Questionnaire-----	52
3.3.2 In-Depth-----	53
3.3.3 Key-Informant Interview-----	53
3.4 Procedure for Analysis-----	54

## **CHAPTER 4: DATA PRESENTATION AND ANALYSIS**

4.0 Introduction-----	55
4.1 Socio-Demographic Characteristics of Respondents -----	56
4.2 Farmer’s Accessibility to the Programme “Noma Tushen Arziki”-----	59
4.3 Efficiency of “Noma Tushen Arziki” Programme in Helping Farmers improve their Production-----	64
4.4 Opinion of Farmers on If “Noma Tushen Arziki” programme can Enhance Farmers Productivity-----	66
4.5 Ways in which the Programme “Noma Tushen Arziki” can be Improved to Enhance Farmers Productivity-----	68
4.6 Discussion of findings-----	70

## **CHAPTER 5: SUMMARY, FINDINGS, RECOMMENDATIONS AND CONCLUSION**

5.1 Summary of the Study-----	77
5.2 Key Findings-----	78

5.3	Conclusion-----	79
5.4	Recommendations-----	79
5.5	Contributions to the Body of Knowledge-----	80
<b>REFERENCES-----</b>		<b>81</b>
APPENDIX I: Letter of Introduction-----		91
APPENDIX II: Questionnaire-----		92
APPENDIX III: Check List for Key-Informant Interview-----		95
APPENDIX IV: Check List for In-Depth Interview-----		97
APPENDIX V: Photo-Shots from Field Survey-----		98

## **CHAPTER ONE**

### **GENERAL INTRODUCTION**

#### **1.0 Background to the Study**

From inception of mankind, agriculture has been the main source of food supply. In the same vein, people all over the world, especially in developing countries, are engaged in agricultural activities as such agriculture is one of the most important primary activities of man and it guarantees basic food supply. However, according to the Regents of the University of California (2002), agriculture is defined as the science, art and occupation of cultivating the soil, producing crops and raising livestock. Furthermore, it is the very basis of civilization; the food we eat, the clothing we wear, the material of our homes, the gardens around us, and of course many of our traditions and values. Although the activity of agriculture is defined variously in different parts of the world, it most commonly includes, planting of crops and raising of animals for the purpose of food consumption. Agriculture plays a crucial role in the life of an economy being considered as the backbone of our economic system. It does not only provide food and raw materials but also employment opportunities to a large number of people (Agriculture goods 2016).

Although, agriculture has remained the mainstay of the Nigerian economy, there has been declining contributions to the gross domestic product (GDP) in the past three decades. This could be associated with the gross neglect of the agricultural sector and over dependence on the oil sector whereas, in the pre-and post-independence era (1930 to 1965), the Nigerian economy was predicated on agriculture. In the same vein, agriculture employed about 70 to 80% of the country's labour force (Falusi and Olayide, 1980) and contributed 60% of the nation's gross domestic product (GDP) and foreign exchange earnings (CBN, 1995). In the oil boom era (1966 to 1977) the oil sector came to a prominent position as an important source of the national

revenue thereby, bringing agriculture sliding downwards in terms of revenue. The oil sector which used to contribute a meagre 2.6% of the GDP in 1960 contributed 57.6% to the GDP in 1970 and up to 99.7% in 1972 (Keke, 1992). On the other hand, Agriculture contributed only 12% to the GDP in 1970 which culminated in rising food import leading to the persistent huge deficit in the balance of payments over the years (Ugwu, 2007). In order to revamp the agricultural sector, the federal government embarked on and implemented several agricultural policies and programmes some of which are defunct or abandoned, and some restructured while others are still in place.

The most important need of farmers is information. Information is an essential ingredient in agricultural development programmes, but Nigerian farmers seldom feel the impact of agricultural innovations either because they have no access to such vital information, because it is poorly disseminated, not in the language they understand, not through the medium that is available to them, or inclusion of farmers in designing messages meant for them is ignored. However, Okpoko (2010: 216-217) in agreement to this statement asserts thus:

Many development efforts in Nigeria including agriculture, which substantial human and financial resources have been invested, have failed to achieve the expected desired results primarily because the targeted beneficiaries of the efforts have not been involved in the planning and design of the programs. Generally the interventions have been top-down.

This is usually the case especially in rural communities where the beneficiaries are not given the opportunity to get involved in the planning of the various development projects, thus making such projects assume top-down approaches. This has however, affected the development goals and innovations in the past and even at present.

Efforts have been made by governments both at the federal and state level to bridge this issue of information dissemination to farmers especially those at the grassroots. One of such is the programme “Noma Tushen Arziki” (Farming is the root of Wealth) programme of Plateau Radio Television Corporation (PRTVC) Jos.

“Noma Tushen Arziki” Television programme, an initiative of Plateau Radio Television Corporation (PRTVC) has been one source of information for rural farmers for the past decade. It has provided rural farmers with information on new farming systems which has brought about their understanding of new variety of seeds, new farm implements and new agricultural innovation.

Apart from information dissemination, this programme also affords local farmers the opportunity to link up with financial institutions to enable them acquire loan facilities and to also make them benefit from government programmes on agriculture such as fertilizer and other subsidies. PRTVC also collaborated with Plateau Agricultural Development Programme (PADP) which is saddled with the mandate of providing farmers with proven technology through Unified Extension programmes and implementation of Federal Government agricultural programme initiatives like the Agricultural Transformational Agenda (ATA). It is also saddled with the task of teaching farmers the theoretical as well as practical ways of improving agricultural production in Plateau State. This collaborative effort was expected to yield more community based agricultural interventions in order to meet the needs of rural farmers. However, it was short lived because PADP withdrew from the partnership due to the problem of inadequate funding from the government. Because of the programme’s impact and importance to farmers, PRTV continued the production and airing of the programme once a week as against twice a week when it started. The success of agricultural development programmes in developing countries like Nigeria

largely depends on the nature and extent of the use of mass media in mobilizing people for development. The planners in developing countries realize that the development of agriculture could be hastened with the effective use of mass media (Purushothaman 2003). Communication has been acknowledged as playing a prominent role in the success of agricultural production and adoption of innovations. For the purposes of comprehension, Mass Media has been defined as any material, objects, instruments or a system which serves to communicate information, including letters, pamphlets, and other written and printed materials, all types of cinema films, radio, television and video system (Adams, 1982). Mass media was found to be a veritable tool for creating awareness and mobilizing farmers on the importance of change towards new science-based agricultural findings.

According to Oyegbami and Fabosoro (2003), the usefulness of research results is generally achieved through an efficient mechanism of information transfer to the appropriate target (farmers). The transfer of the information to the target audience at the required time could only be achieved by the use of mass media depending on the purpose and the number of farmers to be reached (Nwachukwu and Onuekwusi, 2005). Several channels such as the extension agent, individuals, farmers-to-farmers contact, print media (newspapers, magazines, newsletter, pamphlet and posters) and electronics media (Radio, television, and film schedules and films strips) have been widely used to disseminate information to farmers (Olowu and Oyedokun, 2000).

Among the mass media means of communication, Television has proved to be a profound means of communication and potentially capable of having tremendous effect on the society. Undoubtedly, television is an influential and appealing medium, capable of drawing the attention of many viewers regardless of the literacy or illiteracy of its audiences. Although, the cost and

expenditure of television exceeds that of radio, it is more effective and powerful from the educational viewpoint.

This research therefore, seeks to examine how valuable and significant television programmes have been in developing small scale farming in Plateau State with specific reference to “Noma Tushen Arziki” programme of the Plateau Radio Television Corporation (PRTVC). It also, intends to examine farmers’ participation.

## **1.1 Statement of Problem**

Food is and still remains the most basic necessity of life because of its centrality to human existence; it is closely followed by clothing and shelter. Without food, survival, growth, development and evolution of the human race would be impossible. No wonder, food is at the centre of global debates today because; agriculture is recognized as a fundamental driver of economic growth and poverty reduction for many developing countries and a priority area for investment. According to the 2014 Global Hunger Index report, the state of hunger in developing countries as a group has improved since 1990, by 39 percent. Despite the progress made, the level of hunger in the world is still serious, with 805 million people continuing to go hungry according to estimate by the Food and Agriculture Organization of the United Nations.

In Nigeria, there have been diversified efforts like Operation Feed the Nation (OFN), Green Revolution Programme, Directorate of Foods, Roads and Rural Infrastructure (DFFRI), among others which were aimed at addressing the food challenges in the country. At the state level, agricultural development programmes (ADPs) were adopted to help alleviate this food problem. The Plateau state government through The Plateau Radio Television Corporation (PRTVC) has made efforts at communicating agricultural innovations and discoveries to boost



farmers' productivity in the state. The television programme titled "Noma Tushen Arziki", was designed to promote productivity among small scale farmers as a means of combating the issue of food insecurity in the state. In spite of all these efforts of government there is still poor farm yield and hunger. According to the hunger index, Nigeria is in the 10<sup>th</sup> position out of 15 countries in West Africa in reducing hunger. A recent survey conducted by the National Bureau of statistics (2012), placed Plateau state among the 10 poorest states in Nigeria. Against this backdrop, one wonders why the problem of food insecurity still persists. Where in lies the impact of "Noma Tushen Arziki" programme? How accessible is the programme in terms of the medium used, the timing of the programme and the language used in communicating the programme? What is the level of farmers' participation in the programme? Or is it that the basic aim and objectives of this programme is not meeting the needs of the people it is intended for? These are the issues that form the crux of this study which seeks to assess "Noma Tushen Arziki" television programme with a view to determining the efficacy or other wise of the programme as a communication strategy for small scale farming development in Plateau State.

## **1.2 Aim and Objectives of the Study**

The aim of this study is to assess "Noma Tushen Arziki" Television Programme on Plateau Radio Television Corporation (PRTVC) with a view to determining the elements of its effectiveness in terms of disseminating agricultural information in Du District of Plateau State.

The specific objectives of this study are as follows:

1. To determine farmers accessibility to the programme "Noma Tushen Arziki" in Du.
2. To ascertain the effectiveness of "Noma Tushen Arziki" Programme in helping farmers improve their production.

3. To identify ways in which the structure and content of “Noma Tushen Arziki” Programme can further enhance farmers’ productivity in Du.

### **1.3 Research Questions**

1. How accessible is the programme “Noma Tushen Arziki” to farmers in Du?
2. How effective is “Noma Tushen Arziki” programme in helping farmers improve their productivity in Du?
3. In what ways can the structure and content of “Noma Tushen Arziki” television programme further enhance farmers’ productivity in Du?

### **1.4 Significance of the Study**

This study is important and timely, due to the fact that the issue of food security is of global concern. It is also at a time when there has been a clarion call from several development scholars and communicators for participatory opportunities to be accorded rural people in terms of development projects that involve their community and wellbeing. This is in view of the assumptions that despite the numerous television programmes targeted at farmers in plateau State and Nigeria at large, farmers are still not well furnished with adequate information that can assist them to improve their yields as well as maximize available resources.

The outcome of the work will provide a workable solution that will help Plateau state government, PRTVC, Agricultural extension agents and other stakeholders in the Agricultural sector as they plan, produce and disseminate programmes for farmers in the state. It will also identify ways through which farmers can be active participants in the process of agricultural programming for television.

Furthermore, findings from this study will add to the existing literature on Agricultural Development, and Development Communication and serve as relevant material for further research in similar area of study.

### **1.5 Scope of the Study**

The scope of this study is focused on “Noma Tushen Arziki” television programme as a strategy used in reaching out to farmers with useful information that will help them improve their farm yield. It bordered on determining farmers accessibility to the programme “Noma Tushen Arziki”. The study also ascertained the efficacy of the programme in meeting farmers’ information needs and also identified ways through which “Noma Tushen Arziki” television programme can further enhance farmers’ productivity.

The study cannot examine agricultural programmes of several Television stations in Plateau State, therefore, the study was limited to “Noma Tushen Arziki” programme of Plateau Radio Television Corporation (PRTVC) which is a state owned media corporation. Since the study cannot cover the whole of Plateau State, Du district of Jos South Local Government was chosen as the study area.

The selection of Du District was due to the fact that the community is a farming community, has access to electricity supply, majority of the people in the community understand and speak Hausa, they have many educated farmers’ who are capable of filling the questionnaire and they get clear signal of the Plateau Radio Television Corporation.

## **CHAPTER TWO**

### **REVIEW OF RELATED LITERATURE AND THEORETICAL FRAME WORK**

#### **2.0 Introduction**

There are several scholarly contributions which are of utmost importance to this study and which the researcher reviewed in order to enhance the achievement of the objectives of this study. In view of this, contributions in the following fields would be reviewed: Agricultural Communication (Yahaya 2003, Jensen 2003), Development Communication, (Melkote 2007, Anaeto 2010), Freire 1987 Media and Social impact (AL-Namlah, S.A.S. 1998, Ajibade, O. 2010). Also, this section reviewed issues in the following order: Perspectives of Communication and Development Communication, Agricultural Communication, the potentials of Television in Agricultural Development, Importance of Television in Communicating Agricultural Development, Participatory Approaches to Agricultural Communication, Small Scale Farming, “Noma Tushen Arziki” Television Programme. This chapter also consists of the theoretical framework used to underpin this study.

#### **2.1 Perspectives on Communication and Development Communication**

The relevance of communication to development is an established paradigm in development studies. It is borne out of the realization that development is human-centered and thus requires communication for its full realization. FAO (1994:5) points out that “communication is the key to human development and the thread that binds people together”. This corroborates Moemeka’s (1991) view that development efforts cannot be successful without planned communication because its flow determines the direction and pace of dynamic social growth. This in actual fact shows that without communication there cannot be meaningful development. Furthermore, Moemeka (1991) still posits that the agglutination of communication

and development is what brought about the word development communication or better put communication for development which emphasizes the kind of communication that is done for development purposes. In whichever way it is coined, the established fact therefore is that there is a close relationship between communication and development.

In view of the above, it is pertinent to take cursory look at the concept of communication as a discipline with its closed relationship with development. The word Communication comes from the Latin word **COMMUNIS**, which means common or shared understanding. It is therefore a purposeful effort to establish commonness between a source and receiver (Schramm, 1965). Going further in terms of explanation, we find that whatever is being shared could be associated with knowledge, experience, thought, ideas, suggestion, opinions and feelings etc. Another definition that is worth of mentioning is that given by Baran (2003) stating that communication is the process of creating shared meanings. From this assertion, it is evident that participants in communication encounter are interested in obtaining messages that are understandable. It is because of this dimension that they (participant) have to negotiate, seek clarification and ask for explanation to ensure that intended meaning is obtained.

Furthermore, in the light of development, communication focuses on the empowerment of the disadvantaged; that is “the rural poor, the urban destitute, the elderly, children and women” (Quarmy 1990:1, cited in Soola, 2002:19). This view perceives that communication is a transactional, participatory, and highly interactive process which is receiver-oriented. In essence, this involves the active involvement of the people who are the excluded and who are capable of assuming the responsibility of determining and shaping their own destinies. Be that as it may, for development to take place, its efforts must start at the local level (the immediate community). Reasoning along this line, Richardson (1977:14) claims that:

Communication caters to the human dimension of development: it establishes a dialogue with rural people, involves them in the planning of their own development, provides information as a basis for social change and conveys the knowledge and skills required to improve the quality of their life.

In the early conceptions on development, it was found that they were synonymous with westernization. However, earlier writers and conceptualizes, equated westernization with growth, which from the stand point and arguments of other scholars, does not paint a realistic picture because development vary according to different cultures. Olatunbosun (1975) using the well-known dual economy model of Ranis and Fei differ significantly by arguing that development should not be analysed from the perspective of growth with little or no attention paid to matters of equity.

Furthermore, development was erroneously seen in qualitative terms representing such variables as: gross national product, per capita income growth, mass production, technology, modernization and extensive investment in mass media infrastructure. It is important to note that this approach to development did not take into account its complex, multidisciplinary nature. However, there are certain views and concepts which came much later and that tend to observe a paradigm shift from a purely economic and diffusionist view to a humanistic and contextualized one. This shift is invariably important due to the current contextualization of development with reference to participation.

Todar and Smith (2003), stress that development involves both the quality and quantity of life. In reference to quality of life, it is centered on opportunities and availability of social, health and educational concerns. Whereas, the quantity of life involves the amount of economic and political participation of the people. This definition obviously shifts the attention and aim of

development somewhat away from an economic perspective to a more humanizing conceptualization. Oladipo (1996:1) was apt in submitting that development is:

A process of economic and social advancement which enables people to realize their potentials, build self-confidence and lead lives of dignity and fulfillment. It is a process aimed at freeing people from evils of want, ignorance, social injustice and economic exploitation.

This assertion was emphatic in its bid to enforcing popular participation at some point and with this conception in mind; Todar and Smith (2003) identify three objectives of development as follows: “To increase the availability and widen the distribution of basic life sustaining goods such as food, shelter, health and protection; to raise levels of living in addition to higher incomes, the provision of more jobs, better education, and greater attention to cultural and human values, all of which will serve not only to enhance material well-being but also to generate greater individual and national self-esteem; and to expand the range of economic and social choices available to individuals and nations by freeing them from servitude and dependence, not only in relation to other people and nation- states but also to the forces of ignorance and human misery”.

Similarly, development communicators and scholars have identified two paradigms of development communication: the first being the diffusion or dominant paradigm and the second, participation or alternative paradigm (Windhahl, Signitzer and Olson, 1992). The diffusion model holds the view that innovative ideas and practices are accepted through the transference of such innovation from the innovators to those who will accept them in society. That means, there must be innovations targeted at a certain people and not just that, the people at which the innovative ideas is intended must through meaningful communication, be able to accept the innovative ideas with the assurances that they will be in their benefit. Emphasis is laid on the

acceptability, which also lies on effective communication. If by any instance, the innovative ideas are unacceptable by the people, it fails to be innovative. Innovation in itself is premised on impactability. On the other hand, the participatory paradigm presents the view that communication effectiveness is enhanced when the receivers are actively involved in the processes of message production and distribution. This paradigm looks away from the top-down approach, which deposits innovations at the doorsteps of the recipients without their active participation in the processes. Also each of these two paradigms has been associated with the theories of communication process and effects, leading to the assertion that the dominant paradigm for instance has been associated with one-way message transfer models of communication, while the alternative paradigm has been associated with two-way interactive models of communication.

Quebral (1975), cited in Anaeto & Anaeto (2010), defines development communication as the art and science of human communication applied to the speedy transformation of a country and the mass of its people from a state of poverty to a more dynamic state of economic growth which make possible greater social equality and the larger fulfillment of the human potentials. It is observed that development communication is a purposeful communication effort geared towards realization of human potentials and transformation from a bad situation to a good one. That is why Moemeka (1991) defines development communication as the application of the process of communication to the development process. Coldevin (1987) notes that development communication mobilizes people to participate in development activities; He defines development communication as "the systematic utilization of appropriate communication channels and techniques to increase people's participation in development and to inform, motivate, and train rural populations, mainly at the grassroots level (Jayaweera, cited by Ngugi :



1995. This is in line with Balifs (1988:13) definition, which sees development communication as a social process aimed at producing a common understanding or a consensus among the participants in a development initiative.

Communication plays a dominant role in development efforts, particularly in the area of agriculture. MacBride et al cited in Laninhun (2002:72) claim that communication has tripod functions: increasing understanding of development problems; building up a spirit of solidarity in a common effort; and increasing the capacity of men and women to take charge of their own development. Receiver-oriented communication strategies alongside the activities of extension workers can play a key role in creating awareness, changing attitudes and increasing the adoption rate of recommended innovations and practices in agriculture. The concepts of communication and development are central to our understanding of development communication. In development communication, the main reason of communication is to bring about or expedite the process of development. In the same vein, communication is necessary for development because it helps to mobilize people's participation. Communication is a common denominator for development and participation. It is for this reason that the FAO (1994:5) says that “communication is the key to human development and the thread that binds people together”. Therefore, for Agricultural development to be realized, communication is key and cannot be left out.

## **2.2 Agricultural Development Communication**

Over the years, deliberate efforts have been made by donors and African countries to bring about agricultural development without much to show for it. Much of the failure can be ascribed to the adapted transformation approach to agriculture which is characterized by the introduction of a wide variety of large scale farming and processing technologies. The failure can

also be attributed to the treatment of information as a matter of course by most African governments. As often happens, agricultural information is not integrated with other development programs to address the numerous related problems that face farmers. Ozowa (1995:1). Information is an indispensable factor that is necessary for any agricultural development programs to be successful but, Nigerian farmers seldom feel the impact of agricultural innovations either because they have no access to such vital information or because it is poorly disseminated. According to Ozowa (1995:1), the information provided is exclusively focused on policy makers, researchers, and those who manage policy decisions with scant attention paid to the information needs of the targeted beneficiaries of the policy decisions. The non-provision of agricultural information is a key factor that has greatly limited agricultural development in Nigeria

Agriculture is a critical sector in any country's economy. Even the developed countries of Europe and America, continue to pay serious attention to their agricultural sectors (Salau 2007). However, about 75% - 80% of Nigerians who live in rural areas are engaged in agriculture and without formal agricultural knowledge. The need to receive appropriate information on improved farming methods is imperative. Adeyanju and Mbibi (2005:99) noted that "the production level of the Nigerian farmer depend on the kind of information available to him". Hence information is a critical corporate resource. Gans (2003:98) affirms the point when he says that "getting relevant message to farmers will not only create awareness but also foster in them the right kind of attitude through knowledge acquisition". Jensen (2003:69) asserts that the right information will guarantee knowledgeable, active and informed farmers who can participate wisely in the country's economic production and consequently development. He argues that the informed and knowledgeable farmer, like any other citizen within a social milieu, needs neutral,

trustworthy information- knowledge of the facts, if he must develop the right attitude towards agricultural development of the country.

However, to communicate the right information to a farmer, Yahaya (2003:84) says three elements are vital for success in communicating with farmers: these include: Visit Farmer Orientation where the agricultural communicator must use a vocabulary that presents issues and problems from the farmers' point of view of how to solve a problem; Serial Target Change means that information must reach the farmer when he needs it in order to enforce a new behaviour which becomes part of his routine practice; Media Network which deals with the media group (broadcast, print, interpersonal) selected carefully and then integrated in a way that builds upon their unique advantage so that a "a multiplier effect" is achieved. This can be accomplished by using channel strategies that are based on pre-programme research to determine where and how people get information.

Communication forms substantial part of agricultural development. Umar (2005:120) states that "it is important for extension agents to acquire communication skills that would enable them to effectively share ideas and information which may influence the decision of the farmer on a given subject matter" He adds that extension workers should present technical information in simplified manner that farmers may easily understand, remember and apply. Furthermore, communication is the cement that holds the society together. Yahaya (2003:103) states that "for over two decades, purposeful application of media and communication has played a vital role in rural development". Food and Agricultural Organization (FAO) refers to it as the systematic utilization of appropriate communication channels and techniques to increase people's participation in development and to inform motivate and train rural populations mainly at the grass root levels.

The use of media to assist in Third World development came out of research findings aimed at reaching people at the village level. Prior to this time, the only link between development in agriculture and rural adopters was the extension workers. The challenge that came with these include: limited number of workers, transportation difficulties, and poor training of illiterate farmers. Moreover, the use of media can accelerate awareness of, and adoption rates towards recommended technologies through targeted information, motivational messages and training. Information plays a vital role in our present day society as a result of the advancement in Information and communication technologies (ICTs) it enhances the relationships.

According to Camble (1992), man requires information to be able to manipulate factors of production such as land, labour and capital resources into meaningful and productive use. Agricultural information covers all published and unpublished knowledge on general aspects of agriculture and consists of innovations, ideas and technologies of agricultural policies (Aina 1990). According to Ozowa (1995), agricultural information provides the data used for decision making which is needed for overall development of agriculture as well as improve the living standard of farmers.

The objectives of agricultural information can hardly be realised if farmers have no access to information (Olawoye 1996). Agricultural information creates awareness among farmers about agricultural technologies for adoption. Agbamu (2006) opines that information is the first and indispensable step of an adoption process. Adefuye and Adedoyin (1993) suggest that for a steady flow of accurate understandable and factual agricultural progress, farmers must know, and act in accordance to agricultural information. Therefore, how far people progress in whatever they are doing in agriculture depends largely upon the availability and access to accurate and reliable information. Obinne (1994) believes that the major setback in agricultural

production in Nigeria is not lack of recommended practices needed for economic growth and rural transformation but that of disseminating the recommended practices to end-users.

According to Adeniji (1977) and Idowu (1994) a body of knowledge amassed from research as well as indigenous technical knowledge in the contemporary world is immense. They argue that the impact of the knowledge on human development lags behind this enormous knowledge. They claim that the situation is more so in the field of agriculture where the system that form the entity are stratified into highly formally educated technology generation (researchers), relatively well educated technology dissemination system (extensionists) and a mass of technology utilizing system (farmers) who have little or no formal education. The implication of this stratification, according to them, is that messages, production recommendations, field problems and innovations transferred from one system, to the other, as well as within each system have not been effective in achieving a commensurate development in agriculture.

Communication therefore is to be conceptualized as a process of information flow by which ideas are transferred from a source to a receiver with the intent to change his/her skills. Adebayo (2004) opined that communication is a key process in information dissemination in agriculture. In a similar vein, Udall (1983) suggested that communication can be regarded as a process by which one person (or group) shares and impacts information to another. According to Van Den Ban (1972), rigid social structure is one of the reasons why traditional farmers usually become suspicious of all government actions. He believes that farmers do not trust the high-status government officials and are not confident that the officials will act in their interest.

Opinion leaders, according to Okwu (2006), are usually characterized by more use of the mass media, higher levels of gregariousness and self-perception to influence others and as having

attributed roles as source and guide. The identification of opinion leaders as intervening variable between the mass-mediated message and audience is significant in the study area for diffusion of agricultural innovations where the more information – active farmers become opinion leaders to the less active ones. Pickering (1984) suggests that in areas emerging from large subsistence agriculture, extension services are generally poorly organized and frequently are subject to political and administrative abuse. He believes that many extension agents tend to be younger than their audience in general a grave disadvantage in rural traditional societies. According to Awa (1992), lack of sensitivity to local beliefs and knowledge can severely reduce the ability of technical and extension workers to learn from local peoples' knowledge and experience, which could otherwise render a development project less worthwhile to all concerned. Beynon et al. (1998) as reported by Agbamu (2005) states that agricultural extension was associated with information, which the public good character of which depended on; nature of its provision by mass media or personal contact, its speed of diffusion and time sensitivity, whether it was embodied in physical inputs.

According to him, pure agro-information, which was not embodied in a physical product was generally, regarded as both non-sub tractable and non-excludable. Agbamu claimed that if the information diffused rapidly there was incentive for farmers, not to pay for the information by obtaining the information from other farmers. Obinne (2012) reiterates the fact that the field of discourse in the communication process indicates a shift from the linear to be systems approach which emphasizes the synergistic interdependence of the elements in the process

The integration of farmers' perspectives and indigenous knowledge into the research process could enhance the relevance and acceptability of the new innovations. No doubt there are limitations to the farmers' knowledge, especially technical knowledge, but the examples given

above clearly indicate that in many cases, scientists could have improved their research results and made the technologies recommended more acceptable if farmers' knowledge is seriously incorporated into the research process. The incorporation of farmers' knowledge into the agricultural research and innovation process is steeped in the participatory paradigm which requires a shift in the way individuals are considered, from passive recipients to active agents of development efforts.

There are a number of reasons for this shift, the major one of which is presented by Ascroft and Masilela (1994), that "If peasants do not control or share control of the processes of their own development, there can be no guarantee that it is their best interest that is being served." Common features of this perspective are the emphasis on people, the endogenous vision of development, and the attention to power and rights issues. The underlying goal of participation is, to empower communities, groups or individuals to determine their own direction, objectives and options for change, make well informed decisions, take collective action to achieve their goals and monitor and evaluate if they are getting where they want to be. The goal of participation is to empower people by equipping them with capabilities and providing them opportunities to take control and give direction to the change process to improve their livelihoods (Huesca, 2003). It requires open sharing of information and opinions in all directions, identifying areas of conflicting interests and collective assessment and testing of options that can fulfill needs while capitalizing on opportunities and compromising on conflicts. This places participatory communication at the core of sustainable development. Facilitation of participatory communication processes inherently implies "giving voice", hence power, to all parties involved. These processes should be based on a thorough stakeholder analysis. This

analysis helps to understand who has what stake in the process and what functional and power relations exist amongst and within the different stakeholder groups.

Understanding people's positions, interests and relations is required to design and employ the most suitable communication and engagement methods to raise interest in and initiate the dialogue. Rather than applying a standard set of recipes from a toolbox, situation specific processes need to be designed with a clear and mutually agreed objective. The process design should be based on considerations such as existing inter- and intra-group dynamics, language choice (both from an ethnic as a vocabulary perspective), access to and suitability of media or channels to be used, external noise that may occur and anticipated effects of both the internal processes and the external noise.

### **2.3 The Potential of Television in Agricultural Development**

Broadcast media are powerful communication tools proven to be effective in promoting agriculture and development in rural areas (Chapman, 2003; Cremedas and Lysak, 2011) as such it is a tool for the delivery of quick information (Nakabugu, 2001; Binswanger et al., 2010). In the same vein, radio and television as integral parts of the media are considered as effective tools for communicating development (Hussain, 1997; Nazari and Hassan, 2011). In terms of effective rural communication, radio is considered as most effective, especially in developing countries (FAO, 2001; Nazari and Hasbullah 2010). Television has also proved to be a profound means of communication and potentially capable of leaving tremendous effect on the audience as well as the society (Verhoeven, 2010). Undoubtedly, television is an influential and appealing medium capable of drawing the attention of too many viewers regardless of the literacy or illiteracy status of its audience (Castiez, 2001). In comparison to radio, television has visual potential which enhances its values. In other words, it is a 'seeing' and 'listening' medium unlike the radio which



is only for listening. Although the cost and expenditure of television exceeds that of radio, it is more effective and powerful from the educational viewpoint (Elman, 2010).

Furthermore, according to Arokoyo (2003) and Vietnam Laverack and Dap (2003), video, radio, television, single-page (flyers), publications and posters are the major sources of information for the farmers. Often times these materials have English as their communication language and by so doing, it is required that the farmers should have basic education in order to be able to access the information therein. Many researchers and educators have tested the knowledge of farmers and other clients toward the delivery of educational information (Trede and Whitaker, 1998; Suvedi et al., 1999; Orhan Ozcatalbas et al., 2004; Opara, 2008; Nazari and Hasbullah, 2008; Vandenabeele and Wildemeersch, 2012; Díaz-Pichardo et al., 2012). The outcomes of their studies indicated that different media and methods are used by Extension educators to communicate emerging new technologies to farmers.

Among the wide diversity of mass media, radio and television, due to their wide and vast range of audiences, have had an outstanding position from informal teaching point of view and are considered as the best cultural and educational media (Tancard et al., 2005). Ball-Rokeach and DeFleur (1976) believed that media are the agents for transferring information from one system to another (audience) based on their needs. They mentioned that media play important roles to attract people by providing necessary information for them and it helps the social system as well. Escalada (2007) believed that the common electronic media which consist of radio and TV is regarded as very effective in communicating the latest knowledge to the farmers. Similarly, Al-Namlah (1998) reported positive effect of television to inseminate farmers' knowledge in all farming process. From the assertions above one can rightfully say that

broadcast media has a powerful effect and is essential in the transfer of information to a diverse, heterogeneous and it is effective for the transference of agricultural messages.

Television as a tool for agricultural development has a distinct advantage over radio because of its combination of sight and sound. Television has been found to be effective in situations where radio is limited, like in cases where demonstration is necessary to show a way of doing things such as mixing of fertilizer or oral rehydration therapy (Ansah, 1991). Television is good and reliable for rural development. It has dual advantage of vision and hearing. It has immediacy and gives the message as it happens in true life with all the verve and vitality surrounding the occasion (Omenesa, 1994). The audience maybe led to imitate the behavior presented by a model if they can see the rewards of the behavior. The audience may be led to avoid the behaviour presented by a model if they see the negative consequences of the behaviour. The model should be presented in a real situation so that the audience can relate the behavior to everyday life.

The strength of television for development communication is clear because it is prestigious, persuasive and it combines audio with visual. However, television tends to be monopolized by powerful interests because of its prestige. It is not always available in all rural areas and it is expensive to run in terms of its production and reception.

## **2.4 Importance of Television in Communicating Agricultural Development**

Agboola, (2000) explains that information plays a key role in agricultural development and production and their effective communication will help facilitate mutual understanding among farmers, agricultural scientist and extension workers. In support of Agboola's explanation Kaye (1995) opines that good information improves decision-making, enhances efficiency and provides a competitive edge. Knowledge and information are basic ingredients for increased

agricultural production and productivity. In the same vein, Opara, (2008) clarifies that information is a critical resource in the operation and management of the agricultural enterprise. Abbas et al. (2008) also argue that lack of information adapted to local needs and lack of technical knowledge at farm level are the important factors responsible for this low yield.

Information is therefore considered as one of the most important resources in agriculture and rural development that assists the farmers to take decisions and appropriate actions for further development related to farming (Harris et al., 2001; Morrow et al., 2002 and Stefano et al., 2005). Examining the submission of these scholars above, they dwell on the role and the importance of information to agriculture but fail to acknowledge the method of passing the agricultural information for proper and effective participation. Thus Mass media method of information dissemination is crucial in agricultural development.

Mass media methods in agricultural information dissemination generally, are useful in reaching a wide audience at a very fast rate. They are useful as sources of agricultural information to farmers and as well constitute methods of notifying farmers of new developments and emergencies. They could equally be important in stimulating farmers' interest in new ideas and practices (Ani et al. 1997). Radio and television are the most effective tools in communication for the support of development (Hussain, 1997). TV can provide an illiterate person valuable instruction and education in agriculture, health population control, sanitation and other aspect of his daily life (Rahman, 1999).

From whatever theoretical or ideological perspective we may view the social role of the mass media in general and television in particular, it is generally agreed that they constitute a crucial variable in the development process of any society. Even in developing countries like Nigeria, governments and individuals invest a great deal of resources in the mass media because

these media are credited with a lot of power and influence. The intellectual roots of this belief could be found in the works of Western scholars like Lerner, Pye and Schramm, among others.

According to Schramm (1964:19), “countries in a hurry cannot afford the luxury of an inert mass. They require the active and informed cooperation of their village people as well as their city people. Their human resources are indispensable”. Therefore, they are going to have to speed the flow of information, offer education where it has never been offered before, and teach literacy and technical skills wisely. This is the only way they can rouse and prepare their populace to climb the economic mountains, and the only way they can do it and keep the timetable they have in mind is to make full use of modern, communication (Schramm, 1964).

Going by the picture given by Schramm above, many decades ago, it is glaringly evident that the organ of mass communication occupy a crucial place of pride in whatever kind of goal a nation wishes to pursue be it politics, economics, technology, physical, agriculture, or otherwise. Nothing seems more important in agricultural development than the dissemination of latest agricultural technologies among the farmers. Agricultural extension organizations are entrusted with this primary task for which they use a variety of extension teaching methods/media. An important objective of the agricultural policy of Nigerian government in the area of agricultural extension and technology transfer is to disseminate useful and practical information relating to agriculture, ensure practical application of such knowledge and mobilization of farmer’s resources for the purpose of improving their welfare (FGN 1988). One of the strategies employed in achieving this objective is through establishment of effective communication channels among researchers, extension agents and farmers. Television is one of the media being used for this purpose both by public and private sectors

Laogun (2005) says that Television is another dimension to radio broadcasting. It therefore increases the scope of methods available to the extension worker. Television offers the people an opportunity to use two major senses-seeing and hearing in the teaching learning process. For the extension worker, he can demonstrate as well as talk. The viewer is not in a position to ask questions to clarify the points made in a television presentation. For this reason, television programmes require meticulous preparation. Every piece of equipment must be in place and the dialogue must be well thought out. Television programme have the advantage of to handle emergency information, reach people who cannot read, reach people who cannot attend extension meetings and builds interest in other extension activities.

## **2.5 Participatory Approaches to Agricultural Communication**

The idea of ‘participatory development communication’ draws attention to the emphasis on two-way communication processes, and a departure from one-way communication approaches that involve disseminating messages, transmitting information, or persuading people to change their behavior. Participatory development communication gives preference to horizontal approaches that involve encouraging dialogue centered on problem analysis and a search for solutions, as well as bottom-up approaches that aim to raise the awareness of decision-makers. These approaches are based on a process of community communication. The low performance of agriculture sector does not only threaten the livelihood but it also affects the production capacity of natural resources base, accelerates environmental degradation and fails to address poverty and malnutrition (Ashley and Maxwell 2011).

Empowerment and participation are two most important issues in agricultural development programs. Participation is critical, in order to come up with successful and accepted programs since they facilitate the development plans. Empowerment refers to process in which

community gives or gets power from another. Participation as empowerment is an approach in which people hold complete power over and are in full control of a program. Participation refers to involvement of marginalized groups in development process, which intend to build peoples abilities to access and control of resources, benefits and opportunities towards self-reliance and to better standard of living. Farmer's participation plays a vital role in economic development and poverty alleviation. Without participation there would be no program, no development. Lack of participation in decision-making to implement agricultural policies can lead to failure in agricultural development.

There are five types of farmer's participation according to (Aref 2011) they include: empowerment, partnership, interaction, consultation, informing, and manipulation. There are various reasons why active participation is very hard to achieve including people's lack of knowledge, confidence, capital, skills. Ignorance is considered as the main barrier to farmers' participation in agricultural projects. Farmers' participation in planning and decision- making, shortage of incentives to those who participate, and lack of capable organization were contributing factors to farmers' lack of participation (Aref 2011). According to Iqbal (2007), most agricultural projects fail because when projects are designed, farmers or local ethics, culture and socio-economic characteristics are not considered which lead to outside agents not being able to develop and recommend appropriate technologies that are compatible with the target group. Douglass (1997) also added that poor adoption and failure of agricultural projects are results of lack of participation of the target group in all stages of the projects. He said that people are not given chance to participate in all decisions that affects their lives directly.

Government officials and experts support the idea of participation in principles but at ground level there is no common agreement while Blay et al. (2008) found that involving target

group or local knowledge has weaknesses such as solutions which are based on limited scientific understanding of processes, limited technical knowledge and dissemination of results may be limited to gender or specific socio-economic groups. Festo (2003) stated that the use of top-down approach is one of the major factors causing failure of agricultural projects and that approach builds on farmers' experience instead of promoting empowerment and building farmers capabilities.

According to Anaeto, Onabajo and Osifeso (2008:166) participation is necessary in order to share information, knowledge, trust, commitment and a right attitude in planning and implementation development programmes. This goes to say that participation is essential in achieving development, because if people are not involved in the development process, and their ideas are not valued, they will be distrustful and not want to accept any innovation brought. Hence the importance of participation in agricultural communication is important.

## **2.6 Small Scale Farming**

The Nigerian agricultural sector is characterised by a multitude of small scale farmers scattered over wide expanse of land area, with small traditional holding ranging from 0.05 to 0.3 hectares per farm land, rudimentary farm systems, low yield per hectare Olukosi and Erhabor (1987). Agriculture provides primary means of income, employment for Nigerians and accounts for about 27% of total Gross Domestic product (GDP) and about 70% of labour force FAO (2003) and World Bank (2010)

Small-scale agriculture has been defined by Kirsten and Van Zyl (1998) to be the production of crops and livestock on a small-piece of land without using advanced and expensive technologies. This type of farming is usually characterised by intensive labour and in most cases, animal traction, limited use of agrochemicals and supply to the local or surrounding markets.

Unlike large-scale commercial agriculture, it plays a dual role of being a source of household food security as well as income from sale of surplus Kirsten and Van Zyl, (1998). Small-scale farming is a natural outgrowth of sustainable agriculture, which is essentially agriculture that produces abundant food without depleting the earth's resources or polluting its environment. It is agriculture that follows the principles of nature to develop systems for raising crops and livestock that are, like nature, self-sustaining.

Small-scale farming is ecologically friendly in that less land is cleared for cultivation, there are fewer emissions due to less use of fuel-driven machinery and the market is usually local implying less carbon miles. On the other hand Agriculturalists and others claim that per unit of area small-scale agriculture is far more productive than commercial agriculture in terms of total output from the piece of land. Economically, small scale agriculture enhances local economic development as it is a source of employment and keeps most of the income local as the market is predominantly localised. Socially, especially on traditional lands, the produce is first meant to feed the household thereby contributing to food security Bravo-Ureta and Pinheiro(1997). This means that there is a proven inverse relationship between farm size and its productivity. In other words, smaller farms are more productive and efficient but tend to lose their productivity as they grow in size.

Despite this importance, small-scale farming is slowly being less practised and farmers are facing problems due to a number of factors; such as reliance on limited technical and financial support, indifference among the youth to farming, government policies that are in most cases not area-specific, reliance on other livelihood sources such as formal employment and social grants, lack of Education, Lack of Finance and Lack of information. According to Ozowo (1996) one of the constraints faced by small scale farmers is lack of very vital information.



The vital information referred to include information on product planning such as what crop and variety to grow at a given season with marketability of such a crop as an important deciding factor. As suggested by Parrish et al (2005), small scale farmers also require information on current prices, forecast of market trends and sales timing which assist farmers in ensuring that they do not cause a market glut. Having all these kinds of information is important but in some cases, for example information on loan facilities might be in existence but due to low level of literacy farmers are mostly unaware it exist Ozowa (1996).

In line with what Ozowa said, Sibale (2010) and Key and Runsten (1999) attributed the lack of vital information to the scattered and unorganised nature of small scale farmers and lack of communication tools in most developing countries. These factors are known to leave most farmers ignorant of potential markets and having to rely on extension workers, where they exist, otherwise it is by word of mouth which in most cases the information is distorted and inaccurate (Sibale, 2010).

Hence the importance of information for small scale farmers cannot be overemphasised. It is also important that this information reaches the farmers as and when they need it. Therefore many Broadcast media houses (radio, television) include agricultural programmes in their programme line-up so that farmers will have a channel for information transfer. These programmes include discussions or interviews with stake holders, and other farmers on issues that are of importance to farmers and help them improve farm yield. “Noma Tushen Arziki” television programme of PRTVC is one of such programmes that have been on for a while and reaching out to farmers with new innovations and system of farming so as to improve their farm yield and curb the issue of hunger and poverty.

## **2.7 “Noma Tushen Arziki” Television Programme**

“Noma Tushen Arziki” is a thirty-minute agricultural programme aired on Mondays from 4:30pm to 5:00pm on the television arm of the Plateau Radio Television Corporation. It is a programme which incorporates a wide range of ideas and information on agriculture; and addresses issues on both animal and crop farming. The Hausa language is used during the programme because it is a common language spoken by people in the state. The format of “Noma Tushen Arziki” television programme is consistent but the content varies from one edition to the other, this is to ensure that the programme presents various issues and events that require farmers understanding. The programme is aimed at informing, creating awareness, enlightening, and persuading farmers to adopt new farming techniques and helping them better existing ones. The strength of this programme is creating awareness especially to farmers and this all important goal is not only limited to the television, but it has extended to all media for instance the mobile phone which is presently preponderant and easy to acquire (Fagurusi, 2015). The mobile phone is fast becoming a useful medium of communication which is quite different from the television basically because of its availability and owners proximity. This later part makes it more vibrant and apt for reach especially to farmers (Mitra, 2010).

Efforts have been made by development, agricultural and media scholars to increase the capacity of agricultural programmes to meet the food demands of Nigeria’s growing population by addressing the challenge of low farm yields (Miri, 2011). The peculiarity of modern day communication in communicating these efforts is largely on availability, speed, accuracy and precision of agricultural innovations to farmers (Shitak 2011). Thus, the mainstream media has been in the forefront in actualizing some, if not all the characteristics stated above. However, at the beginning of the 21<sup>st</sup> century, the evolution of the new media in this case, the mobile phones

with its acceptability and wider usage in rural areas presents additional opportunity for agricultural communication to reach out wider to farmers with messages on new innovations.

Fagorusi, (2015:85) explains that

Mobile phones are critical to the future of crop production and animal rearing especially in rural areas where activities are dominant. A deep integration of mobile phones into other existing new media forms will make its use more effective to address the issue of food security that mobile phones with advanced features also serve for radio communication and smart phones can be used to search for information by browsing the internet.

The above is true; however, the use of mobile phones for disseminating Agricultural messages comes with a lot of limitations. These limitations range from farmers having limited knowledge about the specialized use of mobile phones; the cost of buying smart and android with multimedia functions as well as buying data bundles to access internet facilities is high. Our indigenous languages are not factored in the design of phone apps hence limiting the understanding of its usage in communicating agricultural messages. Where farmers are even fortunate to own smart phone, their usage is limited to answering calls and snapping pictures.

Communicators should work towards developing programmes for agricultural communication. All stakeholders in the agricultural sector need to work together to build the capacity of farmers in mobile phone technology, to accomplish this, time, effort and resources need to be expended.

In the same vein radio is an interactive media, though a blind medium, it has enormous capability to stimulate the listener's imagination (MacLeish, 1999). That is to say, it gives the audience a sense of belonging to the aired programme. Radio has proved to be most effective in bridging information gap and promoting agricultural development in rural areas. Moemeka (1981:44) as cited in Ifeanyi (2017), states that:

Radio is a veritable medium of development. It is inexpensive both to own and to maintain makes it affordable to most people, simplicity of its operation makes its application easy by both literate and non-literate owners and the use of batteries

removes the obstacle posed by power supply, as it is a major area of concern in Nigeria.

Radio is well-acknowledged by scholars as seen above as an indispensable medium. However, the delivery of agricultural information and the need for participation is an issue of concern.

Ifeanyi (2017), studied Radio Communication and Agricultural development an Appraisal of “Harama Manoma” programme on Kano State. The research appraised the influence of “Harama Manoma” radio programme on the agricultural practices of Karu Local Government Area of Kano State. The programme though has great potential of promoting agricultural development because of the reach and cheap nature of radio as a medium, however, it is not participatory in nature. Using structured questionnaire, and qualitative research methodology, the study revealed that majority of farmers about 72.5% attest to the fact that communication style is an imperative aspect of radio communication. The research discussed agricultural communication and the role of radio in agricultural development. The conclusion of the study highlighted the importance of the radio programme “Harama Manoma” and suggested ways to improve it. The study is important to this research because it authenticates the fact that agricultural programmes in the media, in this case radio, is crucial to agricultural development and therefore require a level of farmers’ participation in both the listening and the packaging of programmes. Despite the fact that the study validates the importance of radio programmes to agricultural development, it uncovers little or nothing about the programme influence of television programming on farmers given the fact that television has an advantage of not just sound but pictures hence the differences and indeed the significant relevance importance of the present research.

## **2.8 Review of Studies on “Noma Tushen Arziki”,**

For instance, in the study carried out by Pam Hudung Dafei a student in the University of Jos on “Noma Tushen Arziki”, viewed television as a vehicle for rural agricultural development using PRTVC agricultural programme as a paradigm. Pam (2014), in her work, sorts to determine the level of viewer of “Noma Tushen Arziki”, to also evaluate the level of viewer accessibility of the programme. It further examines the factors that militate against the programme “Noma Tushen Arziki” in order to make relevant recommendation.

The study reveals that farmers are aware of the programme but not all of the farmers have access to the programme. It also revealed that farmers are aware of the importance of the programme however, Plateau state government on its part has failed in their responsibility of educating the general public on the relevance of the programme and farmers who practice one form of farming or the other. The study has enhanced the believability among farmers and television has been found to be necessary for agricultural development. Examining this study, it is evident that the research was limited to viewers’ perception on the effectiveness of “Noma Tushen Arziki” for Agricultural development.

In another study carried out by Julie Oke Ajaluke a student of University of Jos on Television programmes and crop production in Plateau State: An Assessment of PRTV’s “Noma Tushen Arziki”. Ajaluke (2014) in her study, set to ascertain the gratification derived by people from agricultural broadcast and the extent to which the information gotten is utilized by people especially people interested in the sector, farmers and investors in the area.

The study shows that television programmes have enabled many people get agricultural awareness on crop production and have helped audience in acquiring proper knowledge on crop

production and also improved their awareness on farming strategies, through viewership of such programme. It also revealed that farmers are aware of the “Noma Tushen Arziki” programme and farmers put into practice new innovation they learn on the programme. Also television agricultural programmes have helped in sharpening the agricultural sector in Plateau state. The study further revealed that if agricultural programmes are properly packaged and utilized, they can be useful in enhancing crop production in the entire country” Ajaluke (2014). The study was carried out to only investigate farmer’s perception of the information roles of “Noma Tushen Arziki” transmitted by PRTV.

Therefore, there is a need to also determine farmer’s accessibility to the programme “Noma Tushen Arziki” and ascertaining the effectiveness of “Noma Tushen Arziki” Programme in helping farmers improving their production, as well as identifying ways in which the structure and content of “Noma Tushen Arziki” Programme can further enhance farmers’ agricultural productivity.

It is also pertinent to examine the level of farmers’ participation in the programme content formation, method or means of feed back in the programme and evidence of “Noma Tushen Arziki” programme on the farmers’ agricultural activities. To achieve this, the study is designed to determine the elements of “Noma Tushen Arziki” programmes’ effectiveness in terms of disseminating agricultural information for Small-Scale Farming Development in Du District, Jos South Local Government, Plateau State.

Mohammed, K. Y. and Olabode, I. B. (2002), in a research paper entitled, “Measuring the Impact on Farmers of Agricultural Radio and Television Programmes in Southwest Nigeria”, investigated farmers perception of the informative value of “Agbeloba” radio and “Ejekaroko” television agricultural programmes broadcast on radio and television. Using questionnaire as an

instrument of data collection, the study showed that farmers received these programmes on their radio and television sets, and that they perceived that both of the programmes have substantial value in terms of relevant agricultural information. The conclusion of the study highlighted the importance of radio and television programmes to farmers and the importance of advertising messages in generating additional funding for the programmes as long as it does not interfere with programme benefit. The study is important to this study because it affirmed the importance of television as an effective tool in disseminating agricultural information. It also emphasised the importance of television programme in terms of its visual advantage in small scale farming development. However, the research tilted towards the impact of these agricultural messages on farmers with little emphasis on the programmes under study. This research therefore attempted an assessment of “Noma Tushen Arziki” television programme with a view to determining the element of its effectiveness in disseminating agricultural information in Du District of Plateau State.

## **2.9 Media Mix**

Many development interventions have failed to generate the desired impact among African resource-poor farmers for reasons including the centralised and top-down approach, lack of active community participation, and over reliance on external strategies and channels to deliver information and technologies. However, rural communities have well established communication systems through which they traditionally generate, store, share, communicate and utilize information. Local communication channels and networks provide an effective means for rural communities to access various types of information related to their farming and day-to-day life.

Indigenous media has been proven to be very potent in creating a critical mass of real communication for substantial change (Burnay, 1997). Fafunwa, cited in Adekunle (1995:61) also notes that indigenous media can be used to raise the standard of living in the rural areas by using them in adult education programmes to teach basic health habits and technology. Folarin and Mohammed (1996:110) also called attention to the fact that indigenous language press can be a veritable instrument in mobilizing the vast majority, who are unlettered in English language, to be involved in the political process.

The increased importance of community media is based on the fact that media houses are located in the urban areas and do not effectively reach the larger population in the rural areas. According to Anaeto (2010, 146), at times, some urban-based media houses claim to be engaged in rural broadcasting/reporting but the programmes and issues presented are hardly relevant to the needs, hopes and aspirations of the rural people.

Howley (2005:2) defines community media as:

Grassroots or locally oriented media access initiatives predicated on a profound sense of dissatisfaction with mainstream media form and content, dedicated to the



principles of free expression and participatory democracy, and committed to enhancing community relations and promoting community solidarity.

Community media are those media which are developed and managed by people sharing common values and aspirations in a small geographically defined area which promote access and participation for development. These are media, be it newspaper, radio or television which have been adapted for use at the community level for the purpose of development. Kasoma (1991), in explaining what a rural/community newspaper is, says it is:

A regular publication which carries news stories, features, editorials, illustrations and/or pictures as well as advertisements for rural people. It is put together and published by rural folk in their own place.... To qualify as a rural/community newspaper, therefore, a publication should not only be published in rural areas but should also be compiled and published by villagers themselves.

This explanation emphasises the geographical community, in terms of locality and the audience. It stresses the participation of its members in almost all aspects of the process of mass communication: from ownership and establishment of the means of communication to management and production. Others would also equate this system with the concept of 'alternative' media. Masilela cited in Karikari (2000:46), for example, sees no distinction between alternative media and community media. According to him:

Alternative media are distinguished by their ownership and management structures, their financing, their regulation, their programming and their policy stances on issues of access and participation. In terms of their ownership and management, alternative media are community-owned and managed through duly elected representatives or direct and voluntary community participation. In terms of their programming, alternative media carry community-oriented programming produced by community members for community members. In terms of their policy stances on issues of access and participation, alternative media are highly responsive to highly targeted audiences and use interactive methods as much as possible.

The characteristics of community media include: Local/community ownership and management; localised contents and programming; Decentralised and democratisation of the media; Participatory and interactive; Non-profit oriented; Limited coverage or reach, and Utilize appropriate, indigenous material and resources.

Wallace (1996) emphasizes that native media, when used for local people, in arts, writing and verbal messages, is powerful in bringing about desired changes in the lives of people. The potentials of traditional or oral media could be harnessed to bring about change and development. The traditional media are grounded in Indigenous culture, produced and consumed by grassroots members of traditional societies. According to Ugboajah (1989:233), they reinforce the values of the society. They are “visible cultural features often quite strictly conventional, by which social relationships and a world view are maintained and defined.

As underscored by FAO (1998:8), traditional folk media are cultural resources that accumulate indigenous knowledge, experience and expression passed down from generation to generation. Woven into proverbs and poems, songs and dances, puppet plays and stories rhythms and beats, they are embedded with a strong sense of cultural identity, which can be a potent force for development. In many cases, these media are the traditional conduits of indigenous knowledge, experience and culture. When they are creatively used, these cultural resources can be a subtle and effective way of introducing development ideas and messages.

In contrast, exogenous channels like the mass media are intended to reach a mass audience that is, they are channels of communication primarily used to reach the vast majority of the general public. The most common platforms for mass media are newspapers, magazines, radio, television, and the Internet. However, in contrast with the indigenous media, these media have limited coverage, are more rigid, and local people are often skeptical about externally

controlled channels and information. Even extension personnel and radio, the most widespread forms of exogenous channels, fail to reach many rural people (Mundy and Compton, 1995). Unfortunately, local knowledge and practices were not given due consideration in many development efforts in the past using modern media.

Therefore, it is also important to integrate Indigenous Knowledge with exogenous knowledge since local farming systems at times face challenges that farmers are unlikely to be able to address without access to exogenous knowledge and information. Exogenous knowledge refers to the information made available to the rural community from the sources outside its boundaries as part of the information transfer process to support modernization (Mchombu 1995:124). The importance of improving the existing agricultural Indigenous Knowledge by integrating it with exogenous knowledge is important (Hart and Mouton 2005; Madukwe 2006). The integration adds value to local knowledge, innovations and practices rather than replacing them. For example, Dove (2000) found out that the successful production of rubber resulted from the confluence of indigenous and exogenous knowledge in Southeast Asia. It is obvious from the aforesaid that not only indigenous knowledge is significant for reducing hunger and poverty but also exogenous knowledge is important too. However, poor people lack access to exogenous knowledge and information, as well as opportunities to share their own knowledge.

## **2.9 Theoretical Framework.**

Theoretical framework is very important to every research work. It is a particular perspective, or lens, through which a topic can be examined. Asmah (2009:34) categorically accepts the submission that theories are formulated to explain, predict and understand phenomena; in many cases to challenge and extend existing knowledge within the limits of critical assumptions. In view of the above assertion, this research will employ The Democratic-

participant theory as propounded by Dennis McQuail in 1987 and the Development Media Theory as propounded by Dennis McQuail in 1987.

### **2.9.1 Democratic-Participant Media Theory**

The Democratic-Participant media theory calls for the decentralization and democratization of the media. This is to allow for easy access to channels of communication and the active participation of media audience in the media (Anaeto, 2010:19). Democratic-participant Media Theory calls for greater attention to the needs, interests and aspirations of the receiver, in the society. In place of top-down, it calls for horizontal communication and a concern for feedback in socio-political communication. It recommends the associational and service modes as opposed to the command mode (Folarin,. 1998:30). This theory has been described as the press equivalent of grassroots democracy. The theory emphasizes that the audience is important in the communication and development process; hence the media should serve the needs, interest and aspirations of the receivers

The emergence of the theory is motivated by discontentment with the libertarian media theory or free press and the social responsibility theory; such discontentment arose due to their failure to achieve social benefit anticipated for them. The two theories have also failed to stem the increasing tide of commercialization and monopolization of the privately owned media.

The theory therefore opines that greater attention should be given to the needs, and interests of the receiver in a given democratic society. It advocates pluralism as against monopolization, and decentralization against centralism. It suggests that small- scale media enterprises should replace or co-exist with the media conglomerate. It also suggest horizontal as against top-down communication. It stresses its commitment to feedback in social political communication in order to attain complete, communication circuit. Interaction and participation

are the important concepts of the democratic participant media theory. Unlike the social-responsibility theory, it focuses on the new small-media's development which the members of the group can control directly.

Ascroft and Masilela (1994) have argued that “if peasants do not control or share control in the process of their own development, there can be no guarantee that it is in their best interest that it is served”. Without people actively participating in the media, agricultural communication will be characterized by perpetual suspicion of the entire message and lack of interest by the local people. This will in turn constitute a serious challenge to small scale agricultural development. When communicating agricultural programmes, there is need to take note of important factors such as language, belief, population, sex, traditional practice of farming in that area, etc. Thus, the need for the adoption of the democratic-participant media theory.

### **2.9.2 Development Media Theory**

This theory propounded by Dennis McQuail (1987) canvasses media support for an existing government and its efforts to bring about socio-economic development. It argues that until a nation is well established and its economic development well underway, media must be supportive rather than critical of government, but assist them in implementing their policies. As the name implies, the theory relates to media in third world nations. It favours journalism that seeks out good news, requires that bad news stories are treated with caution, for such stories could be economically damaging to a nation in the delicate throes of growth and change. The media is seen to fulfill particular social and political duties; hence media freedom while desirable should be subordinated to national integration, socio-economic modernization, promotion of literacy and cultural creativity. Development media theory seeks to accentuate the positive; it nurtures the autonomy of the developing nations and gives special emphasis to indigenous

cultures. It is both a theory of state support and one of resistance to the norms of competing nations and competing theories of media. As the press performs its responsibilities, according to McQuail (1987), it bears the following tenets in mind:

Media must accept and carry out positive development tasks that are in line with the policies formulated by the political leadership and freedom of the press should not be at variance with economic priorities of the government and the development needs of the citizenry.

Secondly, media should therefore give priorities to the coverage of those areas that touch on the lives of the people. In other words, content should be development-driven and should centre on socio-economic and political lives of the people.

Thirdly in the overall interest of development, the state has the right to intervene in media operations by the use of censorship devices, especially when the activities of the press are not in consonance with the development objectives of the government. Mass media should accord priority to politically, geographically and culturally contiguous developing countries in their coverage as part of the holistic strategy for less developed societies. McQuail and other scholars like him certainly deserve credit for their penetrating insight, especially into what appears to be common line of thinking among leaders of developing countries. But certainly, the expression of these principles can do with some fine-tuning, so as to make them more useful and at that same time in terms acceptable to all conscientious journalist, as working guidelines.

The Development Media Theory, thus, sees the media as powerful and therefore, an instrument by which development can be achieved in a society. This theory is hinged on the perception of the press as a powerful instrument that can be used to achieve positive development in any society Nwabueze (2005:5). Indeed, Wogu (2008) confirms that "the theory was propounded by African experts with the aim of channeling communication to development

needs in third world countries". It rests on the belief that the media should be at the vanguard of development and that the mass media should not only be instrument of development, but also drive and determine development.

The choice of this theory is clear from the fact that the study focuses on “Noma Tushen Arziki” television programme for small scale farming development. With this theory, we are able to centre our investigation on the role of the “Noma Tushen Arziki” in, promoting and achieving small scale development in the agricultural sector in Du District of Plateau State of Nigeria. The theory directs communication experts to the potential ways of using the media such as the PRTV to make development possible. This involves the planned and organized utilization of communication techniques (both mediated and non-mediated) to promote sustainable development by disseminating and sharing relevant information, and by eliciting active and conscious participation of the beneficiaries of development.

Folarin (1988:74), in support of Burgoon and Ruffer (1978:77), and McQuail (1977:68), who are psychologists, sociologists and human communication experts respectively, has stressed the relevance of the theory in changing human reasoning and behaviour for good on a given change situation. This theory serves as the framework for ascertaining the power, capability and role of mass media, in bringing about a change of attitude and behaviour on the part of the target audience. In this study, it serves as basis for ascertaining the persuasiveness and convincing power of “Noma Tushen Arziki” television programme to change old attitudes and practices of rural farmer and bring about small scale farming development in Du.

## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.0 Introduction**

This chapter is concerned with description of methodology and procedure used in this study. Therefore, it comprises of the research design, research population, research instrument and data collection, sampling techniques and instrumentation. Others include procedure for data collection and procedure for data analysis.

#### **3.1 Research Design**

This research adopted both the qualitative and quantitative approach to research, which is expected to assist in the collection of data on the topic under study. Qualitative research involves the use and collection of a variety of empirical material such as case study, personal experience, introspective, life story interview, observational, historical, interactional, and visual text that describe routine and problematic moments and meaning in individual lives.



Denzin and Lincoln (2011) define qualitative research as multi-method in focus, involving an interpretive, naturalistic approach to its subject matter. This means that qualitative researchers study things in their natural settings, attempting to make sense of or interpret phenomena in terms of the meanings people bring to them. Cresswell (2012) defines it as an inquiry process of understanding based on distinct methodological traditions of inquiry that explore a social or human problem. The researcher builds a complex, holistic picture, analyzes words, reports detailed views of informants, and conducts the study in a natural setting.

Qualitative methodologies helped this study understand farmers' experiences and knowledge about "Noma Tushen Arziki" television programme. Using the In-depth interview and Key-Informant interview has helped the researcher to gain in-depth knowledge about the efficacy or otherwise of "Noma Tushen Arziki" television programme among farmers in Du District.

Quantitative research design, on the other hand, is the standard experimental method of most scientific disciplines. These experiments are sometimes referred to as true sciences, and use traditional mathematical and statistical means to measure results conclusively. They are most commonly used by physical scientists, although social scientist, educationists and economist have been known to use this type of research. It is the opposite of qualitative research. Harwell (2011) posits that, Quantitative research methods attempt to maximize objectivity, reliability, and generalization of findings, and are typically interested in prediction. Integral to this approach is the expectation that a researcher will set aside his or her experiences, perceptions, and biases to ensure objectivity in the conduct of the study and the conclusions that are drawn. Quantitative research on the other hand, refers to an approach that collects, analyzes and displays data in numerical rather than narrative form. The essence of adopting this method is because of its

flexibility and interactive nature that will best assist in the collection of data on the phenomenon under study.

Thus, the use of questionnaire was deployed by the researcher. In the questionnaire survey, the responses of respondents were quantified using the Likert Scaling of frequency. The quantitative research method was also used to analyse the collected data along the frequency scaling of (Agree, Strongly Agree, Disagree, Strongly Disagree, Undecided, Yes and No).

Therefore, the suitability of the two methods for this research is due to the fact that they are needed to address the research topic in accordance with the research objectives. More so, the study adopts both methods because of their determinant, flexibility and their interactive nature that will assist in the collection of data on the phenomenon under study.

### **3.2 Research Population**

The population of the study is the people residing in Du district of Plateau state who are also part of the viewers of “Noma Tushen Arziki” Programme of PRTVC. Women and men will be represented because they all form the farming population in the area. Thus copies of the questionnaire were administered to three hundred and eighty-two farmers in Du District which was drawn from the total population of 57,980 (Population projection based on 3.0% Annual Growth rate) from the 45,675 people living in Du District (2006 Population Census).

### **3.3 Sample Size**

The three hundred and eighty-two sample size drawn from the total population was gotten from the statistical data formula formulated by Yamane (1967). According to Yamane (1967), sample size can be determined by the following formula.

$$n = \frac{N}{\text{_____}}$$

$$1 + N (e)^2$$

Where:

N = Total Population

E = Level of precision or error limit = 5% or 0.05

n = Sample size

Therefore, for a population of fifty seven thousand, nine hundred and eighty people in Du district, the researcher administered the questionnaire among men and women farmers. A total of three hundred and eighty copies of questionnaire were distributed but only three hundred and fifty five were returned.

Key Informant Interview was conducted to gather information from the Producer “Noma Tushen Arziki” and the Programme Manager Plateau Agriculture Development Programme. Also, Focus Group Discussion was conducted with two groups comprising of six (6) farmers in each group, which helped to generate more information on the topic under research. The interview was conducted in both English and Hausa language.

### **3.4 Research Instruments for Data Collection**

#### **3.4.1 Questionnaire**

According to Marthers et. al (2009) Questionnaires are very convenient way of collecting useful comparable data from a large number of individuals. Bello and Ajayi (2000) further assert that a questionnaire is a series of relevant questions sometimes statements which are usually used to elicit information from target population of a given study. The Questionnaire is one of the research instruments commonly used in the behavioural sciences and it involves drawing up a set of questions on various subjects or specific aspects of a subject that a selected number of a

population are requested to answer (Sobowale, 1983). The Questionnaire is a veritable way of eliciting the views of a group, people or population of the study about an event, activity or phenomenon.

Questionnaire form part of the instrument for data collection for this study because it will provide one of the best means for collecting the varied views of the respondents concerning the issues under study. There are two types of questionnaire that are commonly used in research: close-ended and open-ended questionnaire format. The close-ended is the type that respondents' answers are limited to a fixed set of responses, usually the Yes or No response and/or several options from which to choose. The open-ended is the type that no options or predefined categories are suggested. The respondents supply their own answer without being constrained by a fixed set of possible responses. For this study, the close-ended and open-ended questionnaire format is employed in order to elicit adequate information from the respondents. When properly constructed and responsibly administered, questionnaires become vital instruments by which statements can be made about specific groups or people or entire population.

### **3.4.2 Focus Group Discussion (FGD)**

Focus Group Discussion according to Wimmer & Dominic (2003) is a qualitative research strategy which is aimed at understanding people's attitudes and behaviours. They assert that it involves the interview of six to twelve people in a group who share certain characteristics, quality, or interest. This may be streamlined along gender, age, vocation, language, behaviour, among many others (Wimmer & Dominic, 2003). It is also used for obtaining preliminary information about belief, ideas, opinions, attitudes and behaviours in a community. This method was used to extract information from farmers in Du District. Two Focus Groups were constituted for this study; one focus group was formed comprising six (6) women farmers of Du community

while, the other group was formed comprising of six (6) men who are farmers in Du . The focus group method was used to tease out information from the participants

During the focus group discussions, the participants were permitted to listen to each other's responses and to make their contributions, each focus group discussion did not last longer than one hour; the purpose was to get high quality data. The focus group discussion was conducted in Hausa language as the researcher has adequate knowledge of Hausa language.

### **3.4.3 Key Informant Interview**

A key informant interview is a loosely structured conversation with people who have specialized knowledge about the topic you wish to understand. Key informant interviews were developed by ethnographers to help understand cultures other than their own. A good key informant can convey this specialized knowledge.

Key informant interviews enable the researcher to explore a subject in depth. The give and take of these interviews can result in the discovery of information that would not have been revealed in a survey.

This interview was conducted with the Producer of the programme “Noma Tushen Arziki”, the Programme Manager Plateau Agricultural Development Programme (PADP) and Chairman of Farmers in Du.

### **3.4.4 Secondary Sources of Data**

The researcher also made use of information collected from internet and relevant publications (e.g. books, journals, and reports). The data were used to establish the background to the study, statement of the research problem, deploy the theoretical framework that underpins

this study. Information sourced from secondary data was used in the review of related literature. All Authors cited have been acknowledged.

### **3.5 Procedure for Analysis**

Knowing that inferences would be drawn from the data collected, it is essential that simplicity and effectiveness be ensured. The descriptive statistical method was employed in this study by utilizing simple percentage, frequency tables, and figures. This is so because, with descriptive statistics, data is reduced to understandable and meaningful level, which allows for easier interpretation. The analysis was also based on the findings derived from the presentation and interpretation of the data collected.

## **CHAPTER FOUR**

### **DATA PRESENTATION AND ANALYSIS**

#### **4.0 Introduction**

This chapter captures the presentation and analysis of data collected through three research instruments: The Questionnaire, the Key informant Interview (KII) and Focus Group Discussion (FGD) methods. The research adopted the quantitative and qualitative research methods for data collection and analysis, so as to get a better understanding on questions the questionnaire did not address well.

To elicit response from randomly selected people in Du District of Jos South Local Government of Plateau State, three hundred and eighty-two copies of the questionnaire were distributed. Out of the three hundred and eighty-two administered, three hundred and fifty-five were filled and returned.

The key-informant interview was conducted with the Producer of the programme “Noma Tushen Arziki”, and the Programme Manager, Plateau Agricultural Development Programme. Also, Focus Group Discussion (FGD) was carried out with both men and women farmers, total of twelve (12) farmers participated. Two groups were formed one for men and the other for women comprising of six farmers each.

Furthermore, frequency tables and simple percentage scaling were used to analyse data obtained from the questionnaire. In view of this, the analysis in this chapter is divided into four sections: A, B, C and D. The first section (A) represents the demographic characteristics of the respondents, while sections B, C and D were analysis of data gathered based on the objectives of the study which are as follows:

1. To determine farmers’ accessibility to the programme “Noma Tushen Arziki”.

2. To ascertain the efficiency of “Noma Tushen Arziki” Programme in helping farmers to improve their productivity.
3. To suggest ways in which “Noma Tushen Arziki” Programme can further enhance farmers’ productivity.

#### 4.1 SECTION A: Demographic Characteristics of the Respondents

**TABLE: 1. Distribution of respondents based on Age**

<b>Variable</b>	<b>Frequency</b>	<b>Percentage</b>	<b>Cumulative Percent</b>
18-30 years	92	25.9%	25.9%
31-50 years	134	37.7%	63.7%
51-70 years	104	29.3%	93.0%
71years and above	25	7.0%	100.0%
<b>Total</b>	<b>355</b>	<b>100.0</b>	

Source: Researcher’s field survey, 2016

Table one shows that 92 respondents, which represent 25.9% were within the age range of 18-30, 134, which represent 37.7% respondents are between ages 31-50, while 104 respondents which represent 29.3% respondents were within the age range of 51-70 and 25 respondents which represent 7.1% were within the age range of 71 and above. This above distribution shows that most of the farmers in Du are between the ages of 31-50 therefore, information that was gathered will help to answer the question this study poses.



**TABLE: 2. Distribution of respondents based on Gender**

<b>Variable</b>	<b>Frequency</b>	<b>Percentage</b>	<b>Cumulative Percent</b>
Male	232	65.4%	65.4%
Female	123	34.6%	100%
<b>Total</b>	<b>355</b>	<b>100.0</b>	

Source: Researcher's field survey, 2016

Table Two shows that 232 male, representing 65.4% of the respondents participated in the research, while 123 female respondents, representing 34.6% also participated in the research. This implies that both male and female in the community have knowledge of “Noma Tushen Arziki” television programme. It also shows that the programme is gender inclusive. This will enrich the data collected from the field.

**TABLE: 3. Distribution according to Occupation**

<b>Variable</b>	<b>Frequency</b>	<b>Percentage</b>	<b>Cumulative Percent</b>
Student	72	20.3%	20.3%
Civil servant	80	22.5%	42.8%
Farmer	178	50.1%	93.0%
Trader	25	7.0%	100.0%
<b>Total</b>	<b>355</b>	<b>100.0</b>	

**Source:** Researcher's field survey, 2016

Table 3 shows the distribution of respondents according to their occupation. In the table, 178 respondents, which represent 50.1%, are farmers, while 80 respondents, which represent 22.5%, are civil servants. 72 respondents which represent 20.3% are students and 25 respondents which represent 7.0% are traders. This implies that majority of the people who live in Du are farmers and are the right choice for this study. Also, even among the population that were civil

servants, students and traders have farm lands that they cultivate. Hence, their capability to adequately respond to the question asked.

**Table 4: Distribution according to length of years engaged in farming**

<b>Variable</b>	<b>Frequency</b>	<b>Percentage</b>	<b>Cumulative Percent</b>
5-10 years	54	15.2%	15.2%
11-20 years	42	11.8%	27.0%
21-30 years	100	28.2%	55.2%
31years and above	129	36.3%	91.5%
No Response	30	8.5%	
<b>Total</b>	<b>355</b>	<b>100.0</b>	<b>100%</b>

**Source:** Researcher's field survey, 2016

Table 4 indicate that 129 respondents, which represent 36.3% said they have been farming for 31 years and above, while 100 respondents which represent 28.2% said they have been farming for 21-30 years. Also, 54 respondents which represent 15.2% confirmed that they have been farming for 5-10 years and 42 respondents said they only have 11-20 years experience. However, 30 respondents, which represent 8.5% did not respond to the question. This means that majority of the respondents have been engaging in farming activity for a long period of time and can adequately respond to the questions this study seeks answers for.

**4.2 Table: 5. Farmers' accessibility to the television programme "Noma Tushen Arziki"**

S/N		<b>Strongly agree</b>	<b>Agree</b>	<b>Undecided</b>	<b>Disagree</b>	<b>Strongly disagree</b>
5.	Farmers are familiar with the programme "Noma Tushen Arziki"	6 (1.7%)	200 (56.3%)	5 (1.4%)	137 (38.6%)	7 (2.0%)
6.	There is electricity available in Du community for farmers to have access to the programme on television	200 (56.3%)	147 (41.4%)	5 (1.4%)	2 (0.6%)	1 (0.3%)
7.	Farmers view "Noma Tushen Arziki" programme on PRTV regularly	30 (8.5%)	28 (7.9%)	59 (16.6%)	14 (3.9%)	224 (63.1%)
8.	Farmers watch "Noma Tushen Arziki" programme on personal television sets at home.	115 (32.4%)	154 (43.3%)	7 (2.0%)	72 (20.3%)	7 (2.0%)
9.	Farmers' watch "Noma Tushen Arziki" programme at their neighbours house	14 (3.9%)	26 (7.3%)	57 (16.1%)	142 (40.0%)	116 (32.7%)
10	The language of communication used in "Noma Tushen Arziki" programme is understandable to the farmers.	140 (39.4%)	187 (52.7%)	18 (5.1%)	5 (1.4%)	5 (1.4%)
11.	The airing time of the programme is convenient for the farmers.	75 (21.1%)	92 (25.9%)	-	38 (10.7%)	150 (42.3%)

---

**Source:** Researchers field survey 2016

Table 5 shows 1.7% respondents strongly agree and 56.3% respondents agree that they are familiar with the programme “Noma Tushen Arziki”. However, 38.6% respondents disagree, and 2.0% strongly disagreed that they are familiar with the programme “Noma Tushen Arziki”. Meanwhile, 1.4% are undecided. Inference from the responses to this question reveals that the majority of the respondents are familiar with the programme. Also, FGD response from both group discovered that farmers are aware of the existence of the programme (FGD response from Farmers in Du, August 2017)

Also from the Table above, 56.3% respondents strongly agree and 41.4% respondents agree that there is electricity in Du communities for farmers to have access to the programme on television. While, 0.6% respondents disagree, and 0.3% respondent strongly disagree that there is electricity for farmers to have access to the programme on television. However 1.4% respondents are undecided. Thus, farmers have electricity supply in Du to power their television sets.

Still in the table, 7.9% respondents agree and 8.5% respondents strongly agree that farmers view “Noma Tushen Arziki” programme on Plateau Radio Television Corporation regularly. However, 3.9% respondents disagree and 63.1% respondents strongly disagree that farmers’ view “Noma Tushen Arziki” programme on Plateau Radio Television Corporation regularly, while 16.6% respondents are undecided. Inference from the responses shows that, most of the farmers do not watch the programme regularly.

Also 43.3% respondents agree and 32.4% strongly agree that farmers watch the programme on personal television sets at home. However, 20.3% respondents disagree, 2.0% respondents strongly disagree that farmers’ watch the programme on personal television sets at home while, 2.0% respondents are undecided. Hence, it is observed that most farmers have personal television set at home.

The above Table reveals that, 7.3% respondents agree and 3.9% strongly agree that farmers go to their neighbours' house to watch the programme. Meanwhile, 40.0% respondents disagree and 32.7%strongly agree that farmers go to their neighbours' house to watch the programme, while 16.1% are undecided. From the result, it is observed that few farmers go to their neighbours' house to watch the programme "Noma Tushen Arziki".

In the above table, 52.7% respondents agree and 39.4% respondents strongly agree that the language of communication used in the programme is understandable to them. However, 1.4% disagree, 1.4% strongly disagree that the language of communication used in the programme is understandable to them while, 5.1% respondents are undecided. This shows that Hausa language used in transmitting the programme is understood by majority of farmers. In support of the above findings, Mr. Thomas Nanmiap the producer of the programme "Noma Tushen Arziki" in an interview stated that:

Hausa language is the major language of communication among people of diverse tribes and culture on the Plateau. It is the popular language used by farmers and their neighbouring communities; hence the language is a well known one in the state. 95% of farmers we have worked with can speak and understand the language very well (interview with Mr. Nanmiap producer of "Noma Tushen Arziki" Programme on PRTVC, 2016).

This implies that the people of Du understand Hausa language and use it as a language of communication among themselves and other tribes in their environs.

However, data in Table 5 also show that 42.3%respondents strongly disagree and 21.1% agree that the airing time of the programme is convenient for them, also 10.7% disagree, and 25.9% strongly agree that the airing time of the programme is convenient. Hence, it is observed that the airing time of the programme is not convenient for farmers.

From the responses in Table 5, it is evident that the programme “Noma Tushen Ariziki” is accessible to farmers in Du, this is due to the fact that, majority of the farmers under survey are familiar with the programme. In an interview Mr Thomas Nanmiap, the Producer of “Noma Tushen Ariziki” television programme of Plateau Radio Television Corporation (PRTVC) remarked that: “PRTV has a wide reach you can see us in Langtan and Shendam where we have our booster stations” (KII with Mr. Thomas Nanmiap, PRTVC, 2016)

However, majority of the farmers do not watch the programme regularly. This can be deduced from the submission of 238 representing 67% of respondents who confirmed that they do not watch the programme regularly because of the airing time is not convenient for them. Reiterating on the airing time of the programme not being convenient to the farmers, majority of the respondents 188(53%) and the interviewees emphasised that most times the programme is aired when farmers are not back home from their farms and sometimes have other engagements to attend to. From FGD discussion with men farmers’, it was discovered that, they rarely watch the programme, even when they do, it is only when they have less work on their farms and they accidentally stumble on it”. (FGD response, Du, August 2017).

In the same vein, the women FGD group said:

We are always in the farm from morning to evening and before we get home it is already late and the programme must have been over. It is only when we are home early coincidentally and the programme is still on that we watch the programme. (FGD Response Du, August 2016)

Meanwhile, the male FGD group stated that:

Anytime we are home early, we prefer watching other cable networks to the local television network like PRTV. We only watch PRTV once in a while; some of us do not even know what time the programme comes on air. (FGD Response Du, August 2016)

Also, Mr Gyang Pam Gwom a farmer, in an FGD said, “I know the programme but it’s been a long time since I watched it. I even thought the programme is dead”

With the submissions from these interviewees, it is right to say that factors such as wrong airing time of the programme and farmers’ preference of home videos and other free cable movie channels to PRTV programmes are responsible for the low viewership of “Noma Tushen Arziki” programme.

**4.3 Table: 6. Effectiveness of “Noma Tushen Arziki” Programme in Helping Farmers Improve their Production.**

S/N	Variable	Strongly agree	Agree	Undecided	Disagree	Strongly disagree
12	Farmers always get useful information from the programme	202 (56.9)	6 (1.7)	20 (5.6)	125 (35.2)	2 (0.6)
13	The information farmers get from the programme is clear and understandable	3 (0.8)	242 (68.2)	4 (1.1)	106 (29.9)	Nil
14	The programme provides new knowledge and innovations for farmers	5 (1.4)	221 (62.3)	3 (0.8)	123 (34.6)	3 (0.8)
15	The information farmers get from the programme “Noma Tushen Arziki” helps in improving their farm yield	2 (0.6)	200 (56.3)	12 (3.4)	18 (5.1)	123 (34.6)
16	The programme “Noma Tushen Arziki” is relevant and should continue	96 (27.0)	181 (51.0)	5 (1.4)	7 (2.0)	66 (18.6)

**Source:** Researchers field survey 2016

In Table 6, 56.9% respondents strongly agree and 1.7% agree that farmers always get useful information from the programme “Noma Tushen Arziki”. However, 35.2% disagree, and 0.6% strongly disagree that farmers always get useful information from the programme “Noma Tushen Arziki”, while 5.6% are undecided. This indicates that farmers get useful information from the programme. This is agreed to during a FGD with the men farmers, they said:



They have provided useful information on how to combat diseases and pest on our farms. Through the programme we are exposed to other things that we were not aware about like mushroom farming, fishery, piggery, etc. it has been broadening our horizon to know that we can engage in other forms of farming that can generate income and employment. (FGD with farmers in Du, August 2017)

Similarly, in the table, 0.8% respondents strongly agree and 68.2% agree that farmers get clear and understandable information from the programme. 29.9% disagree that farmers get clear and understandable information from the programme, while 1.1% are undecided. Hence, it shows that majority of farmers understand the messages that are communicated through the programme.

The above table also reveals that 1.4% respondents strongly agree, and 62.3% agree that the programme provides new knowledge and innovations for farmers. However, 34.6% disagree, and 0.8% strongly disagree that the programme provides new knowledge and innovation for farmers while 0.8 are undecided. This implies that the programme provides new knowledge and innovation for farmers, these findings was corroborated in an FGD with the men group of farmers' they stated that:

Sometimes we get information from the programme and sometimes we are exposed to farming other crops too that we didn't know or have an idea we can do here and we say let me try something like this on our farms and it works. Other people see it to and learn from us and the source has been the programme "Noma Tushen Arziki". It is more of the extension part of the agricultural work that we have been receiving from them. (FGD Discussion Du, August 2017)

In the Table above, 0.6 respondents strongly agree, 56.3% agree that the information farmers get from the programme helps in improving their farm yield. Meanwhile 5.1% disagree, and 34.6% strongly disagree that the information farmers get from the programme helps in improving their farm yield, while 3.4% are undecided. Therefore, the information gotten from the programme helps farmers in improving their farm yield.

The Table above reveals that, 27.0% respondents strongly agree, and 51.0% agree that the programme is relevant and should continue. However, 2.0% disagree, and 18.6% strongly disagree that the programme is relevant and should continue, while 1.4% are undecided. Therefore, majority of farmers want the programme to continue because it is relevant.

Submissions of the respondents above indicate that the programme has been contributing positively to the farmers' in Du District who have time and opportunity to watch the programme regularly as confirmed during an FGD with the women farmers in Du, they said:

Yes, the programme should continue, it is a platform where farmers can improve their ways of farming which will bring about better yield and they can learn from one another (FGD with farmers in Du, August 2017).

Similarly, another respondent during the FGD stated that:

Some of us follow the programme most times we are available. We really benefited in the area of poultry farming, the programme has helped us with information on improved system of brooding and feeding our birds. We have also been educated through the programme on how to keep our farm environment clean and free from diseases. (FGD with Farmers in Du, August 2017).

From the respondents' submissions, it is evident that the programme "Noma Tushen Arziki" has helped farmers who have access to it with the information that has helped their farming system and has given them information useful for the improvement of their farm yield.

**Table: 7. Opinion of farmers if “Noma Tushen Arziki” can enhance farmers’ productivity.**

<b>Variable</b>	<b>Frequency</b>	<b>Percentage</b>
Yes	337	94.9
No	14	3.9
I don’t know	4	1.1
<b>Total</b>	<b>355</b>	<b>100</b>

**Source:** Researchers field report 2016

In Table 7 above, 94.9% are of the opinion that the programme “Noma Tushen Arziki” can enhance farmers’ productivity, while 3.9% of respondents are of the opinion that the programme does not enhance farmers’ productivity. This goes to show that the programme is relevant and is bringing about positive improvement in farm yield. In agreement with this view, the women FGD group responded that: “the programme is really a good innovation, we feel it should continue”. In agreement with the above comment, Mr Philip Gonap, the Programme Manager of PADP agreed that:

The essence of agricultural communication is to relieve the farmers through sensitization and information dissemination through this media. The programme has helped us reach those that were not available to us while we are trying to pass some information. So the essence is to pass this information to farmers' and since it is electronic, it gets to a wider population of farmers and has been sensitizing farmers and conscientizing them, improving their capacity to develop better. (IDI with Mr. Gonap PADP, 2016).

From the respondents’ submission, it is evident that PRTVC is trying in the area of agric extension through the “Noma Tushen Arziki” programme, however, more has to be done to cover for the short coming of extension workers in the state.

**4.4 Table: 8. Ways in which the structure and content of “Noma Tushen Arziki” television programme can be improved to enhance farmers’ productivity?**

	<b>Variable</b>	<b>Strongly agree</b>	<b>Agree</b>	<b>Undecided</b>	<b>Disagree</b>	<b>Strongly disagree</b>
18	Farmers should be allowed to actively participate in the planning and production of “Noma Tushen Arziki” programme	230 (64.8)	120 (33.8)	4 (1.1)	Nil	1 (0.3)
19	More feedback mechanisms should be created so farmers can contribute on or off the programme.	198 (55.8)	134 (37.7)	20 (5.6)	3 (.8)	Nil
20	Local content, initiatives and farmers’ perspective should be given uppermost priority in the programme.	134 (37.7)	210 (59.2)	9 (2.5)	1 (0.3)	1 (0.3)
21	Use of indigenous language of the farmers should be encouraged for better understanding.	111 (31.3)	232 (65.4)	3 (0.8)	6 (1.7)	3 (0.8)
22	Consideration of farmers schedule in respect of timing the programme	220 (62.0)	95 (26.0)	26 (7.3)	8 (2.3)	6 (1.7)

**Source:** Researchers field survey 2016

From Table 8, 64.8% respondents strongly agree and 33.8% agree that farmers should be allowed to actively participate in the programme “Noma Tushen Arziki”. However, 0.3% strongly disagree that farmers should be allowed to actively participate in the programme “Noma

Tushen Arziki”, while 1.1% are undecided. This implies that farmers want to be active participants in the programme.

In Table 8 above, 55.8% respondents strongly agree and 37.7% agree that more feedback mechanism should be created so farmers can contribute on or off the programme, while 0.8% disagree and 5.6% are undecided. The table reveals that farmers want feedback mechanism on and off the programme so they can be part of it. In support of the above findings, during the men FGD, they said:

There is no feedback mechanism; we are speaking from experience when they go you don’t see them again. There should be something like that so we can interact with other farmers’ and the producer”. (FGD Discussion, August 2017)

Also in the same Table, 37.7% respondents strongly agree and 59.2% agreed that local content, initiatives and farmers perspective should be given uppermost priority in the programme. Meanwhile, 0.3% disagree, 0.3% strongly disagree that local content, initiatives and farmers’ perspective should be given uppermost priority in the programme, while 2.5% are undecided. The above table depicts that farmers want their local content, initiatives and perspective to be given uppermost priority.

In Table 8, 31.3% respondents strongly agree and 65.4% agree with the opinion that indigenous language should be encouraged for better understanding. However, 1.7% disagree, and 0.8% strongly disagree with the opinion that indigenous language should be encouraged for better understanding, while 0.8% is undecided. Inference from that responses show that farmers agree that indigenous language should be used on the programme to better understanding.

Also in the above Table, 62.0% respondents strongly agree and 26.8% agree that consideration of farmers’ schedule in respect of timing of the programme is important, while

2.3% disagree, and 1.7% strongly disagree that consideration of farmers schedule in respect of timing of the programme is important, while 7.3% are undecided. From the above responses, it is agreed that the programme timing should fit into farmers' scheduled. This result was agreed to during the FGD with farmers in Du, they said:

The time for the programme should be changed because at 4:30 we are still on our farms. It should be adjusted to 7:00pm to 7:30pm because if it exceeds that time we may have gone to sleep. (FGD with farmers in Du, August 2017)

The positions in Table 7, were also agreed with by some of the farmers during the FGDs who explained that farmers should be given more opportunity to actively participate in the programme; feedback mechanisms should be put in place; local content, initiatives and farmers perspectives should be given uppermost priority; indigenous languages should be used; and farmers time should be considered.

From the submission above, it is evident that the issue of feedback, timing and local content and participation of farmers in the programme are problems hampering the effectiveness of the programme in reaching and meeting farmers' information needs adequately.

#### **4.5 Discussion of Findings**

In an effort to determine farmers' accessibility to the programme "Noma Tushen Arziki", the finding shows that the programme is accessible to farmers in Du district and other farmers in Plateau state, due to the fact that Plateau Radio Television Corporation has a wide coverage with good signal that covers the whole of Plateau state including Du district. Also, the farmers in Du district have access to personal television sets in their various homes and enjoy good electricity supply. This was confirmed by 75.7% and 97.7% respondents respectively who affirmed that farmers have access to television set, availability of electricity, and could receive the signal of PRTVC in their various homes which made it easier for them to view the programme "Noma

Tushen Arziki”. This implies that the wide coverage of PRTVC and farmers owning television sets and good electricity power supply in Du district has helped in making farmers accessibility of the programme easy.

The above responses give credence to the assertion of Chinemere (2014) that the presence of television sets in homes has grown rapidly over the years in Nigeria. Her view on the increase in television sets in most homes is further supported by a research study conducted by *Awake* magazine (2002) that there are 232 television sets for every 1000 people worldwide. This means that, there is every possibility for most household in Nigeria to own a television set.

Aside from measuring farmers’ accessibility of “Noma Tushen Arziki” programme through ownership of television sets, having good electricity power supply and the wide coverage of PRTV in Du district, another important aspect to consider is the language used in communicating “Noma Tushen Arziki” programme to the farmers. Majority of the respondents sampled in this study, 92.1% affirmed to the fact that the television programme which is broadcasted in Hausa language make it easier for all farmers in Du district and Plateau as a whole to understandable the messages of the programme. No wonder, Paulo Freir (1972) and MacQuail (2005) posit that, “to communicate sustainable development, the media must be in the language of the people, be participatory, promote the culture of the people and must be able to communicate development that can satisfy the information (participative interaction) needs and aspirations of the people”. This implies that, if agricultural messages are in a language the people understand and are used to, it could go a long way in satisfying their agricultural information needs and aspirations. This submission is in agreement with the theoretical frame work used in this study. For instance, the Democratic participant media theory, call for the decentralization

and the democratization of the media for the sake of easy access of people to channels of communication and active participation of media audience (Anaeto, 2010).

However, the availability of television sets, electricity and the use of language that is understandable to the farmers is not enough to conclude that all farmers have access to the programme. This is due to the fact that, 42% of farmers living in Du acclaimed that they are not aware or familiar with the programme. Observing the percentage difference of the respondents, that said they are familiar with the programme “Noma Tushen Arziki” (58%) to the percentage of farmers that said they are not familiar (42%), the 16% difference in the two submissions show that most farmers are yet to know about the programme.

This is contrary to the view of Adefuye and Adedoyin (1993) who suggested that for a steady flow of accurate, understandable and factual agricultural progress, farmers must know, and act in accordance to agricultural information. Therefore, for “Noma Tushen Arziki” to be well known or gain more viewership in Plateau state especially Du district, there is a need for adequate awareness creation campaign to be carried out. This could be done more effectively through extension service agents, unfortunately these agent are not available. In a FGD with the men farmers, the discussants, pointed out that

We have no extension agent around here again, that was when World Bank was working; even in PADP it is just on paper because we don't see anybody. The ASTC that is even trying to do before, is now commercialized and gradually phasing-out, these days they are just limited to cultivation of land. However, RURCON which is an NGO have been helpful in providing extension services and have been helping and encourage us farmers to do a lot of thing that government should have done. (FGD discussion with farmers in Du, August 2017)



This is also the reason Agbamu (2006) opines that information is the first and indispensable step of an adoption process. Thus, how far people progress in whatever they are doing in agriculture depends largely upon the availability and access to accurate and reliable information.

Therefore since it is gathered that many farmers are yet to know about the programme, it is however necessary to find out the reason why 144 respondent representing 40.6% sampled in Du are not familiar with the programme. This according to farmers during the FGD, is due to the programme timing scheduling. For instance, most farmers' interviewed complained that they are on their farms whenever the programme is on, while some said they meet the programme accidentally and some also said they prefer watching other free cable channels to relax themselves.

It is therefore clear, that the reason why most farmers do not watch "Noma Tushen Arziki" programme is because at 4:30-5:00, most of them are still on their farms, hence is not convenient for them. The implication of this is that, the objectives of the programme to provide farmers with information and educate them on the basic knowledge of farming and the most recent innovations involved in farming for better yield will not be achieved.

Similarly, to ascertain the efficiency of "Noma Tushe Arziki" programme in helping farmers to improve their farm productivity, the study reveals that the programme to some extent has helped farmers who are regular viewers to improve their agricultural knowledge, farm productivity and provide information on new agricultural innovations. This can be deduced from the response from the majority of the farmers' who agreed that the programme is useful in terms of the quality of information gained; clarity of the messages; new knowledge and innovation for farmers. This simply means that the information provided in the programme is relevant to farmers' needs if it is regularly viewed by them. That is why Agboola, (2000) explains that,

information plays a key role in agricultural development and production and their effective communication will help facilitate mutual understanding among farmers, agricultural scientists and extension workers. Information is therefore considered as one of the most important resources in agriculture and rural development that assists the farmers to take decisions and appropriate actions for further development related to farming (Harris et al., 2001; Morrow et al., 2002 and Stefano et al., 2005). Hence, there is a need for PRTV and the programme producer of “Noma Tushen Arziki” to consider farmers viewing convenience in scheduling the programme so that more farmers can view and also participate on the programme. Also, proper awareness about the programme should be created so that more farmers will benefit from the programme. Feedback mechanism should also be enhanced so that the communication will not be horizontal. In regards to this, the theoretical framework used in this study which is the Democratic Participant Media Theory emphasizes that the audience is important in the communication and development process; hence the media should serve the needs, interest and aspirations of the receivers.

Furthermore, in proposing ways in which “Noma Tushen Arziki” can further enhance farmers productivity, the study reveal that there is a need for the programme to be made participatory and impactful to the farmers. This is confirmed by 98.6% of respondents who are of the opinion that farmers should be allowed to actively participate in the planning and production of the programme. 93.5% believe that more feedback mechanism should be created so farmers can contribute on or off the programme. 96.9% of respondents are also of the opinion that local content, initiatives and farmers’ perspective should be given uppermost priority in the programme. And 96.7% agreed that indigenous language of the farmers should be encouraged for better understanding.

Thus, if farmers' are allowed to actively participate in the planning and production of the programme; feedback mechanism are put in place; local content initiative and farmers' perspective are given uppermost priority; and farmers' timing is considered, farmers will be empowered effectively to participate fully on the programme and benefit from it as well.

Thus there is no doubt that participation plays a vital role in development intervention and is a crucial process of development programme planning and eventual intervention. In modern development intervention paradigm, participation allows the beneficiary or recipients to be included and involved in the process of the planning, implementation, monitoring and evaluation as well as the sustainability and continuity of the development to a significant extent. Here, the people believe that the development facilitation is considerably what they desire and wish for. Participation in development intervention is seen as key to empowering the people to become part of the development process as opined by Aref (2011), and Douglas (1997). Farmers' participation in agricultural communication is important, because if people are not involved in the development process, and their ideas are not valued, they will be distrustful and not want to accept any innovation brought to them.

Therefore, the need to incorporate the rural farmers in decision making is a desirable idea in order to reduce their indifference towards issues that affect them. This is because, they are likely to oppose decisions which they feel are imposed on them and hence mass media should be given the opportunity to play their vital role of explaining the principles and activities of government development programmes as well as agricultural projects in practical terms, a view further supported by Awa (1992), when he explained that lack of sensitivity to local beliefs and knowledge can severely reduce the ability of technical and extension workers to learn from local

peoples' knowledge and experience, which could otherwise render a development project less worthwhile to all concerned.

This position is in agreement with the theoretical framework used in this study, which advocates for horizontal communication as against vertical communication. It is pivot to feedback in socio-political communication in order to attain completed, communication circuit. In addition, it calls for interaction and participation which are important for development.

From the discussions so far, it is observed that the programme "Noma Tushen Arziki" has not been able to achieve its objectives. The programmes' objectives are to inform, create awareness, enlighten, and persuade farmers to adopt new farming techniques and helping them make better use of existing ones to improve their farm yield. However, the reality is far from the programme's intention, this is because PRTVC has not been able to cover the wide information gap; many farmers in Du still don't know of the existence of the programme; the airing time of the programme is not convenient for most farmers because farmers are still on their farms while the programme is on air; and there are no feedback mechanism which has made communication one-way and not participatory.

## **CHAPTER FIVE**

### **SUMMARY, CONCLUSION AND RECOMMENDATIONS**

#### **5.1 Summary of the Study**

The study set out to assess “Noma Tushen Arziki” television programme for small scale farming development in Du District of Plateau state. The study paid critical attention to farmers’ accessibility to the television programme “Noma Tushen Arziki”. It has also ascertained the effectiveness of Programme in helping farmers to improve their production and get suggestions on ways in which the Programme can further enhance farmers’ productivity.

To achieve the aim and objectives of this study, simple random sampling was used to collect data through questionnaire administered to farmers in Du district of Jos South Local Government Area of Plateau state. The analysis was also based on the responses gathered from Key Informant Interview (KII) and Focused Group Discussion (FGD).

The findings show that farmers in Du have access to personal television sets in their homes; they have electricity to power the television sets coupled with the wide signal coverage of PRTV in Du district. This simply means that farmers have all it takes to view and learn from the programme. Majority of the respondents are familiar with the programme “Noma Tushen Arziki”, however, few are regular viewers of the programme. This they attributed to the issue of wrong timing of the programme. Also, there is no feedback mechanism for the programme which inhibits communication flow between the farmers and the producer and other farmers. This all boils down to lack of participation in development which is supposed to carry the people who the messages are intended for. This is inconsistent with the Democratic-Participant Theory postulations which advocates media support for cultural pluralism at the grass-root level. Media are to be used to stimulate and empower pluralistic groups (farmers) so that they can have access and right to use the media and communicate.

Therefore, if farmers are allowed to communicate and participate on the programme, “Noma Tushen Arziki”, the programme will be more effective and participatory. It will meet the felt needs of the people and will be capable of improving farmer’s knowledge and productivity in the State.

## **5.2 Key Findings**

Based on the responses collected on the three objectives of this study, Assessing “Noma Tushen Arziki”, television programme for small scale farming development in Du, the following are the key findings

1. The programme “Noma Tushen Arziki” is accessible to the people in Du in terms of coverage; accessibility to television sets electricity and clear signal of PRTVC.
2. The airing time of the programme is not convenient for farmers; lack of awareness creation on the existence of the programme and its importance; and farmers preference for free cable network channels to watching the local channels available (PRTVC), are factors responsible for low viewership
3. It was also discovered that there is no feedback mechanism on and off the programme. Also, Local content initiative and the use of indigenous languages are lacking.
4. The programme provides practical knowledge to farmers’ who watch it, that is, they see and follow the steps. It also provides useful information on how to combat diseases and pest on their farms, which has helped to improve their farm yield.

### **5.3 Conclusion**

From the findings of this study which seeks to assess “Noma Tushen Arziki”, programme for small scale farming development in Du District of Plateau State, it is gathered that the programme is broadcast by PRTV and it is aimed at helping farmers improve their yield through prompt and educative information disseminated through the station. In spite of this effort, the programme is yet to achieve its major set aim. This is due to the fact that the farmers who this programme is meant to reach, have not really felt the benefits of the programme, this is as a result of the lack of awareness on the existence of the programme. Similarly, the timing of the programme is not convenient for farmers thereby leading to low viewership. Furthermore, it was very clear that adequate feedback mechanisms were not put in place to get farmers views and input on the programme.

However, the fact that television has dual advantage of vision and hearing, the programme can be made to be participatory if farmers are mobilized to participate in the programme process and their information needs are given high priority and addressed adequately.

### **5.4 Recommendations**

From the foregoing, the following recommendations are proffered:

- i. The airing time of the programme needs to be rescheduled so that the timing is conducive for the people that it is meant for (farmers); and PRTVC should organise an awareness creation campaign to rural areas in Plateau State to let People (farmers) know about the programme and the time its being aired so that they will watch the programme whenever it is on air.

- ii. The topic to be discussed on the programme should be within the contemporary needs of farmers at the time. For example, if it is raining season, the programme should address issues associated with raining season farming. This will help in meeting the immediate needs of farmers, which will help in increasing the efficiency of the programme.
- iii. Feedback mechanism should be put in place on and off the programme. This will enable farmers ask questions and contribute during or after the programme. It will also help them reach the producer and get connected with other farmers and stakeholders in the agricultural sector who can help them.

## **5.5 Contribution to Knowledge**

The study which sought to assess the efficiency of “Noma Tushen Arziki” television programme in bringing about small scale farming development has been able to show that:

- i. Awareness creation on television farming programmes will improve the number of viewership, and further enhance farm yield and productivity and among small scale farmers.
- i. There should also be a synergy between Agricultural programme designers and farmers which this programme is meant for. This will increase farmers solidarity for the programme, increase their understanding on new innovations and opportunities in the sector; and increase their capacity to become ambassadors of the programme “Noma Tushen Arziki”
- ii. The study has also shown that consideration of farmers’ convenience in the airing time of the programme will improve the number of viewership. That is, programme should be scheduled and aired when farmers are not on the farm and at a time when they are less busy.



- iii. The study has shown that when feedback mechanisms are put in place, farmers' participation on and off the programme will be enhanced.

## References

- Adefuye H.O, Adedoyin S. F. (1993). A factor influencing the effectiveness of contact farmers strategy of diffusion of agricultural innovations in Ogun State, Nigeria, *Nigeria Journal of Rural Extension and Development*,1(2&3): 69 – 75
- Adeniji A.A. (1997). Role Performance of the University of Agriculture, Abeokuta in Research-Extesion-Farmers Input Linkage System in Ogun State.*Post Graduate Diploma Project Report, Unpublished*. Ogun: Olabisi Onabanjo University Ago-Iwoye.
- Afolayan, S. O. (1995). *Community Mobilization for Rural Development in Bangladesh: Lessons for Nigeria*. Ilorin: Agricultural and Rural Management Training Institute, ARMTI.
- Agbamu J.U. (2000). Agricultural research-extension linkage system: An international perspective. *Agricultural Research and Extension Network Paper*. No. 106a.
- Agbamu J.U (2005). Problems and prospects of agricultural extension service in developing countries. *Agricultural Extension in Nigeria*. Ilorin: AESON, pp. 159 – 169.
- Agboola, A. T. (2000). Rural Information Supply and Nigerian Agricultural Libraries .*Rural Librarie*.pp20(2), pp. 29-37.
- Ajibade, O. (2010). *Some social-political and economic factors that shaped the history of the Nigerian newspapers (1932-2012)* p. 248 Lagos: A Thesis in the Department of Mass Communication, University of Lagos.
- AL-Namlah, S.A.S. (1998). The Impact of the Agricultural Television Program on Knowledge, Skills and Attitudes of Farmers in Kharj Region in the Kingdom of Saudi Arabia.M.Scthesis. *Department of Agricultural Extension and Rural Sociology College of Agriculture: King Saud University*.
- Aina, L.O. (2007). Globalisation and Small- Scale Farming in Africa: What role for Information Centres? *World libraries and information congress 73<sup>rd</sup> IFLA General Conference and council*. Durban. South Africa.
- Ani, A, Undiandeye, U. C. and Anogie, D. A. (1997).The Role of Mass Media in Agricultural Information in Nigeria. *Educational Forum*, 3(1), pp. 80-85
- Ansah, P. (1991). Broadcasting and National Development. *Module on Development Communication 2*. Nairobi: African Council for Communication Education.pp33-44.
- Analysis and Critical Review of Rural Development Efforts in Nigeria, 1960-2010 (Eds.), *Rural Community Development: Critical Issues and Challenges*. Anambra, Nigeria: Austino Publications.
- Anaeto, S. G. Onabajo, O.S. and Osifeso,J.B. (2008).*Models and Theories of Communication*.Bowie, Maryland: African Renaissance Books Incorporated.
- Anaeto, S.G. and Anaeto, M. (2010). *Development Communication Principle and Practice*. Ibadan: Sterling- Holden Ltd. Ibadan.

- Aref, F. (2011). Farmers Participation in Agricultural Development: The Case of Fars Province, Iran. *Indian journal of science and Technology*, 4(2): 155-158.
- Arokoyo, T. (2003). ICT's for agriculture extension transformation. *Proceeding of ICT's – transforming agriculture extension*. CTA's observatory on ICT's. 6th consultative Expert Meeting. Wageningen, 23 – 25 September.
- Ashley, C., Maxwell, A. (2001). Rethinking Rural Development. *Development Policy Review*. 19(4): 395-425.
- Aslm, M. (1981). Rural Development in India. *Journal of Bangladesh Academy for Rural Development*. Comilla, X(1/2).
- Awa, E. O. (1992). *The Transformation of Rural Society: A Study of Rural Development in Eastern State*. Enugu: Fourth Dimension Publishing Company Ltd.
- Ball-Rokeach, S. J. and DeFleur, M.L. (1976). A Dependency Model of Mass Media Effects. *Communication Research*, (3): 3-21.
- Balit, S. (1988). Rethinking Development Support Communication. *Development Communication Report*, 62.
- Baran, S. J. (2009). *Introduction to Mass Communication: Media Literacy and Culture* (3<sup>rd</sup>ed). New York: McGraw-Hill
- Beynon J, Akroyd S.A, et al (1998). *Financing the Future: Options for Agricultural Research and Extension in Sub-Saharan Africa*. Oxford: Oxford Policy Management.
- Binswanger-Mkhize, H., McCalla, A. Patel, P. (2010). Structural Transformation and African Agriculture. *Global Journal of Emerging Market Economies*, 2(2): 113-152.
- Blay, D., Appiah, M., Damnyag, L., Dwomoh, F. K., Luukkanen, O. (2008). *Involving Local Farmers in Rehabilitation of Degraded Tropical Forests*. Ghana: Environ Dev Sustain, 10: 503–518
- Camble, E. (1992). Access to and Utilization of Quality Information in Rural Development Programmes in Bama Zone of Borno State. *Ph. D. Thesis, Unpublished*. Department of Library, Archival, and Information Studies, University of Ibadan.
- Castiez, M. (2001). Information period. *Economy, Society and Culture*, Translator: Aghilian, A., Khakbaz, *Tarh-e-No Press*. Tehran, Iran. 88-92
- CGIAR, (1995). *Renewal of the CGIAR: Sustainable Agriculture for Food Security In Developing Countries. Ministerial-level Meeting, Lucerne, Switzerland, CGIAR*, Washington, D.C. USA. Pp. 133.
- Chapman, R. (2003). Rural Radio in a Agriculture Extension: The Example of Vernacular Radio Program's on Soil and Water Conservation in Ghana. *Network Paper* 127:15.
- Coldevin, G. (1987). *Perspectives on Communication for Rural Development*. Rome: FAO.

- Denzin N, K. and Lincoln Y.S. (2011). The Sage Handbook of Qualitative Research. Sage publication Ltd, London.
- Cremedas, M and Lysak, S.(2011). ‘New media’ skills competency expected of TV reporters and Producers: A Survey, *Electronic News*; 5(1): 41-59.
- Díaz-Pichardo, R., Cantú-González, C. et al (2012). From Farmers to Entrepreneurs: The Importance of Collaborative Behaviour. *Journal of Entrepreneurship*, 21 (1): 91-116.
- Douglass M, Sicilima N 1997. A Comparative Study Of Farmers’ Participation in Two Agricultural Extension Approaches in Tanzania. *Journal of International Agricultural and Extension Education*, 4(1): 38-46.
- Elman,J.P.(2010). After School Special Education: Rehabilitative Television, Teen Citizenship, and Compulsory Able-Bodiedness. *Television & New Media*, 11(4): 260-292.
- Escalada, M. M. Heong, K.L.(2007). Environmental Radio Soap Opera for Rural Vietnam Paper Presented at Radio Asia 2007, *Singapore EXPO*. 19- 22 June.
- Fagorusi D. O. (2015), An Analysis of Mobile Phone Use For Sustainable Productivity in Oyo State Agricultural Development Programme. Department of Theatre and Performing Arts ABU, Zaria.
- FAO. 2001. *Knowledge and Information for Food Security in Africa from Traditional Media to the Internet*. Communication for Development Group, Sustainable Development Department. Rome: FAO.
- FAO (1994).*Communication: A Key to Human Development*. Rome: FAO
- Federal Government of Nigeria (1988).*Agricultural Policy for Nigeria*, Lagos
- Festo, F.K. (2003). Farmer Participation in Agricultural Research and Extension Service in Namibia. *Journal of International Agricultural and Extension Education*, 10(3): 47-56.
- Folarin, B. (1998). *Theories of Mass Communication: An Introductory Text*. Ibadan: Stirling Horden Publishers Nig. Ltd pp 20-34.
- Heyer, J.,Robert P., William S. and Gravin (1981).*Rural Development in Topical Africa*. London: Macmillan.pp 1-15
- Hussain, M. (1997).Mass Media. In: Memon, R.A. and E. Basir, (eds.), Extension Methods. *National Book Foundation: Islamabad*, pp: 208–261
- Idachaba, F.S. (1985). Rural Infrastructures in Nigeria. Ibadan: Ibadan University Press.
- Idowu, I. A.(1988).*Links between Research and Extension in Nigeria*. Hamburg: Hamburg Verlag Weltarchiv.

- Idode, J. B. (1989). *Rural Development and Bureaucracy in Nigeria*. Ikeja: Longman.
- Harris I (2017), Radio Communication and Agricultural Development: An Appraisal of Harama Manoma Programme on Kano State Radio. Department of Theatre and Performing Arts , ABU Zaria
- Iqbal M. (2007). Concept and Implementation of Participation and Empowerment: *Reflection from Coffee IPM-SECP*. Makara: Sosial Humaniora, 11 (2): 58- 70.
- Ikotun, A. (2002). Strategies for Promoting Integrated Rural Development in Nigeria: *Theory and Practice*. Badagry: Matram.
- Kaye, D. (1995). The Importance of Information. *Library Management*, 16(5), pp. 6-25.
- Kirsten & Van Zyl (1998) *Defining Small-Scale Farming in the South African Context*. Volume 37, Issue 4, December 2008
- Laninhun, A. (2002). Communicating for Development Purposes: A Gender Perspective. In Soola E. O. (ed.). *Communicating for development Purposes*. Ibadan: Kraft Books Ltd
- Laogun, E.A.(2005) Extension Teaching/ Learning Process and Extension Methods. In S.F. Adedoyin (ed).Agricultural Extension in Nigeria. *Publication of Agricultural Extension Society of Nigeria*, pp. 201-207
- McQuail, D. (1987), Mass Communication Theory: An introduction, London: SAGE publications.
- Moemeka, A. (1981). Local Radio: *Community Education far Development*. Zaria: Ahmadu Bello University Press
- Moemeka, A. (1990). The Mass Media, Communication and Rural Development: Toward the Effectiveness of Development Messages. In Oso, L. and Adebayo, L. (Eds.).*Communication and Rural Development in Nigeria*. Abeokuta: Millennium Investment Ltd.
- Moemeka, A. A. (1991). Perspectives on Development Communication. *Module on Development Communication*. Nairobi: ACCE pp 15-30
- Yahaya M. K. and Badiru O. I. (2002). Measuring the Impact on Farmers of Agricultural Radio and Television Programmes in Southwest Nigeria, “*Journal of applied Communications*: Vol186:Iss. 3 <https://doi.org/10.4148/1051-0834.2171>
- Morrow, K., Nielsen, F. and Wettasinha, C. (2002). Changing Information Flows. *LEISA*, 18(2), pp. 4–5.
- Mundy, P. and Compton, J. (1995). Indigenous Communication and Indigenous Knowledge, in The Cultural Dimension of Development: *Indigenous Knowledge Systems*. Warren, M.,Slikkerveer, L. and Brokensha, D. (Eds.).London: Intermediate Technology Publications.

- Nakabugu, S. B. (2001). The Role of Rural Radio in Agricultural and Rural Development Translating Agricultural Research Information into Messages for Farm Audiences. Programmed of the Workshop in Uganda. 19 February 2001.
- Nazari, M. R., and Hasbullah, A. H. (2008). Farmers' Approach and Access to Information and Communication Technology in the Efficient use of Modern Irrigation Methods. *European Journal of Scientific Research (EJSR)*.21(1):38-44.
- Nazari, M. R., and Hasbullah, A.H.(2010). Radio as an Educational Media: Impact on Agricultural Development. *SEARCH: The Journal of the South of East Asia Research Centre for Communication and Humanities*. 2(1):13-20.
- Nazari, M.R., and Hassan.Md.S.(2011). The Role of Television in the Enhancement of Farmers' Agricultural Knowledge, African. *Journal of Agricultural Research*. 6(4);931-936
- Ngugi, P.M. (1995). Development Communication: A Clarification of Constraints. *In Africa Media Review* 9 (2).Pp 1 – 15.
- Nigerian Economic Society (1997).Poverty Alleviation in Nigeria. *Selected Papers for the 1997 Annual Conference*. Ibadan: Nigeria Economic Society.
- Nwabueze C. (2005) - Mass Media and Community Mobilization for Development: An Analytical Approach - *International Journal of Communication* ISSN 1597 - 4324.
- Nwele, E.N. (2003). Policy Communities Consultation and Partnership: A strategy for Poverty Reduction in Nigeria. *Paper Presented at the Second Regional International Conference of the International Institute of Administrative Sciences*, Yaounde, Cameroon.
- Obinne C.P.O. (1994): *Fundamental of Agricultural Extension. 2nd Edition*. Enugu: ABIC Publishers.
- Obinne, C.P.O. (2012). The Challenge of Agricultural Extension: Communicating Effectively. *Public Lecture*, November. Mubi: Adamawa State University.
- Okafor, A.O. (2003). Roles, Strategies and Instrument for Government and Public Bodies. *Paper presented at the Second Regional International Conference of the International Institute of Administrative Sciences*, Yaounde, Cameroon.
- Okpoko, J. (2010). *Understanding Development Communication*. Ahmadu Bello University printing press Limited, Zaria, Kaduna state, Nigeria.Pg216-217
- Okunmadewa, F. and Olayemi, J. K.(1999) "Nigeria Globalization, Policy Changes Agricultural Research and Development" *Commissioned Technical Report Prepared for ISNAR*, the Hague Terzo Geri (2010) what is Agricultural Development <http://www.wisgeek.com/what-is-agricultural-development.htm> Wilber, C. K. and Jameson, K.P (1992) Political Economy of Development and Under Development, R.R. Donnelley and Sons Company, United State of America.
- Okwu J.O (2006).Indigenous Communication and Sustainable Rural Development in Agriculture for Sustainable Food Production and Livelihood 1(1): 148 – 124. *Bora-Agro*. Ibadan: Ventures 1, ART.

- Oladipo, E.O. (1996). *The Theory, Concept and Practice of Sustainable Human Development*. Lagos: UNDP.
- Olatunbosun, D. (1975). *Nigeria's Neglected Rural Majority*. Ibadan: Oxford University Press
- Olatunji, D. Uyo, A. and Adidi, U. (eds.) *Journalism in Nigeria Issues and Perspectives*. Lagos. NUJ.
- Olawoye J.E (1996). Agricultural Production in Nigeria in Utilizing Research to Increase Food Production: The Role of the Mass Media. In Bobaoyo, T. And Okiki, B. S. (Eds.): *Proceedings of the one day Seminar Organized by Oyo State Chapter of the Media Forum for Agriculture*. Ibadan: IITA.
- Olukosi, J.O. and Erhabor, P.O.(1987). Introduction to Farm Management Economics: Principles and Applications. Kaduna: AGITAB Publishers LTD Zaria.
- Omenesha, Z. E. (1994). "The Effect of Radio on Agricultural Development in Nigeria" in Lawani, S.M. and Babaleye T. (eds). Recent Developments in Cereals/Production in Nigeria: *Media Forum for Agriculture*. Ibadan: Intec Printers Ltd. 79-90
- Opara, U. N. (2008). *Agricultural Information Sources Used by Farmers in Imo State, Nigeria, Information Development*. London: SAGE Publications. 24(4), pp. 289-295
- Orhan Ozcatalbas, O., Brumfield, R.G. and Ozkan, B. (2004). The Agricultural Information System for Farmers in Turkey. *Information Development*, 20 (2): 97-105.
- Ozowa V.N (1995): Information needs of small scale farmers in Africa: The Nigeria Example. *Quarterly Bulletin of the Association of Agricultural Information Specialists*, 40(1): 1 – 3.
- Ozowa V.N.(1996). Information Needs of small scale farmers in Africa: the Nigerian example. *Quarterly Bulletin of the International Association of Agricultural Information Specialist*, IAALD/CABI:40(1)-23-30
- Parrish, B. D., Luzadis V. A., Bentley, W. R. (2005). What Tanzania's Coffee Farmers can teach the World: A Performance-Based Look at the Fair Trade-Free Trade. *Sustain Develop*, 13:177-189. <http://dx.doi.org/10.1002/sd.276>
- Pickering D.C (1984). Sustaining the Continuum in Research-Extension-Farmer Continuum for Agricultural Development. *A World Bank and UNDP Symposium in Denpasar Indonesia* (March 1984). Washington, D. C.: World Bank Publication.
- Purushothaman, C. et al (2003). Role of Mass Media in Agriculture "Global Communication Research Association Centre for International Communication, Macquarie University, Sydney. *Australia GCRA-Varanasi Conference*.
- Quebral, N. C. (1975). Development Communication. In Jamias, J. F. (ed) *Readings in Development Communication*. Los Banos: Department of Development Communication, College of Agriculture, University of Philippines, Los Banos College, Laguna. Pp1-12.
- Rahman, M. G. (1999). Communication Issues in Bangladesh. India: Har-Anand Publication.

- Richardson, D. (1997). The Internet and Rural Agricultural Development Rome. *Agricultural Organization Report Food*. P. 14.
- Schramm, W. (1964). *Mass Media and National Development. The Role of Information in Developing Countries*. Stanford, California: Stanford University Press and Paris: UNESCO.
- Schramm, W. (1964). *Mass Media and National Development*. Stanford: Stanford University Press.
- Soola, E. O. (1999) "Traditional and Modern Media Use and Strategies for Effective Environmental Awareness" *Journal of Communication and Language Arts*. (1): 32-44.
- Soola, E.O. (2002). Development Communication: the Past, the Present and the Future. In Soola, E.O. (ed) *Communicating for Development Purposes*. Ibadan: Kraft Books Ltd. p. 19. Ibid. p.15.
- Suvedi, M., Campo, S. and Lipinski, M. K. (1999). Trends in Michigan farmers' information seeking behaviors and perspectives on the delivery of information. *Journal of Applied Communications*; 83(3): 33-50
- Tancard, J. Verner, S. (2005). *Communication Theories*. Translator Dehghan. A. Tehran university press, Iran: 77-79.
- Todaro, M. and Smith, S. C. (2003). *Economic Development* (8th edition). India: Pearson Education (Singapore) Pte. Ltd. .
- Trede, L. D., and Whitaker, S. (1998). Perceptions of Iowa Beginning Farmers Toward Delivery of Education. *Journal of Applied Communications*; 82(4): 22-33.
- Udalla R, Udall S (1979). *People and Communication*. London: Hultan Education Publications.
- Van den Ban A. W (1972). Cultural Change: Productivity. In: Raymond E. B.(Ed.): *International Review of Selected Readings to Accompany Getting Agriculture Moving, Essentials for Development and Modernization*. Community Development No. 12. New York: The Agricultural Development Inc., pp. 570 – 580.
- Ugboajah, F. (1980) Oramedia or Traditional Media as Effective Communication Options for Rural Development in Africa" *Communication Year Book*, Vol. 3.
- Ugwu D.S. (2007). "Agricultural Extension Practice in Nigeria." *Readings in Agricultural Economics and Extension* (ed.). In CJC Akubailo, Umebali E.E, Mgbada J.U., Ugwu D.S., Egwu W.E., Awoke M.U.
- World Bank (1975). *Rural Development*. Washington, DC: World Bank. *World Development Report 2000/2001: Attacking Poverty*. Washington, DC: World Bank.
- Vandenabeele J. and Wildemeersch, D. (2012). How Farmers Learn About Environmental Issues: Reflections on a Sociobiographical Approach. *Adult Education Quarterly Journal* 62(1): 56-72.



Verhoeven P.(2010). Sound-Bite Science: On the Brevity of Science and Scientific Experts in Western European Television News. *Science Communication Journal*, 32(3): 330-355.

Windahl, S., Signitzer, B. and Olson, J. (1992). *Using Communication Theory: An Introduction to Planned Communication*. London: Sage Publications.

Wogu, J.O. (2008), Introduction to Mass Communication Theories, Nsukka: Nigerian

Yahaya M.K. (2002), "Measuring the impact of Farmers on Agricultural Radio and Television programs in Southwest Nigeria" *Journal of Applied Communication*.86, No 3, 24-36 – USA

### **Internet Sources**

Abbas, M., Lodhi T .E. (2008). Dissemination of Wheat Production Technologies and Interface of Out-Reach Efforts with Farmers. *Journal of Agricultural Research* , 46(1). Available at: [www.jar.com.pk/displayprods.asp](http://www.jar.com.pk/displayprods.asp)

Awake. (2002). *Globalization-The Hopes and the Fears*.From <<<http://www.wol.jw.org>>>. Retrieved 4<sup>th</sup> of September, 2016.

Food and Agriculture Organization .(2003) FAOSTAT <<http://faosata.fao.org/default.htm>. Retrieved on 25/02/2017

Parrish B. D, Luzadis V. A, Bentley, W. R (2005). What Tanzania's coffee farmers can teach the world: a performance-based look at the fair trade-free trade. *Sustain Develop*, 13:177-189. <http://dx.doi.org/10.1002/sd.276>

Sibale E. (2010).Strategies for Commercializing Smallholder Agriculture. Online<http://www.howwemadeitinafrica.com/strategies-for-commercialising-smallholder-agriculture/5676/>.Accessed: 20/04/2017

Stefano, L.A., Hendriks, S. L., Stilwell, C. and Morris, C. (2005).Printed Information Needs of Small-Scale Organic Farmers in Kwazulu-Natal.Libri , pp. 55: 56-66. Available at: [www.librijournal.org/pdf/005-1pp56-66.pdf](http://www.librijournal.org/pdf/005-1pp56-66.pdf)

The Challenge of Hidden Hunger: 2014 Global hunger index <http://www.ifpri.org/sites/default/files/ghi/2014/index.html> retrieved on 5<sup>th</sup> December 2015

The importance of Agriculture by Admin (2016) November 3, <http://agriculturegoods.com/the-importance-of-agriculture/> Retrieved on 4<sup>th</sup> January 2017

The New agriculturist (2009)Role of the media in Agricultural Development. <http://www.new-ag.info/en/pov/views.php?a=1031>, Retrieved on 29<sup>th</sup> July 2015

What is the importance of Agriculture for our country Dec 2010 <http://www.preservearticles.com/201107169225/what-is-the-importance-of-agriculture-for-our-country.html> retrieved on the 11th November 2015

Yemenia (2011). *Creating My Own Identity*. From

<<<http://www.yemenia68.wordpress.com/2009/television>>>. Retrieved on 15<sup>th</sup> of June 2016.

## **INTERVIEWS**

Interview with Thomas Nanyiemp: Producer “Noma Tushen Arziki” programme of Plateau

Radio Television Corporation (PRTVC) Jos, 15<sup>th</sup> September, 2016.

Programme Manager Plateau Agricultural Development Programme (PADP) Jos, 15<sup>th</sup> September, 2016.

## **FOCUS GROUP DISCUSSION WITH WOMEN WHO ARE FARMERS IN DU**

Ladi Pam, a farmer in Du District 20<sup>th</sup> August, 2017.

Justina Haruna, a farmer in Du District, 20<sup>th</sup> August, 2017.

Rebecca John, a farmer in Du District, 20<sup>th</sup> August, 2017.

Mary Chuwang, a farmer in Du District 20<sup>th</sup> August, 2017.

Kenang Davour, a farmer in Du District 20<sup>th</sup> August, 2017.

Esther Peter, a farmer in Du District 20<sup>th</sup> August, 2017.

## **FOCUS GROUP DISCUSSION WITH MEN WHO ARE FARMERS IN DU**

Paul Davour Zee, a farmer in Du District 22<sup>nd</sup> August, 2017.

Nathaniel Jatfa Simon, a farmer in Du District, 22<sup>nd</sup> August, 2017.

Pwajok Bolsha, a farmer in Du District, 22<sup>nd</sup> August, 2017.

Gyang Pam Gwom, a farmer in Du District 22<sup>nd</sup> August, 2017.

Manch Davour, a farmer in Du District 22<sup>nd</sup> August, 2017.

Dauda Dung Gambo, a farmer in Du District 22<sup>nd</sup> August, 2017.

## APPENDIX I



**Department of Theatre and Performing Arts**  
**Ahmadu Bello University, Zaria, Nigeria**  
Email: theatartdept@gmail.com



Vice Chancellor:

**Professor Ibrahim Garba**

*B.Sc. (Hon) Geology, M.Sc. (Mineral Exploration) ABU, Ph.D Geology (London), D.I.S., FNMGS*

Head of Department:

**Professor M.I. Umar-Buratai**

*BA, (ABU) MA (Unijos) PhD (ABU)*

Ref: TH&PA/REF

Date: 9<sup>th</sup> July, 2015

### TO WHOM IT MAY CONCERN

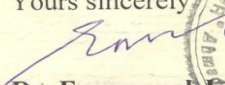
The bearer of this letter, **Akuson Patience Daniel** (MA/ARTS/27759/2012-2013) is currently a postgraduate student in the Department of Theatre and Performing Arts, Ahmadu Bello University, Zaria.

She is conducting a study on the research topic "An assessment of Noma Tushen Arziki: A Television Programme for Small-scale Farming Development in Jos South Local Government Area of Plateau State"

Kindly grant her any form of assistance toward her research work and further assist her in whatever way you can.

Thank you.

Yours sincerely

  
**Dr. Emmanuel Jegede**  
PG Coordinator



## APPENDIX II

### DEPARTMENT OF THEATRE AND PERFORMING ARTS

#### FACULTY OF ARTS

#### AHMADU BELLO UNIVERSITY, ZARIA

I am a postgraduate student presently carrying out a research on the topic: Assessing ‘Noma Tushen Arziki’ Television Programme for Small Scale farming Development in Du District of Jos South Local Government Plateau State, as a partial fulfilment of the requirements for the award of Master of Arts (M.A) Degree in Development Communication.

Your responses shall be strictly held in confidence and treated as confidential. Your name is not required as you are free to play anonymous.

Yours Faithfully,

Akuson, Patience Daniel

### QUESTIONNAIRE

#### Bio- Data of the Respondents

**Instructions:** Please tick the box (✓) appropriately where necessary

1. Age: 18-30 [ ] 31-50 [ ] 51-70 [ ] 71 and above [ ]
2. Gender: Male [ ] Female [ ]
3. Occupation: Student [ ] Civil Servant [ ] Farmer [ ] Trader [ ]
4. For how long have you been farming? 5- 10years [ ] 11-20years [ ] 21-30years [ ]  
31 and above [ ]

#### Section B

**Instruction:** please tick [✓] in the appropriate cell in the table below.

**Indicators (Likert Scaling):**

- (i) Strongly Agreed (SA)
- (ii) Agreed (A)
- (iii) Undecided (UD)
- (iv) Disagreed (D)
- (v) Strongly Disagreed (SD)

**Section B (Question 5 - 11) Farmers' accessibility to the television programme "Noma Tushen Arziki"**

S/N	INDICES	SA	A	UD	D	SD
5	Farmers are familiar with the programme "Noma Tushen Arziki"					
6	There is electricity available in Du community for farmers to have access to the programme on television					
7	Farmers view "Noma Tushen Arziki" programme on PRTV regularly					
8	Farmers watch "Noma Tushen Arziki" programme on personal television sets at home.					
9	Farmers' watch "Noma Tushen Arziki" programme at their neighbours house.					
10	The language of communication used in "Noma Tushen Arziki" programme is understandable to the farmer.					
11	The timing of the programme is convenient for the farmer.					

**Section B: (Question 12- 17) Efficiency of "Noma Tushen Arziki" Programme in Helping Farmers Improve their Production.**

S/N	INDICES	SA	A	UD	D	SD
12	Farmers always get useful information from the programme					
13	The information farmers get from the programme is clear and understandable to them.					
14	The programme provides new knowledge and innovations for farmers					
15	The information farmers get from the programme "Noma Tushen Arziki" helps in improving their farm yield					
16	The programme "Noma Tushen Arziki" is relevant and should continue					

**SECTION C: (Question 18- 23) Ways through which “Noma Tushen Arziki” Programme can Further Enhance Farmers’ Productivity.**

S/N	INDICES	Yes	No
17	Do you think the programme ”Noma Tushen Arziki” programme can enhance farmers’ productivity		

In what way(s) do you feel the programme can be improved to enhance farmers’ productivity?

S/N	INDICES	SA	A	UD	D	SD
18	Farmers should be allowed to actively participate in the planning and production of “Noma Tushen Arziki” programme					
19	More feedback mechanisms should be created so farmers can contribute on or off the programme.					
20	Local content, initiatives and farmers’ perspective should be given uppermost priority in the programme.					
21	Use of indigenous language of the farmers should be encouraged for better understanding.					
22	Consideration of farmers schedule in respect of timing the programme					

### **APPENDIX III**

#### **CHECK LIST FOR KEY INFORMANT INTERVIEW**

I am Akuson, Patience Daniel, a Master Student in Development Communication with the Department of Theatre and Performing Arts, Faculty of Arts, Ahmadu Bello University Zaria.

I am researching on the topic: Assessing Noma Tushen Arziki Television Programme for Small Scale farming Development in Du District of Jos South Local Government, Plateau State.

This interview will be recorded (voice), and photo will be taken during the session as part of the research data collection process.

---

#### **Questions for the Producer of Noma Tushen Arziki Programme**

1. Can you please tell us about yourself and your role in the production of Noma Tushen Arziki?
2. What is the aim and objectives of the programme?
3. What is the content and nature of the programme Noma Tushen Arziki?
4. How accessible is the programme to the viewer?
5. Do you include farmers in the design and production process of the programme? How?
6. Do you think farmers participation in the programme can help meet the objectives of the programme and further improve farm yield?
7. Why is the programme on television and not other mediums?
8. Do you think television is an adequate medium for the transmission of this agricultural programme?
9. Do you have a feedback mechanism?
10. What are the challenges faced in the programme production process?

#### **Questions to be answered by a representative of Plateau Agricultural Development Programme (PADP).**

1. What are the aims and objectives of Plateau Agricultural development programme?



2. How has “Noma Tushen Arziki” programme been able to achieve the aim and objectives of Plateau Agricultural development programme?
3. Do you think “Noma Tushen Arziki” is adequate in meeting the needs of farmers?
4. What do you think can be done to improve farmers’ productivity in Du?

#### Interview Record

##### Interview Record

Key Informant: Mr/Mrs. -----

Sex: -----

Status: -----

Date of Interview: -----

Duration: -----

Venue: -----

Interviewer: -----

**APPENDIX IV**  
**CHECK LIST FOR FOCUS GROUP DISCUSSION**

I am Akuson, Patience Daniel, Masters Student in Development Communication with the Department of Theatre and Performing Arts, Faculty of Arts, Ahmadu Bello University Zaria.

I am researching on the topic: Assessing “Noma Tushen Arziki” Television Programme for Small Scale farming Development in Du District of Jos South Local Government, Plateau State.

This interview will be recorded (voice), and pictures will be taken during the session as part of the research data collection process.

- 
1. Please kindly introduce yourselves?
  2. Are you familiar with the programme “Noma Tushen Arziki”?
  3. How often do you watch the programme “Noma Tushen Arziki”?
  4. Please tell us about the programme.
  5. What do you have to say about the schedule and timing of the programme.
  6. What time do you think the programme should be held?
  7. In what ways do you think farmers benefit from the programme “Noma Tushen Arziki”?
  8. Suggest ways you think “Noma Tushen Arziki” programme can be able to enhance farmers’ productivity?
  9. Are there feedback mechanism?
  10. Do you have any extension agency that help farmers?

## **APPENDIX V**

### **KEY- INFORMAT INTERVIEW**

#### **Response from Thomas Nanmiap (“Producer Noma Tushen Arziki”)**

I am Thomas Nanmiap the producer of the NTA. Talking about my role NTA has been a long standing programme even when PADP that were sponsoring the programme shy away PRTV has never relent in making sure that NTA has remained in our schedule.

The aim of the programme basically is to inform and educate the farmer on the basic knowledge of farming and the most recent technology involved in farming. To educate them so that at the end of the day they could have better yield

Hausa language is the major language of communication among people of diverse tribes and culture on the Plateau. It is the popular language used in the market, in neighbourhoods and even to transact business between farmers and their neighbouring communities, hence the language is a well known one in the state. 95% of farmers we have worked with can speak and understand the language very well

Mainly is to educate them. We go to their farms see what they do and let them tell us how they go about it and we show them how to do it better

By going to the farm basically you involve the farmer, you first of all give the farmer questionnaire, interview them while on the farm basically we use the farmer to demonstrate to other farmers

From when I took over as the producer of the programme, I cannot count the number of times farmers came to the station looking for me, because these are the feedback mechanism, they

come to know more. Some of them even try to go to the other farms to see what they are actually doing there.

Television is the best medium for the transmission of this programme because you can actually see practically what they are doing. While television is not so elitist because it depends on the reach anyway, PRTV for example has a wider reach, you can see us in Langtan and Shandam where we have our booster stations

Ones in a while, we give our phone numbers while recording if they need more enlightenment and information. Because it is a recorded programme

Well within we basically have the problem of logistics but we are getting by. Another problem is the issue of funding. We are coping in spite of all the challenges we are trying to keep the programme on, because is very important more so that government now is emphasising the issue of farming now to oil.

### **Response from Philip Gonap (Programme Manager PADP)**

PADP is an arm of the state ministry of agriculture that deals directly with the farmer on issues related to extension services, which is the acquisition and transfer of technology to the farmer. PADP mediates between the research institute and farmers, ours is to extend this information that is proven and adoptable to the farmers with the view to improving their productivity.

The essence of this communication is to relieve the farmers through sensitization and information dissemination through this media. The programme has helped us reach those that were not available to us while we are trying to pass some information. So the essence is to pass this information to farmers and since it is electronic, it gets to a large number of farmers and has being sensitizing farmers and conscientizing them, improving their capacity to develop better. I

will not say that television it is adequate because it is a science and dynamic. We cannot say that something that started many years ago without reforms that is been done is adequate, it is never adequate. That is why we as practitioners of the agricultural extension we bring in reforms from time to time to meet up with the needs of the farmers. The olden day farmer was an illiterate farmer but the present day farmer is a literate farmer so except we change with time we shall be out-modelled

There are other forms of communication in the extension sector. We are not saying that the television cannot meet it, but the communication through the television has to be modified from time to time because the life is dynamic itself so those things that we find that will not give us maximum output from the communication through the “Noma Tushen Arziki” will have to be incorporated in other forms. That is why apart from the television programme we have other trainings that are taking place. You know we are developing agriculture through the value chains so we are also incorporating the capacity of “Noma Tushen Arziki” to fit into the value chain development that we are practicing now so that they will also get to the farmers with a greater understanding. “Noma Tushen Arziki” is passed through the electronic medium of television where one medium is lacking the other helps out.

Farmers’ productivity can be improved through the evolution of the extension activities that we are talking about, which involves training the farmers, working with the research institutes to get new technologies sending same to the farmers. In fact what is essential is constantly training the farmers along the value chain from time to time that will help in improving the productivity of farmers.

Definitely you know change is difficult, by the word extension we are saying we are change agents and in the course of changing the farmer from his traditional technology that he is more

used to, to a modern one definitely we encounter challenges but we have to apply the necessary principles. It is the principles that we have to apply to get them to adopt the new system that will help them improve their productivity and livelihood.

The challenges are there most especially funding, if you go through all of the ADPs in the country our main problem has been funding, funding, funding. Coinciding with the economic crunch that we find ourselves in, in this country it has made it more difficult. Another area is mobility, in fact, mobility and other aspects of need are tied to funding too. If there were funding we will buy motor cycles and rugged vehicles that can get to the farmers. Because we don't just talk to the farmers, we do a lot of demonstration with the farmers under adoptive research. So definitely we need to get to the farmers but our handicap is lack of funding. In fact the staffs are dwindling in population the ratio that was used to apply one extension worker to eight hundred farmers now is almost seven thousand.

### **Response Focus Group Interview with Women Farmers in Du.**

We know of the programme “Noma Tushe Arziki”. The programme has really helped us because we have been watching the programme for a very long time now. We get information on poultry farming, on how new and improved system of brooding and feeding birds. We have also been educated through the programme on how to keep our farm environment clean and free from diseases.

Farming is the inheritance our parents left for us, so we have to farm if we don't, what will we eat? The programme is good and we feel the timing should be changed so that we farmers can benefit from it.

We hardly get time to watch the programme. Our advice to PRTV and the programme producer is to please shift the programme to at least 7:00pm or 7:30pm by that time farmers are at home resting. We also want to see the people from PRTV and PADP on our farms too.

The programme is really a good innovation, we feel it should continue. The programme is good and it should continue. It is a platform where farmers can improve their ways of farming which will bring about better yield and they can learn from one another

### **FOCUS GROUP DISCUSSION WITH MEN FARMERS IN DU**

Yes we are familiar with it. It is only rarely when we don't have work to do that we accidentally stumble on the programme and we watch it. I thought the programme is even dead.

If someone is into farming very well, you get to know what to do on your farm by watching other peoples' development on their own farms. You will know how to control diseases that disturb other peoples' farms by seeing what solution other people use on their programme

Sometimes we get information from the programme and sometimes we are exposed to farming other crops too that we didn't know or have an idea we can do here and we say let me try something like this on our farms and it works. Other people see it to and learn from us and the source has been the programme "Noma Tushen Arziki". It's more of the extension part of the agricultural work that we have been receiving from them.

For us farmers, it is not a good time, because it runs from 4:00pm or 4:30pm. At that time we are on our farms, we go to farm in the morning working all through and come back home around 5:30- 6 0'clock

The producer and presenter of the programme have visited some of us on our farms to interview us on crop and animal farming. It has been helpful indeed, we share the challenges we encounter on our farms and when they televise it, the people in power get to know these are the challenges we face as farmers. But sometimes, the Nigerian syndrome comes to play most times, they hear put it on paper and do nothing about it. Even when government respond, most of these office farmers' capture the whole thing and share it among themselves neglecting the farmers who are passing through the real problem do not get to know whatever effort government is making.

The programme provides useful information on how to combat diseases and pest on our farms. Through the programme we are exposed to other things that we were not aware about like mushroom farming, fishery, piggery, etc. it has been broadening our horizon to know that we can engage in other forms of farming that can generate income and employment.

The time for the programme should be changed because at 4:30 we are still on our farms. It should be adjusted to 7:00pm to 7:30pm because if it exceeds that time we may have gone to sleep

PRTV should widen its' reach so that other farmers on the plateau can benefit from the programme. It seems like the coverage is just within the Jos and Bukuru metropolis which Du fall under, because pictures speak better than just words.

There are no feedback mechanisms. We are speaking from experience when they go you don't see them again. There should be something like that so we can interact with other farmers' and other agricultural experts the producer.



We have no extension agent around here again, that was when World Bank was working; even in PADP it is just on paper because we don't see anybody. The ASTC that is even trying to do before, is now commercialize and gradually facing-out, these days they are just limited to cultivation of land. However, Rurcon which is an NGO have been helpful in providing extension services and have been helping and encourage us farmers to do a lot of thing that government should have done.

**APPENDIX VI**  
**PHOTO-SHOTS FROM FIELD SURVEY**



KII with Mr Nanyiemp, Producer “Noma Tushen Arziki”



FGD with men Farmers in Du