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Assessment of the nature and various assistance rendered to farmers by agricultural transformation agenda support programme Phase-1 in Sokoto state, Nigeria

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Abstract

This study assessed the nature and various assistance rendered to farmers by ATASP-1 in Sokoto State, Nigeria. A Multi stage random sampling technique was employed to draw a sample of 240 respondents from the sokoto. A set of structured questionnaires were used to obtain information from the respondents. Descriptive statistics was used for data analysis. The result of the study showed that majority (87.5%) of the respondents were male while female participating respondents formed the minority with (12.5%). The research study also found out that ATASP-1 provided agro-inputs to farmers such as improved varieties of seeds (95.8%), fertilizers (49.6%), Agro- chemicals (33.3%). It was found out that ATASP-1 constructed different kinds of infrastructural facilities such as market stalls(17.5%), dispensaries (12.5%), primary school classrooms (27.5%), overhead tanks(12.9%) etc to benefiting communities. The study further revealed that (87.5%), (96.7%) and (1.3%) respondents benefited from value addition techniques and capacity building respectively. The survey further identified that (65.4%), (76.7%) respondents respectively were provided with both method and result demonstration strategies. The study further revealed that ATASP-1 provided training to farmers on improved farming methodologies through mass extension programmes such as radio/ television program (58.8%) and group discussion (78.3%). Similarly, 3.9% and 4.6% considers ATASP-1 to have provided training to farmers and improved farming technologies respectively. In conclusion, it was found out that ATASP-1 impacted positively and significantly on the livelihood of the participating farmers. It is recommended that provision of extension services to farmers in groups should be encouraged due to scarcity of AEAS, provision of more improved inputs like seeds of various crops, fertilizers and agro chemicals etc, provision of extension services through non-visits such as radio and television programmes should be intensified by ATASP-1, organizing refresher courses and in-service training for extension staff to equip them with modern skills to effectively disseminate improved agricultural technology to farmers.

Keywords: evaluation, nature, assistance rendered, farmers, agricultural transformation agenda support programme phase-1

Introduction

Agricultural Transformation Agenda (ATA) was established in the year 2011 and was aimed at making agriculture work for Nigerians especially rural farmers such that it becomes not just a development Programme but also an income generating activity. The transformation Agenda of the past administration was a policy package that proposes to reposition the economy by addressing issues of poverty, unemployment, insecurity and most particularly, the diversification of the entire economy from total dependence on oil to a significant reliance on non-oil to drive the economy. Transformation Agenda is a policy that revolves around good governance, power, security and development of non-oil sector such as manufacturing and solid minerals, investment in infrastructure, education and anti-corruption crusade. (International Food policy Research Institute) (IFPRI), 2015).

As a result of the short comings of the ATA such as Insufficient provision of access to improved variety of seeds and other agricultural inputs, credit access particularly for small holder farmers remains weak, Nirsal's change in credit guarantee rules disrupted market for agricultural financing until mid – 2015 when rules were reviewed again, investment inflows into infrastructure and midstream logistics e.g. ware houses, storage and processing systems remain rudimentary, growth in food production remains limited due to gaps in input supplies e.g. rice, post-harvest losses still an issue but improving moderately, illegal food imports remain an issue, depriving farmers of market opportunities, Federal – State coordination of policy became significant challenge, absence of Programme delivery infrastructure unit at the Federal and State levels; hence tracking results and/or monitoring and evaluation of the programme continues to be a challenge (Ake 2013) ^[5]. ATA

was aimed at job creation, accelerating food productivity, infrastructural development, commodity value chain development, provision of improved agricultural inputs, reduction in post-harvest losses etc. which was part of the Federal Government of Nigeria's effort to restructure the Agricultural Sector, ensure food security, diversify the economy and enhance foreign exchange earnings, with a focus on the development of agricultural value chains, including the provision and availability of improved inputs such as seeds, fertilizer, increased productivity and production, as well as the establishment of Staple Crop Processing Zones. It also aimed at addressing the reduction in post-harvest losses, improving linkages with industry with respect to backward integration, as well as access to financial services and markets. National Planning Commission blue print (FGN, 2015) ^[17].

It was based on the limitations of ATA that ATASP-1 was established in 2015 to bridge its limitations. ATASP-1 was established by the Federal Government of Nigeria (FGN) through Federal Ministry of Agriculture and Rural Development (FMARD) collaborated with African Development Bank (AFDB) to conceive, plan and develop the Agricultural Transformation Agenda Support Programme Phase I (ATASP-I) to directly build on the ATA of previous administration as a result of the perceived failure of the Agricultural Transformation Agenda (ATA) to accomplish the aims and objectives with which it was established. But ATASP-1 focuses mainly on agriculture, infrastructural development and value addition capturing few States and Local Government areas. The weaknesses observed in ATA prompted the present administration to come up with ATASP-1 to replace ATA towards the realization of the objectives that were not attained by ATA (FGN, 2015) ^[17]. The study on ATASP-1 will immensely benefit the participating farmers, ATASP-1 staff, extension agents, policy makers and government. It is because of this that the researcher developed interest in assessing/evaluating the weaknesses and strengths, successes and failures of the ATASP-1 as a policy.

Methodology

Description of the study Area

The study was carried out in Sokoto and Kebbi States, Nigeria. ATASP-1 is currently implemented in only Kware Local Government Area of Sokoto State, North-Western Zone of Nigeria. The choice of the study area was premised on the fact that it is among the Zones covered by ATASP-1 as a pilot study in the country. Sokoto State was created in 1976 and lies in Northwestern region of the country with its capital in Sokoto State. Sokoto State shares its border with Niger Republic to the North, Zamfara State to the east, and Kebbi State to the south-east and Benin Republic to the west

(Sokoto State Government, 2006). Sokoto State has a land mass of 25,973 square kilometers and has a population of 427,760 based on 2006 census. Sokoto State is made up of 23 Local Government Areas, the State lies approximately between latitude 11⁰,33,42,N and 13⁰,59,7,N and longitude 4⁰,9,36,E and 6⁰,45,33,E. (NPC, 2006).

Agriculture is the main occupation of the people of the state especially in rural areas. Crops produced are mainly grains like Rice, Millet, Sorghum etc; animal rearing and fishing are also common agricultural activities that feature prominently in the State. The weather of the State is often dry with lots of sunshine. The wet season last from May to October while the dry season lasts for the remaining period of the year. Mean annual rainfall is about 800mm- 1000mm. Temperature is generally high with mean annual temperature of about 26 °C and above in all locations of the state. This climatic peculiarity allows for meaningful investment in agriculture.

Data Collection Procedure

Both primary and secondary data were used for the study. Primary data were obtained with the aid of structured questionnaire designed in line with the objectives of the study. The copies of which were administered to the respondents selected for the study. Data collected included information on the socioeconomic characteristics of the participating farmers, various assistance rendered to ATASP-1 participating farmers and the nature in which assistance were offered to farmers. Secondary data was collected from relevant text books, journals, seminar, conference articles, annual reports and other relevant materials.

Measurement of Variables for the Study

Measurement of variables consists of both the dependent and the independent variables. The dependent variable for this study is the nature and type of assistance rendered to farmers by ATASP-1 programme which were measured at ordinal level of measurement. The independent variable for the study are the socio economic characteristics of the respondents which include age, sex, marital status, household size, level of education, years of experience in farming, access to extension services, membership with cooperative association, access to credit and income per annum. These were measured in actual and nominal level of measurements

Analytical Technique

Data collected were collated, tabulated and analyzed using descriptive statistics. Descriptive statistics such as frequency distribution count, percentages, mean and ranking were used to analyze the data.

Results

Table 1: Socio-Economic Characteristics of Participating Farmers in ATASP-1 (n=240)

Variables	Frequency	Mean	Percentage
Sex			
Male	210		87.5%
Female	30		12.5
Total	240		
Age (years)			
20-30	47	(41.74)	19.5%
31-40	63		26.3%
41-50	81		24.2
51-60	29		12.1%
Above 60	20		8.3%
Total	240		
Highest Level of Education			
Qur'anic education	72		30.0%
Adult Education	30		12.4%
Primary Education	44		18.3%
Junior Secondary Education	26		10.8%
Senior Secondary Education	34		14.2%
Tertiary Education	34		14.2%
Total	240		
Marital Status			
Married	202		82.4%
Single	23		9.9%
Divorced	7		2.9%
Widow	4		1.7%
Widower	4		1.7%
Total	240		
House hold			
0-10	137	(10.21)	57.1%
11-20	86		35.8%
21-30	17		7.1%
Total	240		
Average Annual Income (N)			
Less than 50,000	0	(258416.67)	0.0%
51, 000---250,000	98		40.8%
251, 000---350,000	103		42.9%
351,000----450,000	32		13.3%
Greater than 450,000	7		2.9%
Total	240		

Source: Field Survey, 2018.

Table 2: Frequency distribution of the Various Assistance rendered to Farmers by ATASP-1 (n=240)

S/N	Assistance Rendered	Frequency *	%	Ranking
1.	Agro-input supply			
	Seeds (150kg each for 230)	230	95.8	1
	Fertilizer (100bags for 119 farmers)	119	49.6	2
	Agro chemicals (4lts each for 80 farmers)	80	33.3	3
	Pest and disease control	42	17.5	4
	Cross breeding of livestock	8	3.3	5
	Livestock (1 each for 8 farmers)	8	3.3	5
2.	Infrastructural facilities			
	Primary school classrooms	66	27.5	1
	Market stalls	42	17.5	2
	Overhead tanks	31	12.9	3
	Dispensaries	30	12.5	4
	Motorized bore hole	10	4.2	5
	Culverts	4	1.6	6
	Access roads	2	0.8	7
Storage facilities	1	0.4	8	
3.	Advisory services			
	Value addition	210	87.5	1
	Advisory service on crop & animal	49	20.4	2

	Nutrition and hygiene practice	16	6.6	3
	Processing techniques	15	6.3	4
	Harvesting techniques	11	4.5	5
	Market information system	1	0.4	6
4.	Capacity building			
	Farmer training	232	96.7	1
	Advocacy/sensitization	51	21.3	2
	Field days	14	5.8	3
	Agric show	9	3.8	4
	Entrepreneurship training	8	3.3	5

Source: Field Survey, 2018

*Multiple responses were recorded.

Table 3: Distribution of the Respondents according to the Nature of Agricultural Extension Services Provided to Farmers by ATASP-1 (n=240)

Nature of assistance	Frequency	Percentage	Ranking
Farmer training	233	97.1	1
Supervision	202	84.2	2
Farm and Home visit	194	80.8	3
Group discussion	188	78.3	4
Result demonstration	184	76.7	5
Seminars	179	74.6	6
General meetings	164	68.3	7
Method demonstration	157	65.4	8
Radio and television programs	141	58.8	9
Informal contacts	82	34.2	10
Tours and field Trips	59	24.6	11
Office calls and personal letter	49	20.4	12
Cinema and video show	45	18.8	13
Posters, newspapers and folders	40	16.7	14
Leaflet and pamphlets	23	9.6	15
Models and charts	20	8.3	16

Source: Field Survey, 2018

*Multiple responses were recorded

Discussion

Table 4.1 shows the socio economic characteristics of the respondents on sex. The result showed that majority of the participating respondents with (87.5%) were male, which is an indication that male dominated the agricultural workforce in the two states covered in North western zone especially in rural areas where agriculture is practiced on a subsistence level. While female with (12.5%) formed the minority in farming in the two states. The reason for greater number of male in the agricultural workforce could be because of the traditions, norms, values and customs of the people in the study area where female are mostly under seclusion or cultural purdah which does not allow their full participation in most of the developmental projects such as ATASP-1. The findings is in line with that of Annan (2012) ^[9] who supported that male usually form the majority in farming activities because of the fact that they are vested with the responsibilities of catering for their dependents such as provision of food for the households, finances for health care delivery and for educational pursuit. While female are known to be housekeepers, taking care of the children and other domestic chores. This according to him will not allow their full participation in agriculturally inclined activities, however they mostly engage in backyard farming such as growing vegetables, processing of agricultural produce and keeping small ruminants at home and poultry birds.

The age structure of rural households reflects the level of dependency of older and younger members of the household and can influence its production decision as well as livelihood strategies (Annan, 2012) ^[9]. Analysis of the

socio-economic variables on age distribution of the participating respondents indicated that about 26.3% of participants were between the ages of 31-40 years old while only 12.1% were above 50 years old. The average mean age of the respondents is 41.74. Age is a factor that is very important in adoption new programmes since it requires people of age group that are energetic and are independent. This result agrees with the view of Dakare (2014) ^[14] who opined that certain socio-economic characteristics such as age assist in enhancing youth and women participation in IFAD Programme. According to him, the socio-economic and institutional characteristics of farmers significantly affects their decision to participate in the Programme. He pointed out age, education, access to market, membership of association, extension contact and access to credit as significant determinants of participation to the Programme. The result also showed that majority of the respondents belongs to the age bracket (31-40) years old which means that majority belong to the active age group as only few (8.3%) were above 60 years of age.

This findings is also in consonance with that of Koyeikan (2011) that the mean age of farmers in his study was 45 years and that of females were 40 years. Age is a factor that is very important in farming as a primary occupation since it requires people of age group that are energetic and are independent. This also agreed with the assertion made by Adeola (2010) ^[1] that young people of ages between (20-35) tend to withstand stress, put more time in various agricultural operations and participate in programmes which can result to increased output. Young people are dynamic

and willing to take risk connected with adoption of new agricultural technology which may explain the higher propensity for participation in developmental projects and programmes such as ATASP-1. Education is a veritable tool for attitudinal change of an individual.

The result in Table 1 shows that 30% participants had Qur'anic education. Then 12.5% participating respondents obtained adult education and 18.3% gained only primary school education while 10.8% respondents completed only junior secondary education as their highest level of education. The result also showed that 14.2% of the farmers obtained only senior secondary education as their highest level of education and 14.2% respondents schooled up to tertiary level of education. This means that most respondents had attained certain level of education. The low level of formal education from among participants affected their level of awareness and adoption of modern farming techniques. Asiabaka (2002) ^[10] in his studies on Fadama III posited that education is an important variable that influences farmer's decision to participate in any Programme because of its influence on farmers awareness, perception, reception, rejection and/or the adoption of innovations that can bring about increase in production or reduced production risk. Education is important for easy understanding of improved methods of agricultural production and makes farmers more receptive to advice from extension agencies or be able to deal with technical recommendations that requires a certain level of numeracy and literacy. The findings also agrees with that of Ekpo (2004) ^[16] who said that level of education may be able to positively modify people's behaviours. He added that education has a positive and significant impact on farmers efficiency in production and majority of both the participating and non-participating farmers does not possess formal education to guarantee the acceptance and adoption of new farming techniques introduced to them, as greater number of the respondents obtained only Qur'anic education for moral upbringing

The survey found out that most (majority) of the respondents with (84.2% participating respondents respectively were married. This implies that farmers interviewed in the study area have family responsibilities, which shows that majority were married and have children which will help in appreciable number of family labour supply to accomplish various farm operations. The significance of marital status in agricultural production and livelihoods activities can be explained in terms of the supply of agricultural family labour. It is expected that family labour would be more available where the household heads are married (Ogen, 2017). This findings is in line with Solomon (2008) who opined that large household size assists more on farm and other household activities. However, only 9.6% beneficiaries were single and (10.0%, 3.8%, and 1.3%) were either divorced, widows or widowers from among the participating respondents. The findings was corroborated by Daramola *et al* (2013) ^[15] who found out that majority of respondents (90%) were married and that about 18% widowed or divorced from among participating farmers.

The result in Table 1 showed that about 57.1% of participants had between 0-10 people as household size, 35.8% had between 11-20 people as household size and

7.1% had between 21-30 people as their dependents and the average house hold size mean is 10.21. This implies that farmers in the study area might have advantage of family labour availability if many household members participate in farm work. However, the implication of large household size is that it will increase household consumption expenditure which will compete with production for limited financial resources within the household. This findings is in consonance with (Oyewole, 2009) ^[12] who noted that size of household was associated with labour availability that can be used for different agricultural and non-agricultural activities. The findings of the study showed that 40.8% participating farmers earn annual income of 51,000-250,000. 42.9% participants earn between 251,000-350,000 annually as income. Furthermore, 13.3% earn an annual income of 351,000-450,000 and only 0.4% earn greater than 450,000. The mean income of the respondents were 258416.67 meaning that the annual income of most farmers participating in ATASP-1 increased considerably as none of them earn an annual income of less than 50, 000. With ATASP-1 in progress the income of many farmers is likely to further increase as can be seen from the expansion in their farm sizes as a result of introduction of the Programme to them. Annan (2012) ^[9] opined that annual income of farmers depends largely on the sizes of their farm lands, management practices employed and adequacy of precipitation received during the growing season. Surprisingly, many farmers own small land holdings and this determines to a greater extent their level of annual income

Table 2. Shows the various assistance rendered to farmers by ATASP-1 in Sokoto and Kebbi states. The table shows that 95.8% respondents across the two states were provided with improved seeds and only 42% respondents were not able to benefit from the improved seeds. Improved seeds (sorghum and rice) provided to farmers by ATASP-1 improved to greater extent their productive capacity based on the responses obtained when interviewing the farmers. 49.6% respondents were provided with fertilizers (NPK or Urea) and greater percentage of (50.4%) could not benefit from the gesture, and fertilizer is known to improve soil structure, fertility and consequently the yield of crops. Efforts are being made by the Programme to ensure that most of the participating farmers benefits from the incentive for increased agricultural output.

Furthermore, 3.3% respondents were provided with livestock (small ruminants) for fattening/flushing so as to serve as example for the non-participating farmers to encourage them to get enlisted in the Programme. However, a very large proportion of 96.7% respondents were not provided with livestock, 17.5% respondents were enlightened on ways of controlling pests and diseases on their farms and 3.3% farmers were educated on cross breeding of livestock techniques. Similarly, 33.3% respondents benefited with agro-chemicals. Agro-chemicals such as herbicides, pesticides, acaricides, rodenticides etc assists farmers to tackle many challenges associated with weeds pest and rodent infestation on farms and stored produce. Greater percentage could not benefit from this very important agro-input. The findings of Humbert (2011) is in tandem with what was revealed by this study. He supported that supply of available agro-inputs such as improved seeds

of crops, fertilizers and agrochemicals to farmers will serve as an indices for improved agricultural output and hence improved standard of living and reduced poverty. This will improve the economic situation of the country. Results of the study discovered that 17.5%, 12.5%, 27.5% 1.6 and 0.8% respondents benefited with construction of infrastructural facilities such as market stalls, dispensaries, primary school classrooms, culverts, and access road construction respectively. However, greater percentage of 82.5%, 87.5% and 72.5% respondents does not benefit from the construction of the above stated infrastructures. This could be due to the fact that, the Programme is a pilot study and still in progress. Based on the responses obtained from the respondents, those communities that benefited with the social infrastructures have witnessed a turnaround in their marketing services, access to health facilities and educational transformation. Many of the villages benefited were lacking such amenities prior to the introduction of ATASP-1.

Table 2 further revealed that 4.2% and 12.9% respondents were provided with hand pumps and overhead tanks for water supply in their communities while 95.8% and 87.1% who constituted the majority were not provided with the water sources. The problem of water supply was tackled in the communities where these facilities were provided. ATASP-1 is intensifying afford to reach out to those communities that have not benefited with water supply infrastructure and are participants to the Programme. In the same vein, the Table further showed that 87.5% and 96.7% respondents respectively benefited from value addition techniques, capacity building/Training and while 12.5%, 3.3% and 98.8% respondents could not benefit from the gestures rendered by ATASP-1. The main priority of ATASP-1 is value addition enlightenment, intensive farmers training which enlightened the farmers on new and improved techniques of farming for better output. The Programme is exploring ways to link farmers to sources of credit facilities in order to enable farmers improve their level of production. The Programme has succeeded in training large number of farmers through mass extension programmes such as radio and television programmes, seminars, group discussion etc and the siting of demonstration plots in farmers communities to make the training real, receptive, concrete, responsive and relatively permanent in nature for sustained and improved agricultural productivity in the two states. Similarly, 20.4%, 4.5%, 0.4, 6.6%, 21.3%, 3.8%, 5.8% and 39.0% respondents respectively benefitted from advisory services on crop and animal production, processing techniques, market information system, nutrition and hygiene practice, advocacy/sensitization, agricultural show, field days, and entrepreneurship training respectively. All the above were provided to farmers by ATASP-1 to enable farmers improve productivity of both crops and animals for improved standard of living.

The study in Table 3 revealed the nature of agricultural extension services provided to the respondents by ATASP-1 in the two states. The survey identified that 65.4% and 76.7% respondents were provided with both method and result demonstrations and only 34.6% and 23.3% of the respondents could not benefit from the two. This is in line with documentary findings of Annan (2012) ^[9] that when

method demonstration and result demonstration is carried out, a large proportion of farmers tend to be educated because it involves a step-by-step procedure from a learned and expert agent which provide a remarkable difference when compared to farmers traditional method of production. The major focus of extension services delivered to farmers by AEAs was agricultural technology transfer. Even though, infrastructural facilities were provided in some of the participating communities and Programme performance evaluated.

The survey also identified that 80.8%, 97.1% and 84.2% respondents respectively were visited by AEAs both at home, on the farm and were trained on different skills and improved farming techniques. Similarly, they were regularly supervised by the AEAs to ascertain whether the new farming techniques introduced to them was judiciously been put to use. However, only a negligible percentage of the respondents constituting 19.2%, 2.9% and 15.8% could not receive AEAs at home and on the farm and could not receive any training and were not supervised by the AEAs. It is pertinent to note that table 4.5 clearly revealed that ATASP-1 focuses majorly on farm and home visit, farmer training and regular supervision of agricultural activities so as to enhance better, improved and sustained productivity of agricultural produce.

Respondents in Table 3 also indicated that through regular visits and trainings by ATASP-1 staff their needs and problems were addressed by the AEAs and this has led to improved productivity of most of the staple food crops cultivated in the two states, e.g. rice and sorghum. It can also be deduced from the Table (4.5) that 25.4%, 78.3% and 24.6% respondents received/benefited from seminars, group discussion and tours and field trips while 74.6%, 21.7% and 75.4% respondents respectively were not able to benefit from seminars, group discussion and field trips which are organized at regular intervals by ATASP-1 staff and their AEAs. It can be seen from the results that a good number of the respondents were enlightened through seminars, group discussion and field trips and that has enabled respondent's air their views on the successes and failures of the Programme. Similarly, respondents were enlightened on new ways and techniques of enhancing agricultural productivity thereby leading to improved standard of living. Seminars, group discussion and field trips assist to a greater extent in updating the knowledge of farmers and providing new knowledge associated with modern farming techniques. The survey also revealed that apart from the visits by the AEAs, other forms of extension services were provided to the respondents in varying degrees in the two states. These include 8.3%, 20.4, 16.7%, 9.6%, and 58.8% average percentages of respondents who received agricultural extension services from the AEAs through non-visit. Above percentages received the services through models and charts, office calls and personal letters, posters, newspapers and folders, Radio and television extension programmes and leaflets and pamphlets. While 91.7%, 79.6%, 83.3%, 41.3% and 90.4% could not experience extension services through models and charts, office calls and personal letters, posters newspapers and folders, Radio and Television programmes and leaflets and pamphlets.

The results further indicated that there is a large patronage of radio and television programmes by the respondents in

the two states due to the possibility of many of the respondents owning radio sets whereas the patronage of models and charts, office calls and personal letters, posters newspapers and folders, leaflets and pamphlets extension programmes by the respondents were very low in the study area this might be due to the low level of education of most of the respondents as greater percentage of them obtained only Qur'anic education. Similarly, greater percentage does not receive extension programmes through the above print media due to inadequate extension field staff to reach out to the most remote villages. Qamar (2005) is of the view that the use of radio or television to reach out to farmers in information dissemination assist in reaching large number of them within a very short period of time and if the information contained in the media is utilized judiciously, this will reduce the drudgery associated with going to meet the farmers either in groups of individually by the change agents.

The Study also unveiled that 68.3%, 18.8% and 34.2% respondents received extension services through general meetings, cinema and video shows and informal contacts organized by the AEAs at regular intervals while 31.7%, 81.3% and 65.8% who were the majority does not receive extension services through general meeting, cinema and video shows, and informal contact. General meetings and informal contact could assist in exchanging ideas, views, opinions and problems related to farming between the AEAs and farmers as such, solution to their problems and needs are promptly provided. However, majority does not benefit from such. This could be due to shortage of AEAs in the zone. Cinema and video show enable respondents to see for themselves the programmes organized by ATASP-1 and AEAs staff on new farming programmes and innovations but greater percentage does not have access to it. This is attributed to the fact that the Programme (ATASP-1) is faced with limited equipment, financial resources, man power and mobility to reach out to the most remote villages to organize such Programme. This agrees with the studies of Abiodun (2014) who found out that lack of access to extension services can affect agricultural output to greater extent.

Conclusion/Recommendations

The study examined the Role of Agricultural Transformation Agenda Support Programme Phase-1 in Promoting Agricultural Extension Service Delivery in Kebbi and Sokoto States, Nigeria. The study found out that male farmers participated more in ATASP-1 than female. The farm size of participating farmers was observed to be generally bigger when compared to their farm sizes prior to the introduction of ATASP-1. The main source of information utilized by the respondents were predominantly ATASP-1 staff, friends and radio, while there was no much regard for contact farmers by the participants than was accorded to ATASP-1 L.G.A. Extension Agents

Various forms of agro inputs were provided to farmers by the programme such as improved seeds of crops (95.8%) (Rice, sorghum and cassava), fertilizers (49.6%) (NPK and Urea), agro chemicals (33.3) (Pre-emergence and post emergence chemicals and chemicals for storing agricultural produce)

ATASP-1 also constructed various infrastructural facilities

to the benefitting communities which included primary school classrooms (27.5), Health centres (12.5), Market stalls (17.5), Overhead tanks (12.9), Motorized boreholes (4.2), culverts (1.6), access roads (0.8) etc. The nature of agricultural extension services provided to farmers were inform of farmer training (97.1%),supervision (84.2),farm and home visit (80.8%),group discussion (78.3%),result demonstration (76.7%) and radio and television programmes (58.8%).

The study therefore established that effective organization of Agricultural extension services by ATASP-1 in the zone could transform traditional Agriculture into a modern one for improved living standards of rural people. The study has also revealed that a mere provision of Agricultural extension service by ATASP-1 may not transform traditional Agriculture without adequate training, monitoring and evaluation provision of improved agro-inputs and frequent supervision of farmers by the coordinating staff and their AEAs

The study recommended the following to enhance farmer's participation in ATASP-1 towards promoting virile extension service delivery in the zone.

- i. To improve implementation and boost the morale of the teeming peasant Farmers, there is the need for ATASP-1 to provide more improved inputs like Seeds of various crops not only sorghum and rice, fertilizers, agro-chemicals e.t.c.to farmers.
- ii. Provision of extension services through non-visits by AEAs should be promoted by ATASP-1 particularly through radio and television programmes. This will help many farmers in the zone and the country at large to access extension services in the comfort of their homes since many of them own radio sets.
- iii. Non-formal education providers should be empowered and the facilitators equipped by ATASP-1 to give education to the rural farmers. This is to increase the knowledge and skills of the farmers before or while receiving the extension services. In this way, the AEAs would have little difficulties in the dissemination of the agricultural technology to farmers.
- iv. Quick intervention by government in providing utility vehicles and motorcycles to extension field staff should be made a top priority for the smooth delivery of extension services in the operational zone.
- v. Refresher courses and in-service trainings should be organized regularly by ATASP-1 for the extension field staff without waiting for donors and NGO's to finance them before they are organized. In this way, the AEAs would be equipped with modern knowledge and skills to effectively disseminate improved agricultural technology to farmers.
- vi. Timely provision of incentives to extension staff should be encouraged by Federal Ministry of Agriculture and Rural Development (FMARD) and ATASP-1 in order to stimulate and motivate the AEAs to effectively deliver the services needed by them.
- vii. The government through Federal Ministry of Agriculture and Rural Development should put adequate measures in place to procure and supply the required logistics requested by ATASP-1 coordinating staff for the proper execution of extension programmes and activities. This is needed to help address the

problems of shortage of essential logistics needed to ensure mass and intensive extension service delivery.

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