

---

**ASSESSMENT OF THE TRAINING NEEDS AMONG AGRICULTURAL EXTENSION WORKERS IN GOMBE STATE AGRICULTURAL DEVELOPMENT PROGRAMME**

---

**ABDULHAMID, Auwal and HALILU, Emmanuel**  
**Vocational and Technology Education Programme**  
**School of Technology Education.**  
**Abubakar Tafawa Balewa University, Bauchi.**  
**abdulhamidauwal@yahoo.com**

---

**Abstract**

*This study assessed the training needs of agricultural extension workers in Gombe State Agricultural Development Programme (GSADP). Four objectives and four research questions were formulated to guide the study. The population of this study was all agricultural extension workers that are working at various locations throughout Gombe State. The selection of extension worker from the study area was through simple random sampling. Five (5) village extension agents were randomly selected from each local government area, given a total of fifty five (55) respondents. The instrument for data collection was a structured questionnaire designed by the researchers and validated by experts from Vocational and Technology Education Programme, School of Technology Education, Abubakar Tafawa Balewa University, Bauchi. The data were collected with the aid of questionnaire distributed to the respondents. Descriptive statistics was used to analyze the data. The findings shows that there is training needs for extension workers in GSADP. There are problems associated with extension service delivery. Based on these findings it is recommended that extension workers should be encouraged to attend seminars, conferences, and additional courses in higher institution, their welfare needs such as good housing, medical services and regular promotion should be provided so as to motivate them to work more efficiently. There should be funding for extension visit so as to increase their service delivery.*

---

**Introduction**

With the exploration of petroleum in the sixties agricultural development was relegated to the background which has now resulted to an increased level of poverty and food insecurity (FAO, 2001). Despite the importance of food in our livelihood, the farmer is often the last appreciated member of the community particularly in developing countries like Nigeria (Bone, 2008). The farmer works longer hours to produce his crops and livestock but at the end receives lower prices for his products. For the farmer to make progress, he has to make the proper linkage with the immediate extension workers in his locality. One of the most effective means of transforming Nigerians agricultural resources to sustained agricultural development is through an effective extension system. Improved agricultural extension management system is recognized as a central mechanism to achieving increased food production through technology transfer (FAO, 2001).

It is widely recognized that the development of agricultural extension officers is one of the crucial requirement for overall economic growth (Oyatoye, 2003). An improved farmer condition of living is not possible without an effective agricultural extension services supported by agricultural research that is relevant to the needs of the farmers. It is impossible to define the role of extension workers in a few words however; he is the catalyst to the development of the farmer. The extension workers are expected to improve farmers living standard, help farmers achieve their long and short term objectives and

make practical suggestion which will enable farmer's device methods of overcoming their problems assist farmers with the implementation of natural policies as well as assist farmers with the organization of farming structures (FAO, 2001). For any extension agent to accomplish his work satisfactorily he/she must have great skills of judgment, deep understanding of the people and a high level of technological expertise. He/she is also expected to show scientific competence and social responsibility (Oladoja, 2004). However, in developing countries like Nigeria, extension work is often carried out by the lowest paid and least educated agricultural personnel (Mc Gee and Paul, 2001). Despite the increasing demand for food and the need to introduce new technology to farmers, the task of extension is often entrusted to less qualified staff (Ejembi et al, 2006). The Extension staffs are expected to have better skills of extensions services delivery but previous reports shows that most of the developing countries lacked effective extension because of use of inadequate training of extension staff and the use of outdated method of training (Airemens, 2005). For any extension organization to improve its performance a continuous and systematic training of it staff is necessary (FAO 2001).

There is therefore no doubt that a nation's research and extension system remain the most important single determinant to the level of its agricultural development and also a yardstick to the quality of life of its people (Radhakrishna and Thomson, 2006). From development studies carried

out, no country has been known to achieve any meaningful progress in agricultural development without substantial investment in agricultural research and extension (Arokoyo and Delwa, 2000). It has also been shown that the performance of extension system has not been commensurate with the size, scope and level in the system as evidenced by poor productivity and the scandalously high food import bills as pointed out by the president of Nigeria (Arokoyo and Delwa, 2000). The authors further highlighted that to move the nation's agriculture forward, the extension system must be given attention to make them able to give the farmer what they need. Thus, this study therefore attempt to assess the training needs of Gombe State extension workers and to make recommendation on how they can be effectively used to transform agricultural productivity in Gombe State in particular and Nigeria at large.

Today, educational programmes delivered by extension agents in Gombe state Agricultural Development Programme are channeled to meet the needs of the people they serve. Radhakrishna and Thompson (2006) also stated that extension agent particularly require experiential learning that provides them with opportunities to relate with rural people in an interactive process that combines scientific technical knowledge with local indigenous knowledge in client – centered problem solving activities. To satisfy this requirement, there is a need to regularly analyze the technical competence and job performance of extension staff in the organization. Yondeowei and Kwarteng (2006) defined training need as the differences between the required level of individual competence and his present level of competence. Allo (2001) pointed out that one of the main factors limiting the development of effective training programmes for agricultural professionals in developing countries is the inadequacy of information on their training need. In this regard, there is also the need to rationalize training to minimize repetition of the same message, more exposure to relevant technology and communication techniques, more avenues for personal career development and frequent contact between various categories of extension personal.

### Statement of the Problem

Quantifying the contributions of extension to agricultural development in Gombe State and Nigeria as a whole may not always be possible but there is little doubt that effective extension contributes significantly to agricultural production. A sustained high level of agricultural production and income generation is not always possible without an effective extension services (Arokoyo and Delwa, 2000). Agricultural development occurring with weak extension services is usually slow. A continued

wide spread improvement in agriculture requires a professional and effective extension service delivery (Androuhdkis and Siardos, 2005). Agricultural research institute, extension agent and farmers are therefore all to be held responsible for the poor performance of the nation's agricultural sector.

### Objectives of the Study

The broad objective of this study is to assess the training needs among agricultural extension workers in Gombe State Agricultural Development Programme (GSADP). While the specific objectives are as follows:

- (i) To determine the socio-economic status of the respondents
- (ii) To determine the training needs of extension workers
- (iii) To determine staff welfare needs for effective discharges of extension activities
- (iv) To identify areas of improved extension service.
- (v) To identify the problems associated with extension delivery service in the study area.

### Research Questions

- (i) What is the socio-economic status of the respondents
- (ii) What are the training needs of extension workers
- (iii) What are the staff welfare needs for effective discharge of extension activities?
- (iv) What are the areas through which extension service can be improved?
- (v) What are the problems associated with extension service delivery?

### Methodology

The design for this study is survey research design. The study area covered all the two zones of the Gombe State Agricultural Development Programme. Gombe State is located at the latitude of  $9^{\circ} 30'$  and  $12^{\circ} 30'$  North of the equator, longitude  $8^{\circ} 45'$  and  $11^{\circ} 45'$  east of the green witch meridians. It is located in the centre of the north east geopolitical zone of Nigeria. The state covers a land mass of  $20,265\text{km}^2$ . The state has worm climate not exceeding  $30^{\circ}\text{C}$  during hottest months (March-May), with an annual average rainfall of 850mm (Wikipedia, 2008). The population of this study was all village extension workers of the state. The sampling technique was simple random sampling. Five village extension agents were randomly selected from each of the eleven Local Government Areas of the state, giving a total of 55 respondents. The instrument for data collection was structured questionnaire. The method for which the data was collected on this research work was based on direct contact with the respondents. The respondents were

given the questionnaire to respond and collected thereafter for analysis. Descriptive statistics was used for the analysis of data.

## Results

### Research Question One

What is the socio-economic status of the respondents

#### Socio-Economic Characteristics of the Respondents

The essence of this is to analyze the biodata of the respondents based on age, sex, educational qualification and experience in extension service. From table 1 it can be seen that the age distribution of the respondents. It revealed that 5 9.1% of the respondents were age under 25 years, 36.4% belong to the age bracket of 26-35 years. 32.7% were aged 36 – 45 years, while the remaining 21.8% of the respondents were above 45 years. This showed that

most of the agricultural extension agents are in their active age, still young, energetic and full of vigor that can assimilate new training and innovation. Table 1 showed that majority of the extension workers are male constituting 70% while the remaining 30% are female. This may be as a result of the cultural and religious belief of the people living in the study area, as they are predominantly Muslims. The table showed that majority of the staff had Higher National Diploma (HND) which constituted 36.4% while those with B.Sc./B.Ed. and M.Sc./M.Ed. constituted 12.7%. However, this table leaves no one in doubt that there is need for further training of the extension workers, since 50.9% had qualification below HND level. The Table also showed that 10.9% had experience of below 5 years, and 16.4% had experience of 5–10 years in extension services, 21.8% had experience of 11 – 15 years, 38.2% had experience of 16 – 20 years, while the remaining 12.7% had experience of above 20 years.

**Table 1: Socio-Economic Characteristics of the Respondents**

Age	Frequency	Percentage
Below 25 years	5	9.1
26 – 35 years	20	36.4
36 – 45 years	18	32.7
Above 40 years	12	21.8
<b>Total</b>	<b>55</b>	<b>100.00</b>
<b>Sex</b>		
Male	39	70
Female	16	30
<b>Total</b>	<b>55</b>	<b>100.00</b>
<b>Qualification</b>		
SSCE	7	12.7
Diploma	12	21.8
NCE	9	16.4
HND	20	36.4
B.Sc./B.Ed	4	7.2
M.Sc./M.Ed	3	5.5
<b>Total</b>	<b>55</b>	<b>100.00</b>
<b>Years of Experience</b>		
Below 5 years	6	10.9
5 – 10 years	9	16.4
11 – 15 years	12	21.8
16 – 20 years	21	38.2
Above 20 years	7	12.7
<b>Total</b>	<b>55</b>	<b>100.00</b>

**Source:** Field survey, 2011.

### Research Question Two

What are the training needs of extension workers?

Table 2 showed that item 1, 2, 3 and 4 of the questionnaire were agreed as shown by mean response of 3.52, 3.65, 3.50 and 3.58, respectively, and item 5 was disagreed as shown by the mean

response of 3.2. This revealed that majority of the respondents agreed with the item listed their training needs.

**Table 2: The Training Needs of Extension Workers**

S/N	Items	Mean	Remark
1.	Attending seminars and conferences regularly.	3.52	Agreed
2.	Attending in-house monthly training.	3.65	Agreed
3.	Provision of full sponsorship for outside training of extension personnel.	3.50	Agreed
4.	Extension staff attending additional higher courses.	3.58	Agreed
5.	Registration of extension staff to extension associations.	3.20	Disagreed

**Research Question Three**

What are the staff welfare needs for effective discharge of extension activities?

Table 3 showed that all the items of the questionnaire were agreed by the respondents as shown by their mean response of 3.50, 3.53, 3.87, 3.60 and 3.50. This shows that the majority of the extension workers,

agreed with the fact that for them to discharge their duties more efficiently their welfare needs must be provided.

**Table 3: The staff welfare needs for effective discharge of extension activities.**

S/N	Items	Mean	Remark
1.	A good housing policy	3.50	Agreed
2.	Good health and medical care services for staff	3.53	Agreed
3.	Well organized staff transport services to ease staff movement	3.87	Agreed
4.	Good retirement plans for extension staff.	3.60	Agreed
5.	Regular promotion for extension staff	3.50	Agreed

**Research Question Four**

What are the areas through which extension services can be improve?

Table 4 showed that item 1, 2, 4 and 5 of the questionnaire were agreed by the respondents as shown by their mean response of 3.52, 3.50, 3.56, and 3.74 respectively and item 3 of the questionnaire

was disagreed as shown by the mean response of 3.0. This shows that the extension staff agreed that this items need to be put in place for extension services to improve.

**Table 4: The area through which extension services can be improve**

S/N	Items	Mean	Remark
1.	Well stocked library for extension staff use	3.52	Agreed
2.	Subscription of adequate and current agricultural research Journals.	3.50	Agreed
3.	Vehicles for the extension service delivery should be made available at all times	3.0	Disagreed
4.	Adequate funding for extension visit	3.56	Agreed
5.	Timely dissemination of information through Radio and Television.	3.74	Agreed

**Research Question Five**

What are the problems associated with extension service delivery?

Table 5 showed that all the items of the questionnaire were agreed by the respondents as shown by their mean response of 3.50, 3.70, 3.54, 3.79 and 3.60 respectively disagreed. This shows that majority of

the extension workers agreed with the fact that all the items listed are some of the challenges they are facing which need to tackled by the government through the ADP's.

**Table 5: Problem associated with extension service delivery**

S/N	Items	Mean	Remark
1.	Unavailability of Agricultural inputs at affordable price for adoption of innovation	3.50	Agreed
2.	Inadequate multi media for extension use	3.70	Agreed
3.	Unavailability of Agricultural credit to the farmers.	3.54	Agreed
4.	Inadequate printed agricultural media for free distribution.	3.79	Agreed
5.	Inadequate number of extension workers	3.60	Agreed

### Summary of Major Findings

Base on the data analyzed the following are the major findings of the study.

1. Majority of the Extension workers in the study area young (less than 45years), male, have HND as their maximum qualification and have less than 20 years working experience.
2. There are training needs for extension workers in ADP of Gombe State.
3. There are staff welfare needs for effective discharge of extension services by the extension staff of ADP.
4. Some areas were identified through which extension services can be improved.
5. There are some problems associated with extension service delivery in Gombe State.

### Discussion of Findings

The findings showed that the extension workers in Gombe State had training challenges or training needs, which call for them to attend conferences regularly, in house monthly training, outside training and going out for additional courses in higher institutions are necessary. Aireman, (2005) in his finding state that the bulk of extension workers are junior staff, holders of certificates from schools of agriculture or Ordinary National Diploma (OND) from Colleges of Agricultural, many others he said are primary school leavers without formal training in agricultural science. The major qualification is minimal ability to read, write and record field observations. Madukwe, (2004) in a supportive statement said that majority of field extension workers are generally with sub-university training such as the Ordinary National Diploma (OND) and the Higher National Diploma (HND) as their highest academic qualification. The finding of the study showed that, for the extension workers to discharge their activities more effectively and efficiently, their welfare needs such as good housing policy, health and medical services, good retirement plans and regular promotion need to be addressed. Baxter (2004) in a supportive statement said that, the living conditions of field extension workers must be improved by providing adequate facilities for housing, transport, medical and educational allowances.

The findings revealed that the ways through which extension service can be improve include: the ADP should have a well stocked library, they should subscribe for adequate and current agricultural research journals, good funding for extension service visit and dissemination of information through radio, television that all should be made available. Fernando (2008) in a supportive statement said that, factors such as the good working environment for field extension workers, funding of their visits and involvement of the extension workers in work decision are important for improving extension work and activities.

The findings also showed that there are problems associated with extension services delivery. These problems include: agricultural input are not readily available at an affordable prices, credit facilities is not easily accessible by farmers, printed agricultural media are not always available for free distribution and lack of man power amongst others. Perumal (2005) in a supportive statement said that, the assessment of the number of extension staff and their educational qualification is very essential because unsatisfactory educational level of extension staff is one of the most serious problems of agricultural extension in developing countries.

### Conclusion

From the findings of this study, it can be deduced that the extension workers of the Gombe State Agricultural Development Programme (GADP) are in need of more training. This means that extension agents should be made to obtain higher qualifications like B Sc, M Sc and PhD in agricultural extension. This is to give them a broad view of extension work, because training remain an essential factor for meeting up with the trends in knowledge and drive for effectiveness, not only in agriculture but in all field of the economy and especially since the world of agriculture is fast and constantly changing and advancing.

### Recommendations

The following recommendations were made based on the findings:

1. There should be regular retraining in form of organizing seminars, workshops, conferences etc which will help in diversifying various aspects of farming and the farmer's life, since it will aid in

- expanding their abilities to relate comprehensively with both farmers and their families and also the community in which they find themselves.
2. Both the Federal and State Governments, Development Partners through the agricultural development programme, should provide the extension workers with their welfare needs for effective performance.
  3. The Federal and State Governments with the Development Partner in the field of agriculture are to provide well stocked library for research as well as funds for extension visits so as to improve extension services in the country.
  4. Government at all levels should ensure that, there is adequate agricultural inputs at an affordable price for farmers, easy access to agricultural credit facilities by farmers, and enough man power to handle the extension work.

## References

- Airemen, S. A. (2005). Training needs of extension staff in Agriculture: A case study of Edo State Agricultural Development Programme. Unpublished B. Sc. Project, Department of Agricultural Economics and Extension, Faculty of Agriculture, University of Benin, Benin City. Pp 10 – 18.
- Allo, A. V. (2001). Professional requirements of the extension worker in training the extension worker. FFTC extension bulletin No. 173.
- Androuhdkis, S. I. and Siardos, G. C. (2005). Agricultural extension agent's perception regarding their relevance and competence in certain professional task area. 114pp. Retrieved on 12/5/2011 from <http://www.Jimmyproject.org>.
- Arokoyo, T. N and Delwa, C. (2000). Fundamental of effective extension training. *Journal of International Agriculture and Extension Education*. 32 (3):6 – 18.
- Baxter, M. (2004). Improving agricultural extension investment. Extension Bulletin Book No. 157.
- Bone, S. (2008). **Farmer's assessment of their livelihood in developing countries**. Agricultural extension guide book. University of Ibadan press, Ibadan. pp (19 – 20).
- Ejembi, E. P., Omoregbee. F. E. and Robert S. A. (2006). "Farmers' assessment of the training and visit extension system in central Nigeria: Evidence from Barkin Ladi Local Government Area, Plateau State. *Journal of social science*, 12 (3):207 – 212.
- FAO, (2001). Global consultation on agricultural extension services. *A Journal of Extension Education*, 2 (3):11 – 14
- Fernando, A. N. (2008). Factors limiting the effectiveness of extension system in developing Countries. An analysis of Evidence from Sri-lanka's Coconut subsector.
- Madukwe, M. C. (2004). Delivery of agricultural extension service to farmers in developing countries. University of Nigeria Nsukka press, Enugu. pp 15 – 17.
- Mc Gee, W. and Paul. T. (2001). **Training in industry and business**, Willey Publishers, New York, USA, pp 30 – 36.
- Oladoja, A.M. (2004). Analysis of the training needs of extension agents in Lagos State Agricultural Development Programme. Unpublished B. Sc. Project. Department of Agricultural Extension and Rural Development. Faculty of Agriculture, University of Ibadan. Pp 50 – 53.
- Oyatoye, C. (2003). **The growth of agricultural extension and modern farming technique**. University of Ibadan press, Ibadan. pp 157 – 161.
- Perumal, G. (2005). Effectiveness of Agricultural Development Training Program. An analysis of evidence from Indian Agricultural programmes. Retrieved on 15<sup>th</sup> July 2011 from <http://www.ipms-thiopia.org/content/files>.
- Radhakrishna, R. B. and Thompson, J. S. (2006). Extension agents' use of information sources. *Journal of Extension*. 34(1): 12 – 17.
- Wikipedia (2008). Location of Gombe State in Nigeria. The Demographic study of Gombe State. Retrieved on 15<sup>th</sup> July 2011 from <http://www.wikipedia.org/wiki/gombestate>.
- Youdeowei, A. and Kwarteng, J. (2006). Assessment of Training needs of extension staff. Agricultural publication. Retrieved on 15<sup>th</sup> April 2011 from <http://www.agroscinceJournal.com/publication>.