RURAL INFRASTRUCTURE STRATEGY FOR POVERTY REDUCTION IN NIGERIA: YOBE IFAD-CBARDP EXPERIENCE

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Abstract

Rural development is a veritable tool for fighting poverty and achieving economic prosperity at the grassroots level. The concept of rural development embraced by most countries connotes a process through which rural poverty is alleviated by sustained increases in the productivity and incomes of low – income workers and households. The major thrust of this study was to assess the rural infrastructure strategy for poverty reduction implemented by IFAD Community-Based Agricultural and Rural Development Programmme in Yobe State, Nigeria. Objectives were achieved using multi-stage sampling techniques. A well-structured questionnaire was used to elicit primary data from respondents. Secondary data was the base line data of IFAD-CBARDP. Descriptive statistical tools were utilized for analyses and the respondents' level of satisfaction with the infrastructure provided was obtained using likert scale. The findings revealed that, majority (51%) of respondents were male with age ranging between 20 and 65 years averaging 40 years. About 97% were married having a household size range of 5-10 persons and about 68% had formal education. The result for the provision of basic infrastructure by IFAD-CBARDP based on respondents' benefit indicates that water had the highest accessible basic infrastructure by respondents with 91% whereas, Schools provision was recorded as 2nd benefitted infrastructure, Health centres 3rd infrastructure with 64%. Respondents also highlighted their benefit on Para vet clinic, Culvert, Vocational centres, Latrine and staff quarters 16%, 13%, 7%, 3% and 2% respectively. Respondents' level of satisfaction on the infrastructure provided was perceptibly satisfactory. Therefore, it was recommended that, IFAD-CBARDP should be replicated in other States of the Federation in order to record a national poverty improvement. Hence, programme planners and implementers are urged to intensify awareness creation among rural dwellers and adopt the use of community driven development approach (CDD) in the execution of rural development projects with poverty alleviation thrust as in the case of IFAD-CBARDP.

Keywords: Rural infrastructure, poverty, IFAD-CBARDP, participants.

Introduction

In Nigeria or elsewhere, Poverty is real, endemic and devastating; and therefore, Nigeria's rural population accounts for over 70 percent of poor households - more than 98 million people, and about 17 million households. The 2003-2004 Nigeria living standard survey indicated that States in the Sahel region recorded the highest incidence of poverty, with about 80 per cent of the population described as poor (IFAD, 2010). However, Rural Infrastructure Strategy for Poverty Reduction could be seen as a subject of the overall economic development strategy of developing countries. In essence, the rural infrastructure strategy is not an alternative to other poverty alleviation strategies for economic development, but an extension and natural revolution. According to Idachaba (1989) the general notion underlying the rural infrastructure strategy is that; it is difficult for the rural sector to contribute significantly to the economic progress in the absence of basic facilities that also

enhance their living standards. Chinsman (1998) Observed that, rural communities are seriously marginalized in terms of most basic elements of development. In addition, the inhabitants tend to live at the margin of existence and opportunities. Most rural communities lack potable water, electricity, health care, educational and recreational facilities and motorable roads. They experience high population growth rates; high infant and maternal mortality, low life expectancy and a peasant population that lacks modern equipment that can guarantee sustainable exploitation of the natural resources on which they live.

Ayoola (2001) is also of the opinion that, the world approach is to launch massive attack on rural poverty, which will benefit the urban economy in the long run. In this connection, rural infrastructural build-up is considered as the primary requirement of the rural people to manifest their full economic potentials. In same manner Ekong (2003) look at rural infrastructure as those underlying basic physical, social and institutional terms of capital which enhance rural dwellers' production, distribution and consumption activities and ultimately the quality of their life. Often these include structures which cannot be privately provided and so call for large capital outlay on the part of the government.

The facilities were however, described under the three categories:

Rural physical infrastructures;

Rural social infrastructure and

Rural institutional infrastructure

Rural Physical Infrastructure: this has to do with provision of rural roads, which cause accelerated delivery of farm input, reduce transportation costs and enhance spatial agricultural production efficiency. Storage facilities; which help to preserve foods in the farms that consumers need them and to the time they need them. Hence, On–farm storage also helps to stabilize inter- seasonal Supplies. Irrigation facilities, which assure farm water supply and stabilize food production by protecting the farm production system against uncontrollable and undesirable fluctuation in domestic food production. Other includes: Building of schools and equipments, Health centres, Postal services, housing and recreational facilities.

Rural Social Infrastructure: which includes; Clean water, decent housing, environmental sanitation, personal hygiene and adequate nutrition which help to improve the quality of life? Also, Formal and informal education which promote rural productivity by making the farmer to able to decide agronomic and other information so as to carry out other desirable modern production practices; basic education also promotes feeding quality, dignity, self respect,- sense of belonging as well as political integration of the rural people.

Rural Institutional Infrastructure: this has to do with the formation of Farmers unions and cooperatives which facilitates economics of scale and profitability of rural people, Agricultural extension which improves technological status of the farm business respectively.

Therefore, a strategy to reduce rural poverty needs to incorporate policies to develop both production-oriented and welfare-oriented infrastructure, in order to improve poor people's productive capacity and quality of life. For example, providing services such as irrigation, power and transport in rural areas would open up new opportunities for diversifying incomes and employment in backward areas. Constructing drinking water supply schemes and sanitary facilities would reduce mortality and morbidity, and enable people to live healthier, more productive lives. Similarly, better school buildings and teachers' quarters would help improve the quality of education and make children of poor families upwardly mobile. Note that, several other stylised facts about rural infrastructure and its impact on economic growth and the poor have emerged from the literatures. For example, how effective an infrastructure asset would be in meeting the needs of the poor would depend on characteristics such as quality, reliability and quantity. At the same time, its impact would vary not only by sector, but also by its location and timeliness. Even so, though developing infrastructure promises to hold many benefits for the poor, it is not sufficient on its own to generate sustained increases

in economic growth in rural areas. But while analysts may agree that developing infrastructure in rural areas is a necessary condition to reduce poverty, not all rural infrastructure development programmes have been uniformly successful in delivering these benefits. Therefore, a crucial question that policy makers face is how can such programmes be designed so that their impact on the productivity and welfare of the poor is maximised and sustained? (CIIM, 2009).

However, the International Fund for Agricultural Development, Community-Based Agriculture and Rural Development Programme (IFAD-CBARDP) is an integrated agriculture and rural development programme aimed at improvement of livelihood and living conditions of the rural poor with emphasis on women and other vulnerable groups, especially physically challenged and dejected people, using Community Driven Development approach (CDD). The programme is jointly funded by International Fund for Agricultural Development (IFAD), Federal Government of Nigeria (FGN), and seven participating States -Borno, Jigawa, Katsina, Kebbi, Sokoto, Yobe and Zamfara; Sixty nine Local Government Councils (LGCs) in the seven states, where two hundred and seven (207) village areas (VAs) have been selected from the participating Local Government Councils and World Bank (WB) is the cooperating institution, Annual Progress Report (APR, 2007).

In Nigeria the first phase of the programme came into being in January 2003 and elapsed in March 2010. The Yobe state programme was declared effective on the 31st January, 2003 following the fulfilment of loan covenants set forth for effectiveness. The programme had been implemented in Nine Local Government Areas of the State namely; Karasuwa, Yusufari, Bursari, Nangere, Yunusari, Tarmuwa, Machina, Fika, Fune and their respective 27 village areas.

This paper seeks to explore on rural infrastructural strategy for poverty reduction in Yobe State using IFAD-CBARDP experience, after the first phase of its programme. The objectives were however made to identify the socio-economic characteristics of participants in the study area, to assess the level of accessibility of infrastructure provided by IFAD-CBARDP and to determine the respondents' level of satisfaction with the infrastructure provided in the study area.

Methodology

The study was carried out in Yobe State. The State is located in the North East zone of Nigeria with its headquarters at Damaturu. It lies between latitude 12^0 00'N and longitude 11.30^0 E, covering a land area of about 45,502 square kilometres (km2), with a population of about 2,321,591 people (NPC, 2006)

However, in order to assess the rural infrastructure strategy for poverty reduction using IFAD-CBARDP experience in Yobe State, all the three senatorial zones of the State were selected; taking one Local Government Area from each zone that participated in the IFAD-CBARDP. The zones include: Northern senatorial zone; Central and South Zone respectively. To determine the sample size of the population in the study area, a multistage sampling technique was employed to get the respondents. In the first stage, three Local Government Areas were purposively selected in each zone: Karasuwa in Northern zone, Bursari in Central and Fune in South zone, out of the nine benefiting LGAs in Yobe state, for easy accessibility and to cut across the State. In the second stage, simple random sampling technique was used to select two benefiting villages from each Local Government Area, making a total of six villages. Thirdly, 10% of the population was randomly selected from each village, which form the sample size of (160) of the total population. The data collected includes; socio-economic characteristics of participants in the study area, infrastructure provided by IFAD-CBARDP in study area and data on respondents level of satisfaction with the infrastructure provided in the study area. The data collected were analyzed using descriptive statistics, involving frequencies

and percentages. The respondents' levels of satisfaction with the infrastructure were also obtained using Likert Scale.

Results and Discussions

This section presents the results and discussion of the data obtained from IFAD-CBARDP participants on their socio-economic characteristics, infrastructure provided to the communities by IFAD-CBARDP and respondents level of satisfaction with the infrastructure provided in the study area.

Socio-economic Characteristics of Respondents

The socio-economic characteristics of the respondents identified include; Gender, Age, Marital Status, Household Size, Level of education, Membership of cooperative society, Experience in IFAD-CBARDP and Access to Credit. Evidence from the descriptive analysis of socio-economic characteristics of the respondents in the study area as shown in Table 1, revealed that 51% of the respondents were male and 49% were female. This showed that both gender were adequately represented in the IFAD-CBARDP, with little variation in favour of male respondents, which may be as a result of the cultural barrier in the area of not allowing women to come out and participate in any programmes freely. The age of the respondents ranged between 20 and 65 years with an average of 40 years. This implies that, the respondents are middle aged and so still active and can participate adequately in development programmes. The age distribution as evident in the data is expected to have positive influence on the respondent's participation in IFAD-CBARDP programme, which invariably meant better livelihood. It was also observed that majority (97%) of the respondents were married and 3% were single. This shows that most of the respondents will have greater responsibility than the single, which may encourage respondents to be committed towards their participation in IFAD-CBARDP programme. Perez-Morales (1996), noted that there is a trend for rural youth to start having responsibilities at an earlier age than urban youth. Hence, the tendency to marry early helps in building a virile farming population.

The result in Table1 also, indicates that about half (49%) of the respondents had 6-10 people in their households, while, 31% had household size of less than 6 people. This implies that respondents had dependents to cater for and their participation in programmes like IFAD-CBARDP could help in engaging them on the farm and improving their livelihood. Majority

(68%) of the respondents had formal education. Such level of education is expected to have positive impact on the respondents' participation in the IFAD-CBARDP. The respondents with no formal education were about 32% respectively.

The data in table 1 also reveal that, Participants of IFAD-CBARDP belong to cooperative society; the maximum number of years spent as members of cooperative society was 9 years and a minimum of 1 year. Respondents with 4 – 6 years of membership duration constitute 61% while 20% had 1-3 years of membership of cooperative society. With this level of membership duration, it could be said that majority of the respondents have had long duration of experience as members of cooperative group which can facilitate understanding of the programme due to interaction among members. Also, Majority (62%) of the beneficiaries had between 4 and 6 years of experience in IFAD-CBARDP activities, while 24% of the respondents had experience of 7 to 9 years and the lowest percentage (13%) falls within 1to 3 years of experience in IFAD-CBARDP. These years of experience in the programme are expected to translate into better utilization and understanding of the programme which may invariably result into better income as well as standard of living. It was also, observed in Table 1 that 56% of the respondents had no access to credit facilities. This low access to credit could be attributed to the fact that IFAD-CBARDP seldom grants financial credit to participants. Rather, participants are trained in entrepreneurial development. Ekong (2003)

asserts that credit is a very strong factor that is needed to acquire or develop any enterprise; its availability could determine the extent of production capacity.

Table 1: Socio-economic characteristics of respondents

Variables	Frequency	Percentages	Mean
Gender			
Male	82	51.2	
Female	78	48.9	
Age (years)			
20-29	19	11.9	
30-39	52	32.2	40
40-49	54	33.8	
50-59	34	21.2	
60-69	1	0.6	
Marital status			
Married	156	97.5	
Single	4	2.5	
Household size			
0-5	49	30.6	
6-10	78	48.8	
11-15	29	18.2	
16-20	3	1.9	
21-25	1	0.6	
Level of education			
No education	51	31.9	
Adult education	21	13.1	
Primary	34	21.2	
Secondary	38	23.8	
Tertiary	5	3.1	
Others	11	6.9	
Membership of cooperative society (yrs)			
Non members	5	3.1	
1 -3	32	20.0	
4 -6	97	60.6	
7 -9	26	16.2	
Experience in IFAD-CBARDP (yrs)			
1 -3	21	13.1	
4 -6	100	62.5	
7 -9	39	24.4	
Access to credit			
None	89	55.6	
Access	71	44.0	
Total	160	100.00	

Infrastructure Provided by IFAD-CBARDP in the Study Area

The data in Table 2 indicates that provision of water ranked 1st among the infrastructure provided by IFAD-CBARDP in the study area accessible to about 91% of the respondents. Schools provided ranked 2nd among the infrastructure provided accessible by 78% of the respondents. This could increase the level of literacy in the area which can tantamount to economic development. Other infrastructure accessible to the respondents were health centres (64%) and Para vet clinic (16%), culvert (13%) and Market shade (11%) ranked 3rd and 4th respectively. Staff quarters were the least accessible infrastructure to the respondents which was ranked 9th with 3% of the sampled respondents highlighting accessible from the infrastructure. From the result, the functional status of these amenities provided may bring about income savings stemming from reduced expenditure on the items which can be

diverted to other areas of consumption such as food which may improve the feeding standard of the respondents. Thus, the infrastructure in question may bring about development to the area of study which may transform the lives of the residents as well as improving their livelihood and thereby reducing the level of poverty in the study area.

Table 2: Distribution of infrastructure Provided in order of respondents benefits

Infrastructure	*Frequency	*Percentage	Ranking
Water	146	91.2	1st
Schools	124	77.5	2nd
Health centre	102	63.7	3rd
Para vet clinic	26	16.2	4th
Culvert	21	13.1	5th
Market shade	17	10.6	6th
Vocational Centre	11	6.9	7th
Latrine	6	3.7	8th
Staff Quarters	4	2.5	9th

*Multiple responses

Respondents Level of Satisfaction with Infrastructure Provided

The data in Table 3 reveal that, provision of water by IFAD CBARDP was satisfactory to the respondents with weighted mean of 3.7 which exceeds the mean ($\overline{X}$) score of 3 which was obtained as the average for the 5-point likert scale (1 + 2 + 3 + 4+ 5 = 15/5 = 3). Therefore, the respondents were satisfied with the water provided by the programme. Water, a necessity of life is provided by the programme to aid level of living and minimise scarcity of water. Thus, provision of water has brought about improvement in water supply which minimizes cost of water procurement in benefitting communities. The result in Table 3 also, revealed that respondents were satisfied with provision of schools in the area. The weighted mean of satisfaction level obtained from the respondents was 3.4, exceeding the mean ($\overline{X}$) score of 3. Provision of schools may bring about upgrading of the educational status of the residents in benefitting communities, which invariably reduce the level of illiteracy, improvement in the enrolment of pupils as well as saving of income which could have been used for taking the pupils to other places for education. Formal education serves as a spinning factor for adoption and participation of individuals in programmes. More so, the satisfaction level of respondents on health facilities provided by the programme revealed a weighted mean of 3.5 implying an overall perception of satisfied with health facilities provided because the weighted mean was greater than the mean ($\overline{X}$) score of 3. The result therefore indicates that provision of health facilities would upgrade the health status of the benefitting respondents. Also, provision of health facilities in the area implies that diseases can easily be eradicated, thereby improving the health status of the benefitting communities for improved labour force. However, the result for the level of satisfaction for credit facilities provided by the programme indicate a weighted mean ($\overline{X}$) of 2.8 which is lower than the mean score ($\overline{X}$ = 3) of satisfaction perception by the respondents (Table 3), indicating that provision of credit facilities have not met the satisfaction level of the respondents. This implies that, the beneficiaries need other forms of credit to boost their productivity which would bring about improved standard of living. If credit is invested into an enterprise it is expected that it should lead to higher levels of output and better standard of living, but in case the credit is not accessed on time and inadequate, it may, more often than not, lead to misapplication of funds. Hence, the expected impact of such funds will not be felt on the enterprise. Also, if the credit is invested in consumption purpose, it may not likely lead to an improvement of output or livelihood. It was also, observed that the respondents were satisfied with provision of farm inputs by IFAD- CBARDP as indicated by the weighted mean ($\overline{X}$) which exceeds the mean score ($\overline{X}$) of perception for the infrastructure provided by the programme (that is, 3.6 > 3)

(Table 3). From the result, the respondents may experience improvement in farm productivity as well as encouragement in the area of farming and other related activities. Result presented in Table 3 further revealed that the respondents' perception with vocational skills/ centres provided by IFAD-CBARDP was satisfactory because the mean score ($\overline{X}$) of 3 was lower than the weighted mean ($\overline{X}$) of 3.9. This result may mean that provision of vocational skills has created employment / skills acquisition opportunities for the benefitting respondents which may have resulted to higher income generation and invariably better livelihood, vis-a-vis poverty reduction.

Table 3: Respondents' level of satisfaction with infrastructure provided

Level of satisfaction	Weighted mean	Overall Perception
Provision of water	3.7	Satisfied
Provision of Schools	3.4	"
Health Facilities Provided	3.5	"
Provision of Credit facilities	2.8	not satisfied
Provision of farm inputs	3.9	Satisfied
Provision of vocational skills/centres	3.8	"

Conclusion

This study was aimed at providing useful and basic information on the assessment of rural infrastructure strategy for poverty reduction using IFAD-CBARDP experience in Yobe State, after the first phase of its programme. From the findings, the results indicates that rural infrastructure provided by IFAD-CBARDP were beneficial and mostly satisfactory to the participants of the programme. Therefore, it can be concluded that IFAD-CBARDP has improved the lives of the participants in Yobe State.

Recommendations

In view of the major findings the following recommendations were made:

Rural infrastructure strategy implemented through IFAD-CBARDP had positively improved the lives of participants in Yobe state. It could therefore be recommended that, the same programme be replicated in other States of the federation.

Finally, Programme planners and implementers are therefore urged to intensify awareness creation among rural dwellers and adopt the use of community driven development approach (CDD) in the execution of rural development projects with poverty alleviation thrust as in the case of IFAD-CBARDP.

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