

**EFFECTIVENESS OF EXTENSION WORKERS IN COORDINATING
AGRICULTURE AND RURAL DEVELOPMENT ACTIVITIES IN EDO
STATE NIGERIA.**

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BENIN CITY**

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**A PROJECT WORK SUBMITTED TO THE DEPARTMENT OF
AGRICULTURAL ECONOMICS AND EXTENSION SERVICES,
FACULTY OF AGRICULTURE, UNIVERSITY OF BENIN, BENIN CITY,
EDO STATE, NIGERIA. IN PARTIAL FULFILLMENT OF THE
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CERTIFICATION

This is to certify that this research work was carried out by OKEKE Chiayiamaka Ezero (Miss) with Matriculation Number (AGR1608536) of the Department of Agricultural Economics and Extension Services, Faculty of Agriculture, University of Benin, Benin City, Nigeria.

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DEDICATION

This project work is dedicated to God whose indefatigable nature kept me.

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My deep-rooted gratitude goes to God almighty for His immeasurable love. I sincerely appreciate my supervisor Dr. (Mrs) M.J. Koyenikan for her diligent guidance, support and inspiration for the successful completion of this work. I am grateful ma. May God continue to bless you. My gratitude goes to all the lecturers in the Faculty of Agriculture who through all these years of my academic sojourn punctiliously devoted their time and energy to impart knowledge in me. May the good Lord continue to strengthen you all.

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ABSTRACT

The success of sustainable agriculture depends not just on the motivations, skills, and knowledge of individual farmers, but on action taken by the agricultural extension agency in harmonising the activities of other agencies involved in agricultural development. This study assessed the effectiveness of extension workers in coordinating agriculture and rural development activities in Edo State, Nigeria. specific objectives of the study were to examine the personal characteristics of agricultural extension workers, extent to which they perform agricultural and rural development activities, how effectiveness in the coordination of agricultural and rural development activities and the constraints to coordination of extension workers in Edo State.

A total of fifty (50) extension workers in ADP zones constituted the respondents. A structured questionnaire was use to collect the date for the study. The study indicated that 73.5% of the respondents were males while 26.5% accounted to be females. The mean age of extension workers was 45 years. More of the respondents (65.3%) were married. The results also showed that majority (75.5%) where OND, the mean grade level was 11, the mean monthly income of respondents was 28315.91 Naira.

Findings of the study show that activities regularly performed include organizing producers into groups and associations, platforms to facilitate knowledge management, youth empowerment programmes and training farmers on the latest

farming skills. Effectiveness in co-ordinations shows that organizing producers into groups and associations, platforms to facilitate knowledge management, scheduled visits to rural communities and training farmers on the latest farming skills were among the activities extensions workers were effective in.

The major constraints include transportation problem (mean=4.65), insufficient financial supports (mean=4.59) and poor funding of coordination (4.47).

Age ($r=0.132$, $p= 0.032$) grade ($r= -0.715$ $p= 0.125$) family size ($r= 0.351$ $p= 0.143$), monthly income ($r=3.115$, $p=0.889$) had significant relationships with effectiveness in coordination. Poor funding and logistics affected coordination of extension workers.

CHAPTER ONE

INTRODUCTION

1.1 Background of The Study

Agriculture is the main source of income for around 2.5 billion people in the developing world. It remains the backbone of many African economies, accounting for 57 percent of the total employment, 17 percent of GDP and 11 percent of export earnings on the continent (World Bank, 2008). In spite of the key role agriculture plays in the growth of the economy of Nigeria, the sector has recorded a decline in its contribution to GDP, employment, government revenue and foreign exchange earnings in recent years. Ministry of finance and economic planning ,MoFEP (2010) has stated that whereas the agricultural sector grew in 2010 by 4.8 percent and contributed 32.4 percent to GDP, the services sector grew by 6.1 percent and contributed 32.8 percent as its share to GDP, displacing the Agricultural sector as the highest contributor to Show that agriculture takes place at the rural areas and rural population is high in Nigeria.

According to Waddington (2010) Nigeria cannot achieve increased agricultural productivity on rural farm level, except through the provision of basic agricultural

education, particularly, the non-formal or extension type that will help move the farmers from old ways of farming to modern ways.

The role of an agricultural extension worker involves disseminating information on agricultural technologies and improved practices to farm families and ensuring farmers' capacity building through the use of a variety of communication methods and training programmes. Without it, farmers would lack access to the support and services required to improve their agriculture and other productive activities. It is through education and communication that agricultural extensionists are able to bring changes in farmers' knowledge, attitudes and skills which help to put farmers in a frame of mind that is conducive for adopting proven agricultural innovations (Agbamu, 2005).

The decline in growth of agriculture is caused by lack of access to markets and credits, low level of technology especially mechanization, inadequate post-harvest infrastructure (storage, processing, transport), low uptake of research findings by stakeholders and limited availability of improved technological packages especially planting materials and certified seeds (MoFA, 2007). Given these challenges, for agriculture to assume its leading role as the greatest provider of employment and reduction in poverty of the majority of the rural people, agricultural development is imperative. Agricultural extension services are now a major activity and basic element in

programmes and projects formulated to bring about agricultural development and improvement in the quality of lives of the rural poor farmers .(NDPC, 2011).

Coordination is the extent to which organizations attempt to ensure that their activities take into consideration those of other organizations in the pursuance of their goals. It ensures that harmony of individual efforts towards the accomplishment of a group goal is achieved. It is a way of integrating different parts of an organization to accomplish a collective set of tasks or integrating or linking together different resources to accomplish a collective set of tasks.

According to Malone and Crowston (1994), coordination is the act of managing interdependencies between activities. It is the interrelation of functions, structures, and resources in an organizational context, which can take place at different levels (Mangham, 1986). The more efficient coordination is in all levels of administration, the common outcome, cohesion, will be reached in a more efficient manner (Viinamäki 2004). Every activity in an organization requires coordination of a variety of functions within and between firms in order to avoid complexities and unintended losses.

Coordination is the process of synchronizing the effort of a group to achieve a desired goal. This can be achieved by making the different agencies work together in an efficient and organized way. This entails generating and managing information effectively and efficiently. Extension has proven itself to be a cost-effective means of bringing about greater economic returns for farmers with

significant and positive effects on knowledge, adoption, and productivity. Extension is thus a cost-effective tool that can play an important role in dealing with climate change while at the same time helping to increase productivity and reduce poverty (Davies, 2009).

Extension workers have some common roles: educating farmers and producers so that the farmers/producers can help themselves; linking farmers/producers with research-based information to improve agricultural production, productivity, processing and marketing of agricultural goods and services.

1.2 Problem Statement

Despite the positive growth experienced by the agricultural sector since the mid 1980s, bottlenecks that inhibit agricultural productivity remain. Agriculture is predominantly practiced on a smallholder basis on family-operated farms.

Agricultural extension services provision is underpinned by ‘productivity gap theory’ (Waddington, 2010). This theory states that, extension services can be organized and delivered in a variety of forms, but their ultimate aim is to increase farmers' productivity and income. Productivity improvements are only possible when there is a gap between actual and potential productivity. He suggests two types of ‘gaps’ contribute to the productivity differential - the technology gap and the management gap. He concludes that provision of extension services can contribute to the reduction of the productivity differential

by increasing the speed of technology transfer and by increasing farmers' knowledge and assisting them in improving farm management practices.

This situation suggests that the role performance of extension workers is problematic and contributes to the general challenge for rural dwellers development . One of the key Issues in the effectiveness of Nigerian agricultural extension is role impact. The roles and impacts of extension workers' activities are highly varied and often ineffective. John, (1998). The question becomes what is the role of Extension workers in coordinating rural dwellers for agriculture and rural development activities.

This research will be carried out to answer the following research questions:

- 1) what are the personal characteristics of agricultural extension workers in Edo State
- 2) To what extent do extension workers perform agricultural and rural development activities in Edo state
- 3) How effective is the coordination of agricultural and rural development activities by extension workers in Edo State.
- 4) what are the constraints to the effectiveness of coordination for ARD by extension workers in study area.

1.3 Objectives Of The Study

The broad objective of the study is to assess the effectiveness of extension workers' role in mobilizing rural dwellers for agriculture and rural development activities. The study therefore seeks to achieve the following specific objectives;

Objectives of the study

- 1) Examine the personal characteristics of agricultural extension workers in Edo State
- 2) Examine the extent to which extension workers perform agricultural and rural development activities in Edo State.
- 3) How effective is the coordination of agricultural and rural development activities by extension workers in Edo State.
- 4) Identify the constraints to the effectiveness of coordination for ARD by extension workers in the study

1.4 Scope Of The Study

This study will be carried in some rural area in Edo state where agricurural activities are carried out to investigate role of extension workers role in mobilizing rural dwellers for agriculture and rural development activities

1.5 Justification for the Study

Knowing the impact played by agriculture it will go a long way to encourage both the individual, government and non governmental organizations to see reasons why they have to give more attention to agricultural extension in the rural areas. Also, in an attempt to evaluate the impact of agricultural extension, problems faced by agricultural extension will be looked into and possible solution will be suggested which if duly followed, will help in educating and alerting existing agricultural extension agents as well as new agents on what to expect as an extension worker.

Majority of Edo state's population lives in rural areas with agriculture as their main economic activity. With the rural sector producing the bulk of the nation's output of food, the standard of living of the rural people needs to be improved. One way of achieving this is a carefully planned and implemented agricultural transformation strategy necessary to accelerate the pace of agricultural mobilization for increased yield and income. Among the objectives of the provision of extension services is to transfer improved agricultural technology to the farmers and assist them to secure micro loans and get access to market to enable them increase farm productivity to create wealth for improved living standards.

As a result of this, provision of extension services has been high on the agenda of the government , but little success has been achieved. This has been blamed on

several challenges including inadequate funding of extension services programmes, lack of extension logistics and inadequate and ill-motivated extension field staffs.

The research also sought to provide an entry point for revising the strategies of the National Extension Services Policy and restructuring the extension services delivery with the view of making it more efficient and effective in mobilizing rural dwellers for agriculture and rural development activities. Another significance of the study is that the findings of the research will be useful to the agricultural extension services providers management team since the sustainability of their services depends on the patronage and level of commitment of their clients, as well as the performance of their services.

The significance of this study also lies in the fact that the successful conduct and documentation of the findings into manuscript would not only add to the body of literature as data base but also serve as a guide for further research into other social, cultural and economic dimensions of the lives of the people in the region. The findings of the research will also serve as inputs and lessons to the government and those agencies championing the campaign for rural development.

CHAPTER TWO

LITERATURE REVIEW

2.1 Agricultural Extension

Agricultural Extension is also regarded as “the body of knowledge which accumulates experience and research findings with respect to extension and borrows insights from other disciplines and field of endeavors which seems pertinent to extension (Rolling, 1997). Extension as a science has wide scope of involvement which is not limited to information exchange alone. It includes everywhere information on new technology or interaction with clientele is mentioned.

2.2 The Concept of Rural Community

There have been various approaches to the definition of ‘rural’. Rural community had been defined or classified on the basis of population, infrastructural facilities of occupation. It should be realized that all these factors are important in the classification of communities. The America Bureau of Census adopted the use of number of inhabitant in a place to classify communities. The Bureau stated that a population of 2,250 and above are urban area while lesser population

are classified as rural, however, this did not take into consideration other factors. In Nigeria, the National Population Commission asserted that population of below

20,000 is rural, however this is too simplistic to help understand rural in Nigeria.

All the various index should be considered while classifying communities.

This include

- (a) Population size
- (b) Population density
- (c) Proportion of people involved in agriculture as primary source of income
- (d) Infrastructural facilities
- (e) Primary level of social interaction.

The rural communities invariable are of small population size, population density is low, they are mostly involved in agricultural production fishing and pastoral occupations have their own peculiar recreation modalities. The level of infrastructural facilities is also why poor in the rural communities lacked electricity, portable water, all season motorable roads, educational facilities, health facilities etc. These are key elements that effect level of production, income and standard of living.

The peculiarities and the aforementioned factors affect poverty level of the people in the rural area. Studies have shown that majority of those in rural areas of Nigeria live below the poverty line. The consequence is that with high population

of the rural dwellers living in the ambits of poverty and the rural population constituting majority of the country's population, for any meaningful development to take place in the country, the rural sector should be taken into consideration, since it is basis for primary production and one of the largest sources of labour for production.

2.3 Importance Of Agricultural Extension

While living in the midst of rapid scientific and technological development, many of the farmers in the rural communities still employ traditional methods of production. In Nigeria there is a lag of over 20 years between the discoveries of new farming practice. In order to shorten or bridge this gap as well as make the rural communities part of the dynamic social order where rapid change is characteristic, an extension service among the rural community is needed (Olayide, et al.).

Agricultural extension is also needed to help the clientele obtain information on sources of input and credit facilities that would enhance their level of production.

In order to have a cultural compatible, socially acceptable and economically feasible technology, extension services is important to guide research development. This is because; extension will give feed back to the

scientist/researcher on the development technology so as to help improve upon the earlier developed technology.

Despite the fact that farmers are encouraged to increase their level of production, the issue of marketing outlet is important. Agricultural extension provides information to the farmers on marketing strategy to use to maximize their profit while it also introduce to the farmers, market opportunities to help dispose off their products as at when due.

Agricultural Extension is the primary process through which farmers learn reasons why they must change their attitude and practice. It is also to be noted that it does not involve only farmers with direct production i.e cultivation practices only but those who are involved in processing and marketing of agricultural products.

Extension often emphasizes working with people rather than for them, selects for adjustment those problems which people themselves recognize and also teach people to recognize as problems, conditions which they have previously felt little concern as well as the possible solutions. Thus extension work teaches people to recognize what to want and how to work out ways of satisfying these desires.

Extension work does not only involves taking of research findings to farmers but it also take the farmer problem to the researchers and help formulate

Activities Designed To Meet The Ever-Increasing Problems Facing Rural Communities.

Agricultural extension also involves leadership development in the communities. This is because it worked with the whole family and involves a participatory approach where learning by doing concept is involved. In view of the nature of extension work it requires leadership. Hence agricultural extension utilizes leaders from among the people, in view of this it helps to imbue principle of leadership in the people.

Community development is another area which agricultural extension is involved. This is by mobilizing members of the communities to improve their collective resources when will invariably affect their production systems.

In agricultural extension the role of the extension agents could not be underscored as they are closest to the farmers. The Unit will make you understand the role of extension agents in rural development, the requirements for the extension agents effective performance and the support system in extension work. This is important to enable you understand the key players in extension work.

2.4 The Role Of Extension Workers In Agriculture And Rural Development Activities

Extension agents are very important in agricultural development process. Specifically, the basic role of extension agents is that it helps in the improvement of those who are involved in primary food production. This is because it involves a shift from the traditional resource based method of production to a new science base method. The science based methods involve the adoption of new varieties, new cultural practices, use of agrochemicals and other capital - intensive inputs. Before these new technologies are adopted, the farmers need to be aware of them and learn how to use them correctly in their farming environment.

Specifically, Agricultural Extension Performs These Roles:

- i. It serves the role of educational development. The extension agent educate the farmers through the dissemination of information on innovation on how best to use the resources and services available, develop the right attitude and skills that would help client's production.
- ii. Extension agent serves as vacuum filler. The extension agents help in the area of input supply to the clientele. This is because when new technologies are introduced, it had to be backed up with inputs which may not be within the reach of the farmers, the extension agents help to direct

the farmers to where the inputs could be obtained, he also helps to organize them to groups so that they can benefit from economics of large scale. He also helps the farmers to obtain information on financial sources which they may not be aware of. Extension agent also serves as a channel for communicating new ideas, technology or innovations to the clientele. Extension fills the gap between the research and farmers. He ensures that the researches to be culturally compatible, economically feasible and sociologically acceptable to the people.

- iii. Extension agent serves as farmers trainer for decision making. Essentially the extension agent focus on equipping farmers with marketing and investment information and training them to make decision concerning those aspects of agricultural prices and economic situation. This is with a view of enhancing their level of income. It is the role of extension agent to mobilize farmers to form groups and associations. This is with a view of making farmers to work together and also enhancing their capital base as they can pull resources together to obtain inputs and other materials required for production and processing.
- iv. Extension agent holds to develop the potentials of the farmers especially the youth to become leaders. This is because he selects some of the farmers as contact farmers who provide leadership in their various groups. The performance of these roles by the extension

agents help to enhance cultivation practices of the farmers and their ability to use modern techniques which invariably increases their income and standard of living.

2.5 Coordination

Coordination is the extent to which organizations attempt to ensure that their activities take into consideration those of other organizations in the pursuance of their goals. It ensures that harmony of individual efforts towards the accomplishment of a group goal is achieved. It is a way of integrating different parts of an organization to accomplish a collective set of tasks or integrating or linking together different resources to accomplish a collective set of tasks. According to Malone and Crowston (1994), it is the act of managing interdependencies between activities. It is the interrelation of functions, structures, and resources in an organizational context, which can take place at different levels (Mangham, 1986). The more efficient coordination is in all levels of administration, the common outcome, cohesion, will be reached in a more efficient manner; because coordination is a tool of cohesion (Viinamäki 2004). Every activity in an organization requires coordination of a variety of functions within and between firms in order to avoid complexities and unintended losses. Co-ordination is the process of synchronizing the effort of a group to achieve a desired goal. This can be achieved by making the different agencies work together

in an efficient and organized way. This entails generating and managing information effectively and efficiently. Extension has proven itself to be a cost-effective means of bringing about greater economic returns for farmers with significant and positive effects on knowledge, adoption, and productivity. Extension is thus a cost-effective tool that can play an important role in dealing with climate change while at the same time helping to increase productivity and reduce poverty (Davies, 2009).

2.5.1 Conditions Necessary For Effective Coordination

Coordination produces performance, because it produces the necessary trust needed for achieving performance through networking. It tells what to include in a good plan and how to execute it, specifies who will be a staff and the rational placement, gives a clear focus, makes things realistic, and gives a good appraisal. It is therefore part of planning, organizing, staffing, directing reporting and budgeting. For there to be an effective coordination, a clear determination of role and responsibility must be emphasized (Viinamäki 2004). According to Akinagbe and Olaolu (2016), it is essential to develop and establish a habit of doing casual evaluation to determine if proper coordination has been done.

Four kinds of elements can be coordinated: resources, programmes, clients and information. Coordination of all elements may not be possible or even desirable. Once the elements for coordination have been determined, decisions should be

reached regarding how they will be coordinated. Certain elements generally can best be coordinated at specific levels. Coordination of resources that is joint decisions as to which organizations will get which resources, is best conducted by representative of the Board. However, coordination with regard to programmes, programme development and the avoidance of duplicate programmes may best be done or guided by relevant agency decision makers when they are motivated to do so. Those who work closely with the clients or people who receive the benefits from the organization, can do the best job of coordination that directly involves the clients. Information should be coordinated at all levels. For example, information relevant to the coordination projects should flow freely between all participants.

If the coordination is for programmes and programme development, only relevant decision makers may need to be involved. If the coordination involves clients' services, line staff should do it. Sometimes administration have personality differences that make coordination difficult, but effective coordination may be possible with other elements. Coordination and leadership are closely bound together as each affects the other. Coordination cannot be achieved without effective leadership. They jointly ensure that all efforts are channeled effectively towards the desired goal. A feature of the large complex organization is that it is not possible to rely on a common superior to coordinate all aspects of two or more managers' work. As a result of this, a number of other coordinating devices must be introduced.

2.5.2 Principles Of Coordination

For coordination to be effective, certain principles are required.

- Professionally competent staff must be provided.
- Objectives of an organization must be clearly defined and understood.
- Two-way channels of communication must be kept open.
- A feeling must be created that field staff are important members of the organization. This means that they should be paid regularly given incentive and their effects well commended.
- Administrative staff in key positions must be cooperative and enjoy mutual respect and confidence among staff is built on:
 - Foundation of comparable professional training and ability.
 - Willingness to examine a given problem and facts associated with it in an objective manner.
 - Recognition and acceptance of honest differences in opinions.
 - Give and take philosophy.
 - The location of responsibility for coordination should be placed within the administrative structure so that the:
 - Person responsible for coordination have the authority to deal with administrative problems and report directly to the chief administrative officer.

- Officers at the zonal or divisional headquarters have status commensurate with their responsibility.
- ◦ Persons doing the coordination should not spend most of their time manipulating budget.

2.5.3 Barriers To Coordination

- Threat to autonomy: One of the biggest barriers is the fear of losing organizational autonomy. Coordination almost always involves a loss of some autonomy for the organizations. That is, coordinating organizations have to “give and take” with regard to goals, services and clients and hence compromises are reached, which reduce the freedom to make decisions and run programmes.
- Professional staff fear of loss of freedom. They may be committed to different ways of working with clients.
- Fear that clients representatives will try to dominate the organizations that serve the clients.
- Disagreement among resource providers as to client needs and services to be provided.
- Coordination is complicated if too many organizations are involved.
- Lack of domain consensus: disagreements among the organization regarding the right of one or more organizations to be involved as well as

disagreement about which organizations should function on which geographical areas, provide which services and to which clients.

- Different expectations from different quarters e.g. from federal, state and local levels, as to which clients are to be served and which services should be provided.
- Low priority accorded to coordination by participating organizations.
- Availability of financial resources.

2. 6 Rural Development

There are different understandings attached to the concept of rural development. According to (Schutjer, 1991:3) rural development is more than agricultural development. Observations about rural development suggest that it is about enabling rural people to take control of their destiny, thereby dealing effectively with rural poverty through the optimal use and management of natural resources. It is a participatory process through which rural people learn over time, through their own experiences and initiatives, how to adapt their indigenous knowledge to their changing world (Ministry of Rural Development and Land Reform, 2009:5). Rural development has evolved from being "a statement of framework of development" into becoming "a policy instrument" known as the Reconstruction and Development Programme (RDP). The newly formed Ministry of Rural

Development and Land Reform which is the custodian of rural development has developed a new rural development policy framework known as "the Comprehensive Rural Development Programme (CRDP)". From the foregoing discussion it is clear that rural development and extension are two different disciplines, what might be common could be the fact that both may need to be driven by people who understand their missions. Therefore the South African context of rural development presents an opportunity to all extension advisors to implement it effectively. The reasons are discussed in the next section

2.6.1 The Place Of Extension In Rural Development

Transformation processes in South Africa puts extension in a spot light for service delivery. The recent pronouncement of the new policy on Rural Development and Land Reform namely the Comprehensive Rural Development Programme (CRDP) gives new insight, and clear direction. The CRDP has three major components. The first is Agrarian Transformation which consists of the following: Land, Livestock, Cropping and Commodity. Extension has a big role to play within this component. The second component is Land Reform, which has the following sub programmes: Land tenure, Redistribution, Restitution and Strategic Land. Various provincial Departments of Agriculture are currently involved through their collaborative efforts with different stake holders. For example Limpopo Department of Agriculture (LDA) had seconded agricultural technicians to Land's

Claim Commission for a period of five years in order to assist in the processing of outstanding claims.

The third component of CRDP is rural development whose focus includes: Economic infrastructure, Social Infrastructure, Public amenities & facilities and ICT Infrastructure. Extension will have little direct contribution, but can have an indirect influence for example in economic infrastructure such as markets can serve as a link between the other two components of CRDP when farmers sell their products. It should be understood that the CRDP is a cross-cutting Government's Programme of Action (Ministry of Rural Development and Land Affairs, 2009). Specific areas of intervention by extension are discussed hereunder.

2.7 Recommended Approaches Of Extension Workers Role In Mobilizing Rural Dwellers For Agriculture And Rural Development Activities

The role that extension can play in rural development has been highlighted however there are more tasks that can be performed to render extension effective. Some of the suggested recommendations are discussed hereunder. According to (Neuchatel Group, 1995), extension should be able to fulfil this two roles namely, (a) accessible and useful to the poorest, and (b) to contribute towards the development of pro poor policies. The study makes recommendations in five areas and is discussed in the next section.

2.7.1 Food security

Food security is often defined in terms of food availability, food access and food utilization (USAID 1995) as cited by Rivera and Qamar (2003). Food availability is achieved when sufficient quantities of food are consistently available to all individuals within a country. Such food can be supplied through household production, other domestic outputs, commercial imports or food assistance. Food access is ensured when households and all individuals within them have adequate resources to obtain appropriate food for a nutritional diet. Access depends upon income available to the household, on the distribution of income within the household and on the price of food. Food utilization is the proper biological use of food, requiring a diet providing sufficient energy and essential nutrients, potable water, and adequate sanitation. Effective food utilization depends on knowledge within the household of food storage and processing techniques.

Successful food security and poverty-oriented programmes do not only assist poor rural populations to produce more and diversified products, but to produce a surplus that can be marketed and thereby generate income for the purposes of improving quality of life through improved diet and nutrition. Extensionists have received training which combines technical knowledge and communication skills. They can apply this knowledge to help in improving farming, farm yields and thereby reduce poverty (Neuchatel Group, 2008).

Farmers and communities have little urge to conserve resources unless they are forced by legislation. The inception of land care programmes are the best examples. In the past rangers were used to enforce compliance, experience shows that as soon as a gap exist in the implementation of law enforcement people and farmers go back to misuse of the natural resources. An extensionist does not use force but known strategies of persuasion to assist farmers and communities to conserve natural resources. There are different institutions that can be accessed to learn more about best practices in natural resource conservation in Africa and in the world, for example, the Forum for Agricultural Research in Africa (FARA) has developed a website of best practices (FAO, 2010).

2.7.2 Dissemination of useful Information

Extensionists usually persuade farmers to adopt new practices mainly because they have access to research and its results. They have received proper training that can be executed to benefit the farming communities. Extensionists should access different information needed by farmers in terms of production, cultural practices, markets and marketing. Depending on their tasks they can broaden it if possible to include farmer education and problem solving advices (Rivera, Röling, 1988: 37; Bembridge, Leagans, 1961: 3). Other priority information may have to be identified for dissemination. According to (Arion, Merce, Mihasan & Horvat, 1991: 1) what extension should disseminate to farmers may include: - technology

transfer; - offering economical advice (including book-keeping); - developing agricultural markets and informational system; - developing small enterprises and discovering new alternatives for obtaining profits.

2.7.3 Sustainability Of Projects

One of the tasks of extension is the emphasis on developing the human capital, enhancing his or her capacity to make decisions, to learn and manage the communication process with others, to analyze the environment, to be a leader, to stand up to oppression and to organize (Röling,1988: 37). It is quite a challenge to see many government projects that are not sustainable as soon as the government withdraws its support. They then become "white elephants". Experience has shown that the problem is linked to ownership and group dynamics. Issues of ownership are best understood once farmer groups are trained. Extensionists are well trained to deal with human behaviour. Once they apply their knowledge, projects will have a better chance of becoming sustainable.

2.7.4 Establishment Of Rural Development Centres

For extension to play a meaningful role in rural development, it is recommended that rural development centres be established in rural areas. If the centres could be equipped with internet capabilities, they can be used by both farmers and the members of the community to access different types of information.

2.7.5 Empowerment Of The Farming Groups

The perceived objectives of rural development according to (Schutjer, 1991: 1) include the following: 1) growth in local domestic output-income generation, (2) employment creation, and (3) improvement in income distribution within a limited geographical region. Other proponents of development suggest that the "empowerment" of local citizens is the most appropriate goal for rural development. Extension should strengthen the human resource capacity of poor farmers' organizations, as well as the self-help group capacities to access useful extension services.

There is often inexperienced governance and leadership in many of the resource-poor farmer groups (William and Qamar, 1991:48).

Extensionists can play a role in empowering poor farmers to gain access to capital either through savings or credit. Since they are well trained in terms of local organizational development, they can build farmer institutions, organizing farmers into associations and commodity groups and other forms or co-operative activities. The success of extension in Taiwan and Korea has been equated to farmer associations which extension has played significant role in promoting institutional technology (Rivera, 1989: 95).

2.7.6 Establishment of Agricultural Development Teams

A new kind of teamwork is needed among various rural development organizations, bringing together specialists from across disciplines and from various sectors knowledgeable about the agricultural process. These teams should be able to respond to the farmers and community-expressed needs.

2.7.7 Developing Farmer Leadership

Extension work with different kinds of leaders such as: innovators, opinion, community, or traditional leaders. Leadership involves all different leaders - not only executive leaders, but also networkers (frontline workers, in-house consultants, trainers, and professional staff who spread ideas throughout and outside the organization) and local line leaders (branch managers, project team leaders, and other frontline performers). All have an essential role in bringing about development. Poor leadership is a serious problem which sometimes is manifested within resource-poor farmer groups. They are led by people who perceive the group as an avenue for accessing financial resources from support organizations, while in some cases it is for political ambitions.

Weak leadership tends to create dependency. Weak or inappropriate leadership in farmer groups also inhibits their capacities to address their needs, for example failing to mobilize their resources to reasonable levels before seeking external support (William and Qamar, 1991:48). The greatest danger for "carrying" the

farmers is the fact that it perpetuates a dependency syndrome which destroys self-reliance and confidence. Farmers should be assisted to graduate from one level to another and to assume their true leadership role.

2.7.8 Collaborating with other Role Players

Experience has shown that extension services are not provided by one source, but a number of organizations such as : - other beneficiaries;- organizations and services financed by state; - private companies that sell inputs for agriculture, that offer agricultural credit or buy the agricultural exploitations products;- diverse governmental organizations: political, social, - beneficiaries organizations;- diverse non-governmental organizations; - general mass-media or with agricultural specifically;- private consultants, veterinaries, advocates (Arion, Merce, Mihasan & Horvat, 1991:1).

Different stakeholders need to be coordinated to avoid duplication of scarce resources. One of the important role players is research. There are no proper working relations between extension and research. According to (Du Toit, 2006: 2), the trend to involve extension in research activities gained strong international focus since the 1980's. In countries such as Zambia and Guatemala it is well known that there was real evidence of successful implementation of research/extension collaboration at National level. The idea of cooperation among stakeholders engaged in extension services should be encouraged

2.7.9 Developing A New Extension Agenda

The dynamics of extension is changing and it started in the 1980's, therefore it is recommended that government should develop a new and expanded policy agenda for agricultural extension and communication for rural development. Part of the change should be to focus on food security and income generation of the rural poor.

2.8 Challenges Of Extension Services Provision In Rural Area

2.8.1 Inadequate Transport Facilities

The transport arrangements are not sufficient for agricultural and livestock extension services in Kenya (Speranza et al, 2009). As a result agriculture extension services use group extension approaches like Chief's Barazas (public meetings) and farmer field days. They asserted that the recently acquired vehicles were expected to alleviate the transportation constraints of the extension services. Earlier the extension officers had to either go by foot or borrowed motor bikes and bicycles from the divisional level.

2.8.2 Lack of Extension Field Staffs

The level of staffing was inadequate to meet the Agricultural Extension Services requirements and demands. There had been no hiring of frontline

extension staff and those present did not have adequate transport. Speranza et al (2009) reported that during the last 15 years, the staffing and facilitation of public sector extension had declined mainly as a result of public employment freeze and reduced funding for operations and maintenance. In the public sector, for example, the ratio of frontline extension worker to farmers is about 1:1000 compared to the desired level of 1:400 (Speranza et al, 2009). In the absence of effective private sector operations to fill the vacuum, the situation has led to reduced spatial coverage, targeting and effectiveness of service delivery reflected by clientele complaints.

2.8.3 Inadequate Financial Resources

Funding levels of extension activities in Kenya have been generally low although in the past but have increased progressively, but are still inadequate. Although funding for livestock in the district has been low compared to agricultural extension, agricultural extension staff receives more requests than they can address. Major sources of funding are government and donors in addition to NGOs and local communities. The government funds the general extension; give grants to groups, construction of water pans, relief seeds, farmer education, demonstrations, field days and mobility of staff.

As a result of shortage of funding and reforms, extension services are no longer free as extension officers demand lunch and fuel from the farmers. While some farmers pay for these services with the understanding that the services are at least available, other farmers contend that extension services should be free of charge. Due to groups being enlightened on many issues, they are able to go as groups to seek for these services, and when you get to the officers in the office, they actually help (Speranza et al, 2009).

2.8.4 Improper Policy Focus

Policies limit poorer farmers' access to extension services. The idea of charges on Agricultural Extension Services has affected farmers' access to and adoption of technologies in a number of ways. Any farmer who is able gets the service while those unable end up missing hence non or low adoption. On the other hand, agriculture reported positive outcomes as services not charged are not valued by farmers since it is free. Farmers' willingness to pay for extension services is confined to commercial enterprises farmers, such as fruit growers in agriculture. There is a higher willingness in livestock provided there is confidence in the service provider (Speranza et al, 2009).

2.8.5 Weak Institutions And Inadequate Logistics

The capacity of the institutions or structures to follow up on knowledge-skill-action- behaviour change or adaptation is limited. There is no ability to respond to all farmers needs adequately due to poor transport facilities, poor road infrastructure, large areas to cover, few or inadequate staff, lack of enough facilitation and congested schedule. There is low staff-farmer ratio which affects the staff to overwork. Experiences of district extension administration respondents in managing Agricultural Extension Services over the years showed that the most difficult challenge is mobility and access to information (Speranza et al, 2009).

2.9 Qualities of Extension Worker

1. Sound knowledge of subject–The work of extension worker is to introduce villagers to new ideas and to bring change in their behaviour. But, he cannot be successful in this work unless he himself is aware of new technologies. Only after having full and complete knowledge about latest techniques/technologies, he will be able to impress the people.
2. Burning desire for new knowledge–Extension worker should have burning desire to know his subject and problems and requirements of people, so that the research work of research institutions can be brought to the people and problem of the people could be brought to the research institutions for

analysis and inspection and again their results can be brought to the people. It is correct to say that the extension worker should play the role of teacher as well as that of a student.

3. Explicitness–Extension worker lives alone in the village and he has to provide appropriate solution to the problems of the people. Therefore extension worker should be capable of taking prompt action and providing explicit solution. Opposite trait in extension worker will create disbelief and disappointment among people.
4. Tactful–Extension worker should be tactful and try to derive relevant benefits from the experiences, problems and resources of the people in order to gain their trust and become reliable person for them.
5. Foresightedness–Extension work is a continuous process, therefore, extension worker should have foresightedness to know which type of work will bring, what kind of result and what will be its impact on the people. He should also know which work should be given priority in order to achieve long lasting benefit.
6. Sympathetic attitude–Sympathetic attitude is the best quality in extension worker. If he is capable of listening to the problems of people sympathetically and able to solve them then undoubtedly people will respect and honour him. This is the first and last step for the success of the programme

7. Service attitude–The mentality of extension worker should be filled with servitude. As far as possible at every stage, he should perform his duties and should not exert his rights. Due to this mental attitude, other people will also take interest in social welfare programme and new leadership will emerge and help voluntary in extension work.
8. Attractive personality–Extension worker’s personality should be able to attract people easily. Therefore, the behaviour of extension worker should be lively, polite and courteous so that people of all strata can come in contact with him without hesitation.
9. Faith in programme–Strong faith enhances personality and increases respect among people, Due to strong faith in programme, people get self-motivation to participate in programme and extension work achieve success.
10. Enthusiasm–An attempt without enthusiasm is bound to fail. Therefore, extension worker’s heart should be filled with enthusiasm, zeal and affection. A body without enthusiasm is like a cadaver. Person who himself is not motivated, self-confident and aware, cannot convince others to follow his path. Enthusiasm is sure way for success. It enhances personality of extension worker. It is also relevant here to mention that over-enthusiasm is harmful

2.10 Constraints To Extension Services

National Sample Survey Organization (NSSO, 2005) survey reported that 60 percent of the farmers do not access any source of information for advanced agricultural technologies. As a result, there is a wide adoption gap among farming community to achieve the vertical increase in production through optimum resource utilization. The function of agricultural extension, essentially, is to help farmers to progressively improve their efficiency in farming. Many other factors including policy interventions, price incentives, and institutional support and market facilities also play a significant role. Since agricultural production is entirely in the hands of the farmers, the extension service has the central role in informing, motivating and educating the farmers about the available technological, managerial and market opportunities and enable them to improve their farm productivity and income (Working Group on Agricultural Extension 2007). There are many extension service providers in the field, providing different kinds of useful services like information and service support to farmers. They are state, central government agencies, agri-business companies, agripreneurs, input dealers manufacturing firms, NGOs, farmers' organizations and progressive farmers. There is duplication of efforts with multiplicity of agents attending extension work without convergence. Existing agricultural system is suffering from constraints like – multiplicity of technology transfer system, narrow focus on agricultural extension system, lack of farmer focused & feedback,

inadequate technical capacity, lack of local capacity to validate and refuse technology, weak research-extension linkage, poor communication capacity, inadequate operating and financial sustainability etc.

In India, of the required 1.3 million to 1.5 million extension personnel, there are only about 0.1 million on the job (Working Group on Agricultural Extension 2007). It is observed that most of the staffs associated with extension work are on adhoc or contractual basis, or given additional charges. In Bihar about 2200 Subject matter specialists in Agriculture department are contractual. Similarly, most of the ATMA don't have full time Project Directors which hamper success of extension work. Inadequate funds for undertaking extension activities at State/District/ block levels are another limiting factor. Adequate infrastructure facilities like training hall, teaching aids viz., Projector, TV, LCD, computer, internet connectivity and furniture for carrying out various extension activities at block and Panchayat level are lacking.

1. Inadequate support for promotion of Farmers Organizations (FOs) and Farmer led Extension

The role of farmers' organization in promotion of farmer-to-farmer extension and service delivery is evident from many studies. Farmers' organization can be effectively involved in accelerating technology dissemination and also in improving technical, managerial and marketing skills of farmers. However, the present guidelines and outlay of either state or centre are insufficient for the

encouragement of farmers' organization and hardly cover even a small portion of farming community.

Extension machinery is mostly involved in implementation of a number of central and state sector schemes having input/subsidy delivery. The performance of the main extension system has been adversely affected by the difficulty in recruiting and retaining extension staff due to budgetary constraints and depleting operational support. Inadequate technical background of the majority of the staff is unable to commensurate with the changing scenario of agriculture, resulting in the dependence of farmers on input dealers and others, as sources of information. The major role of extension agencies in technology up-scaling under such circumstances has been minimal and even non-existing.

2. Weak Research-Extension Linkages

The lack of well trained SMSs at different levels is largely responsible for the poor research-extension linkages and the lack of integration across crop and livestock systems. These constraints severely limit technology dissemination system in assisting farmers in exploring improved production practices and incorporating high value commodities into their farming systems. Regular orientation and capacity building of these SMSs is lacking to strengthen the

research and extension interface. In addition to these constraints, there are no effective communication and feedback system with the farmers. During various training programmes of the farmers, most of the farmers especially farmers from Bihar reported that they do not get desired response through Kisan Call Centre.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Area And Scope Of The Study

The study was carried out in Edo State. Edo state is located between latitude 5°51'N -7°33' N and longitudes 5°E-6°40'E.. The study was carried out in Ikpoba-Okha Local Government Area (LGA) of Edo state, which has its headquarters situated in Idogbo, and an area of 862 km² and a population of 371,106 (NPC, 2006). The LGA is divided into ten wards and eighty two communities. It shares common boundary with Ondo state in the West, Delta State in the East and Kogi state in the north. This study will be carried in some rural area in Ikpoba okha where agricultural activities are carried out to investigate role of extension workers role in mobilizing rural dwellers for agriculture and rural development activities.

3.2 Sampling Procedure and Data Collection

A simple random sampling technique was used. A hundred (50) agricultural extension personnel in the Edo State Agricultural Development Programme (ESADP) were selected. ESADP is divided into three (3) agricultural zones (Edo central, Edo South and Edo North) These zones are divided into eighteen (18)

blocks all together. ESADP has a population of twenty nine (29) extension workers and one thousand, one hundred and eighty four (1,184) N-power agro volunteers

Data from primary sources were used in this study. The primary data were obtained through the use of structured questionnaires. Hundred (50) structured questionnaires were administered to extension workers (respondents) in the three zones of ESADP. The use of questionnaires enables the adequate collection of information within the limited time frame of the research study.

3.2 Source Of Data

The researcher adopted the questionnaire as the primary tool for data collection. The questionnaire comprised both close-ended and open-ended question items. Close-ended questions provided a choice of alternative answers from rice farmers are asked to select by ticking; open-ended questions enable the respondent to answer the question using his or her own words. The researcher used interviewer-administered questionnaires. This involves each respondent being asked the same questions by the interviewer, in the same way, in order to eliminate as far as possible any bias (Meadows, 2003).

Measurement of variables

Measurement of variables for the study are the personal characteristics of the respondents and were measured as follows

1. sex was coded as male and female
2. Age was measured in years
3. Marital status was coded as single =1, married =2, divorced =3 widowed
4. Working experience was measured in years
5. Highest level of education was measured on the basis of OND .HND, NCE, B.sc, and was asked to specify if others
6. Family size was measured in numbers

The Dependent Variables Will Measured As Follows

1. Performance of activities-1-10, 1=minimum, 10=maximum
2. Effectiveness of extension workers **In coordinating in agriculture and rural developmentactivities** were measured using a four (4) point scale of highly effective = 4 effective = 3, less effective = 2 and not effective s
1
3. Constraints to Effectiveness of Co-Ordination for ARD by Extension Workers , This weremeasured using a four point scale of very serious as 4 , seious scored as 3 , not serious scored as 2 , not a problem scored as 1

3.3 Method Of Data Analysis

The data collected from the respondents were analyzed using statistical tools such as descriptive statistics (frequency counts, percentages and means) descriptive statistics uses the data to provide descriptions of the populations , either through numerical calculations, graphs or tables.

Objectives 1: To Examine the personal characteristics of agricultural extension workers in Edo State. this were achieved using statistical tools such as descriptive statistics (frequency ,counts , percentages and means)

Objectives 2 : To Examine the extent to which extension workers perform agricultural and rural development activities in Edo State.this was achieved using statistical tools such as descriptive statistics (frequency ,counts , percentages and means)

Objectives 3 : To examine the effectiveness of the coordination of agricultural and rural development activities by extension workers in Edo State..this was achieved using statistical tools such as descriptive statistics (frequency ,counts , percentages and means)

Objectives 4 : To Identify the constraints to the effectiveness of coordination for ARD by extension workers in the study . this was achieved using statistical tools such as descriptive statistics (frequency ,counts , percentages and means)

CHAPTER FOUR

RESULTS AND DISCUSSIONS

4.1 Personal Characteristics of Respondents in the Study Area

4.1.1: Sex Distribution of Extension Workers

Sex distribution of respondents is presented in Table 4.1. About 73.5% of the respondents were males while 26.0% were females. In the past, extension job was reserved for men only believing that it was only men that were farmers and that men needed to reach them (Airemen, 2005). The fact that women are also farmers and need to be reached in order to achieve increased productivity has necessitated the coordination of female extension workers who are believed to be in a better position to do the job of reaching women (Omoregbee and Ajayi, 2009).

4.1.2 Age of Extension Workers

Age distribution of respondents is provided in Table 4.1. 6.1 % were 30 ,More of the respondents (28.6%) were in the age group of 31 to 40 and the remaining 32.7% of them belonged to different age groups of 41-50 (16.0%), 32% were 41-50. And also 32% were 51-60. The mean age of respondents was 45.24., this indicated that they are still in their economically productive age hence, may have

the ability to synthesize information or instructions accessed from varied sources to meet their information need (Uddin, Agwu and Anugwa, 2019).

4.1.3 Marital Status of Extension Workers

The marital status of respondents is shown in Table 4.1. Majority of the respondents (65.3.0%) were married while 26.5% were single, 4% were divorced and 5% were widowed.. With an average age of 45 years, most people should ideally be married and settled, it is also possible that married people in most cases, tend to be spared the unnecessary distractions that attend the lives of most single persons and this could help them focus better to achieve set objectives in their workplace (Uddin *et al*, 2019).

The level of education of extension workers as shown in Table 4.1 indicates that more (75.5%.0%) of the respondents were OND holders, 24.5% held B.Sc/HND .The results implies that extension workers in the study area were literate

4.1.4 Household Size of Extension Workers

The household size distribution of extension as shown in Table 4.1 indicates that more (79.0%) of the respondents had a household size of 5+, 20.4% had a household size of 6+

4.1.5 Grade Level of Extension Workers

The grade level distribution of extension workers as shown in table 4.1 indicates that majority (62.5%) of the respondents were on grade 8-10, 19.4% were on grade 11-13, 13.9% were on grade 14-16 and 4.2% were on grade 4-7. The mean grade level of the respondents in the study area was 10. This implies that respondents in the study area are acquainted with their roles as extension workers and how they should be performed because a high grade level indicates high working experience.

4.1.6 Monthly Income Of Extension Workers

The annual income distribution of extension workers provided in Table 4.1 shows that majority (44.9.0%) had an annual income of 60001.00 - 100000.00 Naira 30.0% had an annual income of 100001.00+ Naira), 10.0% had an annual income of ≤ 60000.00 The mean annual income of respondents in the study area was 91795.92 Naira There is a direct or positive relationship between grade level and annual income. When the grade level increases, the income increases.

Table 4. 1: Socio-economic characteristics

Sex	Freq`	%	Mean	Std. Dev
Male	36	73.5		
Female	13	26.5		
Age				
<= 30.00	3	6.1		
31.00 - 40.00	14	28.6	45.24	8.22
41.00 - 50.00	16	32.7		
51.00 - 60.00	16	32.7		
Marital Status				
Single	13	26.5		
Married	32	65.3		
Others	4	8.2		
Academic Qualification				
No Former Education				
SSCE				
OND	37	75.5		
HND/BSC	12	24.5		
Grade				
<= 10.00	26	53.1		

Table 4.1 con't

11.00+	23	46.9	10.98	2.22
Family size				
<= 5.00	39	79.6		
6.00+	10	20.4		
Monthly income				
<= 60000.00	10	20.4	3.71	1.86
60001.00 - 100000.00	22	44.9		
100001.00+	17	34.7	91795.92	28315.91

Source: Field Survey, 2021

4.1.7 Performance of extension workers activities.

From the research it was found that 10.4% of the workers engage in Monthly technical and review meetings, 12.2% performed Agricultural shows and fairs 16.3% in the Women empowerment schemes, while 12.2% in the Farm and home visits. The study also shows that a 12.2% help in facilitating access to credited input supplies, 44.9% in organizing producers into groups and association, 18.4 % help in disseminating new research based knowledge through training and demonstration, 2% partake in organic farming, 42.9% assist in convening innovative platforms to facilitate, 28.6% in knowledge management, 26.6% also partake in print media and TV programme, 57.1% partake in youth empowerment programmes, 32.7 % partake in linking farmers to markets while 10.2% organize scheduled visits to rural communities.

Training of farmers on the latest farming skills is done by 44.9%, conducting extension activities such as farmers field days, farmers tours is done 20.4%, resolving conflicts in areas where there is conflict with farmers is carried out by 4.1%, while another 4.1% of the extensions workers partake in farmers group development. About 6.1% performed partnership/collaboration facilitation, 10.2 partake in community based needs assessment, 2% partake in cooperative society trainings, another 2% partake in agricultural produce storage facilities, 40.8% partake in supervision of staff, 8.2% perform administrative function while 16.3% partake assist in contacting farmers through mobile and SMS

Finally evaluating local extension programmes to report progress and document impact is done by 2% and organizing participatory demand driven programme planning for extension was done by 57.1 % .

Summarily, the most regularly performed activities includes, contacting farmers through mobile phones and SMS(mean=2.76), Organizing participatory demand driven programme planning for extension (mean=2.61), Agricultural produce storage facilities (mean=2.57), supervision of staff (mean=2.49), Youth empowerment programmes (mean=2.39), Resolving conflicts in areas where there is conflict with farmers (mean=2.37), linking farmers to markets (mean=2.33), partnership/collaboration facilitation (mean=2.22), organizing producers into groups and association (mean=2.20), Farm and home visits (mean=2.18), organic farming (mean=2.16), facilitating access to credited input supplies (mean=2.12), scheduled visits to rural communities (mean=2.08), training of farmers on the latest farming skills (mean=2.08), Agricultural shows and fairs (mean=2.06), cooperative society trainings (mean=2.06), convening innovative platforms to facilitate knowledge management (mean= 2.02), evaluating local extension programmes to report progress and document impact (mean=2.00).

Table 4.2: Performance of activities by extension workers

Activities	VRP		RP		NP		Mean	Std. dev
	Freq	%	Freq	%	Freq	%		
Monthly technical and review meetings	5	10.2	34	69.4	10	20.4	1.90	0.55
Agricultural shows and fairs	6	12.2	35	71.4	8	16.3	2.06*	0.63
Women empowerment schemes	8	16.3	39	79.6	2	4.1	1.96	0.54
Farm and home visits	6	12.2	29	59.2	14	28.6	2.18*	0.44
Facilitating access to credited input supplies	6	12.2	38	77.6	5	10.2	2.12*	0.44
Organizing producers into groups and association	22	44.9	24	49	3	6.1	2.20*	0.41
Disseminating new research base knowledge through training and demonstration	9	18.4	35	71.4	5	10.2	1.84	0.62
Organic farming	1	2	21	42.9	27	55.1	2.16*	0.37
Convening innovative platforms to facilitate knowledge management	21	42.9	28	57.1			2.02*	0.48

Table 4.2 con't

Print media and TV programme	14	28.6	35	71.4			2.18*	0.44
Youth empowerment programmes	28	57.1	21	42.9			2.39*	0.61
Linking farmers to markets	16	32.7	33	67.3			2.33*	0.55
Scheduled visits to rural communities	5	10.2	39	79.6	5	10.2	2.08*	0.53
Training of farmers on the latest farming skills	22	44.9			27	55.1	2.08*	0.40
Conducting extension activities such as farmers field days, farmers tours	10	20.4			39	79.6	1.47	0.54
Resolving conflicts in areas where there is conflict with farmers	2	4.1	35	71.4	12	24.5	2.37*	0.57
Farmers group development	2	4.1	10	20.4	37	75.5	1.43	0.50
Partnership / collaboration facilitation	3	6.1	6	12.2	40	81.6	2.22*	0.69
Community based needs assessment	5	10.2	39	79.6	5	10.2	1.29	0.46
Cooperative society trainings	1	2	13	26.5	35	71.4	2.06*	0.69

Table 4.2 con't

Agricultural produce storage facilities	1	2	23	46.9	25	51	2.57*	0.50
Supervision of staff	20	40.8			29	59.2	2.49*	0.51
Performing administrative function	4	8.2	28	57.1	17	34.7	1.33	0.47
Contacting farmers through mobile and SMS	8	16.3	26	53.1	15	30.6	2.76*	0.52
Evaluating local extension programmes to report progress and document impact	2	4.1	30	61.2	17	34.7	2.00*	0.46
Organizing participatory demand driven programme planning for extension	28	57.1	21	42.9			2.61*	0.53

Source: Field Survey, 2021

VRP=Very regularly performed, RP =regularly performed, NP =Not performed

***Mean \leq 2.0 = performed**

Table 4.3 Effectiveness of extension workers in coordinating activities.

Activities	HE		E		LE		NE		Mean
	Freq	%	Freq	%	Freq	%	Freq	%	
Monthly technical and review meetings	11	22.4	30	61.2	8	16.3			2.45
Agricultural shows and fairs	10	20.4	38	77.6	1	2			3.35*
Women empowerment schemes	10	20.4	39	79.6					3.20*
Farm and home visits	8	16.3	41	83.7					2.43
Facilitating access to credited input supplies	10	20.4	38	77.6	1	2			2.80*
Organizing producers into groups and association	18	36.7	29	59.2	2	4.1			3.29*
Disseminating new research base knowledge through training and demonstration	6	12.2	41	83.7	2	4.1			2.29
Organic farming	2	4.1	14	28.6	33	67.3			3.04*
Convening innovative platforms to facilitate knowledge management	18	36.7	24	49	7	14.3			2.24
Print media and TV programme	13	26.5	26	53.1	10	20.4			2.57*
Youth empowerment programmes	24	49	25	51					3.45*

Table 4.3 con't

Linking farmers to markets			39	79.6	8	16.3	2	4.1	2.86*
Scheduled visits to rural communities	31	63.3	17	34.7	1	2			3.31*
Training of farmers on the latest farming skills	17	34.7	32	65.3					2.78*
Conducting extension activities such as farmers field days, farmers tours	10	20.4	39	79.6					3.51*
Resolving conflicts in areas where there is conflict with farmers	15	30.6	33	67.3	1	2			3.45*
Farmers group development	11	22.4	29	59.2	9	18.4			3.41*
Partnership / collaboration facilitation	4	8.2	20	40.8	25	51			2.86*
Community based needs assessment	3	6.1	36	73.5	10	20.4			2.73*
Cooperative society trainings	2	4.1	34	69.4	13	26.5			3.31*
Agricultural produce storage facilities	22	44.9	27	55.1					1.86
Supervision of staff	17	34.7	14	28.6	12	24.5	6	12.2	3.39*
Performing administrative function	16	32.7	32	65.3	1	2			3.69*

Table 4.3 con't

Contacting farmers through mobile and SMS	20	40.8	57.1	1	2	3.51*
Evaluating local extension programmes to report progress and document impact	25	51	24	49		3.31*
Organizing participatory demand driven programme planning for extension	24	49	25	51		3.51*

Source: Field Survey, 2021

HE = Highly effective, E = Effective, LE = Less Effective, NE = Not Effective

*Mean \leq 2.5= effective

Level of roles performed and effectiveness of roles performed

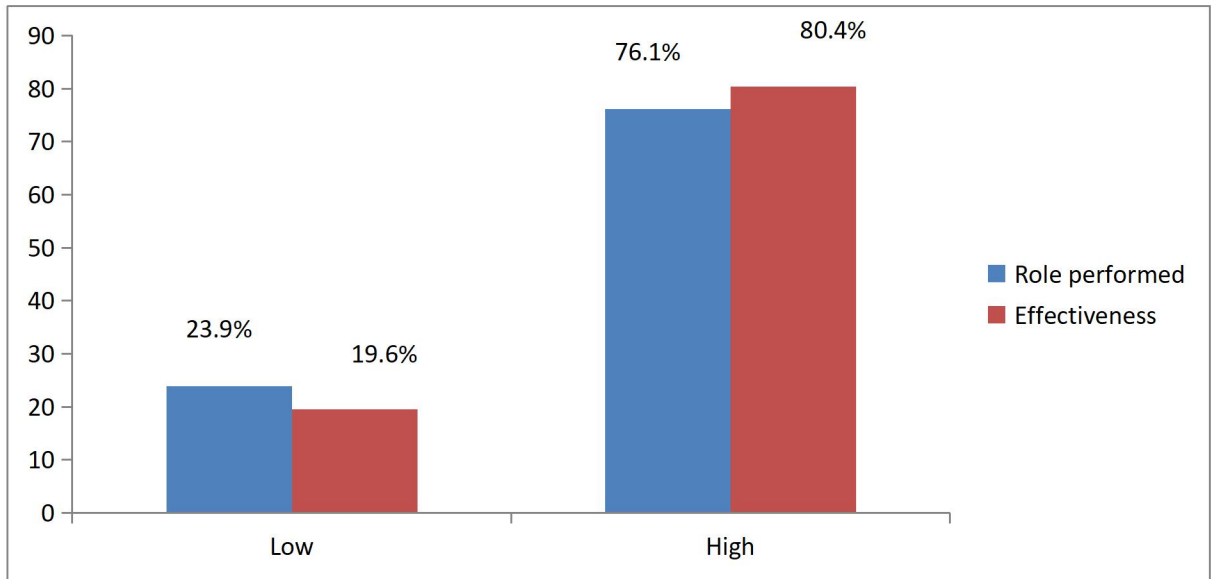


Figure 1: Roles performed and effectiveness

Source: Field survey, 2021.

4.1.7 Constraints to effectiveness of co-ordination for ARD by extension workers

Table 4.4 analysis constraints to effectiveness of co-ordination for ARD extension workers.

According to the table, 57% of the ARD extension workers agreed that inadequate ICT devices enable communication with each other. other constraints agreed are communal conflict (14.3%) ,poverty in the communities(26.5%), transportation challenges (65.3 %) ,poor government policies (36.7 %),low level of agricultural education and extension. (4.1%),inadequate basic amenities (16.3 %),insufficient financial support 59.2 %), poor marketing systems (61.2 %),low and unstable investment in agricultural research (38.8%), poor funding and coordination of agricultural extension 46.9%),poor skills for co-ordination (8.2 %) ,

external responsibilities of farmers (81.6 %) and personal problems (2%)

The mean for the significance as greater than 3.0,this implies that the correspondents had significant constraints to their activities.They including all the identify constraints including transportation challenges, mean=(4.65),insufficient financial support(mean=4.59),lack of ICT devices to enable communication with each other(mean=4.57), Poor marketing systems (mean=3.47), Poor funding and coordination of agricultural extension (mean=4.47) and Low and unstable investment in agricultural research (mean=4.37)

The identified constraints are numerous with high intensities and they hinge on funding and provision of conducive environment to function well .

Table 4.4: Constraints to effectiveness in coordination of ARD by extension workers.

Activities	SA		A		U		D		SD	Mean
	Freq.	%	Freq.	%	Freq.	%	Freq.	%		
Lack of ICT devices to enable communication with each other	28	57.1	21	42.9						4.57*
Communal conflict	7	14.3	40	81.6	2	4.1				4.10*
Poverty in the communities	13	26.5	36	73.5						4.27*
Transportation challenges	32	65.3	17	34.7						4.65*
Poor government policies	18	36.7	26	53.1	5	10.2				4.27*
Low level of agricultural education and extension.	2	4.1	35	71.4	1	2	11	22.4		3.57*
Inadequate basic amenities	8	16.3	41	83.7						4.16*
Insufficient financial support	29	59.2	20	40.8						4.59*
Poor marketing systems	30	61.2	12	24.5	7	14.3				3.47*
Low and unstable investment in agricultural research	19	38.8	29	59.2	1	2				4.37*
Poor funding of coordination	23	46.9	26	53.1						4.47*
Poor skills for co-ordination	4	8.2	42	85.7	3	6.1				4.02*
External responsibilities of farmers	40	81.6	1	2	8	16.3				3.65*
Rural urban migration										3.86*
Personal problems	1	2	43	87.8	2	4.1	3	6.1		3.84*

Source: Field Survey, 2021

*Mean > 3.0 = Serious constraints

4.1.8 Hypothesis testing

Results in Table 4.5 shows the relationship between socio-economic characteristics and effectiveness in coordination by extension workers. Age($r=0.132$, $p= 0.032$) grade($r= -0.715$ $p= 0.125$) family size ($r= 0.351$ $p= 0.143$), montly income ($r=3.115$, $p=0.889$) and their involvement in agriculture and rural development activities .

Table 4.5 Relationship between socio-economic characteristics and effectiveness of roles performed by extension workers

Variable	Coef.	Std. Err	t-statistic	Sig.
Constant	25.142	3.365	7.4716**	0.000
Age	0.132	0.032	4.125**	0.000
Grade	-0.715	0.125	-5.72**	0.000
Family size	0.351	0.143	2.4545*	0.025
Monthly income	3.115	0.889	3.5039*	0.000

Source: Field Survey, 2021

R square = 0.621; Adjusted R square = -0.391

**Significant at 0.01 level of significance

*Significant

Correlation between roles performed and effectiveness

Variable	Correlation coefficient	Sign
Roles performed	0.571**	0.001

Source: Field Survey, 2021

From the hypothesis testing table above, it can be deduce that the Socio-economic characteristics and effectiveness of roles performed by extension workers has a R square of 0.621, the level of significance is 0.01, while the correlation coefficient is 0.571

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

The study specifically described the effectiveness of extension workers in coordinating agriculture and rural development activities in Edo State Nigeria. Furthermore it ascertained the extent of extension workers' responsibility in coordinating the activities of extension workers in carry out the activities of agricultural development activities in Edo state. The research answered the various objectives of the study which are to Examine the personal characteristics of agricultural extension workers in Edo State, Examine the extent to which extension workers perform agricultural and rural development activities in Edo State. The study also answer the objectives of How effective is the coordination of agricultural and rural development activities by extension workers in Edo State.

A total of one Fifty (50) detailed and well-structured questionnaires were distributed, retrieved and used for the study. The study indicated that 73.5% of the respondents were males while 26.5% accounted to be females. The mean age of extension workers was 8 indicating that they are still in their economically productive age. Majority of the respondents (65.3%) were married. The results also showed that majority (24.5%) of the respondents were HND/BSC holders,

75.5% were OND which indicates that the respondents were literate and well educated. The mean grade level was 2.22 which signifies that the respondents were well acquainted with their roles as extension workers. The mean Monthly income of respondents in the study area was 28315.91 Naira.

The findings of the study showed a significant functionality of all extension workers in coordinating agriculture and rural development activities in Edo State Nigeria. The results also showed major constraints of extension workers in coordinating agriculture and rural development activities in Edo State Nigeria (R square = 0.621; Adjusted R square = -0.391).

5.2 Conclusion

The study suggests that the role performance of extension workers is problematic and contributes to the general challenge for rural dwellers development .One of the key Issues in the effectiveness of Nigerian agricultural extension is role impact . The results from this study showed effectiveness of extension workers in coordinating agriculture and rural development activities in Edo State Nigeria,, they were effective in information dissemination of these operations. They also expressed information needs and constraints to information dissemination were discovered.

5.3 Recommendations

Based on the findings of this study, the following recommendations were made:

1. The extension workers should be given adequate training to address knowledge deficiencies/information needs in co-ordinating and moderating agricultural activities in the rural area.
2. Extension workers should be funded properly so to co-ordinate the activities agricultural in the rural area.
3. Farmers society should be properly strengthened by regularly monitor the already existing groups and provide the needed services .
4. Regular training on skill/knowledge in human relation and technical knowledge of agricultural and rural development should be conducted for extension workers in order to promote effective extension service delivery and rural development

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QUESTIONNAIRE

**DEPARTMENT OF AGRICULTURAL ECONOMICS AND EXTENSION
SERVICES,
FACULTY OF AGRICULTURE,
UNIVERSITY OF BENIN,
BENIN CITY, EDO STATE.**

Dear Sir/Madam,

REQUEST FOR RESEARCH OPINION

I am a final year student of the above named Department and institution. I am conducting a research titled: “EFFECTIVENESS OF EXTENSION WORKERS IN COORDINATING AGRICULTURAL AND RURAL DEVELOPMENT ACTIVITIES IN EDO STATE, NIGERIA”. You have been selected as a sample for this study.

I appeal to you to assist this study by kindly sparing a few minutes to complete the attached questionnaire. You are not required to disclose your identity. I also wish to assure you that your answers will be treated in strict confidence and only for academic purpose.

Thanks for your cooperation.

Yours Faithfully,

OKEKE, CHIAYIAMAKA EZERA

SECTION A: Personal Characteristics of Extension Workers

Please answer the questions and tick the options correctly

1. Sex: Male [] Female []
2. Age: _____
3. Marital Status: Single [] Married [] Others []
4. Academic Qualification: No Former Education [] SSCE [] OND []
HND/BSC []
5. Grade _____
6. Family size _____
7. Monthly income _____

SECTION B & C

QUESTION B: To what extent do extension workers perform agricultural and rural development activities in Edo State?

QUESTION C: How effective is the coordination of agricultural and rural development activities by extension workers in the study area?

Key: VRP = Very regularly performed, RP = regularly performed, NP =Not performed, HE = Highly effective, E = Effective, LE = Less Effective, NE = Not Effective

Please indicate the extent to which you perform the following roles and the effectiveness.

Extension Workers activities	PERFORMANCE			EFFECTIVENESS			
	VRP	RP	NP	HE	E	LE	NE
Monthly technical and review meetings							
Agricultural shows and fairs							

Women empowerment schemes							
Farm and home visits							
Facilitating access to credited input supplies							
Organizing producers into groups and association							
Disseminating new research base knowledge through training and demonstration							
Organic farming							
Convening innovative platforms to facilitate knowledge management							
Print media and TV programme							
Youth empowerment programmes							
Linking farmers to markets							
Scheduled visits to rural communities							
Training of farmers on the latest farming skills							
Conducting extension activities such as farmers field days, farmers tours							
Resolving conflicts in areas where there is conflict with farmers							
Farmers group development							
Partnership / collaboration facilitation							
Community based needs assessment							
Cooperative society trainings							
Agricultural produce storage facilities							
Supervision of staff							
Performing administrative function							
Contacting farmers through mobile and SMS							
Evaluating local extension programmes to report progress and document impact							
Organizing participatory demand							

driven programme planning for extension							
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SECTION D: Constraints to Effectiveness of Co-Ordination for ARD by

Extension Workers

Key: SA=Strongly Agree, A=Agree, UD=Undecided, D=Disagree, SD=Strongly Disagree

Constraints	SA	A	UD	D	SD
Lack of ICT devices to enable communication with each other					
Communal conflict					
Poverty in the communities					
Transportation challenges					
Poor government policies					
Low level of agricultural education and extension.					
Inadequate basic amenities					
Insufficient financial support					
Poor marketing systems					
Low and unstable investment in agricultural research					
Poor funding and coordination of agricultural extension					
Poor skills for co-ordination					
External responsibilities of farmers					
Rural urban migration					
Personal problems					