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Financing Agriculture for Sustainable Livestock Development In Sub-Saharan Africa: The Nigerian Experience

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Abstract: Credit has been identified as an important tool in boosting agriculture in the developing countries (Nigeria) inclusive. The Agricultural Credit Guarantee Scheme Fund (ACGSF) was established for this purpose in Nigeria. However the livestock sector has suffered neglect in terms much needed attention by policy makers. The activities of the Scheme regarding the livestock sector were evaluated. Secondary data between 1978 and 2002 were collected on relevant variables and analysed. Results of the analysis showed that the performance of the scheme in the last 25 years to improve and empower the financial capacity of farmers especially livestock farmers through credit facilities has not been encouraging. Of the whole loans guaranteed, less than 10% and 20% in terms of number and volume approved and disbursed went to the livestock sector. This is grossly inadequate to meet the provision of adequate animal protein need of Nigerians. For successful operation of the scheme, the paper concluded that the Rural banking scheme should be further strengthened and used in operating the scheme and more Banks should be encouraged to participate in the scheme.

Key words: Financing, sustainable, livestock, sub-saharan Africa

Introduction

The diet of the population of the tropical zones is most often protein-poor both quantitatively and qualitatively (Amos *et al.,* 2001). Majority of countries in this zone (tropics) can expect no improvement in their protein requirement without an increase in food crops, fish, and livestock production especially. The average animal protein intake in Nigeria was said to be low as far back as 1989 and trend does not seem to have abated. Anthonio and Adeyokunnu, (1990) noted that the average animal protein intake, which is identified as the indicator and determinant of dietary quality in Nigeria, is low, about 1,938 g/capital/day which is far below 65 g/capita/day by Food and Agricultural Organisation (FAO) for the maintenance of good health. To meet the protein requirement of the teeming population of Sub-Saharan Africa especially the over 100 million Nigerians in terms of quantity and quality at affordable price needs adequate capital investment in livestock. Over forty-five developing countries including Nigeria were unable to assure adequate food energy needs of 2,200 calories per person per day for their population and 25 of these counties are still in the same position in the late 1980s. Bradhan, (1996) noted also that the global food crisis is such that 800million people suffer from malnutrition and hunger not only due to insufficient production and adequate distribution but also because of the fact that the poor lack the income to acquire food at adequate quantity and quality to satisfy their needs.

Lack of credit availability has been identified as one of the limiting factor affecting the productivity of the livestock sector in developing countries especially Nigeria. The financial position of farmers determine to a great extent, the farmers' ability to adopt and practice new technologies for increased productivity. Where farmers are given credit, that at an affordable rate and promptly too. it is expected that they will adopt new technologies and their productivity will be high. In West Asia and North Africa, credit has promoted livestock production. In Nigeria, the federal government recognised the role of agricultural credit to boost livestock production established the Agricultural Credit Guarantee Scheme Fund (ACGSF). This is with sole aim of bridging the financial gap suffered by farmers to advance their productive capacity.

An appraisal of the operations and performance of the ACGSF in the development of the livestock sector in the past years will be of immense benefit to the formulation of policies towards food security and sustainable livestock development in Nigeria.

The Agricultural Credit Guarantee Scheme Fund: The scheme was introduced as inducement to commercial and merchant banks to give agricultural credit loan to farmers. It began operation in 1978 with the Central Bank on Nigeria (CBN) managing the fund provided. Under the scheme, bank loans to the agricultural sector are guaranteed up to 75% of the amount in default by the farmer. The Federal Government and the CBN set up the fund in the ratio of 60:40. The following reasons were given for its set up:

- High risk and uncertainty owing to natural hazards.
- Threat of disease and pest to crops/livestock.

- Long gestation period required for livestock/crops to mature.

The activities of ACGSF cover livestock, fisheries, food crops, cash and other agricultural activities. The paid up capital of the ACGSF stood at N251.50 million at the end of December, 2000. Earnings from investments in government security increased the financial resources of the fund to N692.2 million at the end same period. There are five categories of farmer borrowers to the fund. The first are those with loans below N5,000.00. The second category are those between N5,001.00 and N20,000.00 while the third category are those between N20,001.00 and N50,000.00 the forth are those between N50,001.00 and N100,000.00 and the final category are those above N100,000.00. There exists a waiver of tangible security to small-scale farmers who borrow below N5,000.00. All they need do is to get a reputable guarantor to secure loan while other categories of farmers require securities acceptable to the bank. The maximum loan, which could be guaranteed for individual farmer is N100,000.00 and N1,000,000.00 to co-operative societies. The number of participating banks remains six out of about eighty-eight banks operating in the country as at December 2003.

Materials and Methods

(a) **The Data**

The data for this study on Volume of loans and number loan beneficiaries in Nigeria were obtained from various issues of Central Bank of Nigeria Annual Reports as well as from other relevant publications.

(b) **Analytical Technique**

(c) Some simple descriptive statistics were used in the analysis of data generated. In addition, Compound growth rates were computed for the values and volume of loans granted so far (1978 – 2002). Different methods exist for computing compound growth rates. Firstly, the data at the end of a period can be used to compute the compound growth rate. But this measure of growth is largely influenced by the choice of years and it also ignores the information lying in between the two selected years (Chikwendu and Amos, 1996). Therefore, it was more appropriate to use that measure which considered the entire series of observation. Following Chikwendu and Amos (1996), compounded growth rates were calculated by fitting an exponential function in time of the data as follows:

$$Qe = ae^{bt} \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots(1)$$

Which in linear logarithmic form is stated as:

$$Log_eQ = log_ea + bt \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots(2)$$

Where,

Q = Volume of Loan, Number of loans granted, number of banks.

T = time variable (years)

A and b = regression parameters to be estimated.

The growth rate ® is given by $(e^b - 1)$ X100 where, (e) is Euler's exponential constant with a value of 2.71828.

Results and Discussion

Total Loan Guaranteed by Number and Volume (1978 – 2002): From Table 1, a total of number of 338,084 farmers of different categories have benefited from the scheme up to 2002. The total volume of loan granted was N4,354,525.40 The highest number of loan approved occurred between 1988 and 1990 with the highest being 34,538 in 1989 during the military era. However the period between 1999 and 2002, the trend has changed with the number increasing from 12, 859 in 1999 to 14,102 in year 2000 which represented an increase of about ten percent. Between 2000 and 2002 there has been an increase of over 40% in the number of loans granted. On the whole, number of loans granted has grown by about 6.18 % (Table 2). In terms of volume, the highest amount granted was recorded in 2002 with a total sum of N1,050,000.00 granted. Like the number of loans, the years 1988 and 1989 had high volumes of loan granted during the military era until 1999 when the amount of loan granted increased substantially from NN215,697 in 1998 to N246,082.5 in 1999. Two factors, number of beneficiaries and number of Banks involved were tried as possible determinants of the volume of loan guaranteed. As expected, from equation 3, the two variables were observed to significantly affect the volume of loans guaranteed. Thus, increasing the number of beneficiaries and Banks will significantly improve the quality of loans guaranteed in terms of number of beneficiaries. On the whole, the volume of loan granted has increased at a rate of about 6.14%. Impressive as this record may sound, the question is given the volume of loan guaranteed so far, how has the distribution among the sub-sectors been?.

$$Volfin = 2287.73 + \underset{(3.665)}{18.58\,Num^*} - \underset{(4161.3)}{20394.3\,Ban^*} \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (3)$$

Table 1: Total loans guaranteed by number and value (1978-2002)

Year	Number	Value
1978	341	11,284.4
1979	1,105	33,596.7
1980	945	30,945.0
1981	1,295	35,642.4
1982	1,076	31,763.9
1983	1,333	36,307.5
1984	1,642	24,654.9
1985	3,337	44,243.6
1986	5,203	68,417.4
1987	16,209	102,152.5
1988	24,538	118,611.0
1989	34,518	129,300.3
1990	30,704	98,494.4
1991	22,014	82,107.4
1992	21,206	88,031.8
1993	15,514	80,845.8
1994	16,572	103,186.0
1995	18,079	164,169.6
1996	19,036	225,502.5
1997	17,840	242,038.2
1998	14,637	215,697.2
1999	12,859	246,082.5
2000	14,102	361,450.4
2001	20,298	730,000.0
2002	23,681	1,050,000.0
Total	338,084	4,354,525.4

Source: CBN Annual Report and Accounts (Various Issues)

Table 2: Estimated functions of loan variables and time

Variable	Constant	Coefficients	T-Value	R^2	Growth Rate %
Number Granted	3.012	0.06	6*	65	6.18
Volume of Loans	4.2	0.059	11.92*	88	6.14
Number of Banks	1.238	-0.10	1.4^{NS}	9	-9.51

Source: Computed from 1978 –2002 Data of CBN Annual Reports and Accounts

Table 3: Sectoral allocation to the livestock sector

Sector	Number	Volume
Poultry	6520	330,159.4
Cattle	5249	782,074.4
Sheep & Goat	1486	16,873.2
Others	1064	232712.2
Total	14159	457,952.2

Source: Various Issues of CBN Annual Reports and Accounts

Table 4: Distribution of loan by categories of beneficiaries (1978 –2002)

Category	Total Value	%	Total Volume	%
<N5,000.00	224,804	70.7	751,453	20.7
N5,001.00-20,000.00	60,076	18.9	756,709.2	20.8
N20,001.00-50,000.00	21,426	6.7	787,074.5	21.7
N50,0001.00-100,000.00	8,288	2.6	665098.8	18.3
>N100,000.00	3,183	1.0	672162.1	18.5
Total	317787	100	3,626,115.2	100

Source: CBN Annual Report and Accounts various Issues

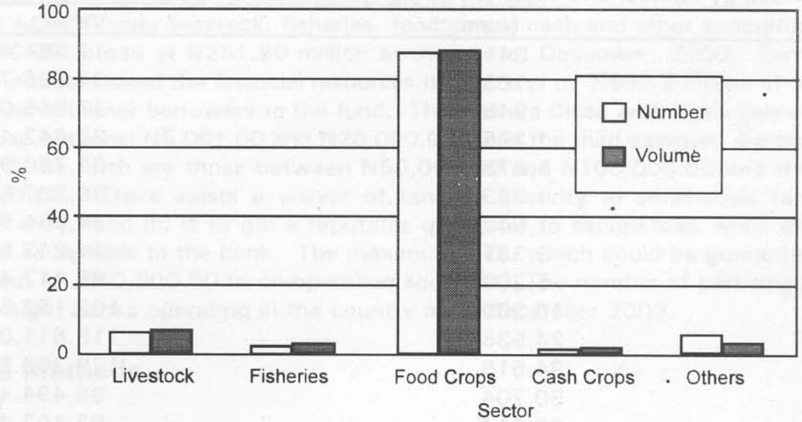

Fig. 1: Cummulative sectoral allocation of loan by number and volume

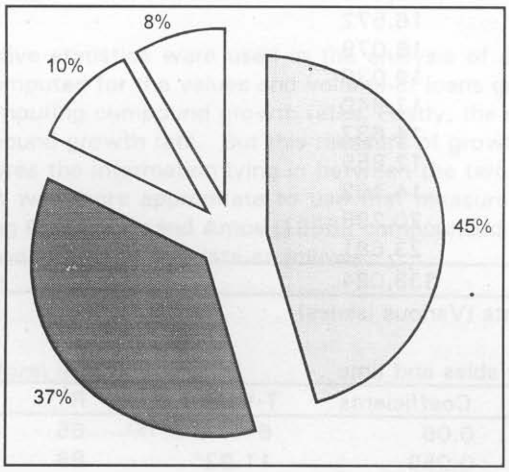

Fig. 2: Sectoral allocation by number

Table 5: Bank participation in the scheme 1978 –2002

Year	Number
1978	10
1979 – 1984	Not Available
1985	24
1986 – 1988	Not Available
1989	38
1990	32
1991	29
1992	24
1993	17
1994	17
1995	17
1996	9
1997	7
1998	7
1999	6
2000	6
2001	6
2002	6

Source: CBN Annual Reports and Accounts Various Issues

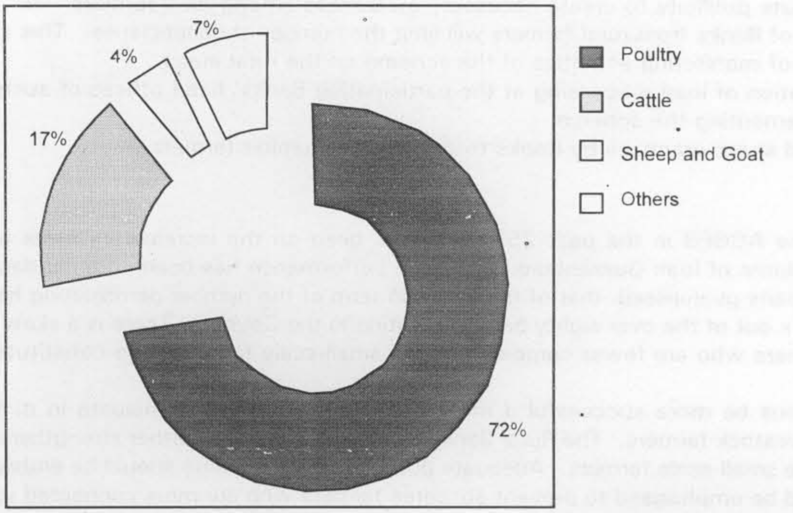

Fig. 3: Livestock sector allocation by volume

$R^2 = 0.69$ $R^2 = 0.56$ $F = 16.43^*$

Sectoral Allocation of Loan Guaranteed: As is the case of past programs such as the World Bank loans that have always been focused on the crop sub-sector to the detriment of the livestock sector, a large portion of the activities of the scheme is geared towards the crop sub-sector (Fig. 1). Food crops accounted for over 80% of the entire loans guaranteed which was valued at N1,888,068.4 Although the livestock sector was second in the distribution of the activities, its total share was just a paltry 6.1% valued at about N393,502.6. The fisheries sector accounted for just 2.0% of total loans guaranteed. In all, the livestock and fisheries sector combined accounted for less than ten percent of total loans guaranteed. This could thus be viewed as an indication of the importance given to the livestock sector by the Government. This does not paint a good picture of government's seriousness in boosting livestock production in Nigeria.

Allocation to The Livestock Sector by Number and Volume: The distribution of loan guaranteed in the livestock sector by number and volume shows that the poultry sector has the dominant share. From Table 3, the largest volume of about N 330159.4 went to the poultry sector. This represents 72% of the total loan guaranteed (Fig.) . Next is the Large ruminants (Cattle) with about N78207.4 or17.1%. The probable reason could be the high rate of turn over in the poultry business and the shortness of the poultry cycle. In all, the total allocation to the livestock sector is grossly inadequate.

Categories of Beneficiaries: Table 4 shows the distribution of loans among the five different categories of farmers by financial requirement. The largest proportion of farmers were those with less than N5,000.00 loan requirement who constituted about 70% of all the different categories. Ironically, their total loan guarantee amounted to just 20.7% of total loan guarantees. The least in number are those with over N100,000.00 who accounted for about 18.5% of total loan guaranteed. This thus confirms earlier assertions that the small-scale farmers constitute the largest proportion of farmer in Nigeria. This category thus needs to be assisted with sufficient credit to boost their scope of operations.

Bank Participation in the Scheme: Out of the total of about eighty-eight banks operating in the country, as at 2002, only six are participating in the scheme. This represents a negative growth rate or increase of 9.1% (Table 2). The peak was recorded in 1989 with a total of 38 banks participating. The period between 1989 and 1991 was when the number of Banks was highest and this period was when the highest number of farmer beneficiaries was highest. Therefore, to reach more people, the number of participating Banks in grossly inadequate to meet the credit need of the teeming rural populace scattered across the country.

Bottleneck to the Implementation of the Scheme

The following are some foreseeable problems with the scheme based on the foregoing.

i. Unwillingness of many Banks to participate in the program will limit the number of beneficiaries
ii. Weak implementation of government policies to realise the set goal of food security through the ACGSF

iii. Lack of adequate publicity to create necessary awareness among rural farmers.
iv. Long distance of Banks from rural farmers will limit the number of beneficiaries. This could also lead to poor and high cost of monitoring activities of the scheme on the rural areas.
v. Over centralisation of loan processing at the participating Banks' head offices of such Banks could result in delays in implementing the scheme.
vi. Corruption and sharp practices by Banks to defraud and exploit farmers.

Conclusion

The activities of the ACGFS in the past 25 years have been on the increase in terms of the number of loan beneficiaries and volume of loan Guaranteed. While the performance has been commendable in terms of number and the volume of loans guaranteed, that of the Banks in term of the number participating has been on the decline stagnating at only six out of the over eighty banks operating in the Country. There is a skew ness in favour of crop and large-scale farmers who are fewer compared to the small-scale farmers who constitute a large proportion of farmers in Nigeria.

The scheme can thus be more successful if more Banks are forced to participate in it. More loans should be guaranteed to the livestock farmers. The Rural Banking scheme should be further strengthened. More loans should be guaranteed to the small-scale farmers. Adequate publicity of the scheme should be embarked upon. In addition, group lending should be emphasised to prevent absentee farmers who are more connected with Bank officials thus able to get loans and divert such loans.

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