NATIONAL OPEN UNIVERSITY OF NIGERIA

SCHOOL OF SCIENCE

COURSE CODE:-AEM 701

COURSE TITLE:- AGRICULTURAL EXTENSION EDUCATION

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COURSE GUIDE

AEM 701
AGRICULTURAL EXTENSION EDUCATION

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Published by
National Open University of Nigeria

Printed 2008

ISBN: 978-058-510-9

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Introduction

Extension as a discipline has a history that dates back over a century and it has a broad application such that it is almost inevitable to make sense of development efforts without applying its principles. It is a social science that generously taps from principles and theories of adult education, rural sociology and educational psychology. It is essential that you as a prospective professional agriculturist not only clearly understand what the term extension means, but also some other related concepts and be able to come to term with the implications and applications of basic principles in extension. When focus is on agriculture and the rural sector we call the discipline Agricultural Extension.

The spreadsheet of subject matter areas normally covered in an agricultural extension programme include – concepts, principles and processes of extension; rural sociology; development communication and extension methods; extension administration and supervision; home economics; rural development and in recent time, women and youths programmes. Even more recently is the addition of topical subjects such as environmental studies, Human immuno-deficiency virus/acquired immune deficiency syndrome (HIV/AIDS), hospitality extension which is a pointer to the fact that extension application is vast. As you would expect, all these would not be given in a single but several others courses. It is essential for you to know that they all belong to a large family of agricultural extension.

What You Will Learn in this Course

You will learn about the concepts of agricultural extension, history of agricultural extension, principles and processes of extension; and extension approaches. Though, this course is introductory, it touches on

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broad spectrum of the basics in agricultural extension with also a stint on contemporary issues in extension.

Course Aims

The aim of this course is to provide understanding on the nature of agricultural extension; principles and practices and its role in agricultural/rural development. It also offers understanding of the wide applications and implications of knowledge of extension.

Course Objectives

In order to realize the course aims, there are some underlying objectives set for the course. Each unit is dedicated to certain objectives which you through the assistant of your facilitator, will have to be acquainted with.

In specific terms, the objectives of the course are as follows:

Discuss the concept of Agricultural Extension and Extension Education.
Distinguish among different concepts related to Agricultural Extension.
Provide an account of the history and development of Agricultural Extension.
Explain the philosophy, principles and objectives of Agricultural Extension
Define the scope and functions of Agricultural Extension.
Present the extension process
Discuss alternative extension approaches/models.
Outline various extension methods.
Describe the extension aids.
Discuss the emerging trends in Agricultural Extension

Course Materials

Major course materials of the course are as follows:

1. **Course Guide**: This looks like a blue print spelling out in detail what constitutes the course.
2. **Study Units**: Each of these provides an overview of the content and number of units that will be covered in this course.

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3. **Assignment Files**: These files contain challenging tutorial questions termed Self-assessment questions(SAQs) and Tutor-Marked Assignments (TMAs) that will enable you to assess yourself at the end of every assignment that will be given out by your tutor.
4. **Presentation Schedule**: Finally, the modus operands (e.g. time table, hours expected on each unit/module, assignment submission procedure on how it will be self tutored with the monitoring techniques by NOUN will be in the information package of this schedule.

Working through this Course

This course is in packages such that you work through series of activities within a semester. One of the packages is the course material. In fulfillment of the course requirement, you are expected to participate fully in the continuous assessment and the final written examination. The 12 units of the course packaged for your easy comprehension are as follows:

Study Units

Details of the study units have been presented. It is spelt out in modules with corresponding units and titles. You will be expected to spend 2 – 3 hours in studying a unit.

Module 1

Unit 1	Conceptual Issues on Extension Terminology
Unit 2	Concepts Related to Agricultural Extension
Unit 3	History and Development of Agricultural Extension
Unit 4	Philosophy, Objectives and Principles of Agricultural Extension

Module 2

Unit 1	Functions and Scope of Agricultural Extension
Unit 2	The Extension Process
Unit 3	Alternative Extension Models
Unit 4	Participatory Extension Approaches

Module 3

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Unit 1 Extension Methods
Unit 2 Extension Aids
Unit 3 Agricultural Campaign
Unit 4 Emerging Trends in Agricultural Extension

All things being equal, you should be able to complete this three-credit unit in 22 weeks in a semester. To assist easy assimilation, in each unit you have an introduction, specific objectives, reading material on structured sub-topics, self assessment questions (SAQs), conclusion, summary, tutor-marked assignments (TMAs) and references.

Textbooks and References

Apart from this study unit, some reference materials are provided as additional reading material to support your study. You made come across them in NOUN library or elsewhere such as the Internet.

Instructional Media

As open and distance learning, several relevant multimedia that can make learning more effective are available.

Assignment File

This has been discussed earlier. It is mandatory to always turn in your assignments to any tutor assigned.

Assessment

You will be expected to complete at least ten assignments by the end of the course. Some of these will be in form of project, continuous assessment; you will be expected to write a final examination in the course. The overall score in the course will be a sum of 30% of CA and 70% of written examination.

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Published by
National Open University of Nigeria

Printed 2008

ISBN: 978-058-510-9

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MODULE 1

Unit 1 Conceptual Issues on Extension Terminology
Unit 2 Concepts Related to Agricultural Extension
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Unit 4 Philosophy, Objectives and Principles of Agricultural Extension

UNIT 1 CONCEPTUAL ISSUES ON EXTENSION TERMINOLOGY

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2.0 Objectives
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3.1 Extension Terminology
3.1.1 Alternative Words for 'Extension'
3.2 Definition of Extension
3.2.1 Notes on the Definitions
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5.0 Summary
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1.0 INTRODUCTION

Agricultural Extension Education has different connotations to different people because its sphere of application is very wide. Extension addresses problems of livelihood, development and change and it is dynamic in process and application because of its problem solving orientation. The principal underlying philosophy of extension is that the developmental goal should be targeted towards human value improvement rather than material or physical improvement.

2.0 OBJECTIVES

By the end of this unit, you should be able to:

define what 'extension' is
identify cultural variations of terms and connotations of 'extension'
explain the key elements in the definitions of 'extension'.

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3.0 MAIN CONTENT

3.1 Extension Terminology

Despite the fact that the term 'extension' is well known to all in development organisations and agencies, many laypersons do not understand and therefore give wrong interpretations. Age long, agricultural practices including crops cultivation and raising livestock had been achieved as farmers generated and adapted their own technologies, which they share with others and across generations. This indigenous knowledge practice was without stress as long as farmers could take care of the food need of their family members and have some kept for the next season. Increasing pressure on land, growing population and natural disasters such as famine and disease epidemics] destabilized the subsistence equilibrium. This made advanced knowledge generated in the university, acquired through science and research to become relevant.

The term 'extension' was first used to describe adult education programme in England in the second half of the 19th Century, when traveling teachers used the programmes to expand - or extend - the work of universities beyond the campus and into neighbouring communities [www.wikipedia, 2007]. This was then called university extension as scope of knowledge extended was disparage and not specific for any particular field. This idea was later adopted in the United State of America, applying specifically to agriculture [hence agricultural extension], while in Britain the idea metamorphosized to 'advisory service' in the 20th C. As you know necessity is the mother of invention, the need to apply scientific knowledge to human needs is a global phenomenon; the idea was also being developed in different parts of the world. In fact, this same concept is being called differently in different places. Knowing the different ways of explaining the meaning in different places gives you a deeper understanding in the whole idea.

3.1.1 Alternative Words for 'Extension'

According to van den Ban and Hawkins [1996] the following words in different cultures capture what extension means and the local connotations are provided:

> Dutch - voorlichting [lighting the pathway ahead to help people find their way];
> Indonesia - penyuluhan [lighting the way ahead with a torch];
> Austrians - Förderung [furthering or stimulating you to go in a desirable direction; similar to Koreans word to rural guidance];

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German - Beratung [advisory work as in English]; Germans use other words such as:

Aufklärung [enlightenment];
Erziehung [education - as in US to stress that the goal of extension is to teach people to solve problems themselves].

French - *vulgarization* [simplify the message for the common man];
Spanish - *capacitacion* [improving people's skills, in other words meaning training];
Thai, Lao - *Song-Suem* [to promote].

With these nuances of meaning giving to extension you will agree with me that it has wide applicability.

3.2 Definition of Extension

The term extension has been defined differently and new definitions keep emerging. The term extension is broad but naturally a non-formal educational discipline. The general goal is to enable people to use scientific and technological information to improve their quality of life. It is called agricultural extension when it focuses on agriculture. However, it can be used effectively in nonagricultural programme areas such as rural health, family planning, social work or community development. You will learn a handful of definitions and I hope afterwards, you will give your own definition based on your understanding.

1. Extension education has been described as an informal out-of-school education system of education designed to help rural people to improve their standard of living by their own efforts, through making wise use of natural resources at their disposal for the benefit of the individual, family, community and nation as a whole (Bradfield, 1966).

2. Extension is a service or system which assist farm people, through educational procedures in improving farming methods and techniques, increasing production efficiency and income, bettering their levels of living and lifting social and educational standards (Maunder, 1973).

3. Extension involves the conscious use of communication of information to help people form sound opinions and make good decisions (van den Ban, 1974).

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4. Agricultural Extension: assistance to farmers to help them identify and analyse their production problems and become aware of the opportunity for improvement (Adams, 1982).

5. Extension is an on-going process of getting useful information to people [the communication dimension] and then assisting those people to acquire the necessary knowledge, skills and attitudes to utilize effectively this information and technology [the educational dimension] (Swanson and Claar, 1984).

6. Extension is a professional communication intervention deployed by an institution to induce change in voluntary behaviours with a presumed public or collective utility (Röling, 1988).

7. The essence of agricultural extension is to facilitate interplay and nurture synergies within a total information system involving agricultural research, agricultural education and a vast complex of information-providing businesses.

8. Extension can be defined in general as follows: It is the process whereby the extension worker tries to motivate his extension partner and to give capability with the help of encouragement and ideas to solve his acute problems. The people concerned acquire a better insight into the network of problems and recognize the alternative solutions available. They gain from this, both incentive to embark on problem solving and the direction to take. Through the agency of extension, otherwise untapped human resources are set free and utilized (Albrecht et al, 1989).

3.2.1 Notes on the Definitions

If you meditate upon these definitions, you will begin to understand the nature of the subject accordingly:

i. There are as many definitions as are authors, emphasizing various aspects of the subject, with more detail meaning being revealed over time.

ii. It is all about improving people's livelihood through improved technology, knowledge, skills and change in attitudes, which would not occur naturally except through certain concerted efforts, e.g. assist, communicate, facilitate, teach etc.

iii. There are fundamentally two aspects of getting extension work through: communicate the idea, in order to getting the clientele to know the idea exist [awareness] and knowing when to do and

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how to do what is to be done and doing it on sustainable basis as the needs arises. One component that tangentially can be inferred is growing in the ability of problem solving and improvement in managerial competence.

iv. There are various stakeholders involved in extension work with interplay of roles, which have to be synergistically pursued.

v. Some definitions were emphatic on farmers as the target system while others simply to the subjects as people. In fact extension is applicable to any field or livelihood using same philosophy and principles, greatest application has been in agriculture.

vi. Years of practical extension work have revealed that most of these definitions are theoretical in orientation, especially when viewed from the perspective of the farmers or beneficiaries. This presents farmers mainly as passive and weak receivers of innovations while the change agent is superior and authoritative. The issues around here centers around what is know in extension as top-down or bottom-up approach, which you will get to know more about in due cause. The viewpoint has been a bone of contention in extension works over the years, suggesting that extension work cannot attain effectiveness on sustainable basis when implemented on top-down approach. This gave credence to other concepts or approach in recent time such as participatory extension.

The diversity of what extension really means has generated arguments among professionals such that some feel the word extension has misleading connotations, and that it is practically impossible to stretch the meaning of the concept as necessary. Some have all together have renamed the field of Extension Science as Communication and Innovation Studies or Communication for Rural Innovation (Leeuwis and van den Ban, 2004). This school of thought proposed a definition for communication for rural innovation as ‘a series of professional communicative intervention amid related interactions that is meant among others, to develop and/or induce novel patterns of co-ordination and adjustment between people, technical devices and natural phenomena, in a direction that supposedly helps to resolve problematic situations, which may be defined differently by different actors involved’ (Leeuwis *et al*, 2004).

In my opinion, if what definition does is to unlock or simplify the substance of a subject, the proposed definition above will not be of much use to burgeoning scholars or laypersons. Again, the definition adopted at any point in time depends, on one hand the level of

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development attained in a particular society and on the other hand on the goal of the individual or agency doing extension work.

At our level, I suggest we adopt Swanson and Claar's definition but with the modification that information are shared, not unilaterally transferred by extension and that in reality, extension personnel plays a facilitative role. Albretch *et al's* definition is also particularly useful and suitable for the purpose of this course.

4.0 CONCLUSION

Extension is a broad, wide-spectrum and non-informal educational discipline that grew out of need to solve problem. Mostly called agricultural extension, the term is most appropriate when the focus in on agriculture. In broader perspective, it is rather called extension education when the issues on focus may be non-agricultural but development and people oriented. It is so basic and universal such that it has different connotations in different cultures.

5.0 SUMMARY

Extension is an on-going process of sharing useful information with people [the communication dimension] and then assisting those people to acquire the necessary knowledge, skills and attitudes to utilize effectively this information and technology [the educational dimension] (Swanson and Claar, 1984).

6.0 TUTOR-MARKED ASSIGNMENT

1. Select any two definitions of extension and attempt an analysis of the key elements of the selected definitions.
2. Which word is giving to extension or would you like to give extension in your local language?

7.0 REFERENCES/FURTHER READINGS

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UNIT 2 CONCEPTS RELATED TO AGRICULTURAL EXTENSION

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1.0 INTRODUCTION

There different dimensions of development intervention efforts and various concepts are used to variously capture them. Without due clarifications, these concepts might be confused with agricultural extension. While sometimes some are used interchangeably, professionals should be able to bring forth the nuances therein. In establishing extension as an educational concept, it is necessary to place it within the framework of different learning approaches.

2.0 OBJECTIVES

By the end of this unit, you should be able to:

clarify distinctions among related concepts distinguish between formal and informal education mention the similarities of formal and informal education.

3.0 MAIN CONTENT

3.1 Related Concepts

There are certain concepts which are used 'loosely' and at times interchangeably with agricultural extension. As an upcoming professional, it is essential you are able to make categorical distinctions on these terms. Major ones among these terms are mentioned and defined below:

Adult Education: adult education is defined as 'any purposeful effort towards self development and improvement carried out by

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any individual without legal compulsion and without such effort becoming a major form of activity. From this definition it could be seen as a form of adult education, however, adult education objectives center on training for citizenship, leisure time activity, economic efficiency and vocational training.

Advisory Service: advisory extension predates agricultural extension and was first used in Europe. It was concerned with providing organized technical services and publications to farm families by some progressive individuals called 'traveling teachers' of agriculture at the instance of agricultural societies promoting application of scientific knowledge to the field of agriculture.

University Extension: this literally implies 'extension of the university' and it was first used in Britain in 1840s in Cambridge University. The term was used to represent an idea of 'extending' knowledge and technologies generated in the university to public members who were not privileged to come to the citadel of knowledge but can benefit from such. University extension covered a broad scope of knowledge so generated in the university without restriction to particular subject, so long as it is considered beneficial to the people out there.

Cooperative Extension System: the term agricultural extension was first used in the United States of America where 'university extension' was particularly applied in agricultural issues in the Universities of Chicago and Wisconsin. This culminated into the passage of the Smith-Lever Act of 1914 which gave rise to the Cooperative Extension System. It has been the adopted form of extension model in USA. The act provides a combination of federal, state and local government legislative and funding backing to agricultural extension and home economics work in USA. Within this structure, extension work is domiciled in the Land Grant universities which were established as a result of Morelli Act of 1862. Land Grant Universities are those established and funded by government in USA.

Technology Transfer: technology transfer is discussed within the analytical framework of Agricultural Technology System which recognizes four major functional component; some of which are internal to the technology while others are external (Swanson, 1986). The components comprise:

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i. Policy, which includes those external factors that directly impact the technology system including the utilization of farmers.
ii. Technology development, which includes that part of agricultural research system that is devoted to applied and adaptive research.
iii. Technology dissemination, which is broken down into the sub-functions of knowledge transfer and input transfer.
iv. Technology utilization by farmers, with an emphasis on smallholders.

It is clear from the above that it is erroneous to equate agricultural extension with technology transfer because the latter includes functions of input supply and other agri-support services.

Axinn (1987) classified extension system as either agricultural extension delivery system or agricultural acquisition system. Knowledge of these two additional concepts will further broaden your horizon on concepts related to agricultural extension.

Agricultural Extension Delivery System [AEDS]: this implies there is a body of information/technologies and other relevant inputs such as fertilizers, improved seeds and farm credits. The extension agencies are accessible to the information and other inputs to make them available to farmers who need them. This is typified by Ministry based extension (Conventional Agricultural Extension Model) with public extension workers. The extension programmes are generally fixed by government such that strategies and implementation are centrally decided from the headquarters by the extension agency. Here, extension agency drives the process.

Agricultural Extension Acquisition System [AEAS]: the main idea of this system, as opposed to AEAS, is that a group of farmers, organized in one way or the other, can reach beyond the village level to acquire information and other inputs considered desirable. The farm organization under this system 'hire and fire' a private extension agent who facilitate and advise the groups members who occupy the driver's seat. To be effective and sustainable, every extension organization should strive to bring their clientele [individually or in groups] to this level of operation where they know what they need and make effort to acquire such.

Hospitality Extension: Hospitality industry is a recent addition to the traditional subject matter areas in extension. The hospitality industry consists of heterogeneous units offering

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accommodation, food, drinks and other essential services required by travelers away from homes and resident clients for social functions and daily needs. Catering for the welfare of clientele is the principal target of the industry. Services relating to the following are included:

1. Hotel, restaurant, night clubs and fast food outlets
2. Transport and catering services toward the welfare of travelers on the sea, railway, motorway and those airborne.
3. Welfare or institutional catering services for residential or non-residential school meals at educational institutions; old people's home, prisons, remand homes and orphanages.
4. Industrial catering services for people at work, industries, factories and breweries and construction sites.
5. Hospital catering services in hospitals
6. Armed forces catering services.
7. Contract catering services in banks and corporate establishments in cities.

Being hospitable not only means catering to the needs and desire of your guests, it also mean making sure that they are accommodated safely and their belongings are secure. The knowledge, skill and attitudes that must be acquired to provide hospitability services in an effective manner constitute the subject matter referred to as hospitality extension. Hospitality extension can be defined as an educational process that is aimed at preparing people for the provision of friendly, generous and comfortable reception and entertainment of guest or strangers such that their welfare is adequately taken care of and their satisfaction is guaranteed.

Opportunities for the provision of hospitality services are expanding and as such the service providers need adequate training at various levels. The scope could be limited or wide such that it is managed individually, corporately or on community basis. It could also either be commercialized or run as social services by communities. Essentially, hospitality extension operates basically on extension education principles and philosophy. According to Weaver (2003), planning the hospitality programme at the community level involves a systematic process including:

a) **Getting Started**: involving representatives from as many groups as possible to gain support for the programme and increase awareness;

b) **Set Objectives**: decide on objectives and goals and alternate strategies for accomplishing goals;

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c) **Choose a Coordinator**: select a well organized, enthusiastic, resourceful person to coordinate the hospitality programme;
d) **Obtain Resources**: available resources and facilities such as schools and organisations that might be able to provide hospitality training etc.
e) **Assigning Responsibilities**: on promotion, training, and follow-up;
f) **Planning the Training Programme**: calendar of work, who will teach what, teaching techniques and audiovisuals;
g) **Membership/attendance**: decide on number of participants, incentives for participation etc;
h) **Publicity and Promotion**: toward achieving good public relation and make community 'hospitality conscious'. Possible use of person calls, press coverage, mass mailing and paid advertising;
i) **Budgeting and Fund Raising**: how shall the programme be financed?
j) **Evaluation**: on the basis of whether the set objectives were realized e.g. change in attitude, improve skill and increase knowledge and
k) **Follow-up**: reinforce the positive changes that the prograrmme has created. This process is basically a variant of the extension process which will be discussed later.

3.2 Approaches to Learning [www.wikipedia, 2007]

Informal Learning

Informal learning is learning things in our day-to-day situations (if we don't look in front of us while walking, we learn that we run into things and that might be dangerous). It's what daily life practices teach us. It is learning from life, during a meal at table with parents, play, exploring.

Formal Learning

Formal learning is learning that takes place within a teacher-student relationship, such as in a school system.

Non-formal learning is organized learning outside the formal learning system. For example: learning by coming together with people with similar interests and exchanging viewpoints, in clubs or in (international) youth organisations, workshops.

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Non-Formal Learning and Combined Approaches

The educational system may use a combination of formal, informal, and non-formal learning methods. The UN and EU recognize these different forms of learning (cf. links below). In some schools students can get points that count in the formal-learning systems if they get work done in informal-learning circuits. They may be given time to assist international youth workshops and training courses, on the condition they prepare, contribute, share and can proof this offered valuable new insights, helped to acquire new skills, get experience in organising, teaching, etc.

3.3 Differences between Formal and Non-Formal Education

Certain definitions of extension describe it as informal, out-of-school and adult educational process. It is pertinent you learn to distinguish between formal and informal education.

Table 1: Differences between formal and formal education system

Formal Education System	**Non-Formal Education System**
There are fixed and prescribed curricula/course of study	No formal/fixed curricula or course of study. Subject is flexible
Programmes development is quite autocratic without much input from learners	Programme development is based on needs and expressed desire of the people.
Audience is homogenous and with close are bracket.	Audience is heterogeneous and non-captive. It comprises of old, young, literates, illiterates etc.
Subject matters are basic, abstract and more theoretical in nature.	Subject matters more practical than theoretical and intended for immediate application of solution to problems.
Operates in classroom situation	Operate mainly out of class, on farmers' fields and homes.
Outcome of participation normally indicated with issuance of certificate.	Solution and satisfaction derived are the outcome; participation not usually certificated

If these distinctions can be made on formal and non-formal education systems, are there no areas of similarities? Yes, two systems have some features in common.

i. Both targeted towards learning and share several learning principles in common.
ii. Both bring about changes in knowledge, skills and attitudes of learners.

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iii. Both are development-oriented.
iv. Both add value to human lives.

4.0 CONCLUSION

Extension can be used effectively in nonagricultural programme areas such as rural health, family planning, social work, community development or hospitality extension. It should be appreciated that extension is a *sine qua non* in development effort.

5.0 SUMMARY

Terms such as adult education, advisory services, university extension and technology transfer are related to extension. It is desirable that learners should know the fine distinctions and semblances. While agricultural extension and formal education may have common principles, they are totally distinctive on certain grounds.

6.0 TUTOR-MARKED ASSIGNMENT

1. Distinguish between university extension, extension education and agricultural extension.
2. Differentiate between formal and non-formal education system.

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UNIT 3 HISTORY AND DEVELOPMENT OF AGRICULTURAL EXTENSION

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1.0 INTRODUCTION

It is necessary for you to know the historical development of Agricultural Extension after having a full grasp of the terminology. This knowledge will throw more light into the scope and dynamics of extension overtime. The scope of agricultural extension will help you situate the subject among other development efforts and tools; and to begin to appreciate the educational and scientific nature of the discipline as it evolved over time.

2.0 OBJECTIVES

By the end of this unit, you should be able to:

state extension evolved in Europe and America
outline the history of agricultural extension in Nigeria
discuss problems of agricultural extension in Nigeria.

3.0 MAIN CONTENT

3.1 History of Agricultural Extension

The dissemination of relevant information and advices to farmers dated as far back as 1800 B.C. according to archaeological evidences (Jones and Garforth, 1997). The use of the word ‘extension’ was derived from

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an educational development in England about 1850. This was when universities of Oxford and Cambridge embarked on taking the educational advantages of the ivory tower to the immediate populations outside the universities. Initial efforts, referred to as 'university extension', and were mainly on literacy and social topics until the 1890s when agricultural subjects were introduced to rural farmers (Jones, 1994). The efforts of itinerant lecturers soon developed into movements and agricultural societies that were involved in spreading innovations and publications of agricultural literature.

By 1890, the university extension system had been operated in American land-grant colleges exemplified by programmes organised in the Universities of Chicago and Wisconsin. It was not until the beginning of the 20th century, when colleges in the United States started conducting demonstrations at agricultural shows and giving lectures to farmers' clubs that the term 'agricultural extension' service was first used. The adoption of this idea culminated into the passage of the Smith-Lever Act in 1914. The act provided a combination of federal, state and local legislative backing and funding for agricultural and home economics extension work. It developed into what is referred to as the cooperative extension system. In the US, an extension agent is a university employee who develops and delivers educational programmes to assist people in economic and community development, leadership, family issues, 4-H and youth programme, agriculture and environment (www.wikipedia, 2007).

Extension work in other parts of Europe and America took after the patterns described above. Thus, extension work took off in Canada, Australia and Japan.

In a similar vein, the development of agricultural extension work started spreading to the tropical world through the European colonial powers. The common pattern was through the establishment of 'botanical gardens', which served as sources of agricultural knowledge and innovations and provided opportunity for the Europeans to gain knowledge of tropical agricultural plants. Most of these colonies - India, several Caribbean Islands and African and Southeast Asian territories had begun to be exposed to agricultural extension at the beginning of the 20th century, albeit at the rudimentary level. The "scramble for Africa" had been mainly in the late nineteenth century, and the young departments of agriculture, where they existed, were largely involved in administrative duties (Jones and Garforth, 1997). According to Lucas (1913) as cited in Jones and Garforth (1997) before 1914, however, agricultural instruction was given in most government-assisted schools and at four agricultural stations in Ghana (then, the Gold Coast).

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3.1.1 History of Agricultural Extension in Nigeria

History of Agricultural Extension in Nigeria is linked with both the political and modern agricultural history in Nigeria. It shall be classified under two different periods as colonial and post-colonial periods.

Colonial Period

In the era of British colonialism, modern agriculture started in 1893 with the establishment of the Department of Botanical Research at Olokemeji in Ogun State of Nigeria. The venture however, failed and was abandoned. In 1905, a British Cotton Growing Association came to being at the location now known as Moor Plantation in Ibadan, Oyo State with the intent of growing cotton for the British textile industry. This scheme was unsuccessful and agricultural development lulled for a while due to the outbreak of World War I. After the war, British soldiers were redeployed to various department of agriculture as agricultural superintendents across the British colonies. Efforts in agriculture then were directed at improving export crops and raw materials to feed the European market.

In 1921, the Unified Department of Agriculture was established for the whole country. The Department of Agriculture concentrated effort on experimental work obviously because there was little knowledge on tropical agriculture to be extended to the indigenous farmers. The colonial government embarked upon several agricultural development schemes such as the Kware irrigation scheme in 1926; Niger Agricultural Project, near Mokwa in the 1950s. These projects were expected to have demonstration effect but were however not sustained as the seemed to be elephant projects, which did not suit the felt needs of the local beneficiaries.

Post-Colonial Period

The history of extension at the time also followed the trend of political history in Nigeria. When the Western, Eastern and Northern Regions were created, each region had their corresponding ministry of agriculture in which department of extension division was domiciled. Same pattern ensued when an additional Midwestern Region was created. Same pattern continued as states were created out of the regions - first 12 states in 1967; 19 in 1976, 21 in 1987 and finally in 1991 when more states were created to make 36 including the Federal Capital Territory. Each state still have a Ministry of Agriculture and Natural Resources with an Extension Division. Various agricultural development programmes that were implemented at regional/state levels

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applied rudiments of extension, which by and large enabled the farmers to meet the needs of production of cash crops for export. By the time Federal Ministry of agriculture and Natural Resources was established at the Federal level emphasis started shifting to food crop production because of impending difficulties in meeting the food need of growing urban population.

The application of agricultural extension grew in implementation of several agricultural programmes implemented in Nigeria. According to Jibowo (2005), 'the special agricultural development schemes introduced by the Federal Government were aimed at boosting food production and farmers income through provision of agricultural infrastructures, farm inputs and effective agricultural extension. He went further to catalogue schemes as including the National Accelerated Food Production Project, which was introduced in 1972, the Agricultural Development Projects, ADP (1975), the Accelerated Development Area Project, ADAP (1982), the Multi-State Agricultural Development Project, MSADP (1986). Others programmes were Operation Feed the Nation, OFN (1976), the River Basin Development Authority, RBDA (1973), The Green Revolution Programme, (1980), the Directorate of Food, Roads and Rural Infrastructure, DFRRI (1986), the National Directorate of Employment NDE (1986), the Nigerian Insurance Scheme NAIS (1987) and the National Fadama Development Project (1992). In recent years, the Poverty Alleviation Programme (2000), and National Economic Empowerment and Development, NEEDS (2004) were introduced and specifically, the National Special Programme for Food Security was launched in March 2003 (Jibowo, 2005).

It is noteworthy that from the rudimentary application of extension to farmers' problems, public extension adopted Convention Agricultural Extension Approach based in the Ministry of Agriculture. It was foist with many problems, which made extension to be grossly limited in effectiveness. However, when the ADPs were initiated, another extension approach called Training and Visit [T&V] Extension System was adopted. It is a professional extension approach, which brought professionalism into extension work, focusing strictly of communication and educational function of extension. Extension recorded significant success under this approach but the impact could not be sustained as it was capital intensive and was donor-driven. Impact could not be sustained when the World Bank [sponsor] withdrew its funding support. Public extension in Nigeria up till now still largely utilizes T & V system with series of adaptation with significant shift from the original conception.

You have not had the full impression of historical background of extension in Nigeria, if mention is not made of extension outside the

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public sector. You need to capture the some elements of the university-based extension, the private sector and possibly the Non-Governmental Organization type of extension services. Early history of extension work in Nigeria indicates that the University-based extension project complemented the Conventional extension model. The extension outreach programmes of Obafemi Awolowo University, Ile-Ife [at Isoya]; University of Ibadan [at Badeku] and Ahmadu Bello University [at Samaru] all in the 1970s were effectively integrated into research and teaching functions of the respective universities. With the fund drain that followed that era, the laudable projects could not be significantly sustained.

In the private sector, some private agencies, religions and non-governmental organisations have embarked on agricultural extension services largely towards specific clientele systems (Jibowo, 2005). Some of the agencies are the Nigeria Tobacco Company NTC [now BAT], oil companies such as Shell Petroleum Development Company; and religious bodies such as Catholic and Anglican churches. Examples of NGOs that are active in extension operation include Leventis Foundation and the Farm and Infrastructure Foundation.

The current status of performance in public extension work in Nigeria is unsatisfactory. Aside of a number of donor-driven agricultural development and poverty reduction projects, the public extension agents are under-utilized. This is as a result of insufficient attention given agriculture sector. This reflection can best be captured by the budgetary allocation of ₦2.5 billion for 2007, which makes a paltry 1.5% of the total budgets.

3.2 An Overview of Public Agricultural Extension Practice in Nigeria

Public extension programmes in Nigeria, as could be deduced from the account above, had been implemented earlier under conventional extension system also called ministry operated extension service and lately under specialized project operating as parastatal wherein Training and Visit extension approach was used.

3.2.1 Ministry Operated Extension Services

The Ministry Operated Extension Service is typical of many African countries that were then British colonies and it was seen as offshoot of the extension system in operation in United Kingdom. Domiciled in the Ministry of Agriculture, extension services were represented by Agriculture Division of the Ministry of Agriculture. This division was charged mainly with the responsibility of teaching the farmers such

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techniques and practices of modern agriculture as well transform the country's agriculture from predominantly subsistence type to a modern one (Obibuaku, 1983). However, extension had virtually no message to transmit to farmers since there were no productive agricultural research systems.

A typical structure and organization of agricultural extension in the ministry setting is provided in the organogram in Fig. 1. Extension Division is headed by Chief Agricultural Officer[Extension Services] (CAO); assisted by several cadres both office and field staff as shown in the figure until it gets to the Field Overseer (FOs) who has direct contact to farmers.

Extension was operated in the typical civil service style involving excessive bureaucracy and red-tapes. Decision making was highly centralized with farmers contributing little or nothing to programme development. The organizational structure operated was such that the lines of communication were very long such that farm information was distorted before reaching the village level. Ineffectiveness of extension services reflected in extension consisting routinely of the provision of supplies and services while the education functions were ignored.

3.2.2 Agricultural Development Project (ADP) Based Extension

In Nigeria, as elsewhere, the ministry based extension service was found to be unable to effectively address agricultural and rural development problems. This led to the establishment of ADP thus marked the departure of the Nigerian extension system from ministry based extension to project based extension system. The ADP was sponsored by the World Bank in collaboration with the states and federal governments. Agricultural Development Projects were first established at pilot level in Funtua, Gusau and Gombe in 1975. The success of the pilot projects resulted in several projects with variety of designs – the original enclave projects (ADPs); the Accelerated Development Area Programmes (ADAPs), the phased ADPs, and the state-wide projects. Almost all the states in the country actively implemented statewide ADPs until World Bank finally withdrew funding at the expiry of the project. Development activities of ADPs declined considerably, though at varying degrees across the states, as government could not meet the financial demand of these projects.

The ADP system was premised on the fact that a combination of factors comprising the right technology, effective extension service, access to farm inputs, adequate market and other rural infrastructure are essential elements for increased output and productivity, required to raise the

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income and living standards of the rural dwellers who are mainly farmers (Ayichi, 1995). The objective of the ADPs is to provide the enabling environment sufficient to act as the driving force that will motivate the farm families. Ayichi (1995) itemized the strategies through which the objectives would be achieved:

i. a reorganized and revitalized agricultural extension approach known as Training and Visit [T&V] system which ensures feedback;
ii. an effective farm input distribution system which ensures timely supply of needed inputs in the right quantities, qualities and reasonable prices;
iii. establishment of On-farm Adaptive Research (OFAR) as a means of developing and validating new technologies within the complex ecological and socio-economic milieu of the farmers;
iv. provision of all season access roads to farming communities through routine maintenance, and spot improvement of existing roads, rehabilitation and reinstatement of abandoned track routes;
v. provision of potable water for domestic uses and dams for irrigation water for fadama development;
vi. encouraging the processing, storage and marketing of farm outputs to ensure reasonable returns to the farmer;
vii. linking deserving farmers with institutions that offer credits, insurance and export services;
viii. semi-autonomous status of the ADP management unit which allows for quick decision-making;
ix. adequate financial support through tripartite funding provided through World Bank loans and counterpart funds from both federal and state governments.

The extension of the ADPs runs typically thus: through a series of backstopping, support and training from the headquarters to the zonal level, the Village Extension Agent represents the point of contact with farmers. The extension agent aims at transmitting to farmers more productive methods of farming by correct use of available inputs and practices. The commonest approach is reaching progressive/contact farmers through individual or group contract by scheduled visits and training. This is supported by demonstration with emphasis on establishment of Small Plot Adoption Trials (SPATs) and adaptive research trial i.e. On-Farm Research (OFR). Other farmers apart from the contact farmers are free to join the demonstrations.

Farmers were also sometimes reached through mass communication techniques including motion pictures weekly radio programmes and wall posters among others. Subject matter specialists who are trained through the Monthly Technology Review Meetings are later to go their

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respective zones to train extension workers through the Fortnightly Training Meetings.

Despite the initial success of these projects the impact could not be sustained after the expiry of World Bank loan. Private extension service delivery under the aegis of ADPs on a statewide basis is currently at low ebb. There however are pockets of programmes – donor driven or government funded that the ADPs structures are involved in ad-hoc basis. Such current programmes include National Special Programme for Food Security [NSPFS], National Fadama Development Project [NFDP], the Poverty Alleviation Programme [PAP] and National Economic Empowerment Development Scheme [NEEDS].

3.3 Problems of Agricultural Extension in Nigeria

The change in extension system from the Ministry based extension to project based was an effort to solve an array of problems known to plague extension service in Nigeria. The earlier experience in the ADPs operation was highly promising that it was thought that most of the traditional problems would have been alleviated. However, the spirit of the early ADP era was not sustained, coupled with the fact that the Training and Visit extension approach had its associated problems. This implied that there are yet a myriad of problems of agricultural extension begging for appropriation attention. These are briefly outlined as follows:

Top-Down Approach: The control and direction of extension work has largely remained to be top-down instead of the bottom-up and participatory approach that has proven to be more effective and sustainable. Nigeria is lagging behind many other developing nations that have embraced participatory extension wherein extension service delivery has been demand driven. Despite the fundamental principle of involving extension clientele in programme and evaluation and what practical effect of adequate farmers participation, the principle has not adequately utilized in practice.

Poor Funding: Agriculture in Nigeria has generally been poorly funded such that the position of agricultural sector in the national economy as the largest non-oil contributor to the Gross Domestic Product [GNP] has not been properly reflected. Despite members' consensus within the African Union forum on NEPAD that a minimum of 10% annual budgetary allocation should go to agriculture, only a paltry ₦38bn, representing 1.5% was allocated to agriculture in Nigeria in 2007 (Sunday Punch, Oct. 15, 2006).

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Poor Extension Contact: Despite the effort at the peak of ADPs activities to reduce the extension-farm family ratio, many farmers were not reached. This due largely to insufficient number of extension agents providing service to large population of farmers. An extension agent/farm family ratio of 1:3,000 was typical of the pre-ADP era. As time goes by, ratio attained at earlier days of ADP has progressively been getting worse [in 1995 - 1: 1,189; 1997- 1:1,615; 2003 - 1: 1,722] (Agbamu, 2005). When this ratio is compared with what obtains in Mexico [1:800], Japan [1:252] and South Korea [1:500], it easy to appreciate limitation in extension effectiveness in Nigeria.

Poor Access to Production Facilities: there still exists a wide gap between improved technologies available and what the small farmers have adopted. These farmers do not have adequate access to agri-support services including farm inputs/supplies; assured market outlets, production credits, on-farm research, farm-to-market roads at the farm level. The key factors are non-presence of the service providers, affordability, timeliness and technical capacity to utilize the services productively.

Policy, Institutional and Programme Instability of Public Extension Systems: It should be known that there is no specific agricultural extension policy in Nigeria like we have in USA as Cooperative Extension System that came up in the Smith-Lever Act of 1914. Policy in operation for extension is within the broader agricultural policy. Agricultural policy in Nigeria has long been plagued with instability and thus expected effects have not been sustained. Changes in policy and re-vibrate in changes in extension programmes and strategies with significant adverse effects on effectiveness and sustainability.

Poor Logistic Support for Field Staff: Despite that fact that copious effort was made for tract this problem in the project based extension system, not much progress was achieved as the tempo of supplies of basic extension logistics could not be sustained. Poor mobility, supply of working materials for demonstration and learning aids has made the work of field officers frustrating. Even when vehicles or motor bikes are provided poor fueling and maintenance may cripple them.

Poorly Trained Personnel at the Field Level: While higher agricultural education institutions keep turning out mid-level and senior extension professionals, the staff personnel used at the farm level continued to be those with lower educational qualification and largely untrained. Opportunities for training-re-

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training are rare; thus extension personnel lack contemporary knowledge and skills in the professional. One can readily mention the weak competence of our extension personnel in effectively using Information and Communication Technologies to enhance their effectiveness.

4.0 CONCLUSION

Extension as a profession has a chequered history with progress sometimes marred by setbacks. This implies that lots of lessons could be learnt from the historical background of extension and that over time, could be more systematic and structured when operations are guided by sound philosophy and principles which if carefully observed will ensure that programmes are effective and sustainable. This indeed is the basis for agricultural extension being a science. In the next unit, you will be taken through this knowledge.

5.0 SUMMARY

The use of the word 'extension' derives from an educational development in England about 1850. This was when universities of Oxford and Cambridge embarked on taking the educational advantages of the ivory tower to the immediate populations outside the universities, hence called 'university extension'. Afterwards, the idea was adopted in USA where it was specifically applied to agriculture. Similarly, the idea was spreading across other countries in Europe and with the wave of colonization setting in, the rest of the world including Africa adopted extension as a tool for development.

As a British colony, Nigerian agricultural extension was based in the ministry of agriculture, styled after the extension system in Britain. Clogged with several bottlenecks typical of public service bureaucracy, extension agency was relocated to a parastatal – ADP in a project setting using Training and Visit Extension System. Indeed, significant success was achieved, but unfortunately was not sustained at the expiration of World Bank support for the programme. Extension effectiveness is grossly limited by poor funding, poor extension contact, inadequate clientele participation, poor supply of production facilities. Other problems include policy, institutional and programme instability of Public Extension System, poor logistic support for field staff and poorly trained personnel at the field level.

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6.0 TUTOR-MARKED ASSIGNMENT

1. Describe how extension work was implemented under the ministry based extension in Nigeria.
2. Explain why the agricultural extension system in Nigeria was changed from ministry based to project based.
3. Describe the contemporary problems of agricultural extension in Nigeria and proffer plausible solutions.

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UNIT 4 PHILOSOPHY, OBJECTIVES AND PRINCIPLES OF AGRICULTURAL EXTENSION

CONTENTS

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1.0 INTRODUCTION

Having gone through conceptual issues on extension; clarifying the functions of agricultural and what extension should do as professional, what they could do to help their effectiveness in certain circumstances and what they should avoid, these unit is basically devoted to issues on philosophy, objective and principles of extension. For extension practice to be effective and goal-oriented, extension practitioners must always keep these understanding at the back of their minds. Many extension programmes that had not paid due recognition to these essentials have either been limited in effectiveness and/or unsustainable.

2.0 OBJECTIVES

By the end of this unit, you should be able to:

outline the philosophy and objectives of agricultural extension
present different levels of objectives
state all the basic extension principles
outline the application and implication each of the principles presented.

3.0 MAIN CONTENT

3.1 The Philosophy of Extension

Philosophy is a body of principles governing human operations. A philosophy of extension is essentially, an understanding of the ideas

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which individual extension workers hold about rural people and rural environment, shaped by professional upbringing and extension agency of the agent. The underlying philosophy of an extension worker hinges upon the general understanding possessed, which influences the attitude towards rural people.

This lecture provides you with some basic elements of extension philosophy as follows (for more details on philosophy of extension, see Obibuaku, 1983):

> The concept of extension is presented as an educational activity that is should lead to change in behaviour. Basically, changes always aimed at, change in knowledge, skills and attitude.
>
> Extension programmes should hinge on the philosophy that rural people are intelligent, capable and desirous of making use of information that will make them more effective. However, it is essential that they have the perception that the information would favourably be directed towards meeting their needs and interest. The perception on value orientation of the rural people, characterizing them as traditional, risk-aversive, fatalistic, submissive to nature etc. is superficial and borne out of no sufficient understanding of 'wisdom' in these rural folks doing what they do. This misconception had been a setback to effective extension work. Currently, extension work operates with a philosophy, such that much as the rural people have a lot to learn modern science and technology, extension personnel also have much to benefit from indigenous knowledge.
>
> Extension philosophy is based on the premise that if farm people fully understand their relationship to the natural resources and other factors they deal with, it is possible for them to attain personal satisfaction in their way of live (Obibuaku, 1983). This makes the concepts of felt need and unfelt need quite important [you will learn above this later.
>
> A basic framework on which the philosophy of extension is based is the importance of humanity that is people are important and must be treated thus. It goes on to uphold that sanctity of humans should be respected and that development of human mind through education takes precedence over physical and economic achievements are worthless unless the people's values are developed.

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3.2 Objectives of Agricultural Extension

It is highly essential that extension programes should have clearly defined objectives. An objective may be defined as an end towards which efforts are directed or condition to be attained. Extension objective is the statements of purposes for which an extension service is established, change in clientele's behaviour being the ultimate end (Obibuaku, 1983).

Level of Objectives

Objectives could be set at different levels, depending on the nature of the programme being mounted and the underlying philosophy of the change agency. Frequently identified are four levels of objectives as follows:

(a) overall societal objectives,
(b) programme objectives,
(c) extension workers' objectives and
(d) people's objectives.

A brief discussion of these levels ensues for your benefit.

(a) Societal Objectives

The overall objective of every society is for everyone to attain "good life" within the provision of cultural values and social norms of the people. This generalized objective is often indicated through attainment of growth in the economy, high standard of living, level of development and egalitarian society. The societal objectives are determined at the national level and are reflection of national development plans. Systematic and effective programming strives at ensuring that objectives at lower levels are directed toward achieving the over-all societal objectives.

(b) Programme Objectives

At this level, we have more specific social objectives which are stated in progrmme documents of development agencies including agricultural extension offices. Objective at this level may be group/community targeted. It is illustrated by extension agency's objectives stated as 'to assist farm people in making wise use of the natural resources at their disposal' and 'to make farming more productive through the use of improved farm practices'.

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(c) Extension Workers' Objectives

These objectives reflect specific changes the extension agent intends to accomplish at a specified time frame. They are useful in guiding the activities and form the basis upon which the performances of extension workers are evaluated.

(d) People's Objectives

Objectives at this level ideally represent what the people desire to accomplish. The extension agency has the responsibility of harmonizing the extension worker's objective with people's objectives if programme will be effective and sustainable. This, however, is a technical issue that takes professional competence on the part of the extension personnel to handle as unfelt need of the farmer may have to be uncovered before an agreement is struck on what ought to be done by the agent and the people. Worse still is the imposition of the wish of the government on the people. This is a common pitfall in public extension programmes in developing nations. When extension work is not top-down and it is bottom-up, it is not difficult to reach a compromise. According to Kelsey and Hearne (1963), 'objectives of the agent and those of the clientele need not be similar but the need to have a common base'.

Objective of all extension work is to change people's outlook towards their difficulties and assist them in solving the problems because this is the only way for permanent improvement to be achieved (Savile, 1968). Extension should never impose their will or government policy on people; but rather convince them why a change is desirous and assist them to get it through. The agent should be a friend, counselor, facilitator of stakeholders' forum wherein they could deliberate on:

better living conditions;
how to obtain clear insight into their problem; and
decide on how to overcome them.

According to Albrecht *et al* (1989), because changes in the environment and living conditions are accelerating, knowledge and information which individuals need for their livelihood are expanding. More and more people need reliable extension advice to solve their problems.

You should note that the extension worker should not do all the work alone but rather work with local leaders to make his/her influence widespread. It should be noted that women and youth were not given due attention in mainstream extension in early days of extension work in many developing nations. As such, special programmes such as Women in Agriculture [WIA] and Children in Agriculture Programme [CIAP]

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are currently promoted. In USA, youth development programmes such as Future Farmers and 4-H Clubs have played significant role in entrenching the young into their future roles as responsible citizens. In Nigeria, before the exploiting of oil at economic scale, Young Farmers Clubs thrived, especially in rural communities as a way of harnessing the energies of the young ones towards productive ends and preparing them for useful future roles.

Extension objectives are normally stated at broad and specific levels. When objectives are stated in broad terms, they should be broken to specific measurable terms that will serve as indicators of the broad objective being accomplished. Other types of objective classification include:

individual or family/group objectives and
long term/short term objectives.

Extension objectives must be educational, i.e. they must bring about change in behaviour. You should remember that changes always aimed at include change in knowledge, skills and attitude.

3.3 Principles of Agricultural Extension

Although extension is not an exact science, extension workers should adhere to certain procedures that experience and empirical studies have shown to likely yield result. These are principles underlying effective extension work and they serve as pointer to whether a development effort is an extension programme or not. Though people and conditions vary widely, and of course there are many extension approaches, some principles have been established that are applicable to different extension conditions. Vital ones among these principles are listed as follows:

1.Extension programmes must be directed towards satisfying people's needs and interest; that is, they must be targeted toward problem solving rather than achieving any macro-economic production goal (see Albercht *et al* 1989 p. 41-45). Programmes that deviate from people's needs rarely enjoy their participation, cooperation and eventual success.

2. Extension activities should start from the level of the clientele's understanding. They should be based on conditions that exist rather than on a preconceived package from research stations. An American adage of placing people on a cider income on a champagne lifestyle illustrates this. This may destroy people's ego and motivation to strive towards achieving higher goal.

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3. Extension work must be carried out gradually which means the extension agent must be satisfied with steady progress and avoid attempting to do "too much too fast".

4. People must take part in every stage of extension work, because it is a democratic process, aimed at helping people to help themselves; it must neither be forced on people nor discriminate. This ensures adequate participation and sustainability.

5. Extension workers should work with local leaders to help multiply their efforts and take advantage of the local leaders as legitimizers of technologies being extended.

6. Each innovation must be tested locally and found technically sound, financially profitable and socially desirable.

7. Continuous evaluation of progress and revision of related procedures contribute to the success of an extension programme and also provide the basis for judgment in adapting method.

8. Extension personnel require basic and in-service training both in subject matter areas and extension methods. Extension agents may need to be supported by relevant subject matter specialists, supervisors and administrators especially in unified extension system.

9. Extension workers should make use of social groups/organizations and cooperate with agro-support-service agencies that are part of the agricultural knowledge and information system.

10. Effective extension programmes should use a wide variety of methods since experience has shown that the more varied the methods of presenting a practice/topic, the more learners' senses are exerted and the more quickly they learn.

The critical issue on principles of extension centers on how change agents will apply them when implementing extension programmes. It will be exciting to find the congruence between the principles, their applications and the level of success attained on selected extension programmes. It will be professional for an extensionist to review any development intervention report from the view points of the extent to which extension principles have been applied along with the resultant effects.

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4.0 CONCLUSION

From on-going it could be concluded that several programmes could be initiated in rural areas that are purported to be targeted towards development. If such interventions failed to operate within the philosophy, objectives and principles stated above, they might not qualify to be extension programmes. There are indications towards the fact that effectiveness and sustainability of development efforts are consequent upon the observance of the principles that could facilitate successful implementation of extension work. While new tools are being fashioned regularly the philosophy and principles of extension have been found to be enduring. Development agencies should therefore take due cognizance for meaningful, resourceful and sustainable intervention.

5.0 SUMMARY

The philosophy of extension hinges upon the premise that it is an educational activity and that rural folks are quite intelligent and could make wise use of information that has taken consideration of their socio-cultural and economic situations. It is also premised on the importance of humanity such that higher premium should be placed on human development than physical development.

The objective of all extension work is to change people's outlook towards their difficulties and assist them in solving their problems because it is the only permanent improvement that could be achieved.

Agricultural extension principles could summarily be encapsulated as such extension programmes directed towards meeting people's interest and needs. This should be done with adequate involvement of the people at every stage of the extension process. It should ensure that people's participation is voluntary, non-discriminatory, with wide variety of methods to make learning more effective.

6.0 TUTOR-MARKED ASSIGNMENT

1. Why is it that not all development interventions are extension programmes.
2. List five principles of agricultural extension, pointing out their implications and applications for effective extension work.

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MODULE 2

Unit 1 Functions and Scope of Agricultural Extension
Unit 2 The Extension Process
Unit 3 Alternative Extension Models
Unit 4 Participatory Extension Approaches

UNIT 1 FUNCTIONS AND SCOPE OF AGRICULTURAL EXTENSION

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1.0 Introduction
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3.1 Functions of Agricultural Extension
3.2 Roles of Agricultural Extension Agents
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1.0 INTRODUCTION

In this unit, you begin to develop understanding of what extension does and how to ensure that extension work is effective.

2.0 OBJECTIVES

By the end of this unit, you should be able to:

discuss the functions of agricultural extension
explain the basic roles of an extension agent
distinguish between the 'professional' and 'vacuum filler' role of an extension agent.

3.0 MAIN CONTENT

3.1 Functions of Agricultural Extension

Fundamentally, there are two professional functions of extension, which can be inferred from several of the definitions given earlier. These tasks are:

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Communication Function: extension has the responsibility of not only furnishing farmers and other rural folks with relevant technical information useful for livelihood improvement; it processes packages such information and professional communicates it to the clientele. Effectiveness of a message is to large extent influence by the delivery. The specialized technique of delivery distinguishes the extension worker from other people the farmer is receiving information from. It is one thing to have a message [subject matter], and other thing to know how to effectively deliver it. While the argument that extension in not the only source of reaching the farmer [considering the Agricultural Knowledge and Information System] is valid, extension training is required to achieve most effective communication.

Educational Function: beyond mere awareness, extension has the responsibility of assisting the clientele to use/apply the technical information on improved practices or innovations when the need arises. Educational objective that indicates if learning has taken place brings change in knowledge, skill and attitude of learners. Extension ensures that the clientele perfect the art of effectively using the practice anytime in the future when the need arises.

3.2 Role of Agricultural Extension Agent

While it is straightforward to present the function of extension as a discipline, it is not that easy to define the role of the extension agents. For extension agent to be strictly professional depends on several factors such as the level of agricultural development of the nation, which might determine whether or not the agent would have to necessarily take up certain additional tasks, [if extension effort will yield desired result]. Also for the reason of underdevelopment, there are other counter-productive tasked imposed by government in public extension practice.

1. The extension agent, in performing communication and educational functions will be expected to inform, advise and share knowledge and experience with the clientele.

Note that extension personnel are no longer seen as having superior knowledge to ‘teach’ farmers, as if the latter knew nothing. Such extension programmes based on this model has been described as ‘paternalistic’; in other words, the communication process have a parent/ child or teacher/student relationship is outdated. It is fast giving way to more participatory model, wherein the extension personnel and the farmer are seen as partners on the same platform.

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The knowledge and opinions of farmers are considered to be just as important as that of researchers or government officials (www.wikipedia, 2007). Also while the agent might possess knowledge of improved practices to share with the farmer, the farmer also has a large stock of indigenous knowledge that the agent must learn from to make success of his extension effort.

2. Earlier text-books on agricultural extension described the extension agent link between research and the farmers. This was based upon a linear model or the Transfer of technology model of agricultural innovation [TOT], which is unrealistic in real life situation. According to Mortiss (1991), the TOT model views the role of extension as the link between research and the farmer and as merely the purveyor of second hand information generated by research as illustrated in Figure 1. A more realistic information system model has been developed. It recognizes various agencies are contributing information to a pool of knowledge from which all are drawing materials at the same time as illustrated in Figure 2.

Figure 1: The TOT Model.

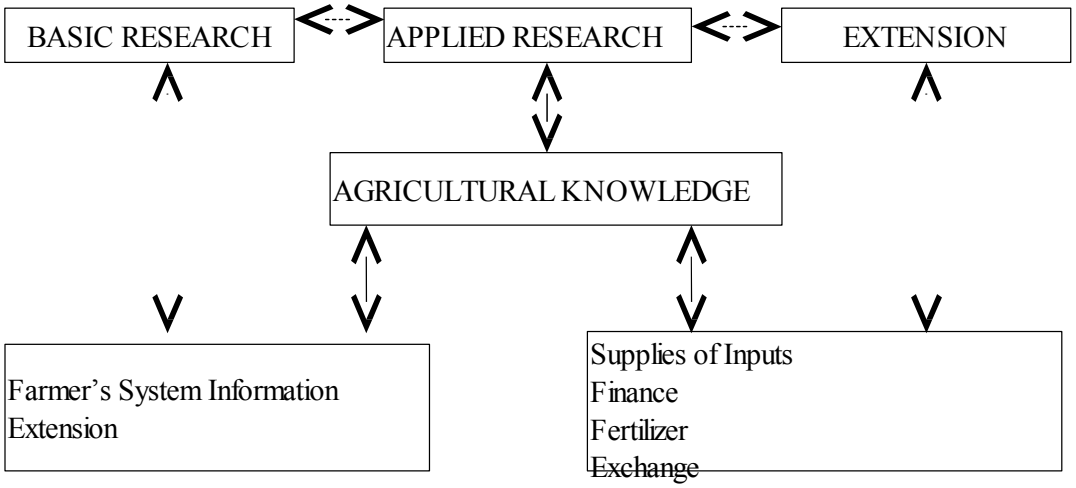

Figure 2: Information System Model

Source: Figs. 1, 2: Mortiss,P.O.(1991) The" Bottom Up" Approach to Extension Programme Development. Workshop Proceedings. CTA

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This forms the basis for the Agricultural Knowledge and Information System [AKIS] which consist of players in the agricultural sector, who are expected to be in constant interaction for effective agricultural development. The key players include all providers of agri-support services [input-supplier, credit provider, produce marketer etc.] apart from research, extension, farmer and the NGO. In view of this, extension can be said to assume a new role to manage communication in processes that are somehow aimed to bring about new patterns of co-ordination (Leeuwis, 2004). It is the role of extension agency to establish harmonious internal relationship within players in the AKIS, other institutions, services and organisations contributing to progress of the rural community.

3. Extension agent serves as vehicle for rural/agricultural policy reach the farmers. Additional responsibility has been recognized for extension in the spirit of participatory development wherein policy making is shifting from being supply-driven [dished out by policy makers without recourse to beneficiaries] to being demand-driven. Under this dispensation, the agent needs to intimate farmers with policies that are relevant to them and assist them to participate in the policy process. Through policy advocacy, the extension agent works with farmers'/rural associations to present their position to the public and to relevant government agency and if necessary pressurize the policy makers to respond to their demand. NGOs involved in rural development and poverty alleviation are in the frontline of this type of extension programme.

4. Extension agent helps to develop leadership and organizational skills, so they can better organize, operate and/or participate in cooperatives, credit societies and other support organizations as well as participate more fully in the development of their local communities.

5. Rural vacuum-filler role of extension agent: Apart from the professional role of the extension agent, he might have to perform some other functions based on needs according to the "Rural vacuum Theory". According to Mosher (1978), while the communication and education definition of extension was widely accepted, they recognize that what some farmers most needed was not to make better use of resources they already had but to get access to one or more specific new resources. The various links to the national economy that each farmer must have if he is to be successful modern farmer have been called agri-support services: they are activities carried on by someone/agency other than farmers for the purpose of enabling farmers to be effective.

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The providers of these services are key players in the AKIS. The agri-support services that must be performed at various rural centers across a country if it is to have agricultural development are (Mosher, 1978):

retail outlets for farm supplies and inputs – fertilizers, seeds, pesticides, implements, etc;
markets for farm products – places where farmers can sell their produce;
production credits – accessible and on appropriate terms;
local verification trials – on-farm trials and local adaptation of technologies from research stations;
extension education – engaged in communication and educational functions
farm-to-market roads/information and communication technologies.

In developed economies, where there are agencies to provide the services above the tasks of extension workers can strictly be limited to facilitating farmers to know and adopt improved practices relevant to their needs. However, when the appropriate person/agency to carry out any of the essential services out, the rural vacuum theory presents the role of agricultural extension agent as 'to help do, in any particular rural area, whatever needs to be done that is not already being done by someone else but could be done locally to make greater agricultural productivity possible (Mosher, 1978).'

5. The government "Local Errand Boy" role of extension agent
In public extension, the presence and the familiarity of extension with the rural setting poses a temptation to government to task extension agents with any responsibility of interest to it regardless of the relevance of such activity to the goal of agricultural development. At the early stage of extension programming agents have wrongly been used to perform functions for various government agencies. Such may involve livestock census, tax collection, distribution of vaccines etc. This practice may appear cheap but it is counterproductive on two grounds: first, it takes time and distracts the extension worker from the professional and primary assignment. Second, may tarnish the relationship between the agent and the farmers. This practice could be counted as an abuse of extension work and thus should be discouraged.

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SELF ASSESSMENT EXERCISE

You should note that extension is only one of the AKIS/agri-support services essential to achieve agricultural development.

(a) Assess the presence of these support services in a given village community in your vicinity. State how extension agency is filling or not filling the vacuum.
(b) Critically assess a statement that extension agents are jack of all trades masters of none.

4.0 CONCLUSION

Agricultural extension is an essential development tool that places information sharing as an additional 'factor of production'. With other agri-support services in place, transformation of the rural sector is facilitated. Extension should take up additional functions of other agri-support services until appropriate agencies are present at the local level or the rural folks associations develop sufficient capacity to fill such vacuums.

5.0 SUMMARY

The professional functions of agricultural extension agency in communication of technical information and educating the clientele on its application. Adoption of technologies is influenced largely by the delivery skill and ability to appropriately educate people on their usage. However, the work of the extension agent may not be limited to communication and education depending on the level of agricultural development in the region or country. Some of the extra tasks are essential if extension work would be accomplished while others may be counterproductive and therefore should be avoided.

In a developing economy, agricultural extension may have to take up roles such as:

a) serving as link to farmers and research agencies;
b) linking farmers with relevant government policies;
c) developing leadership and organizational skills in farmers and
d) working as rural vacuum filler. The use of extension agent as 'government errand boys' was a common practice in early days of extension in developing countries such as Nigeria. Experience has shown such move to be a bottleneck to extension work effectiveness and therefore it should be discouraged.

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6.0 TUTOR-MARKED ASSIGNMENT

1. Professionalism in agricultural extension is desirable and should be maintained at all times for extension to be effective. Discuss.
2. What are agri-support services? What is the place of extension among these services?

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UNIT 2 THE EXTENSION PROCESS

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1.0 INTRODUCTION

Extension work is systematic because to be successful, it has to go through planned programme. It is not done haphazardly and it is only when extension work is coordinated and systematic that the principles learnt in the last unit become imperative. The fact that extension is a science, suggests that there are procedures that can lead to effective extension programming, regardless of who and where the activity is taking place in as much as expected guidelines and procedures are maintained.

2.0 OBJECTIVES

By the end of this unit, you should be able to:

describe the extension process
outline different methods of situation analysis
explain how clientele needs are determined
mention the importance of extension programme.

3.0 MAIN CONTENT

3.1 Extension Process

Extension process is fundamentally geared toward bringing about changes and assisting people to improve their livelihoods. It is a continuous never ending development strategy made up of stages or steps through which extension programmes move. The stages follow one another in orderly sequence until evaluation is completed. Results of evaluation enable the extension worker and the clientele to reconsider the existing objectives to modify them or to undertake a fresh survey in order to find out if people's needs have changed. The extension process has been presented in several extension programme models as designed

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by various authors. There could be about six stages in which an extension project could be considered to be effective: They are as follows:

1). The situation analysis or diagnostic surveys,
2). Identification of need (problem),
3). Extension programme,
4). Plan of work,
5). Calendar of work, and
6). Evaluation.

The stages can be represented in a cyclical diagram as shown in Figure 3. The stages are each described in brief.

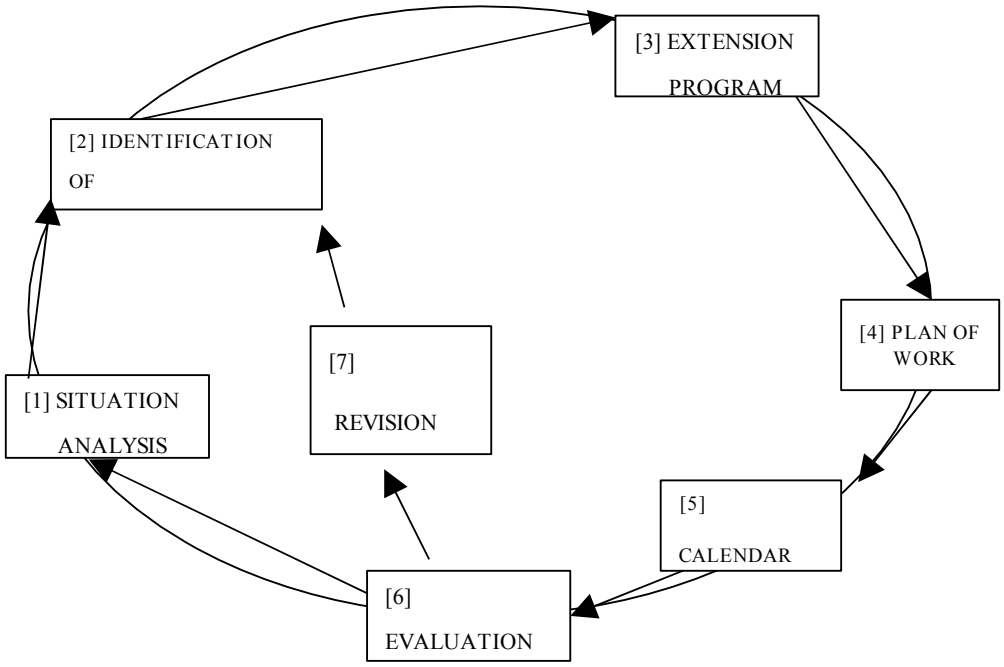

Figure 3: The Extension Process

1) The Situation Analysis or Diagnosis Survey

The purpose of the situation analysis is to ascertain the existing state of affairs, since any positive change should be based on facts and not ideas. It should cover information on natural resources, economic factors and the political system; the socio-cultural setting; agricultural and manpower resources available in the community or within system where the project proposed. The effectiveness of the programme will be determined on the basis of what changes are made with these resources. This stage used to be ceded to 'experts' using survey [scientific methods

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of data collection] to generate quantitatively data, analyzed statistically to discover problem and proffer solutions.

Experience has however shown that no matter how much he tries, an expert cannot accurately and spontaneously detect all to be known for the use of development agencies. This had led to the application of more participatory approaches known as Rapid Rural Appraisal – RRA and lately, Participatory Rural Appraisal (PRA) and Participatory Learning Approach (PLA). The brief in Box 2 will acquaint you more with the different ways of achieving situation analysis.

Box 2: Rapid Rural Appraisal (Rra) and Participatory Rural Appraisal (Pra) (**Source: N.L. Mccaslin & J.P. Tibezinda [1997**])

The scope and nature of data collected by experts for diagnostic survey used to be too limited and usually dependent on the Professional background of the expert, to be of any significant use in taking far reaching decision in project implementation. It was then thought that a multidisciplinary team of experts can within a short time collect more data from varying perspectives. Furthermore, outsiders often have limitations on the array of problems that most rural people contend with. The unpredictable natural environment most farmers live in and the socio-political, economic and personal hardship they face daily are difficult for outsider to grasp (Nasaba et. al. 1995). For these reasons, the 'conventional' approach to collecting information from rural communities which has been through the use of questionnaire in survey, to generate quantitative data statistically had been unsatisfactory. In most instances, data are hurriedly collected and much information useful to effective programme implementation is concealed.

In other to address this problem, efforts have been made in recent years to fashion more multidisciplinary and participatory approaches towards gaining insight into communities targeted for intervention. This led to a team approach to fact finding where a group of professionals-agronomists, livestock experts, sociologists, extensionists etc. take a quick look at the rural community under study. This method is called Rapid Rural Appraisal [RRA]. In RRA, a team of experts of different disciplines analyse a cross-section of the community to discover major problems, resources, needs and solutions upon which to base planned interventions.

Later, RRA has been criticized as being top-down. Now, farmers themselves are often involved in the exercise to serve as local resource persons, which opens opportunities for insiders to assist the experts to see and know what otherwise would have been totally obscured. This is called Participatory Rural Appraisal (van den Ban and Hawkins, 1996).

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PRA has such a great success, that it has a very wide application in development programmes. Also, a lot of Participatory Learning and Action tools have been developed.

2. Identification of Needs

Need can be defined as the gap between what is and what ought to be. It is essential the needs are determined from the viewpoints of beneficiaries rather than from the outsiders' perspectives. Need must be in the realm of 'felt need' before it could be appreciated by the people.

Box 3: Procedures for conducting needs assessment (Source: N.L. McCaslin & J.P. Tibezinda [1997])

This section provides some guidelines to help in conducting a needs assessment. Extension personnel should be encouraged to be creative, efficient, and effective in designing their efforts. Consider the following guidelines:

1. Determine the purpose for conducting the needs assessment. Among these purposes are developing responsive programmes, generating awareness of programmes, satisfying official mandates, aiding in improved programme decisions, and promoting citizen participation and action.

2. Define the goals and objectives for the needs assessment. Show what you want to find out about and from whom. How are target clientele (including farmers of different resource levels, genders, and ethnicities) involved in the setting of goals and objectives?

3. Select the approach you will take in collecting the information. Summers (1987) suggests four considerations:

(a) the reasons for involving the public,
(b) the decisions to be made using the information collected,
(c) the need to generate representative information, and
(d) the cost involved. Decide whether the needed information already exists, if a new data collection effort is needed, or if a combination of approaches is needed.

4. Design the instrumentation and procedures. When you design needs assessment instruments, it is usually best to keep the process simple. Long and complicated instruments discourage responses. Additionally, short instruments are less expensive to produce, distribute, collect, and analyse. Once a draft instrument has been prepared, it should be checked against the original

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purposes, goals, and objectives to make sure that nonessential information has not been included.

5. Prepare an estimated time line and budget for the needs assessment. The amount of resources available is likely to be one of the major determinants of the technique used for needs assessment. This is particularly critical in developing countries where resources are more limited. Although critical, budget constraints should not be used as an excuse for poor needs assessment.

6. Conduct a pilot test of the instrumentation and procedures. Special consideration should be given to collecting information from farmers of different resource levels, genders, and ethnicities. Many mistakes can be identified and eliminated in a pilot test with small groups of target clientele.

7. Collect the information. Limit the collection time in order to help develop a sense of urgency and keep the needs assessment targeted.

8. Analyse the data and information. If there is a large response, try to have access to a computer to analyse the data. There are also software packages to analyse qualitative data.

9. Prepare a report of the findings. Make it as user-friendly as possible. Do not feel confined to create one long document. It is probably better to divide the report into several brief documents for specific audiences. Consider using "white space" and figures to help communicate importance points. Also consider developing audio-visual reports. Video tapes, transparencies, and slides also can be effective in communicating results.

10. Evaluate your efforts. Take time after the needs assessment has been completed to judge its merit and worth. What worked well? What problems were encountered? How could it have been done better? Once the evaluation is complete, share it with others interested in needs assessments. This will provide an opportunity for others to learn from what was done.

11. Use the needs assessment information. In order to have the information used, the following suggestions are offered:

(a) issues that users perceive as important must be addressed;
(b) the information must be communicated to the appropriate potential users;

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(c) groups must be feel empowered to design and improve their programmes; and
(d) the information must be available in a timely manner and in an understandable form.

Source: McCaslin and Tiberzinda. 1996. Assessing target group needs in Swanson B.E. *et. al* (Eds). Improving Agricultural Extension: A reference manual. FAO. Rome.

Needs emanate from problem analysis and assist in proffering solutions and identify priorities. It is essential that basic needs be met before the secondary ones. This is in accordance with Maslow's Hierarchy of Needs.

Type of Needs

Maslow arranged needs according to their essentially – from most basic subsidiary ones accordingly.

1. Physiological needs-food, water, clothing and shelter.
2. Safety needs
3. Social needs-need for love and sense of belonging.
4. Self-esteem-feeling of importance, achievement and recognition.
5. Self-actualization-search for rare knowledge attainable only to few people.

Satisfaction of these needs to follow a pyramidal order from basic to more complex ones. It is important that more basic needs are satisfied before higher ones are pursued.

3) Extension Programme

The extension programme is a document consisting of a combination of planned activities prepared jointly by the people and extension worker with the advice of relevant specialists. It is based upon needs/priorities earlier identified and available resources. It contains a list and brief description of various projects to be operated in the programme, the problems affecting each project and suggestions of realistic ways to solve the problems.

An equally important element of the extension programme is a clear statement of Programme and projects objectives and targets that serve as criteria for evaluation. The extension programme is very important as it fulfills the following functions:

1. Serves as a guide for all stakeholders,

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2. Allows comparison of the new with the old,
3. Ensures community in the event of staff changing,
4. Serves as a training document for local leaders, and
5. Checks wastage of resources.

4) Plan of Work

The plan of work provides a detailed breakdown of how the extension programme will be carried out. It contains various projects; what will be done; who will do what and how the action is to be carried out. Relevant materials are also itemized. It is a useful document ensuring frugal use of resources: time, manpower and materials (Read A.H. Savile (1978).

5) Calendar of Work

The calendar of work essentially is a timetable for the various operations to be carried out and the expected outcome. Participants are encouraged if the expected outcomes of their efforts are known.

6) Evaluation

The progress made with the planned intervention must be examined at regular intervals in order to ensure that the people have made a proper response. It determines whether the planned actions are kept to, the extension methods used has proved successful and if the desired outcome had been achieved. Monitoring ensures that things generally have gone according to plan. If not, change is noted and all necessary adjustments made. It is a management tool that makes information to be regularly channeled to the project management for effective decision-making. Monitoring enhances the efficiency of extension programme. While monitoring is an on-going exercise all through the live of the programme, evaluation is periodic check-up to see how far the programme objectives have been met.

In an evaluation, the following questions are to be answered:

i. What are the immediate goals?
ii. How far have these goals been achieved?
iii. What goals remain to be achieved?
iv. Did the clientele understand and appreciate the purpose of these goals?
v. What changes occurred in the people?
vi. What extension method proved most effective?
vii. What new problems have arisen from the new situation?
viii. What progress has been made in training the local leaders?

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After evaluation a decision is taken on the extent to which the set objectives have been achieved. This determines whether there will be the need for revision of the extension programme or not. If the programme has been successful, new targets are set, otherwise new methods of achieving the same goals are planned and the cycle continues.

4.0 CONCLUSION

For an extension programme to maintain sustainable impact on people systematic procedures must be followed, such activities are result-oriented and carried out such that permanent impression is left on the target group. When development interventions fail to adhere to due process of extension programming the effectiveness of extension is reduced and permanent changes are difficult to attain.

5.0 SUMMARY

The extension process essentially is a tool that ensures extension programmes are successful and sustainable. If the process is duly observed, it ensures that people's needs are known prior to commencement of any development intervention and if they are involved in the process, continuity is assured even if extension personnel change. It is a cyclical unending process which may be made up of six stages:

1) The situation analysis or diagnostic surveys;
2) Identification of need (problem);
3) Extension programme;
4) Plan of work;
5) Calendar of work and
6) Evaluation.

6.0 TUTOR-MARKED ASSIGNMENT

1. Outline the major steps in agricultural process.
2. Why is situation analysis important in this process?
3. Describe at least two methods of conducting situation analysis.
4. Explain the process of needs assessment.

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7.0 REFERENCES/FURTHER READINGS

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UNIT 3 ALTERNATIVE EXTENSION MODELS

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1.0 INTRODUCTION

There are various systems/models of extension work that have emerged over time. Model or approach used depends on the underlying philosophy, objectives and policy of the implementing agency. Several approaches have been used to carry out extension work and have achieved desired goal to varying levels. Experience has shown that approaches giving due recognition to the basic extension principles you have learnt are usually more successful on the long run than those that flouted them. New approaches are emerging as more experience is gained by experts in development interventions.

2.0 OBJECTIVES

By the end of this unit, you should be able to:

identify some ways of categorizing extension systems
describe some extension approaches.

3.0 MAIN CONTENT

3.1 Characterization of the Extension Models

Various paradigms have been designed to characterize and analyze extension approaches/systems in literature (Rivera and Wheeler, 1989; Rivera 1991; Albrecht et. al. 1989).

A convenient paradigm for analysis normally provides a broad division into which various extension systems can be classified; namely production technology/problem solving approach. The general features of this classification are succinctly highlighted thus (for details see Albrecht et. al. 1989):

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(i) The production technology type:

Rural development policy "from above" is directed towards national and macro-economic interests.
Extension has the task of directing people to increase production according to pre-formulated national production targets and sometimes imposing on them prescribed solutions.
Projects are "top-down" and the rarely successful on the long.

(ii) The problem solving type:

Starting point is the definition of problems from viewpoints of the clientele.
Target-group orientation.
Participation by target group in the planning and implementation of extension projects.
Phased project planning and implementation.

Another relevant paradigm designed by Axinn (1987), consists of two perspectives of extension systems: (1) The agricultural extension delivery system and (2) The agricultural acquisition system. The agricultural extension delivery system simply implies that there is a body of information along with the associated inputs such as improves seeds, fertilizers and credits that an extension agency makes available to farmers. This is in contrast to the agricultural extension acquisition system in which the main idea is that groups of farmers, organized in one way or the other, can reach out to actively seek and acquire the information required.

Nagel (1997) provides the alternatives to organizing extension which demand choices on various levels as follows:

Public versus private
Government versus non-government
Top-down (Bureaucratic) versus bottom-up (participatory).
Profit versus cost-recovery
General versus sector
Multipurpose versus single purpose
Technology driven versus need oriented

The various frameworks presented are useful analytical bases for describing and understanding the operations of different alternative extension models. However it is useful to know that choice of extension model is goal-oriented and dependent of the extension agency and the target group. In practice, extension organizations everywhere pursue the

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overall goals of technology transfer and human resource development, though the emphasis will differ (Nagel, 1997). At the same time, within each organization there is a mix of objectives, and within countries there is often a mix of organizational patterns.

You will be taken through the model that were operated or is operating in Nigeria and other African nations. Some recently developed (home-grown) model will also be included. It is however important to note from the onset that a functional approach to extension is assumed and as such no single extension model is favoured or vilified as suitably dependent on the problem to be solved.

3.2 Agricultural Extension Approaches

Worldwide many different approaches have been adopted to execute extension programmes, even while new ones are emerging. Those that are common or considered relevant to Nigeria are discussed.

1. Conventional Agricultural Extension Approach (aka Ministry-based Extension)

Conventional Agricultural Extension Approach (CAEA) came up between 1940s and 1950s when agriculture was relevant in rebuilding world economy from the devastating effect of World War II. The system has British origin and thus was common in many British colonies. CAEA, extension services are administered by Ministry of Agriculture and exhibit the bureaucratic characteristics associated with civil service. The approach is essentially designed to promote national agricultural production through food crops and animal production. Their objectives such as farm income enhancement, improving the general quality of lives of rural people are subsidiary and are rarely stated. The main features are as follows:

Pyramidal organizational structures with several administrative levels from headquarters to the field level.
It has a number of divisions such as livestock, veterinary, fisheries, forestry, agricultural engineering and research, extension and training sections.
Extension personal are generalists working with farmers on a vagary of extension problems.
Extension work is top down with clear chain of command, long and complex lines of communication.
It is usually under pressure of physical production targets to implement predetermined programmes of action.

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Major weaknesses of this approach are listed accordingly:

Effectiveness of services was marred by the bureaucratic characteristics associated with the civil service.
Poor research linkage due to lack of coordination of the extension agency with universities and agricultural research institutes.
Dilution of efforts as a result of engagement in regulatory functions such as data collection and tax collection.
Ineffective supervision and staff frustration.
Lack of focus, vagueness of job description and poor logistics support.
Little or no input from clientele in programme development effort, hence, top-down.

2. Training and Visit Extension

The Training and Visit extension (T&V) in the strict sense of the word is not a separate approach but an alternative way to organize ministry-based extension. The celebrated extension publication of Benor and Harrison critically evaluates the ministry-based extension system of the 1970s (Benor and Harrison, 1977). They found:

An inadequate internal organizational structure
Inefficiency of extension personnel
Inappropriateness or irrelevance of extension content
Dilution of extension impact
Only a few favoured farmers in favoured areas rather than the bulk of the farming community were reached.

The basic features of the T & V, according to Benor and Baxter (1984) are:

Professionalism
Single line of command
Concentration of effort
Time bound work
Field and farmer orientation
Regular and continuous training of staff.
Close two-way linkage between research and extension.

T & V system rather to reach all farmers directly, concentrates on contact farmers expected to pass information on to fellow farmers with similar problems (Nagel, 1997). To ensure regular field contact, facilitate supervision and communication, and set clear and attainable objectives, fixed visits at regular intervals (fortnightly) are prescribed.

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Similarly, regular sessions for extension workers to receive training and discuss administrative matters are held. This setting ensures that costly refresher courses are avoided, knowledge may be enhanced step-by-step, and up-to-date information can be fed into the system (Nagel, 1997).

In Nigeria, the T & V extension was adopted first at pilot level and later as a nationwide system of public extension service delivery since 1970s. Extension ceased to be ministry based and is to date domiciled in parastatals – Agricultural Development Projects across the nation. There have several adaptation of the original concept to suit diverse agro-ecological localities. In Nigeria, the T & V made significant impact on agricultural productivity; however, the tempo could not be sustained at the expiry of funding support from the World Bank, sponsors of the programme.

Generally the weaknesses of Training and Visit Extension System are as follows:

It is too 'top-down' oriented and does not allow enough farmer participation in programme planning.
It is too rigid in terms of the fortnightly schedule, particularly during slack seasons
It is too labour intensive, requiring a large number of extension workers which many developing nation may not be able to afford.

3. Farming Systems Research and Extension (Fsr/E)

The FSR/E philosophy hinges on the premise that while technologies are available to overcome many of the farmers' most pressing constraints, delivery agencies do not take cognizance of labour, financial or institutional constraints that hinder adoption (Carr, 1989). It is based upon the premise that research and extension work in close linkage.

In contrast with earlier agronomic research, FSR shows at least four differences (Norman, 1982):

it is based on a comprehensive view of the farm as a whole,
priorities for research should reflect the whole-farm analysis,
components' research must take into account connections with other sub-systems,
evaluation of research takes into account linkages between sub-systems.

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Norman also delineates four stages in its 'downstream' application:

a descriptive and diagnostic stage, looking at the total context,
design of proposed intervention strategies based on prior diagnosis,
field testing of proposed intervention strategies,
extension based on those measures which perform well under on-farm screening.

Moris (1991) summarized the positive features of FSR thus:

seeking to identify and address farmers' constraints,
using extensive surveys and rapid rural appraisal to pinpoint areas for more intensive scrutiny,
employing all relevant disciplines,
involving farmers to highlight problems and screen technologies,
framing recommendations with regards to the domains where they are applicable.

All the above indicate a linkage between research-extension-farmer and consideration of the farmers' real situation. It is also a departure from the past when research recommendations were perfected on-station, to using farmers' input in formulation of technology packages; but it is still 'top-down' in orientation and not initiated from the farmers level. However, FSR/E impacts have not been significantly encouraging across the continent due to methodological problems, unsustained confidence by funding agencies such as USAID, and a barrage of national institutional problems (Collinson, 1988 and Lightfoot and Baker 1988).

4. Commodity-Focused Extension Approach

Commodity-focused Extension – sometimes called contract farming was adopted in many developing countries by colonial powers. The goal was to facilitate the production of high value commodities for export as raw materials for European factories. It was also used by government, parastatals such as commodity boards or private firms that were production and profit oriented. This was reflected in the fact that focus was on cash crops without any concern for food crops. The proponents of this approach argue that, by infusing modern technology and monetary incentives into traditional farming, a cumulative chain of effect is triggered, thus contributing to overall development (Nagel, 1997).

This approach has been effectively used by i) the Compagnie Francaise poni le Development de Textiles [CFDT] in Francophone countries; ii) the Kenya Tea Development Authority [KTDA] and the defunct

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Nigerian Tobacco Company [NTC] now British American Tobacco Company. iii) Several commodity boards in Nigeria – such as cocoa, cotton and oil-palm marketing boards in the 1960s and 1970s.

The system used to operate in a very authoritative manner, using top-down management style with a single chain of command, which allowed limited farmers involvement in decision making. Operations required farmers by contract to accept and utilized the technology pushed by directives from above (Ogunfiditimi, 2001).

In recent time, this system is being used in out-growers' schemes to produce raw materials for agro-industrial companies. Examples are found in food industries with products such as sorghum, rice and cassava. The approach guarantees steady sources of raw-materials for food processing firms and assured markets for farmers. It provides a channel for the participation of the private sector in extension work and it may grow more prevalent as privatized extension gradually takes over from public [government sponsored] extension work. This is in view of the general reforms common in the economies of developing nations including Nigeria.

5. The University Organized Extension Approach

The University Organized Extension System was first practiced in Britain in the 1840s. Cambridge University adopted it in 1873 followed by London, University in 1876 and Oxford University in 1878. The system incorporates adult education, nutrition home-economics, agricultural extension, mass communication and health services. Most universities world-wide with Agricultural programmes and especially universities of agriculture have adopted this system in one form or another.

The university organized extension as found in United States of America is unique. The programme is carried out under federal and state legislation that sets up a cooperative programme among federal, state

Box 2: RAPID RURAL APPRAISAL (RRA) AND PARTICIPATORY RURAL APPRAISAL (PRA)

The scope and nature of data collected by experts for diagnostic survey used to be too limited and usually dependent on the Professional background of the expert, to be of any significant use in taking far reaching decision in project implementation. It was then thought that a multidisciplinary team of experts can within a short time collect more data from varying perspectives. Furthermore, outsiders often have limitations on the array of problems that most rural people contend with. The unpredictable natural environment most farmers live in and the socio-political, economic and personal hardship they face daily are difficult for outsider to grasp (Nasaba et. al. 1995). For these reasons, the 'conventional' approach to collecting information from rural communities which has been through the use of questionnaire in survey, to generate quantitative data statistically had been unsatisfactorily. In most instances, data are hurriedly collected and much information useful to effective programme implementation is concealed.

In other to address this problem, efforts have been made in recent years to fashion more multidisciplinary and participatory approaches towards gaining insight into communities targeted for intervention. This led to a team approach to fact finding where a group of professionals-agronomists, livestock experts, sociologists, extensionists etc. take a quick look at the rural community under study. This method is called Rapid Rural Appraisal [RRA]. In RRA, a team of experts of different disciplines analyse a cross-section of the community to discover major problems, resources, needs and solutions pon which to base planned interventions.

Later, RRA has been criticized as being top-down. Now, farmers themselves are often involved in the exercise to serve as local resource persons, which opens opportunities for insiders to assist the experts to see and know what otherwise would have been totally obscured. This is called Participatory Rural Appraisal (van den Ban and Hawkins, 1996). PRA haas such a great success, that it has a very wide application in development programmes. Also, a lot of Participatory Learning and Action tools have been developed.

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Early history of extension programming in Nigeria indicates that University Extension System significantly complemented the ministry of agriculture-based Conventional Extension Model. The outreach programmes of Ahmadu Bello University, Zaria [at Samaru], Obafemi Awolowo University, Ile-Ife [at Isoya] and University of Ibadan, [at Badeku] all in the 1970s were effectively integrated to the research and extension functions of the respective universities. With the fund drain that followed that era the laudable projects could not be sustained. While they lasted, village extension outreach afforded university agricultural and extension scientists close interaction with farmers on educational and developmental issues of mutual interest and benefits. Farmers' fields and homes served as social laboratories for faculties and students and farmers are exposed to improved agricultural practices capable of enhancing their productivity. Many universities currently are revisiting their extension outreach schemes as it has been realized more research without adequate development content achieve the most needed agricultural technology advancement in developing economies.

6. The Community Extension Approach

The Community Extension Approach developed in India covers a broad spectrum of operations such that the scope of extension agent's activities is wider and beyond focusing on agriculture. Hence, it is also called Rural Extension. It is noted for being a participatory 'self-help' system. Adoption of useful and practical technologies to farmers and their family members' livelihoods was central to this approach.

The overriding philosophy of this extension approach is that activities should be based on clientele's felt needs; built around the desire of people to be librated from poverty and pain and self-help operated. It aims at i) improving the quality of life at community level, ii) reducing rural poverty and iii) fostering social development by improving the general standard of living in the rural areas through the application available human and natural resources at people's disposal (Ogunfitimi, 2001).

This approach had been applied in the implementation of some broad based rural development programmes in Nigeria including:

The Directorate for Food, Roads and Rural Infrastructure (DFRRI).
The Better Life Programmes.
The Family Support Programmes
National Special Food Security Projects.

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7. Animation Rurale

Animation Rurale was developed by the French Institut de Recherches et d'Application des Méthodes de Developpmént (IRAM). It was widely adopted in Francophone African countries such as Senegal, Morocco, Ivory Coast and Madagascar. The approach essentially was to integrate the rural folks into the mainstream of the national economy after being librated from colonial dependence. Animation Rurale used a large number of voluntary collaborators called animateurs who were selected by the people and regarded as experience and respected farmers. After training of the animateurs, they are expected to operate in their local communities as initiator of progressive action and interpret government policies such they the rural communities could jointly develop appropriate programmes assisted by the state targeted towards development.

Against this background, Animation Rurale aims are as follows:

> To persuade people, through self-effort to improve their livelihood by effectively using their available resources.
> To develop literary and technical empowerment (input supply, extension and marketing) and social welfare that enhanced productivity could be attained.
> To motivate community members to actively participate in community affairs, especially as it affect their livelihood.

In an assessment of this approach, Sulzer and Payr (1990) concluded that Animation Rurale 'did not fail as a philosophy of extension.… [Although]…it did not achieve a large scale breakthrough on a national level.' The Interest of the animateurs could not be sustained and sometimes found the objectives practically difficult to operationalize. Some ideas of this approach are being adopted by NGOs who promote grassroots empowerment through participatory processes.

4.0 CONCLUSION

Each of the extension approaches can be assessed and categorized as production technology/problem solving approach; top-down/bottom-up and delivery/acquisition system. They are varieties of extension approaches some of which can stand alone as relatively complete support systems while others seem to be adjuncts with adequate capacity to complement the overall impact of the stand-alone comprehensive delivery systems (Moris, 1991). The effectiveness of an approach may depend also significantly on the quality of internal management rather than solely on having a good model.

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5.0 SUMMARY

Various extension models have been used by development interventionists throughout the world. Models when used in practice are noted for their suitability and significant shortfalls may usher in totally different model other wise slight modifications are made. Examples of models that have been used to pursue extension works include:

Conventional Agricultural Extension [aka Ministry-based Extension].
Training and Visit Extension – created by Daniel Benor and used widely by the World Bank across several developing countries and noted for bringing professionalism to extension work.
Farming Systems Research and Extension – a linkage centered model focusing on farmers' problems holistically and from system's viewpoint. It is highly sensitive to ecological and cultural domains in making recommendations.
Commodity-focused Extension – also called contract farming. It has been used by government, parastatals and agro-based private firms to source raw materials.
University-organized extension first practiced in Britain and adopted in USA as Cooperative Extension System and now used in many universities across the globe for extension outreach programmes.
Community Extension Approach – developed in India, based on people's felt needs to be liberated from poverty and noted for being a participatory self-help system.
Animation Rurale – a French model, aimed at integrating the rural folks into the mainstream of the national economy. It involves the use of trained animateurs chosen among the people, to be initiators of progressive actions in their local communities.

In all, several factors will influence preference, such as the goal of extension work, available resources, nature of the target systems and the underlying philosophy driving the extension organization. By and large, effectiveness of any model is affected by the quality of internal management.

6.0 TUTOR-MARKED ASSIGNMENT

1. Explain why the Conventional Extension Approach gave way to Training and Visit Extension System. What are the key features and limitations of Training and Visit Extension System?
2. Where was the Cooperative Extension System developed? Outline the uniqueness features of the system.

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UNIT 4 PARTICIPATORY EXTENSION APPROACHES

CONTENTS

1.0 Introduction
2.0 Objectives
3.0 Main Content
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  3.3 Phased Participatory Extension Education System (PPEES)
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5.0 Summary
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7.0 References/Further Readings

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1.0 INTRODUCTION

Aside from the approaches mentioned in Unit 7, there are some other approaches which been designed to overcome some weaknesses inherent in several of the ones described earlier which are top-down models. They are participatory extension approaches. They have been found to be more effective in bringing about far reaching impact upon clientele because they seem to put focus on them as subjects around whom development interventions should revolve. Few approaches which can be classified as participatory will be described succinctly in this unit.

2.0 OBJECTIVES

By the end of this unit, you should be able to:

explain the origin of participatory approach
mention the main distinguishing factors between participatory approaches and 'top-down' models described earlier
describe the key features of some participatory extension approaches.

3.0 MAIN CONTENT

3.1 Origin of Participatory Extension Approaches

Participatory Extension Approach is a ground approach emphasizing the significance participation by the target system as part of the process in finding solutions contrary to other approaches that thought farmers could only bring up problems for experts to solve and probably ascertain

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how satisfactory the recipe was (Ladele, 1998). This approach brings the scientists, extensionists and farmers to the same pedestal, and could be concerned with a broad range of agricultural subjects depending on village problems and needs (Axinn, 1988).

There are various concepts upon which this approach is rooted or associated; including Participatory (or People centered) Technology Development [PTD], Indigenous Knowledge System [IKS], the Farmer-First and Last Model and Farmers' Experiment among others. Since the publications of Farmer First: Farmer Innovation and Agricultural Research in the late 1980s, the participatory approach as championed by proponents such as Robert Chambers have witnessed tremendous prominence in development parlance (Chambers et al, 1989).

The underlying assumptions according to Axinn (1988) are as follows:

1. There is an 'indigenous knowledge system', and while it is different from 'the scientific knowledge system', there is much to gain from interaction of the two.
2. Effective extension cannot be achieved without the active participation of farmers themselves as well as of related services.
3. There is a reinforcing effect in group learning and action.
4. Extension efficiency is gained by focusing on important points based on expressed needs of farmers and by reaching more small farmers through their groups/organizations instead of through individualized approached.
5. When research personnel do not cooperate with farmers and extension staff in setting priorities, there may be lack of feedback to research agenda, and sometimes the generation of inappropriate technology.

Different models based on this approach has been used in Japan, many Asian countries it has not gained much ground as a developmental tool in most of Africa. While there are cases of interventions based on the participatory approach reported, the role of farmers in actually developing technologies has been largely underestimated and underutilized (Haverkort, 1991). It however appears that this approach may be one of the most plausible in bringing a breakthrough in African Green Revolution; not necessarily as a rigid model but a flexible process that could respond to diverse cultures and agro-ecological conditions (Ladele, 1998). The strength of the expectation is currently being demonstrated in a number of models variously developed by experts. Participatory approach to development intervention seems to be the most effective tool currently in use in developing nations. A couple of such models developed in Nigeria will be highlighted hither.

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3.2 The Total Extension System

The Total Extension System was designed by Ogunfiditimi in 1989 and was first presented at the 12th World Conference of Farming System and Research (FSR/E) held at the Michigan State University in the United States of America. Basic features of this approach are as follows:

a) An alternative indigenous bottom-up system.
b) Devoid of wanton bureaucratic protocols, wastes, personnel redundancy and duplications.
c) Focus goes beyond agriculture to include other relevant sectors of the economy since the services needed for effective extension work transcend a sector.
d) Effective involvement of the relevant target all through the extension process.

The approach operated in five stages as follows:

Stage I: Identification of programme of action/policy Ideas/problem/package for growth and development and the relevant target.
Stage II: Assemblage of consortium of experts and peoples' representative who will be involved in planning, design and execution of the programme identified in stage I. a major output at this stage is the Problem Solution Package.
Stage III: Setting up of the Local Action Council that will meet regularly to determine priority, examine problem solution package and develop/improve relevant indigenous coping mechanisms.
Stage IV: The consortium of experts receive regular feedbacks, make contract with relevant policy makers, sponsors and delegate operational activities to relevant extension expert in concert with appropriate clientele.
Stage V: Project activities, continuous personnel training monitoring and evaluation are the key events of this stage.

The approach operates in a way wherein the interventionists and experts work collaboratively with the local council through out the facets of the project. The system allows the clientele to realize their creative energies and the opportunity to exercise the initiative and self-reliance in pursing their developmental goals and objectives (Ogunfiditimi, 2002).

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3.3 Phased Participatory Extension Education System (PPEES)

On the basis of recent experiences and the relatively high level of success of participatory methodologies and lessons learnt from many previous interventions, the phased participatory extension education system has been designed (Ladele, 2001).

The basic underlying assumptions within which PPEES can function are as follows:

i) Public sector remains the main source of fund for extension in the developing countries since most benefits of extension are yet to be appropriated by the private sector in Africa.
ii) The technology transfer system has shifted from the linear to encompassing the total Agricultural Knowledge In formation System (AKIS) linkage; in reality technology diffuses in a wider scope than the traditional research-extension-farmer linkage. The indigenous knowledge component has now been recognized as significant.
iii) Stability of structures ensuring that, projects are not prematurely terminated; and giving room for flexibility is highly essential.
iv) Each defined operational domain undergoes adequate participatory rural appraisal to determine problems, priorities, projects and available resource.
v) The T and V system has successfully improved the competence of extensionists; and fashioned a formidable research-extension-farmer-input linkage system.

The core elements of the PPEES consist of functional phasing of extension activities, participation and inclusive education. Other essential elements include appropriate political will, local monitoring and valuation outfit; variety of extension methods and flexibility. The elements are:

1. Functional phasing of education. The T and V extension programmers have achieved both the spatial and temporal phasing. The third dimension of phasing required is functional phasing. Beneficiaries must gradually but progressively be transformed from the delivery extension system to acquisition extension system. The functional phasing of extension instrument will on the long run relieve government/donors the burden of perpetually funding extension. The process commences with basic functional literacy and empowerment, graduating to improving management and decision-making capacity. The extension agency gradually disengages until the community's

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action committees assume greater responsibilities. This is a copious evidence of empowerment and capacity building.

2. Community participation: This relates to the involvement of the local people in deciding on extension programs to handle depending on local aspiration and felt needs. Appropriate PRAs enable the communities to decide their priorities and own their decision-making skills. The change agent needs to assume a facilitating role thus allowing the community members to feature prominently in different aspects of project development setting up appropriate linkages both within and without implementation and evaluation.

3. Inclusive Education: This consists of three components of education that are expected to function on complementary basis.

They include:

i) Literacy education.
ii) Awareness creation and extension education. Illiteracy is largely regarded as a major limitation to technology adoption and transformation from substance to market orientation. Awareness creation involves the use of appreciate information and communication technology (ICTs) to bring appropriate success stories of local initiative and actions all over the world to psychological challenges rural folks into actions otherwise thought to be beyond them. Extension education encompasses projects towards improving people's livelihood through adequate income generation. Appropriate project may not necessarily be agricultural and therefore left to the rural folks to decide.

Other key elements essential for the proper functioning of PPEES are as follows:

Political will an appropriate policy environment to support rural development initiated and sustained by the people as a vital pre-condition for national development. Roles must be fashioned and integrated at various tiers of government to ensure that policies are sensitive and responsive to the desire ad interest of the local people.
Local monitoring and evaluation outfit will ensure that program agenda are kept.
Extensive use of appropriate extension methods' combination supported by relevant ICTs.
Flexibility is a final key feature that will make the system adaptable to different socio-cultural or geo-ecological environment.

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After embarking on various interventions over a project life [say five years], it is expected that a particular community that have enjoyed heavy extension presence could be comfortably relieved while the facilitating and intervening agencies can move to other locations. However, the 'graduating community' would be expected to know how and where to obtain required information, technologies and other support services without waiting to be spoon-fed.

PPEES Process in Practice

The effort here is at putting together how the phased participatory extension education system works in practice. Figure 1 presents the schematic form of the framework. The steps basically are five (each also involving several interactive processes). They are:

STEP 1

Situation Analysis

Entry point for the change agency to the community.
Series of participatory rural appraisal methodologies when development agencies along with all relevant stakeholders together gain insight into the community and learn from, the local folks.
Knowledge of local resource (tapped and untapped; natural, human cultural/institutional) available and the environment.

Note: It is important to carefully manage what signal and notions transpiring at this point. The development agency should be careful not to give the impression that 'we have come to help you to develop with so much capital grant; we already have to elixir to your problems. Relax and just do what we demand of you'.

STEP 2

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Problems, Interest, Priorities, and Alternative Actions towards Solution

As a result of the analyses of the local situation, further consultations result in action plans towards problem solving.
Sensitization and motivation of the community members towards self-help and community driven development. Success stories through video shows are relevant here. Video recording of key meetings and brainstorming session should be recorded to pave way for future review.

Communities begin to compile notes on priorities and alternative actions and solutions.
Directions toward problem solving are highlighted and documented at the point.
Note: Immediate action desired by the rural folks may not be in the realm of agriculture!

A decision for adult literacy programme may need to be taken at this point.

STEP 3

Negotiation among Key Players / Elements for Successful Implementation of Programmes

Compilation of extension programmes in order of priority. Project may be on – Conservation, health and sanitation, family planning, basic infrastructures, cottage industry or agriculture.
Which project will be a precursor to others?
Agenda for source of fund (both internal and external).
Identifying relevant social organisations and institutions. E.g. Cooperatives.
Agreement among relevant AKIS players toward action
Literacy programme continues

STEP 4

Programme Planning and Implementation

Various local action committees in place.
Elaborate planning on projects for immediate action.
Identification of prioritized projects; their objectives statement and expected outcome.
Decision on appropriate extension methods.
Plan / Calendar of work (who will do what, how and when?).
Action learning principles in practice.

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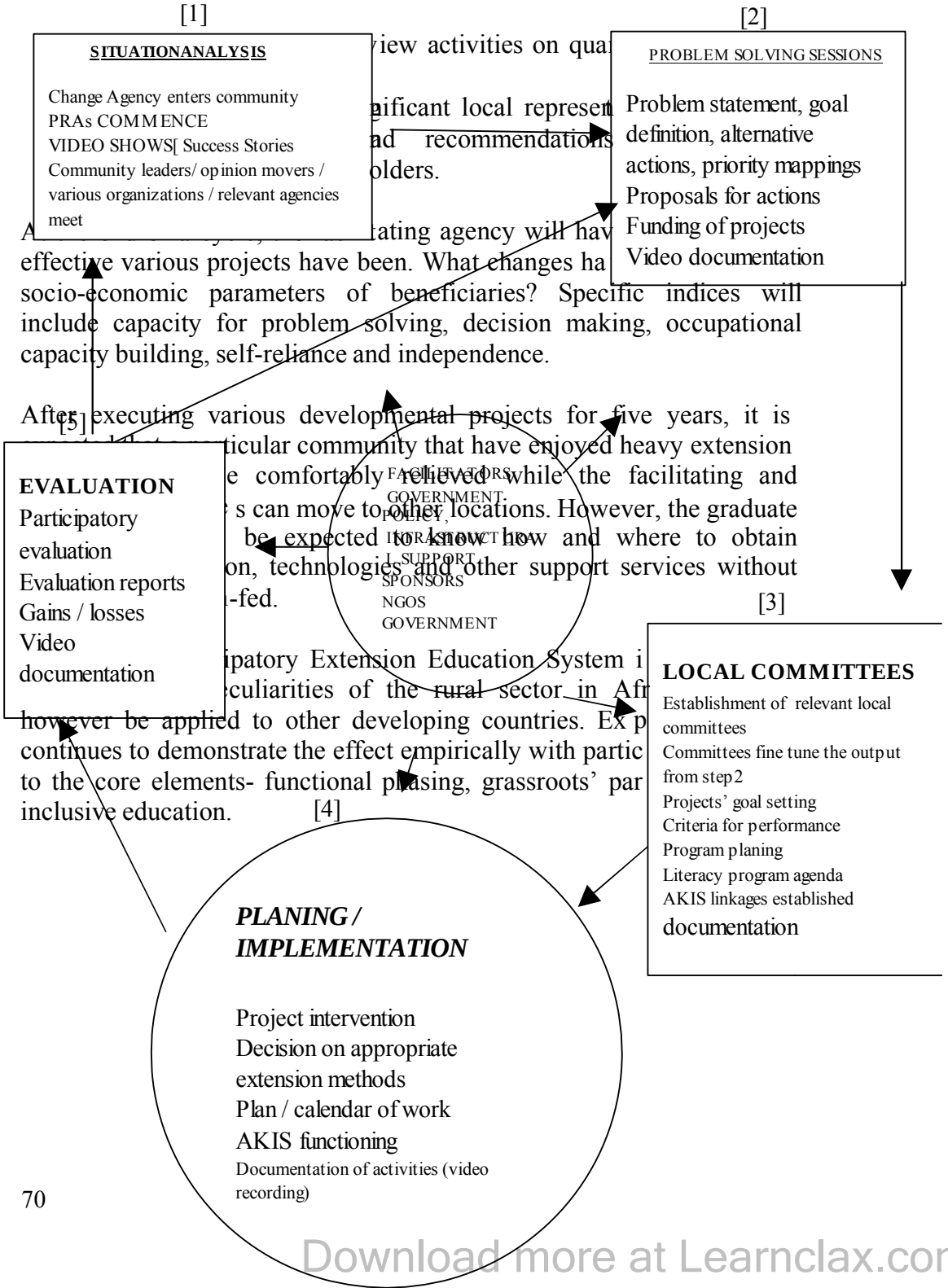
Relevant local government agencies and other support services in action.
Documentation of activities (video recording).
Monitoring continues.

STEP 5

Evaluation



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[3]

Figure 4: Steps In Phased Participatory Extension Education System

4.0 CONCLUSION

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There seem to be wide acceptance of participatory approaches in development interventions perhaps as a result of their relative effectiveness and are participatory learning and action in orientation. They also find application in diverse development projects such as sexual and reproductive health, social work, community water management; not to mention varying disciplines in agriculture.

Knowledge of participatory methodologies and approaches are building from current development actions across the globe.

5.0 SUMMARY

Participatory extension approach – a ground approach emphasizing the significance of participation by target system as part of the process of finding sustainable solutions to problems. The approach was illustrated in the lesson above with Total Extension System and Phased Participatory Extension Education System. They may appear to slow down the pace of project, on the long run, the opportunity offered when clientele are well involved in planning guarantees making project more sustainable.

6.0 TUTOR-MARKED ASSIGNMENT

1. Make a case for the Participatory Extension Approach. Illustrate this ground approach with any typical model you are familiar with.
2. Compare a typical participatory extension approach with Training and Visit Extension System.

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MODULE 3

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Unit 1 Extension Methods
Unit 2 Use of Extension Aids – (Audio-Visual Aids)
Unit 3 Planning Extension Campaigns
Unit 4 Emerging Trends in Extension Education Worldwide

UNIT 1 EXTENSION METHODS

CONTENTS

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1.0 INTRODUCTION

The goal of all extension work is to change the outlook of the clientele towards their problems. Changes normally expected are in their knowledge, skills and attitudes. There are certain prescribed ways of achieving these, such that if well applied, are bound to be desired results without much stress. Usually for learning to be most effective and for adoption to be rapid, combination of methods is normally recommended. The onus is on the extension agent, within the limit of available resources to determine what combination or set of method will assist in the goal achievement.

2.0 OBJECTIVES

By the end of this unit, you should be able to:

describe different extension methods along with their merits and demerits
relate the extension methods to the adoption process
outline factors determining the choice of extension methods
mention some emerging methods why they are preferred.

3.0 MAIN CONTENT

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3.1 Extension Methods

Extension methods consist of the techniques of communication between extension workers and the clientele with the aim of motivating and facilitating them to make decisions towards problem solving. They are sometimes referred to as extension teaching methods.

There are several of such methods but an extension agent's choice depends on certain factors such as the specific goals, the number of people targeted and the capacity of the extension service (van den Ban and Hawkins, 1996; Albrecht *et al,* 1989). On the side of clientele, the method preferred tends to correlate with some characteristics of the target system. Rahat (1970) found that weaker groups tend to prefer individual instruction. Similarly, it was found that the higher the level of farming success, the lower the age-group and the closer the subjects to position of leadership, the more positive was their inclination to take part in other extension methods.

Traditionally, extension methods are classified into three: individual, group and mass (media) methods. Recent advances have added other techniques that may readily not fit into these categories. This is as a result of new techniques due to improved technologies such as information and communication technologies (ICTs), Rural Rapid Appraisal (RRA) and Participatory Rural Appraisal (PRA). They will be discussed briefly after the main classification.

3.1.1 Individual Methods

The individual methods consist of visits of extension workers to clientele homes and farms on the one hand and clientele's visits to the agent's office or home on the other hand. At such a contact, face-to-face interaction ensues. While it allows the most intensive form of communication between the two parties, used solely, it is usually not a very effective means of promoting the cause of vast number of small farmers (Albrecht et al 1989). It is therefore more effective if complemented with the other two methods. While it is implicitly the most expensive method, it affords the following advantages:

Affords an opportunity for developing friendly and confidential relationship,
Helps extension agent gaining sight into the lives and perspectives of the target group,
Enables extension agent to discover local leaders, and
Serves as launch pad for demonstration.

Other demerits of individual extension are as follows:

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1) It requires a relatively large amount of the agent's time.
2) Time of visit may not be convenient for the clientele.
3) The extension agent may be tempted to concentrate only on the progressive farmers and neglect those who needed the attention most.

Examples of individual extension include:

(a) Farm and Home Visits - agent visits the farm/home of clientele to instruct, deliberate, demonstrate and learn on the problem environment. In carrying out a home/farm visit they are usually three basic phases which are as follows:

i. Pre-visit phase: Agent should pre-determine the objective of the visit and inform the clientele before the time of visit. All required materials needed to make the visit productive must be secure and the agent should notify the direct supervisor.

ii. Actual visit phase: Agent should strictly adhere to the date and time of visit. After few pleasantries according to the clientele's culture and custom, the agent should go into the day's business. While clientele should ensure that the visit is as brief as possible, opportunities should be given to the host to be expressive while the agent only facilitate. The agent should avoid dominating discussion.

iii. Post-visit: Agent should document the visit

(b) Office calls/enquiries - farmer may visit the extension agent's office/home or other agreed contact points for the purpose of enquiry or learning. Such visits are usually unscheduled and motivated by need for the farmer to seek the agent on problem calling for urgent attention. The agent should make the visiting clientele feel at home try hard to ensure that the effort is not in vain.

(c) Telephone Calls - communication between the two parties through telephone. This is becoming more plausible with the prevalence of mobile telephone even in many rural locations.

(d) Correspondence - personal letter on subject of interest. The farmer could write letters or memoranda to the extension agent or the extension agency on issue of primary concern. Use of this technique may be limited where farmers are largely illiterate. The agent should give prompt attention to by early reply.

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Others include (see Kang and Song, 1984):

(e) Informal contacts - unstructured or planned meetings with clientele in informal settings.

(f) The Model Farmer - identification of a farmer whose farming methods and attitudes are so superior that his or her operation can serve as a model for others, and

(g) The Field Flag - message left by agent in the pocket of a red vinyl flag propped by a pole when the farmer is not sighted.

3.1.2 Group Methods

Group methods are characterized by reaching fewer people who have some degree of opportunity for interaction and feedback. Group extension is the most important method for advising and promoting the interest of a large number of small farmers. To be effective, however, it also has to be supplemented by individual and mass extension. This is because learning is an individual process. Special merits of group extension over individual methods include the following:

A large number can be reached,
It saves time and staff, and
It permits more participation by the target group.

The demerits include:

Wide variation in interest and educational background of the target group may create difficult learning situation.
Progressive farmers or men may dominate the scene.
Difficulty in arriving at the convenient time for contact.

Group extension methods include:

a. **Demonstration**: It is a way of showing people how to do something and why something ought to be done. In demonstration, everyone should be given opportunity for a hands-on experience as much as possible. Those who want to give the experience a trial on their own should be followed up and the agent should venture to know the hindrances with those who are reluctant.

Two distinct types of demonstration are:

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i. **Method Demonstration** – It shows a group the step-by-step process of doing something. An example is how to assemble and use a knapsack sprayer for spraying on a cowpea plot. Advantages of method demonstration include:

1. It reaches more than one person at a time
2. Seeing, hearing, discussing, participating, asking question for further clarification in group situation facilitate learning and action.
3. When local leaders participate in method demonstration, efforts of the agent are multiplied.

On the other hand, the limitations are:

1. It requires some showmanship but some agents are not good at it.
2. It is not advisable when the demonstration aids are not readily available.
3. It takes so much time (preparation and the actual task), since effective demonstration ensures all participants learn the skill.

ii. Result demonstration teaches why technique should be adopted and the effects. The agent uses it to show the advantages of a practice or series of practices over a current. For instance, planting an improve variety of maize side-by-side with the traditional one and observing the performances over time till harvesting is done. Advantages of this technique are as follows:

1) Useful in furthering the dissemination of new practices.
2) It gives the agent confidence in the practice.
3) It helps in locating and encouraging local leader.

It should be noted that result demonstration has some limitations such as:

i. It is time consuming and
ii. It is could be disrupted by weather.

b. **Informal Discussion** - small group gets together at a convenient location to consider and exchange ideas on common problem with a view of proffering solution. This is particularly suitable for the radio listening programme after which the subject matter broadcast is discussed and position taken by participants.

c. **Lecture** - a formal, verbal presentation by a single speaker to a group of audience. The purpose is to present a body of organized

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information/message to an audience. Lecture is more effective when visual aids are used to illustrate the lecture to captivate audience attention and allows more senses to be engaged. Lecture permits factual presentation of matters, face-to-face contact and opportunity for lecturer to read audience mood and take feedback; care must be taken to ensure that audience attention doesn't wander. It should also be ensured that high-quality visual aids are used.

d. **Role** - Playing - simulation involving a simple plot and participants are assigned role to act out the situation that is subject to discussion thereafter. There is normally no script, however, participant are allowed to apply their own experience and skills to create learning environment. Discussion should follow role playing during which the audience will freely assess the points raised and jointly come about alternative solutions.

Other group methods include: Puppet Shows, Field/Farmers' Day, Conducted

Tours, Symposium, Seminar, Panel, Workshop, Brainstorming and Buzz Session (Kang and Song, 1984).

3.1.3 Mass Media or Mass Extension

The aim of mass extension is to address a large number of people at once. It is particularly useful in making large numbers of people aware of new ideas and practices. It is equally good to announce sudden emergencies. It is clear that mass media has a function mainly in stimulating clientele after which they seek additional information by individual or group contact.

Traditionally, mass media is limited by low level of feed-back. However, improved technologies have reduced the barriers to a considerable extent. The coming of relatively cheap cell-phone has made rural telephony and use of SMS in form of sending text messages has enhanced feedback opportunities.

Mass communication techniques are thus classified:

1. Printed media are techniques that rely principally on combinations of printed words and pictures such as newspapers, wall newspapers, newsletters, leaflets/pamphlets and fact sheets. Printed materials to be effectively used should ensure accuracy, brevity and clarity. It is equally important to apply a tested principle of providing readers with the 5 Ws and 1H – the what,

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where, who, when, why and how. They require some level of literacy.

2. Audio-visual media [also called broadcast techniques] are techniques relying on the audio or visual senses, either alone or in combination. They help overcome the barrier of illiteracy. Examples are: radio, television, projected visuals (motion pictures, slides, filmstrips and overhead transparency. Brief notes on radio and television are presented:

i. Radio

Radio can be one of the most useful mass communication tools in extension work. It offers immediacy. It can be reached by a large number of people, especially at the instance of small and portable transistor radios which are quite affordable to even the rural farmers. It can tie into the strong oral tradition of communities and overcome the literacy barriers that face print media.

In recent time, the use of community-based radio broadcasting is becoming popular. It serves as the third tier of development communication through media consisting public, private and community [grassroots] broadcast. While many community radio station are in operation in several West African countries the bill to

Community-based radio broadcasting has the potential to provide the rural poor, including women, with knowledge and learning that responds to their everyday needs. Radio has been described as a veritable tool for social transformation (Yahaya, 2003; Ojebode, 2003 and Oyero, 2003). It possesses unusual capacity to educate, inform and entertain as enunciated by development scholars (Moemeka, 1992 and George, 1993). Therefore, radio has remained the most pervasive communication medium, particularly in developing nations for almost a century now. In Nigeria, several empirical studies attest to its dominance. For instance, Ojebode (2003) identified several roles played by development radio in the tripartite functions of information, education and entertainment (iee), surveillance of the environment as well as status conferral and equalizer, among other functions. To this end, several radio stations in Nigeria can easily be linked with various development-oriented programmes in the areas of health, agriculture, education and social mobilization.

Generally, radio has enormous potentials and capabilities which, if properly harnessed, can facilitate the provision of the most desirable cost effective basic education to members of the university community and the rural folks alike. Such capabilities stem from several decades of development communication, which reveals how communication in

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general can be used to support development, and specifically, how radio can facilitate the attainment and sustenance of development in different areas of human endeavour and service delivery systems. Hence, radio is said to be capable of overcoming the barriers of time and physical space with ease. Information broadcast on radio is omni-present and freely available to any radio set owner. In addition, radio helps to bridge the gap created by conventional instructional system.

One other significant advantage of the radio is its relative cheapness and accessibility by all, irrespective of socio-economic status in the society; especially among the students for educational purposes justify its use for development agenda like our vision for the integration of ICT in our educational system. Hence, Radio can cut across geographic and cultural boundaries. Given its availability, accessibility, cost-effectiveness and power, radio represents a practical and creative medium for facilitating mass education in rural settings.

3. Static media are mass media techniques, which does not involve motion or sound, but requiring some form of printing including posters, exhibits and displays.

The merits of mass extension method include:

It reaches large number of people at low cost.
Documents such as printed pages, video tapes and CD ROM could be kept and studied at leisure.
Information given is definite, structured and readily adaptable.

The demerits of the mass extension methods are as follows:

Illiterates and people with limited education may have problem, especially with printed media.
Information prepared for general distribution may not be suitable for local conditions.
Frequent revision may be necessary to update according to research findings.
While good for awareness creation, follow up may be essential before desired impact is made.

3.2 Extension Methods Application in the Adoption Process

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Adoption is a mental process, which a particular individual goes through from the time of exposure (awareness), consideration and finally acceptance/rejection of an innovation. It is widely agreed to consist of five steps as follows:

1. Awareness – becoming aware that innovation exists;
2. Interest – becoming keen or interested as to possibly use it;
3. Evaluation – thinking through the advantages and disadvantages of continuous use;
4. Trial – using the innovation on trial or probably on a small scale; and
5. Adoption – apply the innovation on repeated basis in preference to the old method.

Since the challenges and needs of individuals at various levels of adoption are different, so also are the methods considered to be most effective for the different stages. Mass extension is most effective for awareness and interest stages. Group method is effective for evaluation and trial stages while adoption calls for more attention usually best secure in individual method.

In contemporary time, advances in information and communication technology have drastically improved the opportunities for farmers to obtain useful information capable of bettering their farm operations. It is quite exciting to note that feed back opportunity that used to be quite limited in mass media application is significantly boosted by pervasiveness of mobile phones. This makes mass extension to be more effectively relevant at all stages of adoption thus creating greater room for learning and change. Specifically, the versatility of radio as a veritable tool in development is remarkable. Development communication has greatly been enhanced. To illustrate the above, a radio listening group could contribute to, seek clarification or ask questions on an agricultural radio programme on-air using cell phone as many rural locations are covered by telephone network. Many more isolated communities are progressively being reached by telephone network.

3.3 Factors for Selecting Methods

There are several factors determining which extension method or combination of methods the extension agent uses in carrying out a learning experience. Some important ones are listed as follows:

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Nature of learning goal. The paradigm in table 2 illustrates nature of learning with appropriate strategy and preferred method.
Extension agents' knowledge and competence and interests [Can they draw? eloquent in speech? creative in making aids?].
The audience composition. How well educated? How interested in the subject? What experience do they have?
Availability of aids and other materials. Some aids may be most appropriate but may not be available. They may even be too costly. Is electricity available? Lack of spare parts, transportation problem may also become issues.

Table 2: Nature of learning with appropriate strategy and preferred method

Nature of learning	Strategy	Preferred Method
Cognitive [knowing]	Transfer information [from outside]	Publications and recommendations in mass media, lectures, leaflets etc. directive, dialogue
Affective [attitude]	Learning by experience [information from inside]	Group discussion, non-directive dialogue, video films etc.
Psychomotor [action/doing]	Exercises in action	Methods which encourage action, training, practices by method demonstration. Demonstration films.

Personal and financial resources, which are available [When personnel are limited, group and mass methods take precedence over individual. Substitute lectures played back on video recorder for oral presentation may be considered.
Nature of message [urgency, emergency such as outbreak of disease or disaster or weather news will find radio or other mass media more useful than individual/group methods.
Spatial distance. How far the extension office to the target audience is may affect the extension method used.

Emerging Methods

New dimensions to extension methods are emerging. A glance is made at these opportunities to enhance the communication link and delivery of extension messages between technology sources and the target systems.

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(a) Rapid Rural Appraisal (RRA), Participatory Rural Appraisal (PRA) and Participatory Learning and Action (PLA). These are methodologies developing out of greater recognition of local knowledge in development work. Though they are planning tools, their uses leave some permanent impression on local participants' ability.

RRA can be described as a team approach to situation analysis: a group of relevant professionals – researchers and extensionists taking a look at the rural setting in a jiffy. Being top down as farmers are not involved, RRA quickly bowed to a superior method called participatory rural appraisal (PRA). PRA can be described as a growing family of approaches and methods enabling local people to share, enhance and analyse their knowledge of life and conditions to plan and to act (Chambers and Guijt, 1995). PRA is a learning process which when used well enables local people (rural and urban), to undertake their own appraisal, analysis, action, monitoring and evaluation.

Participatory Learning and Action encompasses any methodology that involves the local people in the direction on an action in the community.

Many techniques are continuously being developed some of which are briefly mentioned here:

RRA Methodology

Some techniques commonly used under RRA methodology are the following:

a) Direct observation involves direct observation of specified field, objects, events, situations and practices of the people from various multidisciplinary perspectives.
b) Review of secondary data - desk review of data/information, published or unpublished relevant to the subject of RRA from sources considered reliable.
c) Ranking - involves the use of interview to determine preference of subjects (people) on need, problem, priority and solutions
d) Semi-structured interview - involves using guided interview to obtain information in an informal setting.

PRA Methodology

The PRA methodology employs techniques such as:

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a) Focus Group Discussion: involves identification of people who will constitute a group to provide relevant information on specific issue of developmental target.
b) Mapping and Modeling: involves people's mapping and drawing on the ground to make social, health, demographic maps, resource maps of village land etc, making three dimensional models of watershed etc. These methods can be combined with household listing, well-being ranking, transects and linkage diagram (Chambers and Guijt 1995).
c) Transect walk: involves systematically walking with key informants through an area, observing, asking, listening discussing and learning about relevant features.
d) Timelines trend and change analysis: involve compiling the chronologies of events; peoples account of the past and the causes of changes and trends, often with estimation of relative magnitude.
e) Seasonal calendars: distribution of days of rain, amount of rain, crops, labours structure etc. across the year.

Others include daily time use analysis, linkage diagrams, well-being grouping and matrix scoring and ranking.

(b) Information and Communication Technologies (ICTs)

The advancement in electronic technology typified by computers and Internet connection has expanded the information available for developmental purpose. Though the relevance of ICT in the south as well as rural communities is grossly limited compared to the North and the urban divide, its potential as extension method is enormous for the future. In the interim, the relevance of ICT for extension work can be viewed in these perspectives.

i) ICTs are proving their value in helping to deliver information to and from intermediary information providers such as universities, government offices, NGOs and libraries (Morrow, 2002). Information is then relayed to and from the rural communities having no direct link.
ii) Increase in the use of mass extension method, "old" technologies such as radio, T.V, magazine, printed e-mail messages, cassette tapes, videotapes can bridge the technology gap (see Waters – Bayer, 2002). Improved electronic technologies such mobile phones and re-chargeable communication gadgets, CD-ROM have increased the feedback component of communication process.

Catching the opportunity of modern ICTs may appear to be quite remote in most parts developing nations like Nigeria but as rural sector and farming become more advanced, extension and its clienteles have to use

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ICTs to excel in their operations. There are incidences of retired elite and young university graduates who can appreciate ICTs readily. For instance, Graduate Farmers' Association in Agbowa-Ikosi in Lagos State is an example of farmers' group that can readily make use of ICTs to an appreciable extent.

Finally, it is essential for extension agencies to use diverse, fast and cheaper means to communicate and reach the mass of their rural clientele if their programmes will be effective in the 21st Century.

4.0 CONCLUSION

The variability of methods in conducting extension tasks is obvious from the on-going. It also confirms that while extension is a social science, it is at the same time very dynamic thus encouraging adaptability to different human cultures. Goal oriented extension professionals should strive to report known methods and also acquaint themselves with methods that have been used understanding the strengths and weaknesses. It is equally important that up-coming professional should learn how to determine methods or combination of methods most appropriate in different circumstances.

5.0 SUMMARY

This unit discussed issues involved in Agricultural Extension methods which can be used either solely or in combination. The methods primarily classified to include individual, group and mass extension methods. Several techniques can be identified under each method. Advancements in technology especially with the development of ICTs and the prevalence of participatory extension methodologies have ushered in additional methods that may not be classified as above. A link could be made between extension methods and the adoption process into which the ICTs have brought a paradigm shift.

6.0 TUTOR-MARKED ASSIGNMENT

1. Classify methods used in extension work, mentioning methods listed under each.
2. When are the following methods most appropriate:

(a) Individual method and
(b) Mass extension method
3. Differentiate between method demonstration and result demonstration using appropriate illustrations.

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UNIT 2 USE OF EXTENSION AIDS [AUDIO-VISUAL AIDS]

CONTENTS

1.0 Introduction
2.0 Objectives
3.0 Main Content
    3.1 What are Extension Aids?
    3.2 Contribution of Audiovisuals Materials to Learning
    3.3 Types of Extension Aids
4.0 Conclusion
5.0 Summary
6.0 Tutor Marked Assignment
7.0 References/Further Readings

1.0 INTRODUCTION

In all educational instruction and learning situations efforts have always been targeted towards making the work easier, widening the range of people to be reached and making communication more effective. These have been achieved primarily through the used of certain devices created to achieve the above. These devices or tools are called Audio-Visual or Extension Aids.

2.0 OBJECTIVES

By the end of this unit, you should be able to:

describe extension aids
make a case for the use of extension aids in agricultural extension work
outline the conditions for the use of extension aids.

3.0 MAIN CONTENT

3.1 What are Extension Aids?

Extension or Audio-visual aids are tools for the extension worker to use in order to make teaching/communication more effective. They increase common meaning for the extension workers' message (van den Ban & Hawkins 1996). On the side of the target group, the aids motivate and make them absorb more information. We think of aids when we feel it is necessary to increase learning. Advertising research has shown that the person who receives the same message through different media will pay more attention and retain more. A research finding in USA indicates that

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people remember 10 per cent of what they hear, 50 per cent of what they see and 90 per cent of what they see, hear and do in a combined learning situation.

It is noted that extension aids should not be seen as a substitute for the personal contact between the extension worker and the target group. The extension worker may not have access to most complex audio-visual aids, best use should be made of the simplest types of aids available. Sometimes real object does much talking for itself. Also, the extension agents can easily produce the aids.

3.2 Contribution of Audiovisual Materials to Learning

Use of audiovisuals in extension work is very limited in recent time especially with the dwindling fiscal allocation to agricultural extension. This, however is unfortunate because audiovisual materials contribute significantly to effective learning and communication as they are moved from a peripheral to an integral element with the newer formats of the instructional process [Bowker, 1970]. An extension worker should recognize and use audiovisuals for the benefits they can offer in a programme [Bowker, 1970]:

Make extension education more productive through increasing the rate of learning by providing worthwhile experiences for learners. Stress in getting ideas across to learners is significantly reduced. E.g. Use of power-point slides in presentation makes delivery for the instructor and comprehension easy for the clientele.

Make extension education more individual through providing many alternative paths with variety of resources so that learning can take place according to learner's study preference.

Make learning more instant through bridging the gap between the worlds inside and outside the classroom by means of the experiences these resources can provide.

Make access to learning more equal for learners wherever they are, through portability of various materials [audio and video cassettes, filmstrips, film, self study packages] and through the use of effective delivery systems [air transmission, cables, satellites] for transmitting information.

Give instruction a more scientific base through providing a framework for systemic instructional planning. While audiovisual materials can be more broadly referred to as educational media, they are only one component in the field of instructional technology.

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3.3 Types of Extension Aids

Extension aids can be classified into: Presentation visuals, display visuals, projected visuals and audio aids. Each group is briefly described here:

1. Presentation Visuals

Presentation visuals are used to reinforce or clarify a speaker's message. They include real object, samples and specimens, models, photographs, chalkboards, flips-book/charts and flannel graphs. Some of the above mentioned presentation visuals will be discussed briefly.

a) Chalkboards/Blackboards/Whiteboards

The chalkboard is an effective visual aid when used properly. It is cheap and most generally used and it can be made in portable form. In its modern form, White Board Markers which comes in various colours are used on white smooth board. The marker is easy to erase without dust produced when chalk is used. It can be used for the following purposes to:

summarize talks
draw pictures/diagrams illustrating principal points in a talk.
write out direction to audience
develop a lecture point by point
aid in answering questions.

The following are some tips on the use of whiteboard:

clean before use.
ensure good lighting
plan how to use
make drawings large, clear and simple and complete quickly.
do not cover board when talking.

b) Flip-Charts

Flip-charts consist of picture and drawings of different stages involved in an operation. The separate stages are shown on separate sheets which are clipped together so that each page will be used as discussion proceeds. It can be used to show the recommended sequence of steps in producing a crop, performing a skill. E.g. using insecticides and making a poultry house.

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Merit: Flip-charts show stage by stage aspect of the operation. They are fit for outdoor use and do not require special skill to prepare.
Demerit: Sheets tear off as time goes on.

c) Flannel Board

Flannel board can be made with an adhesive surface. Drawings and description of stages of an operation are written clearly designed and cut cardboard. The flannel surface may be green, blue or black colour. The back of the cardboard on which writings and drawings are made is coated with sand and gum to make sandpaper back; such that the back of the cardboard sticks firmly on the rough flannel surface.

Merits: Create suspense.

Position of the drawing can be changed as desired during presentation.
Easy to pack together after use.

Demerit: Cardboard could get lost, tear etc.

d) Magnetic Chalkboards

The magnetic chalkboard is even more flexibly useful and permits more versatility than the flannel board since the instructor can draw or write on the board in addition to positioning prepared materials. The magnetized materials hold their position and can be moved at will. It consists of sheet steel covered by writing surface. Small magnets are taped to the backs of objects or graphic materials. Portable magnetic chalkboards are available.

2. Projected Visuals

The projected visuals include colour slide projector, overhead projector and cinema films. They are photographs/charts/ diagrams or written information projected and shown on a wall or screen to a group of people. A recent addition to the projected visuals is the computer operated multi-media projector. The power-point programme for example projects texts, photographs charts, tables and diagrams step-wisely on the screen as oral presentation goes on.

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(a) Colour Slide Projectors

Slides are photographs taken on special films, so that after processing they can be placed in a projector and shown on a wall/screen to a group of people. Slides are useful for compressing a lengthy sequence of events into convenient instructional time. E.g. the main steps of a result demonstration which took nearly a year from start to finish in the field can be compressed into a 30 minutes slide show.

Slides can be used to provide out-of-season demonstration of farming techniques at materials taken from previous season could be used. If it is not possible to organize a tour or a field day to have first hand taste of an event, slides can help bring the activity to the attention of farmers. In this way, awareness and interest in new ideas can be created.

Merit: The pace of projection of slide can be altered to suit the needs of the audience unlike in cinema films. Also, it can show close-ups or enlargement of the subject which could be missed by many at a field demonstration

Demerit: Slides cannot show movement.

(b) Overhead Projectors

The overhead projector is very useful equipment which has been developed to make classroom [including non-formal] communication more effective. It projects charts, diagrams or written information prepared on a transparent material such as acetate onto a screen suspended above and behind the operator.

It can be used in two ways: 1] to replace chalkboard by writing on the roll of clear acetate: 2] to project transparencies in advance by pens, pencils or other materials or copier. It has a merit over other projected media since darkroom is not needed.

(c) Cinema Films

The main advantage of cinema films over still pictures is that they can show movement. Thus where it is important to show movement a film may be used in preference to slides. Village people may find films easier to understand because movement is added.

Other advantages include:

Quickening a slow action and slowing down a fast action.
It also shows close-up.

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Disadvantages:

Many films suffer as a teaching aid in that they are too fleeting a medium, hence local films are better.
Few films exist that are related to local problems in agriculture or rural sector.
Equipment used for making and projecting films are more costly than those used for making slides.
Electricity power supply may be a problem especially in rural locations.
Village people see entertainment in films more than the education.

(d) Video Recordings

More advanced than audio tape recording because it gives opportunity of addressing senses of sight and hearing.
Video recording is a faster means of getting messages or ideas across than tape.
To produce films you need a crew of professionals but a video camera can be handled using the manual as a guide.
It provides an extremely flexible medium and method of recording
Video doubles as a tool to train advertisers (extension workers) and also an effective aid for the adviser in group extension work.
Video recordings are suitable materials in field work, demonstration, discussions etc. Recorded activities can be talked over and evaluated.
This not only promotes exchange of ideas but also provide good example for others to see.

3. Audio Aids

(a) Radio/Cassette Tape Recorder

Audio aids such as radio and tape recordings are economical way to provide certain types of information and instruction. There are portable radio/cassette tape recorders that can be used to record radio programmes on agriculture. The recorded instructions/information could be replayed at a future date. Radio programmes or recordings may be prepared for group or for individual listening.

Recording can serve to: i) document or summarise a speech, ii) keep verbal record of interviews, case studies or role-playing situations and iii)

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provide a description or instruction for producers and drill for listener to recognise, practice and/or respond verbally.

(b) Tape Recorders

A tape recorder is a device for storing sound on a tape for reuse. A tape recording can be used many times without wearing out; message can be erased as desired.

A tape recorder is often used for recording interviews and discussions with farmers for later use on radio or by mobile units. It can be used to record talks, play songs on tape. It can be used to stimulate discussion. Situations in which different types of extension aids can be used are presented in table 3.

Table 3: Situations in which extension aids can be used

MEDIA/METHODS	Presence of advisers	Special preparation	Involvement of target groups	Group Situation	Special features and possible uses
(1) Spoken or written word					
Radio broadcasts					Possible: Listening in groups with advisers
Lectures, speeches	X			X	-- E 12
Storytellers				X	Working with advisers
Records	X	X		X	For training advisers
Tape recordings	X	X		X	For radio broadcasts
Folk traditions, songs				X	General motivation
Loudspeaker (Vehicles)					Announcements, meetings
Brochures					Mainly for advisers
Leaflets, pamphlets					For group work and schools
Posters					In Campaigns
Newspapers, Magazines					For advisers and associated institutions
Circulars					For advisers and associated institutions
Wall newspapers		X			Small group situations can arise when people gather together
Notice board		X			
(2) Pictorial presentation					
Blackboards	X		X	X	Training, field days,

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					campaigns
Flannel boards	X		X	X	Training, group extension, field days
Magnetic boards	X		X	X	Training, group extension, field days
Posters, screen printing					In campaigns
Comics					In campaigns
Photographs	X		X	X	Training, campaigns
Slides	X	X	X	X	Training, group work, village meetings
	Presence of advisers	Special preparation	Involvement of target groups	Group Situation	Special features and possible uses
Film strips	X	X	X	X	Training, group work, village meetings
Drawings, diagrams			X		If well done, often more easily understood than photographs
Daylight projection	X	X	X	X	Training
Demonstration block (flipbook)	X		X	X	Group work, demonstrations, field days
"Card games"			X	X	Group work, village meetings
(3) Audio-visual presentation					
Slides with sound Commentary	X		X	X	Training advisers, group work
Film strips with sound commentary	X		X	X	Training advisers, group work
Sound films	X		X	X	Mainly as motivation
Video recordings	X	X	X	X	Training advisers and forming groups
Television					Possible: communal reception
(4) Three-dimensional presentation					
Models	X		X	X	Group work, training
Artefacts, tools	X		X	X	Group work, training
Objects in casting resin	X		X	X	Group work, training
Simulation games			X	X	Sometimes also possible without adviser
(5) Live presentation and methods					
Folk dance, songs				X	Help from the adviser

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					(Content)
Plays, puppet plays				X	Help from the adviser (Content)
Shadow play				X	Help from the adviser (Content)
Storytellers	X	X	X		Help from the adviser (Content)
Exhibitions	X	X	X		Great attraction
Demonstrations	X	X	X	X	Combination of watching and participation can easily be politically effective too.
Meetings	X	X	X		

Source: Albrecht, et al [1989], pp. 136 - 137

4.0 CONCLUSION

When extension work is executed according to the fundamental principles, using methods and techniques which experientially have been found to be effective, communicating messages becomes less stressful both to the facilitator and the learners. While there is an array of extension aids that can used, the choice made depends on what the agent consider appropriate, has expertise to use or what the agency could provide. It should be noted that extension aids could not be substituted for the personal contact of the extension agents as dexterity in usage determines their effectiveness. Merits and demerits of specific aids will help in making right decision on choice.

5.0 SUMMARY

Extension or Audio-visual aids are tools for the extension worker to use in order to make teaching/communication more effective. When used appropriately, they increase the common meaning for the extension workers message.

Extension aids can be classified into: Presentation visuals, display visuals, projected visuals and audio aids. Examples of presentation aids include – chalkboard/blackboard/whiteboard; flip-charts, flannel board and magnetic chalkboard. Color slide projector, overhead projector, cinema films and multimedia projector are examples of projected visuals. Audio aid examples are tape recorder and radio. Each of the above has their merits and demerits which determine the preferences an expert extension agent will have to use them either solely or in combination.

6.0 TUTOR-MARKED ASSIGNMENT

1. What are extension aids? Why do we use them in extension communication?

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2. Describe each of presentation aid, projected visual and audio aids stating clearly their merits and demerits.

7.0 REFERENCES/FURTHER READINGS

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UNIT 3 PLANNING EXTENSION CAMPAIGNS

CONTENTS

1.0 Introduction
2.0 Objectives
3.0 Main Content
    3.1 What is Extension Campaign?
        3.1.1 Advantages of Extension Campaign
    3.2 Essential Principles
    3.3 Framework for planning Extension Campaign
4.0 Conclusion
5.0 Summary
6.0 Tutor-Marked Assignment
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1.0 INTRODUCTION

In this unit attention is placed on planning an all-inclusive extension campaign which utilizes different educational and communication methods to achieve a particular extension objective. This is usually considered when an important problem has been identified and addressing it is seen as bringing significant change to the entire community. Assume that the extension agent along with the generality of folks in a community have recognized rodent infestation as a menace that has deferred all tried solutions and the agent decides to plan a communication programme to achieve the stated goals. Extension campaign may be considered in such circumstance.

2.0 OBJECTIVES

By the end of this unit, you should be able to:

state what extension campaign is?
enumerate the advantages of the extension campaign approach
outline how extension campaign could be planned
mention some case studies illustrating the extension campaign approach.

3.0 MAIN CONTENT

3.1 What is Extension Campaign?

You may wish to know what campaign is before addressing extension campaign. Campaigns are coordinated communication and educational efforts using different methods of communication and education aimed at

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focusing attention on a particular problem, and its solution over a period of time (Evans, 1984). It may take several forms such as the charity campaign [e.g. rag day], sales campaign [usually called 'promo'], political campaign or image type campaign, but one most applicable to extension is the self-help campaign.

Extension campaign is an organized plan involving the use of combination of extension methods for bringing about widespread adoption of a particular practice. The superior innovation to be disseminated is the central focus. Campaign sometimes attains a national, regional or even global dimension such that the message to be propagated is given the widest publicity.

The extension campaign is made popular by Food and Agriculture Organization through a 'strategic extension campaign' (SEC) methodology which had been introduced in Africa, the Near East, Asia and Latin America [Adhikarya, 1998]. It emphasizes the importance of people's participation in strategic planning, systematic management, and field implementation of agricultural extension and training programmes. The SEC technology transfer and application approach is needs based and demand driven and has a problem-solving orientation.

Typical examples of large-scale campaigns include the rice-cropping programme "MASAGANA 99" in the Philippines; the "PLAN PUEBLA" for maize cropping Mexico and OPERATION FEED THE NATION in Nigeria. FAO supported extension activities that utilized this methodology were on rat control in Bangladesh and Malaysia; on pest surveillance system in Thailand, on weed management in Malaysia, on maize production in Zambia, on population education in Malawi, Jamaica and Morocco.

3.1.1 Advantages of the Extension Campaign

The question that readily comes to your mind is what makes extension campaign special or different from other methods you have learnt. Several features make campaign of great value in extension work.

The campaign approach is suitable to handle complex problems of public information and education. Most other methods may not be effective when the problem involves working with large and varied audiences, varied messages and varied communication techniques.

It permits use of time, funds and personnel more effectively in a coordinated manner.

It adds unity of purpose to development effort as combination of methods can be used.

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Because of its visibility as a campaign, creates opportunity for relevant stakeholders within the extension agency and among other organizations that might help to work together and it motivates people to take action.

3.2 Essential Principles

There are some essential elements that should be noted in extension campaigns as follows:

1. Specific objectives which are aimed at solving a significant problem should be formulated.
2. Focus should be defined and simple – only on a few critical important and related messages.
3. The more often people are exposed to an idea the more they are likely to adopt it; therefore a variety of communication methods to reach the audience are used.
4. Repetition of messages is made over a sustained period of time.
5. Messages should not only inform but also motivate people to take action.
6. Each element of the campaign must be tested to make sure it will produce the desired results before full scale implementation.
7. Systematic monitoring and evaluation is in-built to the project.
8. The entire process should be carefully planned – effort should be team conducted and administered by a single manager.

3.3 Framework for Planning Extension Campaign

Several frameworks have been formulated to plan an extension campaign usually consisting three stages of planning, preparation and implementation. The extension campaign to be effective has to be systematically and strategically planned. Planning is a process identifying or defining problems, formulation goals, thinking of ways to accomplish goals, and measuring progress towards goal achievements (Middleton and Hsu Lin, 1975). In strategic planning of extension campaigns, such a plan must be taken in implementing the strategy. It has to include both strategy planning (i.e. what to do) and management planning (i.e., how to make it happen).

Strategic planning can be defined as the best possible use of available resources (i.e., time, funds and staff) to achieve the greatest returns (i.e., outcome, results, or impact) [Adhikarya, 1998].

Preparation involves a series of actions including preparation of staff, development of learning/communication materials, allocation of funds and management of the entire process.

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Implementation involves a sequence of activities which are closely monitored and evaluated to achieve the agreed upon objectives.

According to Adhikarya, 1998, the process of developing a strategic extension plan can be divided into two major parts: strategy development planning and management planning. The suggested process is further divided into ten phases presented as follows Adhikarya (1978):

Part I: campaign Strategic Development Planning

Phase 1:	Technology and problem identification and information needs assessment
Phase 2:	Campaign objective formulation
Phase 3:	Strategy development and information positioning
Phase 4:	Audience analysis and segmentation
Phase 5:	Multimedia selection
Phase 6:	Message design, development, pre-testing, and materials production

Part II: Campaign Management Planning:

Phase 7:	Management planning
Phase 8:	Training of personnel
Phase 9:	Field implementation
Phase 10:	Process documentation and summative evaluation

Source: Adhikarya, Ronny,. 1997. Implementing strategic extension campaigns: in B.E Swanson *et al* (Eds). Improving agricultural extension: A reference manual. Rome: FAO. pp. 124-134.

It is recommended that formative evaluation should be incorporated into all these phases, especially in phases 4 to 6. Formative evaluation tries to improve the effectiveness of an extension campaign by testing the appropriateness of the strategy including multimedia messages and support materials preferably prior to full implementation of the programme.

Action follows the phases in part I where effort of the planner shifts to management planning which includes phases 7 – 10; which should be supported by a management information system to provide planners with regular and up-to-date information for at least the basic components of the management objective: who will do what and when. Adhikarya (1997) opined that there are three kinds of management activities for which such information is needed to make decisions: personnel, finance and logistics.

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A Case Study on Extension Campaign – Masagana 99: The Phillipines

The phillipines "masagana 99" is a good illustration of projects that have adopted extension campaign model. It was launched in 1973 with the main objective as increasing rice yields by supplying farmers with farm credit facilities, agricultural inputs and timely information on agricultural technologies and practices. The word 'masagana' is said to mean bountiful harvest and '99' of the project title refers to the target yield of 99 cavans [1 cavan = 44 kgs.] (United State Agency for International Development [USAID], 1978).

The project adopted a multi-media approach with emphasis on radio as a principal tool for mass media campaign developed to spread information and technically empower public on agricultural concepts and practices. The choice of radio anchor on the strength that it has been found that one out of every four persons own a transistor radio and three out every four Filipinos farmers listen to radio.

The project involved broadcast of agricultural programmes which were mainly agricultural messages and jingles on over 224 radio stations. In addition, 125 other radio stations broadcast 50 local agricultural programmes daily. Through these messages, farmers were provided information on where to procure production inputs and obtain credit to support their farm projects.

The result shows that rice yield in the masagana 99 area increased significantly by 28% from 1973 to 1974. By 1977 yields averaged 3.3 tonnes per hectare and farmers recorded an average gain of about 118% in income. Furthermore, Philippines that use to be a net importer of rice exported about 140,000 metric tonnes of rice. In spite of certain limitations such as transportation problem, inclement weather and pest infestation, the socio-economic impact of the project on farm families was quite significant (USAID, 1978).

There are also local cases of development interventions that adopted extension campaign in Nigeria. The Operation Feed the Nation – a "Freedom from hunger Campaign" is widely documented (Ladele, 1990, Jibowo, 2005 and Ayoola, 2007). The Integrated Multi-media Campaign for HIV/AIDS awareness and Sexuality Information, Education and Communication (SIEC): The Nigerian Experience also presents a good case study (see Yahaya, 2003 pp. 68-75 for more details).

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4.0 CONCLUSION

Experiences from various strategic extension campaigns have generated some important useful lessons upon which this unit could be anchored. According to Adhikarya (1997), the main lessons are summarily presented below. A strategic extension campaign:

Enhances the agricultural extension planning process
Builds cadres of extension programmes planners and trainers
Helps in improving extension linkages with research
Is needed most by small, resource-poor farmers
Helps improving extension linkages with training
Reduces extension system's workload and increases its coverage
Encourages partnership with, and partnership of, community-based organizations
Helps revitalize extension workers' professionalism
Shows that extension programmes can be strategically monitored and evaluated.

5.0 SUMMARY

Extension campaign is an organized plan involving the use of combination of extension methods for bringing about widespread adoption of a particular practice. The superior innovation to be disseminated is the central focus. The coverage may vary but must be specific. It usually comes handy when important information that deserves the urgent attention of the generality of public is to be disseminated.

The level of effectiveness hinges most on planning and systematic implementation of concentrated and widely intervention. While there are several success stories of development communication adopting this strategy abounds in literature (Albrecht et al, 1989, Adhikarya, 1997 and Yahaya, 2003); handling of the latent effects of the extension campaign interventions determines sustainability of gains.

6.0 TUTOR-MARKED ASSIGNMENT

1. What is extension campaign? Describe the unique feature of this extension strategy.
2. Present a framework for planning and implementing extension campaign. Describe a case study of development intervention using multi-media extension campaign strategy [apart from the case presented in this unit].

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UNIT 4 EMERGING TRENDS IN EXTENSION EDUCATION WORLDWIDE

CONTENTS

1.0 Introduction
2.0 Objectives
3.0 Main Content
3.1 Changes in Extension Activities
4.0 Conclusion
5.0 Summary
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1.0 INTRODUCTION

Science in all it spheres including extension education is expanding in knowledge base. This is at the instance of changing socio-cultural, economical, technological and environmental aspects of human system. This suggests that extension organizations have to change to live up to their ultimate goals and relevance. Having gained basic knowledge of extension fundamentals, it is worthwhile to also peep through the window of the present into the future trends and applications of extension science a body of knowledge.

2.0 OBJECTIVES

By the end of this unit, you should be able to:

present an overview of trends in extension education worldwide
discuss the hope for involvement of the privative sector in Agricultural Extension
present an argument in support of widening the scope of extension education.

3.0 MAIN CONTENT

3.1 Changes in Extension Activities

1) Scope of Extension

The scope of extension is becoming more expanded against the narrow focus on agriculture or even rural development. Extension was like this in its original/traditional setting as University Extension. It will be myopic to disregard the unlimited spheres of human endeavor extension principles and process could and are being applied. It is not strange against this

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background that many disciplines at tertiary levels are having extension component in their curricular: engineering, medicine (community health), demography, family planning, home science, social work, hospitality extension and environmental studies; to mention a few. This poses a fresh challenge to research in extension.

2) Extension Approach/System

Agricultural Extension messages have been delivered through numerous approaches and many more are emerging in response to limitations of contemporary ones and the changing needs of beneficiaries. Current approaches are geared towards the recognition of indigenous knowledge, bottom-up rather than top-down approach, mutual learning through participatory extension and low external input and sustainable agriculture. Lately, some schools of taught are advancing the argument on changing ideas regarding 'extension' at the conceptual level (Leeuwis, 2004). It proffers that the concept – communication for innovation rather represents the notion of extension. This is justifiable to the extent that what obtain in extension is strictly not someone 'extending innovation' but sharing ideas and experiences emanating from diverse. Farmers are now considered as major source of useful indigenous knowledge which forms the foundation upon which modern technologies can be based. This opinion however, may not be carried in many developing economies where farmers are largely illiterates and still have poor orientation toward market. Even then, development communication rather than communication for innovation may be a especial area in extension and may not necessarily have replace it.

3) Public versus Private Extension

In many developing countries including Nigeria extension is still largely public good. It belongs to "delivery system" as classified by Axinn (1987). The delivery system implies that the extension organization possesses a package of technologies to be handed over to more or less passive beneficiaries. This is expectedly so because most small farmers were subsistent producers. But the reality is that even the small farmers to small extent now factor market into their production programme. The more commercialization features, the more producers are likely to be eager to seek information toward profit maximization. In others, as farmers focus on the market as the target of their production, they graduate to "acquisition system". Here farmers/farmers groups, organized in one way or another can reach out beyond their villages, and acquire the information and other inputs needed: This implies that they are more desirous to pay for extension services. It is expected that extension privatization will gradually emerge and implies it that more recognition would be paid to extension work.

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4) Gender and Generation Perspectives

In recent time, more attention has been paid to implications of gender and generational differences in people engaged in the rural sector. In the past, focus was mainly on the male adult household heads, while both women and children equally make significant contribution to the total production profile. Many development and research efforts are focused on women in agriculture/development and children in agriculture.

Those perspectives are likely to yield dividend in the area of designing appropriate programmes and policies to enhance the performance of every stakeholder in the development process.

5) Multiple Information Sources

The improved world of technology and communication has expanded the scope available to farmers to source information. It is therefore obsolete to think that the government has the monopoly. This implies that to be relevant, extension organization should harness all available information sources, including their farmer indigenous know ledge and experience (van den Ban and Hawkins, 1996). Also relevant here is the role community radio could play in linking isolated rural community with the remaining part of the world. It is a facility, when appropriately adopted and back be the right policy will boost the effectiveness and coverage of extension work.

4.0 CONCLUSION

The catalogue of innovations in extension practice can still be stretched further, but suffice it is to say; that extension is a dynamic discipline and had the scope of application is broad. It is expected that professionals will seize the advantage towards problem solving. At a professional forum created by a seminar, experts agreed that it is important that extensionists should be assertive by keeping abreast of development information at global level. It was also suggested that experienced extensionists should work on theory development to provide basis for explaining the gamut of finding in extension research. This was said to be paramount for the growth of extension as a discipline (Olawoye, 2001).

5.0 SUMMARY

Over the years, changes have been observed in ways extension work is being carried out. It is moving from being top-down to being bottom-up and participatory. Many more stakeholders are accorded more significance as explained by the AKIS and Agri-support services principles. This is at variance with the narrow consideration of extension transactions as

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Transfer of Technology model. The practicality and dynamism of extension as a discipline implies that as more experiences are gained in development interventions, methods that achieved results consistently will be adopted and documented for further bring more effectiveness to extension work.

6.0 TUTOR-MARKED ASSIGNMENT

1. Mention some changes that have crept into extension practice in the contemporary period.
2. What is the hope for the participation of the private sector in the near future?

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